ONLINE VERSION

crossroads, some of which pre-dated the arrival of Europeans. During the plantation period, settlements included plantation camps centered on sugar cane fields. These places were built to a pedestrian-oriented scale that made it possible to get around on foot. The surrounding fields created a greenbelt that separated towns. This relationship between built areas and surrounding natural or agricultural lands heavily influences Kaua'i's rural identity.

Even with the rise of the automobile and the trend of sprawling development patterns, the legacy of these walkable settlements are seen in Kōloa, Hanapēpē, Hanalei, Kapa'a, and other towns. Growth should be directed to revitalize, restore, and celebrate these towns as unique places that promote healthy economies and community life.

Protecting Kaua'i's Rural Character

Kaua'i's natural environment has always defined the character of the island. Its built environment consists of small, mostly rural communities separated by expanses of open space and working agricultural lands. Each community maintains a unique sense of identity and has features and qualities that its residents would like to see preserved. Each also has elements that can be improved upon. Shared challenges in Kaua'i's communities include preserving and restoring the vitality of neighborhood centers, providing goods and services used by locals, improving walkability and connectivity, and increasing opportunities for social interaction and employment.

While Līhu'e is widely seen as the appropriate urban center for the island, most people in outlying communities would rather not drive to Līhu'e for their daily needs. However, the current land use pattern of growth forces them to do so, adding to the burden upon the island's roads and infrastructure. Policies and development patterns supporting compact communities with vibrant neighborhood centers will reduce transportation impacts contributing to a sustainable future and help preserve the laid-back lifestyle that Kaua'i residents value.

The *Land Use Buildout Analysis* (2015) indicates that if existing development trends continue, significant residential growth would occur on the agricultural and open zoning districts, and be comprised of predominantly single-family homes on large lots. Moreover, this growth would be focused on the North Shore and East Kaua'i planning districts, as it has over the past 15 years. Such development would exacerbate sprawl onto agricultural land, stress limited rural infrastructure, and increase traffic – ultimately undermining Kaua'i's sense of rural character.

The Future Land Use Map was developed to avoid and reverse these trends. By focusing development, uses, and density within and around existing towns, agriculture land and the open space between towns can be preserved. The strategy is to accommodate as much of the projected housing need within and adjacent to existing developed areas, and discourage new residential and resort development in areas not directly adjacent to existing communities. This means allowing and incentivizing increased density and infill within a five-minute walk of town centers.

Supporting Compact Development and Growth Allocations

Some communities have already taken steps to focus growth in their existing town cores through recent planning efforts. "Special Planning Areas" were established through the *Līhu'e Town Core Urban Design Plan* (2010) and the *South Kaua'i Community Plan* (2015). Compact, mixed-use development is supported by place-based zoning codes which focus on building size, type, and location rather than use, particularly in neighborhood centers and new communities. The Land Use Map provides the framework for similar planning efforts to occur at the Community Plan level for other planning districts.

The Future Land Use Map also manages growth through the spatial allocation of anticipated population and housing increases. The location and extent of new growth areas were determined through the population projections which assigns future growth to each of the six planning districts (refer to Chapter 1). Consistent with the General Plan's policies and the *Līhu'e Community Plan* (2015), 47 percent of future growth is allocated to the Līhu'e District. South Kaua'i will accommodate 26 percent of future growth. East Kaua'i, which is the most populous district, is projected to receive 13 percent of future growth. 14 percent of future growth is allocated to the remaining three districts – North Shore, Waimea-Kekaha, and Hanapēpē-'Ele'ele – to provide for natural population increase.

ONLINE VERSION

ONLINE VERSION

Table 2-2 Major Designation Changes by Planning District

District	Action
Waimea-Kekaha	• Two areas west of Waimea changed from Residential Community to Agriculture. • Resort designation changed to "Provisional Resort" to allow for a community planning process to determine the appropriateness, scale, and extent for resort development in Waimea.
Hanapēpē-'Ele'ele	• Neighborhood Center and General designations added to both Port Allen and Hanapēpē Town to be consistent with Department of Hawaiian Home Lands (DHHL) plans and to connect Lima Ola to Port Allen. • Agriculture designation changed to "Provisional" to allow for a community planning process. • 75 acres for planned Lima Ola affordable housing development changed from Agriculture to Residential Community. • New Neighborhood Center and Neighborhood General added to Port Allen. • Approximately 19 acres in Makaweli on existing mill site from agriculture to industrial.
South Kaua'i	• Neighborhood Center and General designation applied to Kōloa, Kalāheo, and Po'ipū Roundabout Area. • Small Town designation at Numila and Lāwa'i Cannery • Large Town designation at Po'ipū Mixed Use Gateway. • Residential Community removed from 60 acres above Weliweli Tract.
Līhu'e	• Neighborhood Center applied to Līhu'e Town Core, Puhi Mauka, Isenberg Mauka, Hanamā'ulu Town, and area in Hanamā'ulu fronting Highway adjacent to Triangle (west of bluff) formerly owned by EWM Realty International. • Portion of Nukoli'i redesignated from Resort to Agriculture. • Addition of the Urban Edge Boundary. • New University Zone applied to Kaua'i Community College and the surrounding schools. • Residential Community removed from areas along Kīpū Road. • New Residential Community added on mauka side of DHHL Wailua Lands (for consistency with DHHL's *Kaua'i Island Plan* 2004). • New Neighborhood Center added on the mauka and makai side of DHHL Wailua Lands (for consistency with DHHL's *Kaua'i Island Plan* 2004).
East Kaua'i	• Neighborhood Center/General applied to previous Urban Center in Kapa'a Town and added to a portion of Olohena Road near Kapa'a Town. • Neighborhood General applied to previous Urban Center designation around Kapa'a Middle School. • Portion of area behind Coco Palms in the Flood Zone changed from Resort to Natural. • New Neighborhood Center at Kapahi, Anahola Post Office, and Anahola Town Center (to match DHHL's Anahola Town Center Plan).
North Shore	• Neighborhood Center and General designation applied to Hanalei and Kīlauea. • Kīlauea town center expanded to accommodate growth. • Residential Community at Princeville Airport changed to Transportation. • Residential Community mauka of Princeville Airport removed and changed to Agriculture. • Resort designation makai of highway removed and changed to Agriculture.

ONLINE VERSION

ONLINE VERSION

2.3 MAP IMPLEMENTATION

The Future Land Use Map is just one component of Kaua'i's planning system. If growth is to be effectively managed and accommodated, the Future Land Use Map will have to be implemented through regulatory and development action. Given existing residential buildout trends, the affordable housing crisis, and the slow pace of the land use entitlement process, implementation will require concerted effort to move forward the State Land Use District boundary amendments, County zoning amendments, Community Plan updates, and infrastructure improvements needed to support the desired growth pattern. However, the way forward is not guaranteed. Whether or not future development aligns with the Map is dependent on action taken by the State Land Use Commission, individual developers, and elected officials. The economic situation of the State and County will no doubt impact the pace of implementation as well.

The previous General Plan utilized the Urban Center and Residential Community to indicate existing and future urbanized areas – or those areas with or requiring future State Land Use Urban District and/or County Zoning Amendments. The update includes these and Neighborhood Center and Neighborhood General – thus directing growth into a compact urban form around a strong town core. The new growth areas needed to accommodate housing demand are connected to existing centers, building upon or providing a new mixed use center. It is critical that the County focus land entitlement approval in these areas. Properly implemented, Urban Growth Boundaries provide a helpful tool for ensuring compact development. Henceforth when Community Plans are developed and adopted, each Community Plan shall establish an Urban Edge Boundary to delineate the extent of future town expansion. In the process of identifying a boundary, the Planning Department shall conduct a build-out analysis of the existing urban footprint and use the principles of smart growth to ensure that there is enough room within the boundary for growth desired by the community in a pattern that will make efficient use of scarce resources.

In order for new growth to support the unique character of existing towns, a place-based zoning framework will allow communities to shape the feel and design of future infill development and housing types. For this to occur, the island-wide application of place types should inform community plan updates. For example, the *South Kaua'i Community Plan (2015)* identified place types for existing and proposed centers, and utilized them as the basis for developing and applying Form-Based Code transect zones. The Form-Based Code for South Kaua'i overlaid the zoning regulations and was adopted as part of the Community Plan. Place types are described further in Section 2.4.

Actions for Future Land Use Map Implementation

A. PERMITTING AND CODE CHANGES

1. Implement a zoning program to comprehensively redistrict and rezone lands consistent with the Future Land Use Map and updated Community Plan and map designations.
2. Build upon place types in future Community Plans and update zoning and development standards to be place-based.
3. Support State Land Use Boundary Amendment Petitions for new Urban District consistent with the Future Land Use Map.
4. Given that the Future Land Use Map is conceptual, the size of future amendments to the State Land Use District Urban District should consider the General Plan's population allocations, housing projections, and the objectives for New Communities.

B. PLANS AND STUDIES

1. Use the community planning process to update and refine the Future Land Use Maps as needed.

ONLINE VERSION

ONLINE VERSION

2.4.5 EAST KAUA'I

The East Kaua'i district extends from the Wailua River north to Moloa'a, including the Kapa'a-Wailua basin, Keālia, and Anahola. The Kapa'a-Wailua basin is home to a large portion of Kaua'i's population. An urban corridor extends along Kūhiō Highway from Haleilio Road in Wailua to Kawaihau Road, at the northern edge of Kapa'a Town.

East Kaua'i has extensive mauka residential areas, including Kapahi and Wailua Homesteads.

Preliminary Vision & Priorities for East Kaua'i

The vision and priorities are preliminary as they have not been examined through an in-depth community planning effort. They provide guidance for specific areas and will inform future community planning efforts.

By 2035, We Envision an East Kaua'i Where:

Residents enjoy a high quality of life in a rural setting.

Natural resources are protected and open spaces and public access are preserved

Agricultural lands are farmed, productive, and protected. Affordable housing opportunities exist for local residents.

Archaeological, historic, and cultural places in our community are honored, preserved, and maintained.

New recreational facilities provide safe and healthy opportunities for youth and adults.

Historic Kapa'a Town maintains its western plantation character, is livable and walkable, with mixed uses, pedestrian-friendly streets, bike paths, new parking, and public transit.

A range of visitor accommodation types are in place and new attractions have opened.

Deferred infrastructure needs have been addressed.

Public transit service has increased and is integrated into new developments.

EAST KAUA'I

Place Type:

Wailua: Village

Kapahi: Village

Kapa'a: Large Town

Anahola: Rural Crossroads (near Post Office);

Future Village (at Anahola Marketplace)

Degree of Change:

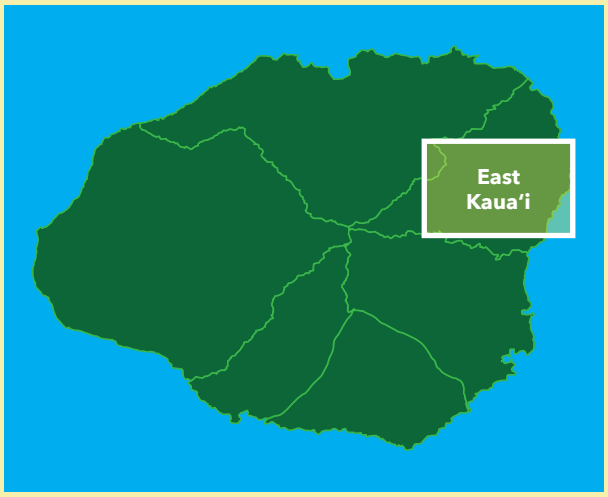
Wailua: Incremental

Kapahi: Incremental

Kapa'a: Transformational

Anahola: Incremental at Anahola Post Office;

Transformational at Anahola Marketplace



Wailua

Wailua is designated as a village place type. Community input indicated that the area along the Kūhiō Highway bounded roughly by Haleilio Road, Lanikai Street, and Papaloa Road provides a good opportunity for a Neighborhood Center in proximity to residential neighborhoods in Wailua and resort areas along the coast. Portions of Wailua within 1/2 mile of this center can accommodate additional residential uses on underutilized and vacant parcels.

Kapahi

Community support is indicated for a future Village place type at Kapahi. A Neighborhood Center was

ONLINE VERSION

ONLINE VERSION

above information, which is currently being developed at researchers at University of Hawai'i and others for the State sea level rise adaptation report.

Historical shoreline change studies indicate a long-term trend of shoreline erosion for most of the Wailua-Kapa'a shoreline, which is expected to increase with accelerated SLR. Kapa'a Beach Park is particularly vulnerable and erosion of the beach threatens the bike path, resorts, and homes, especially in proximity to the Pono Kai seawall. Flanking erosion is particularly pronounced at the northern end of the wall, which is a common issue with sea walls.

The Needs Assessment also recommends a coastal and beach management plan for Wailua/Kapa'a including regional sand management and beach conservation and restoration as alternatives to increased coastal armoring in residential areas.

For Anahola and Moloa'a, given the high degree of exposure to flooding hazards around the stream and backshore areas as well as chronic beach erosion issues, community-scale risk and vulnerability assessments are also advised by the needs assessment. 'Aliomanu Road at the north end of Anahola Bay has recently been threatened by coastal erosion. A vulnerability assessment for the road and long term plans for its protection or relocation need to be considered.

The Needs Assessment also notes that the flood areas as shown on the the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) are likely to expand as the frequency and severity of flooding events increase with SLR. The County may adopt requirements for flood hazard mitigation/adaptation that account for SLR hazards and are above and beyond the FIRM flood zones and base flood elevations (BFEs). Chapter 3, Section IX Actions point to the need to update the County flood program.

Guidance for Community Planning for East Kaua'i

The following goals and actions are preliminary and will inform future community planning processes.

I. GOAL: Accommodate East Kaua'i's projected housing needs.

1. Allow the buildout of communities based on existing zoning with the exception of areas impacted by future sea level rise and other hazards.
2. In new communities, ensure the majority of units are "missing middle housing" and affordable by design.
3. Design new communities to be walkable, compact, and connected to Kapa'a Town.
4. The build-out phasing of new communities should be coordinated with the implementation of priority projects in the Kapa'a Transportation Solutions Plan.

II. GOAL: Ensure that East Kaua'i is resilient to Climate Change and coastal hazards.

1. Conduct detailed hazard, risk, and vulnerability assessment for coastal hazards with climate change and sea level rise in East Kaua'i when updated sea level rise, erosion rates, and wave inundation planning information is available. Assessment should include Wailua-Kapa'a shoreline and low-lying areas around the town, canals and rivers, critical infrastructure, residential, and commercial facilities. Additional assessments should be conducted in vulnerable areas of Anahola and Moloa'a. Assessments should identify priority planning areas where resources and planning efforts need to be focused and identify how and where to use adaptation strategies such as accommodation, retreat, and protection, and should encourage relocation to safer areas.
2. Seek partnerships with State, UH, County, and private entities to develop a coastal and beach management plan for Wailua/Kapa'a including regional sand management and beach conservation and restoration as alternatives to increased coastal armoring in residential areas.

III. GOAL: Celebrate Wailua's rich and cultural heritage.

A. PROTECT SCENIC CORRIDORS AND SITES OF CULTURAL SIGNIFICANCE.

1. Update inventory of cultural sites.
2. Coordinate Work with Open Space Commission and Kaua'i Historic Preservation Commission.
3. Discourage development away from scenic corridors and areas of cultural significance.

ONLINE VERSION

ONLINE VERSION

B. SHARE AND EDUCATE VISITORS AND THE COMMUNITY ABOUT WAILUA'S HISTORY.

1. Develop signage with historical information.
2. Establish a Wailua Cultural Center and/or Visitor information center.

IV. GOAL: Increase connectivity within the Wailua corridor to better connect residential, resort, commercial, and recreational uses.

1. Clear and maintain vegetation along Kuamo'o and Olohena Road for pedestrian and bicyclists safety and comfort.
2. Provide alternative routes for pedestrian and bicyclists from Wailua Houselots to Kuamo'o Road.
3. Add bicycle lanes on Kuamo'o Road and Olohena Road.
4. Increase frequency of Wailua shuttle.
5. Establish more park and ride sites in Wailua Homesteads and Wailua Houselots.

V. GOAL: Enhance historic Kapa'a Town.

A. ENCOURAGE INFILL DEVELOPMENT AND MIXED-USE WITHIN THE TOWN CORE.

1. Educate community members and landowners about special planning areas.
2. Provide incentives to property owners of vacant parcels in Historic Kapa'a Town to develop buildings for mixed-use.
3. Update East Kaua'i Community Plan and incorporate Form-Based Code for Historic Kapa'a Town.
4. Provide a range of affordable housing types.
5. Develop a parking audit for Kapa'a Town.

B. PRESERVE THE HISTORIC CHARACTER OF KAPA'A TOWN.

1. Update East Kaua'i Community Plan and incorporate Form- Based Code for Historic Kapa'a Town.
2. Improve design guidelines for buildings and streetscapes.
3. Educate property owners on incentives for historic preservation.

VI. GOAL: Increase connectivity from the town to recreation and residential areas along Kukui/ Olohena Road.

A. IMPROVE PEDESTRIAN, BICYCLE, AND TRANSIT CONNECTIVITY.

1. Add sidewalks along Olohena Road from the Kapa'a Middle School to the town.
2. Ensure safe pedestrian and bicycle paths that connect the beach parks to the town and to residential areas.
3. Ensure new communities support the County's mode shift goals and improve vehicular and pedestrian connectivity to parks, schools, and Kapa'a Town.

VII. GOAL: Address traffic congestion.

A. IMPROVE CAPACITY WITHIN THE WAILUA-KAPA'A CORRIDOR.

1. Implement the Kapa'a Transportation Solutions projects.
2. Continue to work with HDOT.

VIII. GOAL: Support DHHL's Island General Plan and Anahola Plan.

A. IMPROVE COLLABORATION BETWEEN THE COUNTY, DHHL, AND OTHER STAKEHOLDERS.

1. Work with the DHHL to ensure the Anahola Plan is compatible with the area's Community Plan.

ONLINE VERSION

ONLINE VERSION

Table 3-1 Summary of Goals and Sectors

Sectors	SUSTAINABILITY Growing Responsibly	STEWARDSHIP Protecting Kaua'i's Unique Beauty	HEALTH & RESILIENCE Strengthening Communities	OPPORTUNITY Promoting Diversity & Equity
The Watershed	Ensure use and enjoyment of resources without depletion.	Protect natural, historic, and cultural resources in perpetuity.	Protect resources and traditions that promote self-sufficiency.	Promote equal access to natural areas and recreation.
Housing	Provide housing to accommodate growth within and near town centers.	Prevent housing sprawl into Open and Agriculture lands.	Provide housing for multigenerational families and aging in place.	Ensure affordable housing is provided in proximity to job centers.
Transportation	Promote multimodal shifts to reduce costs.	Decrease vehicle miles traveled to reduce carbon emissions.	Provide connectivity and safe routes to walk or bike to parks and schools.	Promote equal access to transportation.
Infrastructure & Services	Provide adequate infrastructure to accommodate growth.	Preserve natural areas by concentrating growth and services in existing developed areas.	Provide equitable access to safe and sanitary services and facilities.	Ensure low-income communities have adequate facilities and services.
Shared Spaces	Provide adequate park facilities for resident and visitor enjoyment.	Protect popular destinations from deterioration and overuse.	Provide a diversity of facilities that support active lifestyles.	Increase access to parks and recreation in all neighborhoods.
Economy	Promote economic diversification.	Protect high-quality agricultural lands from development.	Partner to enhance education and employment opportunities.	Provide infrastructure to strengthen and grow small business.
Heritage Resources	Encourage preservation and restoration of historic structures and features in Kaua'i's town centers.	Preserve and protect the integrity of special places for current and future generations.	Preserve access to wahi pana for traditional cultural practices.	Celebrate the cultural and historic features that represent Kaua'i's diverse cultural influences.
Energy Sustainability & Climate Change Mitigation	Reduce fossil fuels and transition to renewables.	Encourage use of alternative fuel sources.	Promote clean energy from non-harmful sources.	Explore solutions to reduce energy costs to residents.
Public Safety & Hazards Resiliency	Protect or relocate assets, develop outside hazard areas, and reduce greenhouse gas emissions.	Identify and protect those resources vulnerable to climate change.	Strengthen preparedness, response, and recovery to hazards and climate change.	Increase and diversify food grown and consumed on island.
Opportunity & Health for All	Foster shared responsibility for sustainable choices.	Protect residents' access to shoreline and recreational areas.	Improve health aspects of natural and built landscapes.	Ensure widespread access to health care, education, and services.

ONLINE VERSION

ONLINE VERSION

2.2 Protecting Drainage Systems and Water Quality

The mid-watershed provides an important transfer zone between the upper and lower watershed. It represents the area of greatest alteration from human uses, such as residential development and agriculture. Resource use, waste disposal, sedimentation (as a result of deforestation), and changes in hydrology due to development, dams, and water diversions greatly impact watershed function and water quality.

Kaua'i's drainage system is mostly natural—comprised of its streams and rivers. This system is complemented by structures such as irrigation ditch systems and flood protection levees along certain streams. Kaua'i does not have an islandwide drainage master plan, but has in place drainage standards that require new development to maintain storm runoff to pre-development rates. Drainage master plans for new development must conform the requirements of the *Kaua'i County Storm Water Runoff System Manual*.

The Department of Public Works intends to focus on specific problem areas by developing strategic plans for flood-prone areas such as Hanalei, Nāwiliwili, Kapa'a, Wailua, Po'ipū, and Kekaha. These plans would provide detailed analyses of the flood conditions and specify preventative and remedial actions.

Nonpoint source pollution, commonly called polluted runoff, occurs when rainwater moves on the surface of the earth or through the ground carrying the pollutants it encounters along the way. This polluted runoff flows to drainage systems and ends up impairing streams and nearshore coastal waters. Significant pollutant types include sediment, nutrients, toxins, pathogens, litter, and debris. The consequences of nonpoint source pollution include: increased risk of disease from water recreation, algae blooms, fish kills, destroyed aquatic habitats, and turbid waters. Some polluted runoff is from natural sources, like soil eroding on steep slopes during heavy rain. Most, however, results from human activity on the land.

Protecting water quality from both nonpoint and point sources is a collective regulatory responsibility involving all levels of government. Federal laws governing water quality and nonpoint source pollution management define specific standards that must be met to avoid sanctions. State government is the lead authority for carrying out Federal water quality mandates. The Department of Health oversees adherence to safe drinking water standards and collaborates with the State's Coastal Zone Management Program to address nonpoint source pollution requirements. The State also has primary responsibilities for watersheds through DLNR's management of State Conservation District lands.

The County's primary responsibilities for water protection are associated with its authority over State Land Use Urban District land uses, County ordinances regulating construction activities, management of nine potable water systems, and its shared authority with the State for the Agricultural District. Most nonpoint source water pollution on Kaua'i is due to erosion from lower elevation development-related activities, such as agriculture and from grading, grubbing, and stockpiling.

Potential runoff from these activities are regulated by County Government through its zoning and permitting authority, such as the ordinances for subdivision, flood control, drainage, and grading.

2.3 Protecting Perennial Streams and Instream Flow

Kaua'i has 30 perennial streams, or streams that consistently flow year round. Of this number, 21 (70 percent) were impaired in 2014.[17] Historically, these streams were the pristine habitat for communities of native fish (o'opu), insects, and snails, but stream diversions and introduced species, such as guppies and swordtail, have led to the decline of many native species.

Water in many of Kaua'i's perennial streams was diverted during the Plantation Era for agricultural purposes. With the decline and abandonment of the plantation economy, the status of these historic diversions is now in limbo. In order to determine the legal status of existing diversions, the State Water Code requires an assessment of a stream's instream flow. The development of instream flow standards (IFS) is a scientific process which analyzes hydrologic conditions and non-stream uses. Continued stream diversion and the lack of IFS, along with decreasing stream levels in some areas, are issues of concern for some communities.

Where development is concerned, buffers near perennial streams should be implemented and green infrastructure should be encouraged to reduce nonpoint pollution.

17 State of Hawai'i Water Quality Monitoring and Assessment Report, 2014

ONLINE VERSION

ONLINE VERSION

2.4 Utilizing Community Partnerships in Water Management

Water resource conservation and protection can be further strengthened through community participation. Organizations and volunteers play significant roles in protecting vital water resources through partnerships with government agencies. Greater awareness of water resource issues helps drive attention and resources to address problems. Making Kaua'i's water quality everyone's kuleana ensures the greatest amount of vigilance to maintaining standards and preserving these irreplaceable resources for future generations (See Subsectors on Water and Agriculture in Chapter 3).

Although the priority for conservation activity is the upper watershed, there is also a need to restore Kaua'i's native lowland forests which have been largely destroyed by human activity, wildfires, and invasive species. Reestablishment of native habitat could provide scenic values, cultural gathering areas, hiking and other recreational uses, and educational opportunities. Carefully managed forestry efforts also provide opportunities for green energy production, food forests, and materials for local manufacturing.

A. PERMITTING AND CODE CHANGES

1. Avoid impacts to natural hydrologic recharge areas, stream corridors, floodplains, and wetlands through standards that:

    a. Guide development to avoid disturbance of natural drainage features, preserve wetlands and streams, and provide riparian buffer areas to prevent land disturbance and filter runoff.

    b. Require best management practices designed to control stormwater and polluted runoff.

    c. Ensure drainage systems are properly sized, built, and maintained.

    d. Incorporate trees, rain gardens, swales, green roofs, and other features that mimic natural systems.

2. Reduce erosion and retain sediment onsite during and after construction.
3. Ensure that Good Agricultural Practices and other runoff reduction measures are addressed when reviewing agricultural grading permit exemptions.
4. Review and update drainage regulations and the drainage constraint district to incorporate and encourage green infrastructure concepts.
5. If large detention basins are required to control drainage, design them for multiple uses and treat them as an important tool.
6. Utilize existing Water Management Plans as examples of best management practices.
7. Expressly and consistently condition development and subdivision approvals, building permits, and other discretionary approvals for actions that may impact surface water resources, on at least one of the following:

    a. The prior implementation of updated instream flow standards and a monitoring plan for any surface water sources that are needed for any permitted project or development, when there is a reasonable possibility that public trust purposes are or may be harmed.

    b. Ground- or surface- water management area designation for any aquifer area where new or expanded water sources will need to be developed, when there is a reasonable possibility of harm to public trust purposes in either ground or surface waters.

    c. The explicit application and execution of the "framework" of analysis set forth by the Hawai'i Supreme Court in the Kaua'i Springs case, prior to the issuance of any permit or other discretionary approval by the County Planning Department, Planning Commission, or County Council.

8. Provide for the crossing of water courses by spanning rather than by culverts when possible, so that natural streambeds will not be altered.
9. Support the protection, restoration, and enhancement of surface and subsurface water resources, stream habitats, and watershed areas to support: groundwater aquifer recharge; aquatic and environmental processes; riparian, scenic, recreational, and Native Hawaiian cultural

ONLINE VERSION

ONLINE VERSION

resources; and constitutionally-protected Native Hawaiian traditional and customary practices.

10. Support mauka to makai streamflow, which is essential to the survival of native stream life.

11. Support mediated agreements, such as that in Waimea, to restore streamflows to meet public trust purposes for Wailua River, Hule'ia River, and others, while avoiding costly litigation.

B. PLANS AND STUDIES

1. In Community Plans, include protection actions for streams and inland water bodies to prevent degradation of water quality and address non-point source pollution.

2. Establish a drainage system database to better understand the drainage network on Kaua'i and to assist with water quantity and quality impacts.

3. Periodically review the County's flood control measures and plans using updated information and forecasts on climate change.

4. Develop drainage master plans for flood-prone areas such as Hanalei, Nāwiliwili, Kapa'a, Wailua, Po'ipū, and Kekaha.

C. PROJECTS AND PROGRAMS

1. Utilize green infrastructure concepts and best management practices in County projects.

2. Mark stormwater drains as "going to the ocean."

3. Complete the update of the *Kaua'i County Water Use and Development Plan*.

D. PARTNERSHIP NEEDS

1. Collaborate with community groups and stakeholders to better manage water resources in a cooperative fashion, avoiding adversarial fights that can divide the community.

2. Encourage collaborative watershed and stream protection through the efforts of non-profit and volunteer environmental groups, such as the Hanalei Watershed Hui and Kaua'i Watershed Alliance.

3. Develop instream flow standards for Kaua'i's perennial streams, with a focus on the existing project to develop standards for Southeast Kaua'i.

4. Maintain stream flows by periodically removing excessive debris and vegetation from stream channels and beds that can impede drainage.

5. Monitor the quality of coastal and inland waterbodies, using an operational groundwater-level monitoring network and a stream monitoring network, to ensure compliance with instream flow standards.

6. Support the establishment of community-based councils to assist with watershed management issues.

7. Seek to prevent stream overflow in low-lying communities by maintaining natural drainageways and preventing the buildup of debris.

8. Support the update of the *Hawai'i State Water Plan* components as they relate to Kaua'i, including the *Water Resource Protection Plan*, *Water Quality Plan*, *State Water Projects Plan*, and *Agricultural Water Use and Development Plan*.

ONLINE VERSION

ONLINE VERSION

be able to grow higher to adapt to rising sea levels, provided they are not impaired by impacts from bleaching, excessive sedimentation, and other factors.

3.4 Supporting Traditional and Community Based Coastal Resource Management

Kaua'i's coastal areas and coral reefs support a wide range of activities, including traditional harvesting and subsistence practices, recreation, trade and commerce, and tourism. Our ability to preserve and protect these resources will require deploying a range of management practices and policies to minimize threats, reduce harm from human activities, and respond to future impacts due to climate change.

In 2015, the establishment of Hawai'i's first Community Based Subsistence Fishing Area in Hā'ena demonstrated how traditional resource management can function collaboratively with modern practices. The area protects the sustainability of near-shore ocean resources through rules based on cultural practices. Management programs that reaffirm traditional and customary native Hawaiian subsistence practices and promote understanding of the ahupua'a management system should be encouraged. The State also runs a Makai Watch program of which there are two locations on Kaua'i in Hanalei and Hā'ena. This program allows citizens to assist in the management of marine resources by promoting education, monitoring, and compliance to State rules. These programs further demonstrate how ahupua'a management concepts can be integrated into today's community life and strengthen community participation in resource management.

A. PERMITTING AND CODE CHANGES

1. Minimize coastal hazard risks through planning and development standards that:

    a. Ensure the safety of individuals, families, and communities within coastal hazard areas and communicate the dangers to residents and tourists.

    b. Discourage development or redevelopment (including tourist uses) within hazardous areas, while preserving adequate space for expected future growth in areas located outside these areas.

    c. If hazard risks are unavoidable, minimize hazard risks to new development over the life of authorized structures.

    d. Ensure property owners assume the risks associated with new development in hazardous areas.

    e. Limit development near vulnerable water supplies.

    f. Manage water supply issues resulting from saltwater intrusion, such as limits on groundwater withdrawal or diversification of water supplies.

2. Avoid or minimize coastal resource impacts through development standards that:

    a. Protect public beach, rocky coasts, dune, wetland, river, and stream resources in all coastal planning and regulatory decisions.

    b. Protect the quality of coral reefs through standards that address, prevent, and minimize impacts from development.

    c. Minimize impacts to view corridors from roads or public places to the ocean and from mauka to makai.

    d. Preserve and protect Kaua'i's sandy beaches and shorelines from erosion and degradation while ensuring continued public access to them.

    e. Ensure adequate parking and convenient public access to coastal lands in all zoning and subdivision permits.

3. Promote strategic beach nourishment in public use areas.

4. Seek to preserve natural beach processes and avoid the construction of shoreline protection structures.

5. Do not allow permanent armoring of the shoreline.

ONLINE VERSION

ONLINE VERSION

6. Include the following guidelines for coastal development in the CZO:

    a. For resorts and other multi building complexes, transition from low building heights along the shoreline to taller buildings on the interior of the property.

    b. Provide an open, vegetated visual buffer between the shoreline and buildings.

    c. Protect community accessways laterally along the coast in the buffer zone mauka of the shoreline.

    d. Maintain existing stands of trees or plant trees within the buffer zone to provide sun and wind protection and to moderate the appearance of large buildings.

7. Update the Shore District in relation to the SMA regulations.

8. Continually incorporate new information on climate change into shoreline policies and regulations.

B. PLANS AND STUDIES

1. Restore lost and unrecorded beach accesses by identifying, recording, and demarcating accessways for public use.

2. Develop detailed hazard, risk, and vulnerability assessments in low-lying coastal areas based on future data and forecasts regarding climate change. Use this assessment to identify where resources and planning efforts should be focused and to develop adaptation strategies and inform stakeholders including tourists of these dangers.

3. Recognize scientific uncertainty by using scenario planning and adaptive management techniques that adjust policies and rules based on monitoring efforts.

4. Analyze options and criteria for relocation of development outside of hazardous areas along the coast and incorporate findings into a long- term relocation plan.

5. Support studies to assess impacts to coastal and cultural resources at Salt Pond Beach and Pū'olo Point in collaboration with community members, including but not limited to the salt making practitioners.

C. PROJECTS AND PROGRAMS

1. Adequately fund and utilize the Public Access, Open Space, and Natural Resources Fund to actively acquire shoreline lands and accessways for public use and consider development of an "Offer To Dedicate" (OTD) Coastal Easement or Land Banking Program.

2. Acknowledge, support, and participate in government, university, and private efforts to better understand and predict climate change impacts on coastal areas.

D. PARTNERSHIP NEEDS

1. Manage local marine resources through community-based strategies, such as the Hā'ena Community-Based Subsistence Fishing Area.

2. Address loss of beach areas due to sea level rise through a comprehensive beach management strategy, including local financing plans for beach and dune restoration.

3. Encourage citizen groups to take responsibility for water resource monitoring and protection, such as through the expansion of the Makai Watch Program.

4. Adopt tax policies favorable to public shoreline access.

5. Dissuade beach driving through enforcement and by educating drivers about the laws, safety, and environmental and cultural impacts of driving on beaches.

6. Provide preferred tax status and other incentives to help community groups, non-governmental organizations, and government agencies restore native lowland forests.

ONLINE VERSION

ONLINE VERSION

producers. Furthermore, invasive herbaceous and woody plant pests such as bush beardgrass (*Schizachyrium condensatum*), aramina (*Urena lobata*), wedelia (*Sphagneticola trilobata*), and fireweed (*Senecio madagascariencsis*) spread rapidly and can cause serious damage from an economic standpoint, as these types of invasive weeds can easily overtake pastures and grazing lands for livestock and are exceptionally difficult to eradicate.

Viral, bacterial, and fungal diseases such as Rapid ʻŌhiʻa Death (ROD) and Banana Bunchy Top Virus (BBTV) cause flora-based infections that pose serious threats to indigenous flora and local food sources, respectively.

Knowledge of these diseases and best management practices for preventing the spread of these diseases via contact with humans, automobiles, pets, and equipment/tools must be taught to the general public, and consciously adopted into all of our daily lives.

Active measures to minimize the impact of diseases and invasive pests must continue to be implemented and improved. Through concerted efforts and partnerships between the County, State, and Federal agencies (i.e., USDA, USFWS, NRCS, East & West Kauaʻi Soil and Water Conservation Districts, HDOA, and DLNR), conservation groups (i.e., Kauaʻi Conservation Alliance, KISC, Plant Pono, NTBG, the Nature Conservancy, and the Kōkeʻe Resource Conservation Program) and academic institutions (i.e., University of Hawaiʻi – CTAHR and local schools), prevention, monitoring, and eradication efforts will continue to combat the introduction and establishment of invasive species and diseases on Kauaʻi.

4.3 Protecting Coastal and Near-Shore Habitats

Kauaʻi's shorelines and near-shore waters support a wide range of terrestrial and marine species. These include several threatened and endangered seabird species, marine mammals such as Hawaiian monk seals, sea turtles, and whales. The north and east coasts have shallow fringing coral reefs, while the reefs on the west and south sides are less continuous. These marine habitats require good water quality and healthy coral reefs. Both are susceptible to sediment runoff from erosion and flooding as well as the discharge of pollutants generated from agriculture, businesses, households, and wastewater.

A. PERMITTING AND CODE CHANGES

1. Avoid development or land use intensification on critical habitats and in areas that are essential to the health, safety, and life of vulnerable native species.
2. Require the use of noninvasive plant species for landscaping of newly developed areas, public lands, and roadways.
3. Require future development to address potential impacts on threatened or endangered flora and fauna:

    a. Evaluate potential loss of habitat.

    b. Identify all endangered and threatened species present.

    c. List minimization efforts.

    d. If mitigation is needed, join an established Habitat Conservation Plan or develop one.
4. Encourage new development to implement voluntary actions to encourage a net gain in protection efforts of our threatened and endangered species.
5. Minimize risks to threatened and endangered species in construction and development activity.

B. PROJECTS AND PROGRAMS

1. Increase wildlife and habitat protection knowledge and expertise within the County government.
2. Develop a protocol that will help minimize the current feral cat population, to lessen the impact of direct endangered species fatalities, as well as the spread of diseases, such as toxoplasmosis.
3. Adopt a comprehensive animal control ordinance to reduce or eliminate populations of feral, abandoned, and stray cats.
4. Develop a list of native plant species suitable for landscaping.

ONLINE VERSION

ONLINE VERSION

C. PARTNERSHIP NEEDS

1. Provide enforcement and education regarding endangered species regulations.

2. Provide interpretive signage within protected areas to educate people about native flora and fauna.

3. Design and install signage informing motorists and pedestrians about the presence of threatened or endangered species in wildlife hazard zones and during yearly times of increased danger.

4. Utilize predator-proof fencing and new technology to protect endangered species, such as seabirds, from lights and powerlines.

5. Complete and implement native species Habitat Conservation Plans, such as the Kaua'i Seabird Habitat Conservation Plan and the Kaua'i Nēnē Habitat Conservation Plan, which address legal issues regarding human-wildlife interaction while allowing for economic development.

6. Protect and restore forest bird corridors, seabird flyways, waterbird habitat, and areas of monk seal loafing.

7. Promote greater protection of Kaua'i's native flora and fauna biodiversity by reducing the threats of invasive species:

    a. Rapidly identify and address invasive species on County lands and coordinate with other public and private landowners to control sources of invasive species.

    b. Track invasive species and focus attention on the most damaging, persistent, and emerging invasive species from other islands in Hawai'i that have not yet become established on Kaua'i.

    c. Collaborate with State and local partners, such as the Kaua'i Invasive Species Committee, on comprehensive biosecurity strategies at ports of entry to prevent invasive species, such as the mongoose, from spreading to Kaua'i.

    d. Support State, County, and non-profit organization efforts to control invasive species, identify and address invasive species on County lands, and coordinate with other public and private landowners to control sources of invasive species through the work of DLNR, the Hawai'i Invasive Species Council (HISC), the Kaua'i Invasive Species Committee (KISC), the Kaua'i Watershed Alliance (KWA), and others.

    e. Increase public awareness of specific invasive species threats through both targeted and wide-scale campaigns, as appropriate to the nature and geographic extent of individual threats. Focus attention on what is at stake and whom to contact for invasive species detection.

8. Acquire shoreline areas that could serve as refugia for species impacted by sea level rise or areas that could be appropriate sites for coastal habitat creation or restoration.

9. Utilize conservation easements and partnerships with land trusts to acquire natural areas and promote mitigation banking.

10. Promote protection, restoration, and identification of critical habitats for our native, threatened, and endangered flora and fauna through the following actions:

    a. Regularly evaluate and update a database listing environmental resource sites.

    b. Identify specific areas of habitat across the island that are in need of more heightened protection and/or restoration.

    c. Protect and restore existing wetlands that serve as critical habitats for existing species.

    d. Require developers and land-users to provide a protection buffer around existing habitats and wetlands.

    e. Encourage more reforestation and native flora outplantings across the island to help increase and enhance habitats.

    f. Preserve and establish connectivity between existing habitats and critical areas of interest.

ONLINE VERSION

ONLINE VERSION

homeownership, expedite the permitting of affordable housing, and support housing rehabilition. Sources of funds that are potentially available to address housing needs include: Low-Income Housing Tax Credits, HUD (Department of Housing and Urban Development) Housing Choice Vouchers, HOME (Home Investment Partnerships Program) and CDBG (Community Development Block Grants) programs, USDA Rural Development programs, private foundations, State CIP funds, and County Bond funds. Federal funds are very prescriptive in terms of household income categories served. In contrast, locally established and funded programs can be customized to serve those who fall between the Federal programs and market-rate units.

The Agency also plays a key role in developing affordable rental projects. A major source of capital for these projects is the Federal Low-Income Housing Tax Credit, which incentivizes the use of private equity through public-private partnerships. The tax credit provides a dollar-for-dollar reduction in the developer's federal income tax. However, use of these credits are limited to housing for families with incomes equal to or less than 60% of the median income and are limited in availability through a very competitive Statewide process.

Development subsidies also come from development grants and loans. The County's Housing and Community Development Revolving Fund reinvests income from federal grant programs in housing projects and first-time homebuyer mortgages. These capital investments will be repaid to the revolving fund which provides long-term support for County housing programs.

Federal HOME and CDBG funds also support affordable housing development. To receive federal CDBG grants, HOME program funds and other federal funding, the County is required to prepare and update a Five-Year Consolidated Plan that addresses housing and community development needs and establishes funding priorities. Other sources of funds include USDA Rural Development programs, private foundations, State CIP funds, and County Bond funds.

While the construction of new affordable housing is needed, the preservation and rehabilitation of existing affordable housing is equally important. The County should ensure that the affordability of subsidized housing is preserved for the longest term possible. Also, it is generally less expensive to rehabilitate existing affordable housing than to construct new housing. Rehabilitation of existing housing supports and improves existing neighborhoods, and can also provide energy efficient upgrades to units.

Through active partnerships with landowners and affordable housing developers, the Housing Agency has helped move forward several 100% affordable housing projects in Līhu'e, Hanamā'ulu, Princeville, and Kōloa – constructing over 300 affordable rental units since 2000. Since the year 2000, the County has also supported self-help housing at Puhi and Kapa'a, assisted Habitat for Humanity in developing its 119 units in 'Ele'ele, and helped to rehabilitate 173 units at Līhu'e Court. The County has also acquired 22 properties and converted them to leaseholds, making them far more affordable to qualifying families than fee purchase while perpetuating their affordability indefinitely. A new initiative underway is the Lima Ola affordable housing project. This is a master-planned community that will provide over 400 affordable units in 'Ele'ele. In addition to moving forward with Lima Ola, the County should acquire land with access to transit, water, and wastewater service for future project development.

A. PERMITTING AND CODE CHANGES

1. Update the County's Housing Ordinance into a workable law requiring all developers to contribute a fair share of resources to build affordable housing in a "win-win" manner.

2. Design and locate affordable housing projects in or near job centers to minimize household transportation costs, community and household fossil fuel usage, and traffic congestion.

3. Support economically integrated communities by requiring affordable housing mandates to be met on site.

4. Amend Ordinance 860, Workforce Housing, to incentivize the creation of affordable housing development.

5. Preserve the affordable housing stock by adopting a policy that any units built with taxpayer moneys or required under the Housing Ordinance for the general welfare shall be perpetually affordable to allow the inventory of affordable homes to grow rather than contract (which happens when such units are allowed to be sold on the open market).

ONLINE VERSION

ONLINE VERSION

6. When possible, encourage the design of affordable, energy-efficient residential projects with civic spaces, shade trees, and pedestrian/bicycle amenities to enhance livability, equity, and safe transit options, especially for children.

7. For county-sponsored housing subsidized with public money, the County shall require the units to be affordable for the life of the building and the land to remain in county ownership in perpetuity.

B. PLANS AND STUDIES

1. Find ways to insulate affordable housing units from the market, whether rentals or for ownership, to preserve the affordability of units.

2. Review existing affordable housing requirements in plans and zoning amendments to assess impediments to affordable housing creation.

3. Assess the County's affordable housing needs and priorities through the five-year Consolidated Plan and one-year Action Plans.

4. Establish a ratio for the housing needs for workforce, elderly, and disabled households, and amend existing laws and plans as needed.

C. PROJECTS AND PROGRAMS

1. Complete the Lima Ola affordable housing project.

2. Seek and acquire land in or near town centers with access to transit, domestic water, and sewers for future affordable housing development.

3. Create dedicated sources of funding and continue to use the Housing Revolving Fund to finance affordable housing projects.

4. Develop and rehabilitate affordable housing low-interest loan programs and awards, such as the Rental Housing Revolving Fund through the Hawai'i Housing Financing and Development Corporation.

5. Support the housing needs of low income households through the Federal Housing Assistance Payments Program (Section 8).

6. Support a flexible planning process and robust monitoring system to allow timely changes in strategy and resource allocation for the housing program.

7. Develop a quasi-public housing development or redevelopment agency to support affordable housing projects, particularly infill housing development projects within town centers.

8. Pursue and establish a source of capital for the development and maintenance of affordable housing. Possible sources include: earmarking a percentage of real property taxes for affordable housing development; a conveyance tax surcharge on high-priced real estate transactions and earmarked for affordable housing development; an expanded Low Income Housing Tax Credit (LIHTC) that increases availability of the tax credit; and setting eligibility higher than the current 60 percent of median income.

9. Continue and expand the County's efforts to provide and require homeownership classes, including financial literacy, for families potentially eligible for county affordable housing projects.

10. Review best practices from elsewhere and test in pilot programs the methods that significantly reduce the cost of building a home, including infrastructure and system costs. The Mayor and the County Council should work with community to use Hawai'i Revised Statutes Section 46-15 to "designate areas of land for experimental and demonstration projects, the purposes of which are to research and develop ideas that would reduce the cost of housing in the State."

D. PARTNERSHIP NEEDS

1. Provide the highest level of housing and community development assistance through partnerships and non-profit organizations such as a Community Land Trust.

ONLINE VERSION

ONLINE VERSION

A. PERMITTING AND CODE CHANGES

1. Coordinate land use planning with transportation to minimize the impact of growth on congestion, improve walkability in town centers, revitalize commercial areas, and enhance mobility in places where people live, work, learn, and play.
2. Require that transportation impact analysis reports and other traffic studies analyze a project's potential to encourage mode shift.

B. PLANS AND STUDIES

1. In all Community Plans, incorporate planning of roadway, transit, bike and pedestrian facilities, and transportation needs to support economic revitalization.
2. Include analysis of the planned transportation system's ability to accommodate proposed growth, manage congestion, and achieve the County's mode shift targets in all Community Plans.
3. In all Community Plans, develop a regional traffic circulation plan that includes all modes of transportation.

C. PROJECTS AND PROGRAMS

1. Establish transportation priorities using a performance-based evaluation process, which considers the following criteria:

    a. Safety;

    b. System preservation;

    c. Economic development/community access;

    d. Support of growth areas as designated in the General Plan and Community Plans;

    e. Congestion management; and

    f. Environmental and cultural impacts.

2. Support completion of the priority projects in the *Kapa'a Transportation Solutions Report* to include the following:

    a. Add one lane on the Kūhiō Highway from the southern end of the Kapa'a Bypass Road to Kuamo'o Road.

    b. Widen the northern segment of the Kapa'a Bypass Road to two-lane and two-way from the northern end of the Bypass to the roundabout at Olohena Road.

    c. Operational improvements, such as signalization and left turn restrictions on Kūhiō Highway.

    d. Extension of right turn lane on Haleilio Road at Kūhiō Highway.

    e. Congestion management on Kūhiō Highway, from Kuamo'o Road to Kapule Highway.

3. Incorporate and integrate transit strategies in the *Kapa'a Transportation Solutions* framework.
4. Following a priority evaluation process, complete priority circulation and multimodal capacity projects identified in the General Plan Transportation Maps.
5. Consider implementing Transportation Demand Management strategies with County of Kaua'i employees who work in Līhu'e as a pilot program that can be replicated by other employers. Strategies may include the following:

    a. Staggered work hours;

    b. Bulk rate bus passes; and

    c. Incentives to encourage commuting by other than single-occupancy vehicles.

D. PARTNERSHIP NEEDS

1. Improve the process of collaboration with HDOT to involve both the County and State in planning, scoping, design, and funding of transportation plans and projects.
2. In collaboration with HDOT, develop a process to apply "least cost planning" and "practical design"

ONLINE VERSION

ONLINE VERSION

for economic development, by creating inviting places for socialization and commerce.

How various modes are accommodated is achieved through street design and is key to preserving the character of our island. In town settings, sidewalks and bike lanes may be needed. In slow-speed, low-volume settings, it may be appropriate for all users to share the street without special allocation for each user. The design of each street needs to take into account the function of the street, space available, adjacent land use, and the character of surroundings. This is called "context sensitive design," and is critical to preserving a sense of place. New street design standards are being developed by the County incorporating these principles to accommodate all users in different settings.

On many local roads, residents express concerns about motorists speeding. This can be dangerous for all road users, and can discourage people from walking and biking. Sometimes streets are designed to accommodate a much higher speed than the posted speed limit, which encourages speeding. Designing streets to the desired speed limit can slow traffic, reduce the need for costly enforcement, and can improve safety for all users. "Traffic calming" is an important strategy to slow down traffic to the desired speed on selected streets. A variety of traffic calming treatments can be used to reduce speeds, and selecting appropriate treatments will vary by location. A traffic calming toolkit can help engineers, public safety officials, and community members consider and evaluate treatments that are suitable for each location. With limited funding, priorities need to be established for road retrofit and construction to best accommodate the needs of all users.

A. PERMITTING AND CODE CHANGES

1. Complete new street design standards to address all users.
2. Amend the zoning and subdivision codes to support multimodal transportation options and safety for all users.
3. Develop a traffic calming toolkit and update the County Traffic Code to allow for traffic calming features
4. Designate, sign, and enforce truck routes.
5. Update the school zone ordinance and signage.

B. PROJECTS AND PROGRAMS

1. Complete priority resurfacing, reconstruction, retrofit, and repair of existing roads and bridges based on available funding.
2. Retrofit existing roads to incorporate facilities for all users where feasible and appropriate, and as indicated in Community Plans or other network plans, as a part of resurfacing and reconstruction projects.
3. Implement maintenance of roadside vegetation and roadway surfaces to increase safety.

C. PARTNERSHIP NEEDS

1. Improve systems, communications, and resources so that County projects funded by the State Transportation Improvement Program (STIP) are completed on schedule.
2. Secure resources and partnerships for maintenance of County roadways.

ONLINE VERSION

ONLINE VERSION

A. PERMITTING AND CODE CHANGES

1. Provide density bonuses for workforce housing near transit.

B. PLANS AND STUDIES

1. Implement the *Short-Range Transit Plan*.
2. Complete a Mid-Range (4-7 year) Transit Plan for longer-term transit planning.
3. Address the feasibility and practicality of accommodating luggage, surfboards, and other large objects on County and private buses.

C. PROJECTS AND PROGRAMS

1. Increase mainline service frequency to every 30 minutes, with 15 minute frequency at peak times on peak routes.
2. Identify and implement service modernization features, including GPS location of buses and integration with transit apps; electronic fare recovery; on-board wi-fi; and other amenities to streamline service and attract riders.
3. Focus initial phases of service expansion in areas of highest ridership potential.
4. Improve bus route and schedule information.
5. Complete bus shelters and amenities at 50 priority bus stops.
6. Identify priorities for ADA-compliant pedestrian access to bus stops. Develop a construction schedule and funding plan for priority projects.
7. Provide adequate and efficient bus storage and maintenance facilities.
8. Identify locations for park and rides, especially in coordination with a North Shore shuttle.
9. Convert bus fleet to sustainable fuels.

D. PARTNERSHIP NEEDS

1. Expand the bulk bus pass program to generate transit revenue and encourage ridership.
2. Coordinate with HDOT to incorporate transit stops and pullouts on State Highway projects where needed.
3. Work with State and Federal agencies and local employers to establish a dedicated funding source for transit.
4. Partner with HDOT to design bus stops on rural highways.
5. Develop a transit-ready development pilot project on State lands pursuant to the *State Transit Oriented Development Strategic Plan*.
6. Provide housing adjacent to transit stops, with a special focus on transit hubs.

ONLINE VERSION

ONLINE VERSION

1.2 Improving System Reliability and Addressing Growth

Kaua'i's 2014 groundwater well production exceeded 2011 water consumption by about 3.25 million gallons per day (mgd). Groundwater supplies were sufficient within each area except Līhu'e, which supplemented its water needs with Grove Farm's privately owned system. The Department of Water (DOW) has 13 service areas with approximately 20,500 customers (as of November 2013). The State Department of Health Safe Drinking Water Branch regulates ten private water systems on Kaua'i. These range from large systems owned by the Pacific Missile Range Facility and Princeville Utilities Company, Inc. to smaller private systems in Keālia, Kōke'e State Park, Polihale State Park, Pākalā Village, and the Department of Hawaiian Home Lands water system in Anahola. See Figure 3-8 for the locations of public and private water service areas on Kaua'i.

Based on future projections, the DOW will need to complete system and facility improvements to address an additional 6.48 mgd of production and supporting facilities by 2035. This includes replacing an estimated 237 miles of pipeline (out of 400 total pipeline miles) due to deterioration, age, and capacity issues.

The *Water Plan 2020*, updated in 2001, is revisited yearly by the Department of Water (DOW) to reprioritize improvements and be in sync with current land development needs. However, the coordination between DOW improvements and long range planning can and must be improved. The lack of coordination has led to inefficiencies and delays as the DOW requires lead time in process permitting and funding. This has had the effect of delaying or even halting construction of new housing and commercial projects. Additionally, in some areas there are legal challenges that question the validity of diverting water resources for any purpose based on the public trust doctrine. Before water and associated facilities for extraction, storage, and distribution can be allocated to support growth, these legal cases and planning gaps need to be addressed.

The DOW *Water Plan 2020* incorporated housing unit and population forecasts from the 2000 *Kaua'i General Plan*. The DOW will update its *Water Plan 2020* to a 2040 planning horizon after this General Plan is complete, incorporating updated housing unit and population forecasts. Additionally, DOW prepares a *Water Use and Development Plan*.

The General Plan actions for domestic water support water planning and investments in infrastructure that focus on priority growth areas. They also support measures for water conservation and recycling. General Plan policies and actions that focus growth around existing centers will help to reduce costs associated with water system upgrades by minimizing the extent of new water distribution networks that must be built and maintained.

1.3 Enhancing Water Conservation

While there is little concern that we will exhaust the water supply in our aquifers, minimizing water demands will conserve existing system capacity and reduce or forestall the need to expand costly water extraction, storage, and transmission/distribution infrastructure. Use of recycled "greywater" or rain catchment for irrigation and some types of cleaning is another way to minimize demands on potable water supply. Likewise, more efficient buildings and land use patterns can also reduce overall demand for water. Kaua'i residents have been conserving water over recent years. DOW has a range of historic and recent strategies and measures to encourage water conservation, including 100 percent customer metering, leak detection, plumbing code regulations, and public outreach and education programs. The *Water Plan 2020* goals include reducing average daily demand by 2.2 million gallons per day and reducing maximum daily demand by 3.2 million gallons. DOW reports that revenues have been dropping annually, most likely due to rate increases that incentivize customers to use less water.

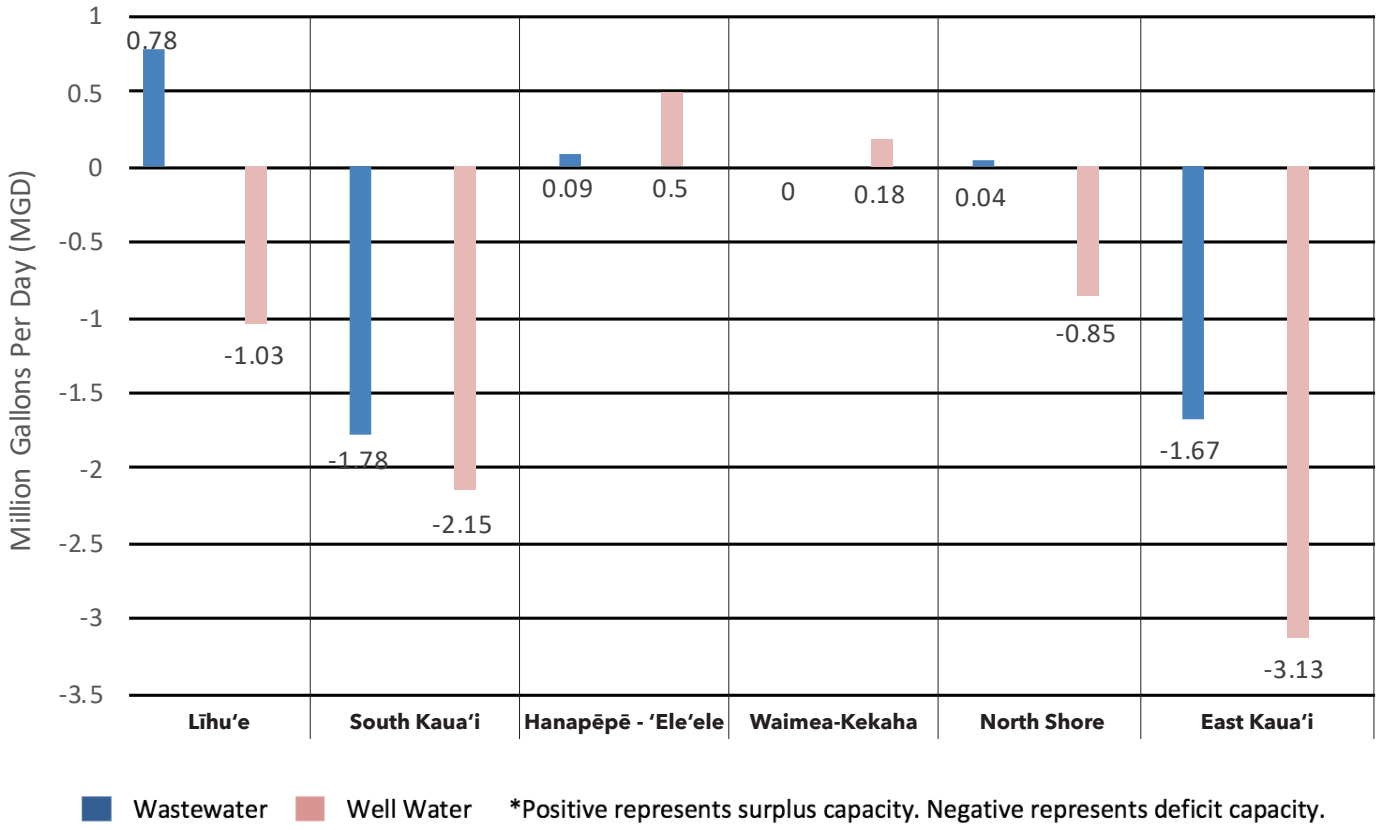
A. PERMITTING AND CODE CHANGES

1. Prioritize increasing domestic water supply, storage, and distribution systems to meet projected needs while encouraging conservation.
2. Prioritize water infrastructure improvements in infill development areas.
3. Encourage alternatives for non-potable water usage, such as rainwater catchment and greywater recycling.
4. Support water savings through land use practices like low impact development (LID), *Ahwahnee Water Principles for Resource Efficient Land Use,* new green building programs, and onsite and offsite conservation land use practices.

ONLINE VERSION

ONLINE VERSION

Figure 3-7 Projected Wastewater and Domestic Water Capacity by District in 2035



5. Conduct an audit of the County's dependency on surface water regarding future development, based on legal availability and water regulations.

B. PLANS AND STUDIES

1. Implement and update the County Water Plan to guide system expansion, improvement, rehabilitation, and rate structures to support growth consistent with the General Plan and Community Plans.
2. Reduce potable water usage through recycled water and alternative individual water systems such as rainwater catchment and greywater recycling, and incorporate these into the County Water Plan Update.
3. Update sustainable yield of aquifers, incorporating most recent United States Geological Survey (USGS) low-flow studies and surface water data into the County Department of Water budget, with appropriate reservations for public trust purposes including environmental protection, traditional and customary Native Hawaiian rights, appurtenant rights, domestic water uses, and the needs of the Department of Hawaiian Home Lands.
4. Reconcile water service areas with County planning districts to integrate facilities with Community Plans.

C. PARTNERSHIP NEEDS

1. Encourage water conservation at the individual, business, and municipal levels.
2. Collaborate with community groups on cooperative approaches to water management.

ONLINE VERSION

ONLINE VERSION

A. PERMITTING AND CODE CHANGES

1. Require large-scale developers to contribute funds toward improved recycled water production and distribution, or to construct their own wastewater reclamation facility.
2. Manage wastewater treatment and disposal in a manner that safeguards human health while accommodating current needs of local residents before any consideration of future growth. These systems are to be efficient and cost-effective, and use recycled water from treatment where possible.
3. Improve the quality of effluent discharged into injection wells, especially those in the Special Management Areas.
4. Support innovative treatment systems that produce effluent at appropriate water quality levels to encourage reuse such as irrigation, industrial uses, and other non-potable use.

B. PLANS AND STUDIES

1. Develop and update wastewater facility plans to guide decisions regarding the allocation of treatment capacity, the expansion of wastewater systems, and system improvement priorities.
2. Coordinate public and private planning, development, operation, and management of wastewater treatment and disposal systems.

C. PROJECTS AND PROGRAMS

1. Locate and relocate wastewater facilities in appropriate geographic areas, based on traditional, cultural, and biological natural filtration systems for the optimization and expansion of wastewater systems and system improvement, considering alternative reclamation technology or tertiary treatment.
2. Provide adequate trunk sewer and collection main capacities to serve existing and future urban development.
3. Plan for and implement regional wastewater treatment solutions for South Kaua'i and Kīlauea.
4. Monitor the disposition and potential effect of cesspool seepage and injection wells on the groundwater and nearshore water quality.
5. Support water reuse projects and increase the use of recycled water.
6. Explore opportunities to utilize the Clean Water State Revolving Fund Program for financing water quality infrastructure projects, including energy savings at plants, capacity increases including new pump stations, and drainage improvements.
7. Improve wastewater infrastructure through grant and loan programs, such as the USDA Rural Development Program.

D. PARTNERSHIP NEEDS

1. Reduce the number of cesspools through septic conversion or through connection to a new or existing regional wastewater system.
2. Institute best practices for diverting and reusing wastewater.

ONLINE VERSION

ONLINE VERSION

and inter-island general and containerized cargo. The harbor is also used for charter boat fishing and recreational boating and is a port-of-call for passenger cruise ships. Port Allen is a popular port for excursion and charter boat operations but is not currently equipped to accommodate cruise ships.

The *Kaua'i Commercial Harbors 2025 Master Plan* (CHMP) was updated in 2001 and contains recommendations for both harbors through the year 2025. Kaua'i depends almost entirely on ocean transport for its essential commodities, including food, clothing, fuel, automobiles, and many other goods. Ocean freight is also used to export goods within and outside the State. The CHMP emphasized the need to ensure commercial harbors can accommodate projections of cargo volumes through the year 2025, which were used to develop facility recommendations.

Nāwiliwili Harbor should be able to accommodate demand for overseas and inter-island shipments through 2025, but beyond that, expansion may be needed. A State-owned area adjacent to the existing terminal was identified for possible expansion of the overseas terminal in the CHMP. Inter-island terminal needs may also be met by harbor reconfiguration or additional land acquisition.

In addition to handling overseas and interisland containerized cargo, Nāwiliwili Harbor can accommodate the domestic and international cruise ships that come to Kaua'i. At Nāwiliwili Harbor, Pier 2 is primarily used as the cruise ship terminal with a berth length of 531 feet and a depth of 35 feet at pier side.[33] In 2017, 21 cruise ship companies anchored at Nāwiliwili Harbor with Pride of America accounting for the majority of the trips to Kaua'i.[34] With the exception of Pride of America, a Hawai'i Cruise line, most cruise ships that come to Kaua'i are part of a longer route that comes from either Los Angeles or Mexico.

In the *Commercial Harbors 2025 Master Plan* (2001), there were several recommendations for Nāwiliwili Harbor that included providing sufficient berthing facilities for the growing industry and ensuring the safety of passengers from commercial cargo operations. To implement the *Commercial Harbors 2025 Master Plan*, the Hawai'i Department of Transportation – Harbors Division has recently included in their draft environmental assessment a proposal for Nāwiliwili Harbor drainage and pedestrian improvements. The paving and construction of the roadway connecting Pier 2 and Pier 3 will improve safety by designating a pedestrian walkway for cruise ship passengers separate from the commercial cargo activities.

4.3 Valuing Small Boat Harbors as Important Recreational Resources

Small boat harbors are a valued recreational amenity on Kaua'i. They are managed by the State Department of Land and Natural Resources (DLNR) Division of Boating and Recreation (DOBOR). There may be opportunities for the County to support DOBOR in applying for grants and funding, providing parking, and seeking expedited permitting for maintenance of small boat harbors.

A. PERMITTING AND CODE CHANGES

1. At airports, accommodate shuttles that transport visitors to resort destinations.
2. Do not expand the Princeville Airport, except for use as a parking hub and gateway for visitors to the North Shore.

B. PARTNERSHIP NEEDS

1. Support DOBOR with master planning and acquiring funding for expansion and maintenance of all small boat harbors.
2. Update the Līhu'e Airport Master Plan and address capacity issues.
3. Collaborate with HDOT Airports Division in the implementation of the TAM.
4. Collaborate with HDOT Airports Division and other agencies in future planning of land uses at Burns Field in Port Allen as a part of the Hanapēpē-'Ele'ele Community Plan.
5. Support HDOT – Harbors Division to implement and update the Kaua'i *Commercial Harbors 2025 Master Plan*.

33 *HDOT – Harbors Division, Port of Call Handbook: http://hidot.hawaii.gov/harbors/files/2012/10/Nawiliwili-Harbor-Kauai.pdf*
34 *HDOT – Harbors Division, Passenger and Cruise Schedules: https://hidot.hawaii.gov/harbors/files/2013/01/DOC001.pdf*

ONLINE VERSION

ONLINE VERSION

tailored to the unique needs and identities of each neighborhood.

2.3 Improving Park Accessibility for Greater Equity

Park accessibility is important from an equity perspective. Parks and their facilities should be safe and accessible for people of all ages and abilities. ADA requirements ensure a certain level of accessibility is provided, but there are other aspects as well, such as having sufficient parking, or just the simple distance of parks from residential areas with significant numbers of seniors and/or children. Access for seniors is particularly important as the park system must accommodate an aging population. Priority should also be given to communities across the island with a high degree of low-income households, children, and kūpuna.

2.4 Facing the Challenges of Beach Park Management

Beach parks are among Kaua'i's most treasured scenic and recreational assets. They accommodate a range of uses by visitors and residents alike, both in and out of the water. Sadly, there are those who take advantage of common areas through vandalizing, littering, illegal camping, and crime. Security and maintenance of Kaua'i's beach parks are ongoing concerns. Many of the facilities, such as restrooms and picnic areas at the most heavily frequented beach parks, are in need of more maintenance, upgrades, and repairs.

The most popular beach parks in South Kaua'i, East Kaua'i, and the North Shore are getting more crowded, and public uses occasionally conflict. It is difficult for residents to enjoy traditional recreational beach activities in an overcrowded setting. In order to preserve the local lifestyle, many residents desire for some areas to be reserved primarily for local use and not heavily promoted to visitors. Furthermore, visitor safety in these areas, which often lack water safety officers, is another valid concern.

Access and parking at beach parks can limit the enjoyment of residents and visitors. Many parking areas are too small to accommodate demand. In some cases, development near popular beaches provides little to no public parking, forcing people to find street parking along the highway or in residential areas.

Shoreline erosion and sea level rise are discussed in other areas of the General Plan; however, it is worth noting that Kaua'i's beach parks are profoundly affected by ongoing beach loss. It is important to preserve and treat well the areas that we have remaining, and ensure they can be enjoyed by all.

A. PERMITTING AND CODE CHANGES

1. Provide comprehensive, well-designed, and highly functional parks and recreational facilities that meet public needs, provide attractive places to exercise, accommodate diverse groups and activities, make suitable use of resources, and are compatible with surrounding uses.
2. Provide a range of civic space and functional parks in large residential projects and in new communities.
3. Streamline permitting of public facilities to efficiently coordinate the development and expansion of parks.
4. Allow in-lieu funding expenditure on facility capital improvements through the Park Dedication Ordinance.

B. PLANS AND STUDIES

1. Plan for safe routes to parks, especially in areas with high concentration of youth.
2. Utilize vacant or underused County-owned land for community purposes.
3. Update and implement the *Kaua'i Parks & Recreation Master Plan (2013)*.

C. PROJECTS AND PROGRAMS

1. Support priority projects in the *Kaua'i Parks & Recreation Master Plan*.
2. Prioritize park improvements and provide safe routes to parks, especially in low-income neighborhoods with high concentrations of youth.
3. Implement a playground development and rehabilitation program to provide high quality play environments, especially in underserved communities.
4. Enhance parks by making them more conducive to physical activity through shared use paths, play equipment for more than one age group, skate parks, disc golf, tennis facilities, and other improvements.

ONLINE VERSION

ONLINE VERSION

Supporting Regional and Community Based Economic Development

Growing economic opportunity requires cooperation and collaboration. The Chamber of Commerce, Kaua'i Economic Development Board (KEDB), and other associations lead initiatives and often partner with the County's Office of Economic Development. Kaua'i Community College plays an essential role in developing education and workforce training opportunities. The County relies on these partnerships in its efforts to attract new industries and stimulate existing businesses. *The Kaua'i Comprehensive Economic Development Strategy,* or CEDS, engages the County and stakeholders to craft strategies for economic growth over the short term. Strategy updates occur every five years and in concert with the development of a regional statewide CEDS.

Cultivating Economic Diversification and Resiliency

Kaua'i's visitor industry provides livelihoods to many, but the heavy reliance on tourism is a major concern. Disruptions in global and national tourism are out of our control, yet they have large repercussions on Kaua'i. For Kaua'i's economy to be more resilient and less dependent on a single industry, there will need to be a diversity of living-wage jobs in different sectors. These jobs must be supported by a skilled and educated workforce. The 2016-2021 CEDS seeks to foster a diversified economy. The six target industry clusters identified as promising areas for growth are:

- Food & Agriculture
- Sustainable Technologies & Practices
- Science & Technology
- Health & Wellness
- Sports & Recreation
- Arts & Culture

In 2014, these sectors comprised approximately 30 percent of Kaua'i's private sector jobs, almost as large a share as tourism. The actions identified in the CEDS are aimed at providing infrastructure, capital, and workforce to support the growth of these sectors. Additionally, to realize the goal of becoming more resilient, businesses must be prepared and protected so they can recover from natural disasters and adapt to impacts from climate change.

O kau aku, o ka ia la mai, pelā ka nohona o ka 'ohana

From you and from him, so lived the family. The farmer gave to the fisherman, the fisherman gave to the farmer.

Providing the Physical Capacity for Economic Growth

For economic growth to occur, an adequate amount of space must be available for Kaua'i's business needs including commercial, industrial, resort, and agricultural uses. Other important strategies include redeveloping our town centers as attractive places to work and promoting mixed use and adaptive reuse to more efficiently use non-residential urban space. Workforce housing must also be provided near major jobs centers, such as resort areas and Līhu'e. These needs and strategies are cross-cutting in nature and are included in the Shared Spaces and Housing Sectors. The following strategies are reflected in the Future Land Use Map and summarized below:

Strengthening Existing Town Centers and Mixed Use Environments

Directing growth and infrastructure investment within or adjacent to town centers will generate economic activity for small businesses. Through a directed growth policy, our town centers can support a mix of housing, commerce, and recreational uses that appeals to our millennial and baby boomer population. Mixed use zoning will better accommodate Kaua'i's self-employed and cottage businesses.

ONLINE VERSION

ONLINE VERSION

Relevant Land Use Map Changes:

- Application of Neighborhood Center and Neighborhood General around existing town cores (Kekaha, Waimea, Hanapēpē–'Ele'ele, Port Allen, Līhu'e, Kapa'a, Kapahi, Anahola, Kīlauea, Hanalei)
- Application of Special Planning Areas in Līhu'e and South Kaua'i (Kōloa, Kalāheo, Kukui'ula roundabout area) to encourage infill housing and mixed use within existing town cores

Providing Adequate Space for Industrial Uses and Manufacturing

In order to accommodate industrial and manufacturing needs, the supply of existing industrial zoned land must be carefully considered. There is a deficit of industrial lands outside of the Līhu'e Planning District, and many small businesses such as welding shops, auto repair, and woodshops are left to operate in residential areas via a use permit or illegally. The potential of former plantation mill sites for redevelopment or adaptive reuse must also be tapped.

Relevant Land Use Map Changes:

- Industrial Designation at Kōloa Mill, Port Allen, Olokele Mill, and Anahola

Revitalizing Existing Visitor Destination Areas

Over the last two decades, a substantial number of jobs have been generated within the visitor industry (arts, entertainment, recreation, accommodations, and food services). However, visitor growth also strains public facilities, infrastructure, and public services. Therefore, new resort growth and infrastructure should be focused in the VDA.

Relevant Land Use Map Changes:

- No resort designation expansion

Protecting Agricultural Lands for Agricultural Production and Food Self-Sufficiency

The County and State can protect the capacity for agricultural production through the designation of Important Agricultural Lands, density controls, and changes to development standards.

Relevant Land Use Map Changes:

- IAL designations
- Urban Edge Boundary in the Līhu'e Planning District

Fostering a University District

Access to quality education and training is needed to expand Kaua'i's workforce and to facilitate growth in the emerging industries. The University Zone designation reflects the community's desire to recognize Kaua'i Community College and the surrounding area as an education center with supportive residential and commercial mixed uses.

Relevant Land Use Map Changes:

- University Zone designation in the Līhu'e Planning Area

The following sections discuss objectives and actions for Tourism, Agriculture, and Small Businesses and Promising Economic Sectors.

Kaua'i Economic Development Goals 2016-2020 (CEDS 2016)

1. Build, attract, and retain a 21st century workforce.
2. Encourage innovation and the development of small, mid-size, and large businesses and organizations.
3. Increase adaptability and resilience, particularly regarding natural disasters and climate change.
4. Increase collaboration.
5. Ensure sustainable development.
6. Achieve greater food self-sufficiency.
7. Develop plans and continue to build capacity for economic development in each of the six target industry clusters.
8. Enhance the community's ability to thrive.

ONLINE VERSION

ONLINE VERSION

VDA and imposing entitlement deadlines on resort designations. The resulting policy is to limit expansion of VDAs beyond what is recognized as Resort in the Future Land Use Map. Figure 3-11 shows existing VDAs on Kaua'i. Resort designations are described in Chapter 2, and Land Use Maps in Chapter 5.

1.3 Improving the Visitor Experience and Impacts on Communities

Improving the visitor experience and reducing impacts will depend on adopting new ways of doing things. Taking shuttles to popular destinations instead of driving private cars is one example. Fortunately, Kaua'i has a high percentage of repeat visitors – as much as 70 percent, according to the KTSP. Learning about and accepting different ways of accessing Kaua'i's attractions should be easier for experienced visitors, who might also appreciate such efforts to preserve the environment and culture. Managing visitor impacts also includes improving visitor facilities and parking at both County and State parks, and ocean safety at beaches. Given that impacts disproportionally affect certain areas of the island, particularly the North Shore and South Kaua'i districts, shuttle efforts, parking improvements, and other solutions should be focused there.

Visitor and resident interaction is another place for improvement, particularly with respect to the awareness and appreciation of Hawaiian culture. The Kaua'i Tourism Strategic Plan seeks to reinforce authentic Native Hawaiian culture and local Kaua'i culture. These are the qualities that make Kaua'i truly unique as a visitor destination, since there are many other tropical and subtropical beach areas in the world.

Merging these common sets of values between visitors and residents can sustain a strong tourism sector that has a light footprint on Kaua'i's environment and meshes well with local culture and lifestyles. Effectively doing this first requires managing future growth in the visitor industry so it does not exceed the recognized carrying capacity of Kaua'i's resources and infrastructure. In addition, it requires improved transit options, better management of parks and beaches, and enhanced interactions with people involved in the visitor industry as well as other Kaua'i residents. The ultimate goal is to balance the visitor industry with natural and cultural preservation, the protection of community fabric, and the overall quality of life for residents.

A. PERMITTING AND CODE CHANGES

1. Revitalize—rather than expand—the existing Visitor Destination Areas in Po'ipū, Līhu'e, Wailua, and Princeville.
2. Focus visitor uses, services, facilities, and accommodations in the Visitor Destination Area.
3. Do not expand existing Visitor Destination Area boundaries beyond resort-designated areas.
4. Allow existing resort entitlements to build out and require any non-entitled resort-designated areas in this General Plan to attain full State and County zoning resort-related approvals by the year 2027, or within ten years of Community Plan approval if an area is conditionally designated.
5. Require short-duration expiration dates should development not be constructed as permitted.
6. Where appropriate, negotiate with entitled resort projects to reduce unit count if discretionary permits are sought again.
7. Create a regulatory system that ensures resort developers pay their own way by paying their fair share of system expansion for all public systems, including but not limited to land transportation improvements, housing, water, sewer, cables, and parks.

B. PLANS AND STUDIES

1. Implement and update the *Kaua'i Tourism Strategic Plan*.
2. Explore the development of the carrying capacity for various sites around the island and a monitoring system that tracks visitor impacts within the context of "limits of acceptable change" or other metric.
3. Create a comprehensive incentive and disincentive plan to address visitor numbers and impacts in specific areas.

C. PROJECTS AND PROGRAMS

1. Improve route and destination signage to alleviate congestion associated with difficulties in finding desired locations.
2. Improve waste disposal, collection, and management at popular destinations and provide more recycling options.

ONLINE VERSION

ONLINE VERSION

was managed and owned by large companies such as the Kōloa Sugar Company, McBryde Sugar Company, and Grove Farm. Supporting the sugar and pineapple industry was an extensive network of ditches, flumes, and reservoirs created and maintained by the landowners. The era of plantation agriculture has come to an end, but the remaining infrastructure and still-undeveloped swaths of agricultural land provide for today's agricultural activity and opportunities for new enterprise to thrive.

Agriculture and food industries remain one of the most promising economic sectors on Kaua'i. It is a substantial source of employment, with about 3,601 jobs on Kaua'i in 2014. It is also a sector that supports Kaua'i's vision of remaining a rural island, preserving open spaces, and producing more food and resources. While the number of jobs in agriculture has not increased substantially since 2001, earnings have increased by 53 percent to $30,511 average annual earnings per employee.[41]Total earnings in the sector are upwards of $113 million per year.

Kaua'i's agricultural lands are owned and managed by a small number of large landowners. On the South and West Sides, agricultural land owners include the State, the State Department of Hawaiian Homelands (DHHL), Alexander & Baldwin (A&B), and Grove Farm.[42] There are pockets of agricultural land in Līhu'e District, mostly owned by Grove Farm. East Kaua'i's agricultural lands were largely sold off and converted to large lot residential development following the closure of Amfac Hawai'i's Līhu'e Plantation; however, there remain some tracts between Hanamā'ulu and Anahola that provide opportunities for cultivation. The North Shore is home to a large portion of Kaua'i's diversified agriculture operations, particularly around Moloa'a and Kīlauea. Taro production is concentrated in and around Hanalei. The North Shore's land ownership patterns are more fragmented and among the most desirable areas for high-end housing. This, coupled with regulations that permit agricultural condominiums, exerts development pressure on the North Shore's agricultural lands.

The *Statewide Agricultural Land Use Baseline Study* (2015) provides a snapshot of what is currently grown and raised on Kaua'i (Figure 3-17). Like the rest of the Hawaiian Islands, Kaua'i has shifted out of sugar cultivation within the last few decades, leaving much of its agricultural lands open to other uses. Over 40,000 acres are currently used as pasture for grazing animals, supported by three privately owned slaughtering facilities. The greatest share of Kaua'i's 21,000 acres of cultivated crop lands are in commercial seed production (13,299 acres), followed by coffee (3,788 acres), and commercial forestry (1,743 acres). The island has more taro cultivation than the rest of the state combined, with 443 acres under cultivation.

The seed production industry has a much larger presence on Kaua'i than on any other island, with nearly twice the amount of acreage as O'ahu. Concerns about pesticide use and the cultivation of genetically modified organisms (GMO) by seed companies and other large agricultural producers have resulted in fact-finding inquiries, lawsuits, and proposed legislation regulating these activities. Nevertheless, these large agricultural operations provide substantial employment opportunities in rural areas of Kaua'i, particularly Waimea and Kekaha.

This concern has carried throughout the community engagement process leading up to the crafting of this plan. The online survey response included a number of written comments seeking a higher degree of regulatory oversight concerning GMO and pesticide activities. However, given the judgment of the Federal Court striking down Bill No. 2491 (Ordinance No. 960), County ordinance on State statutory preemption grounds, no regulatory proposals are included in this plan. Should State laws be enacted to provide larger County authority for potential regulation of such agricultural activities, the General Plan could consider appropriate policies.

2.2 Protecting Important Agricultural Lands (IAL)

The Agricultural District is under both State and County land use authority. The State Constitution sets the policy to "conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands."[43] Retaining the integrity of agricultural lands means protection against encroachment and fragmentation.

Pursuant to the constitutional mandate, the State Legislature adopted Important Agricultural Lands (IAL) designation criteria in 2005. Once designated, IAL cannot be reclassified to State Land Use Urban District except under a "super majority" vote of both

41 *Draft Kaua'i Comprehensive Economic Development Strategy Update,* 2016

42 *Statewide Agricultural Land Use Baseline Study,* 2015

43 *Important Agricultural Lands Study, 2015*

ONLINE VERSION

ONLINE VERSION

development and commercialization of marine aquaculture. The State's Aquaculture and Livestock Support Services Branch provides support for this industry through business planning and development, as well through loans for start-ups.

2.6 Partnering to Support Existing and New Agricultural Enterprise

A productive agricultural system not only involves having lands available for farming, but creating and supporting the mechanisms necessary for growing and processing food and materials. This includes providing agricultural and business education, increasing marketing, understanding transport and export opportunities, and promoting best management practices that mitigate environmental and health impacts.

For the agricultural sector to be productive and profitable, agriculture must be recognized as a collection of both large and small businesses supported by a workforce, strong public-private partnerships, and the community. In addition to providing support to established operations, consideration must be given to the many aspiring farmers on both private and state-leased small-scale farms, especially on the North Shore and East Kaua'i, where many smaller agricultural lots are located. New farmers face barriers to entry, such as the high cost of labor and land, government regulations, and stringent thresholds and rules for farm worker housing. Another issue is the lack of tax incentives for active agriculture. If support is not provided, landowners may find it easier to utilize their agricultural lands for passive uses, such as ranching.

Government is involved in the success of agriculture through tax and other incentives, such as water and infrastructure access or improvements, as well as by land use standards to protect agricultural lands and businesses. The community can support agriculture by recognizing its significance in promoting health and wellness and increasing economic independence.

A. PERMITTING AND CODE CHANGES

1. Ensure agriculture-designated lands are used for agriculture and related activities, including aquaculture, commercial forestry, and animal husbandry.
2. Use urban growth boundaries or other land preservation easements to limit conversion of agriculture-designated lands to non-agricultural uses.
3. Control the subdivision and alteration of agriculturally-zoned land to prevent the dissipation of agricultural potential, the loss of rural character, and the conversion of land use to urban land use designations.
4. Provide criteria to allow clustering of allowable density for landowners of Important Agricultural Land (IAL).
5. To the extent that public trust purposes would not be impacted or continue to be impacted, or where serviced agricultural operations constitute a reasonable and beneficial use that furthers the interests of the public, require preservation of viable irrigation systems – both government-owned and privately owned – to support the supply of irrigation water to farms, provided that mitigation measures are taken to minimize any impacts to public trust purposes.
6. Support landowner and farmer-initiated designations of important agricultural lands that at least meet criterion number five of Act 183 (SLH 2005), "land with sufficient quantities of water to support viable agricultural production."
7. Use IAL maps and tools when reviewing landowner/farmer-initiated petitions for the designation of IAL or for evaluating priority lands for IAL designation proposed by the State or County.
8. Revise the agricultural property tax regime, including but not limited to the Agricultural Dedication program, to increase incentives to lease land for productive farms.
9. Clarify rules and authority related to permitting of agricultural structures and uses on IAL.

ONLINE VERSION

ONLINE VERSION

3.2 Supporting Cottage Industries and Rural Economic Development

Kaua'i has a strong small business base and a growing cottage and home-based industry sector. If nurtured, these assets can help revitalize local communities and enable people to work where they live. Infrastructure, such as broadband internet, co-working spaces, and other supporting means that enable people to work from home or within their communities, can help improve quality of life for all residents on Kaua'i by reducing traffic on the roads and creating more demand for local services and amenities.

From a permitting perspective, the County can examine its development standards to ensure it does not create unreasonable barriers to working from home. "Home Businesses" are permitted in every zoning district, but zoning restrictions may limit certain types of business operations. The CZO is silent on deliveries to residential uses, but prohibits "frequent bulk shipments" from or to a home business. Restrictions on permitted equipment may also limit the growth of cottage industries in residential areas.

In addition to development code changes, more industrial land is needed to accommodate manufacturing and industrial uses outside of residential areas. The deficit of industrial lands outside of Līhu'e causes many small businesses, such as welding shops, auto repair operations, and woodshops, to operate via a special use permit or illegally. One opportunity is to redevelop former plantation mill sites for manufacturing and industrial needs.

3.3 Fostering High Tech and Clean Tech Jobs

The Pacific Missile Range Facilitity (PMRF), located on the West Side, is one of the foremost aerospace test sites in the United States PMRF leverages Kaua'i's location in the center of the Pacific Ocean for the benefit of aerospace and space launch testing. The base supports approximately 900 civilian jobs and 75 active duty members. The 900 civilian jobs comprise $89.72 million and the 75 active duty members comprise approximately $7.5 million of the facility's $118 million operating budget in FY 2016.

Historically, PMRF has been the driving force behind the establishment of technology-based business on Kaua'i. PMRF's continued vitality contributes significantly to Kaua'i's high technology industry and provides opportunities for supportive businesses and entrepreneurs.

The momentum of KIUC in pursuing ambitious renewable energy targets, coupled with Kaua'i's goals for emissions reductions in transportation and energy, also provides opportunities for clean technology businesses and green jobs. Clean tech tends to be low- or non-polluting, provide higher wage jobs, and supports sustainability goals.

3.4 Growing the Arts, Culture, and Creative Industry

Kaua'i has served as a premier film, TV, and photo shoot destination for the past 80 years. Film and photo productions for major production companies and media outlets are regularly staged here. A vibrant arts scene has flourished with the development of monthly or weekly "Art Nights" in communities around the island, including Hanapēpē, Kīlauea, and Kapa'a. The *Kaua'i Arts & Culture Feasibility Study Final Report* (September 2015) found robust pockets of arts such as painting, woodworking, jewelry-making, and performing arts. Arts connected to Hawaiian, Japanese, and Filipino culture and traditions were also strong.

E kanu I ka hui 'oi hā'ule ka ua

Plant the taro stalks while there is rain. (Do your work when the opportunity affords.)

A. PERMITTING AND CODE CHANGES

1. Lessen zoning restrictions for home-based businesses.
2. Reduce the costs and regulatory hurdles associated with starting a business.
3. Increase inventory of industrial zoned lands.

B. PLANS AND STUDIES

1. Implement and update the Comprehensive Economic Development Strategy (CEDS).
2. Develop business improvement districts and Main Street programs to fund revitalization efforts.

ONLINE VERSION

ONLINE VERSION

C. PROJECTS AND PROGRAMS

1. Invest in shared facilities and resources that can be utilized by multiple opportunity clusters, such as creative industries and technical services.
2. Provide infrastructure that increases the competitiveness of businesses on Kaua'i and allows them to thrive in all parts of the island.
3. Utilize County facilities and funds to support shared workspaces, makerspaces, and equipment for small businesses to utilize.
4. Support programs and infrastructure that enables employees to telecommute or work in satellite locations.
5. Attract technology and energy businesses that complement Kaua'i's economic and sustainability goals.
6. Build capacity for economic development in the target industry clusters identified by CEDS.

D. PARTNERSHIP NEEDS

1. Build the capacity of all businesses and increase the skills and readiness of Kaua'i's students and workforce.
2. Invest in opportunity industries that can diversify Kaua'i's economy and provide living wages.
3. Promote cross-sector linkages between Kaua'i's anchor and opportunity industries to grow the market for local products and services.
4. Support initiatives and programs to revitalize town centers and increase demand for local-serving businesses.
5. Provide business planning assistance, career planning, entrepreneurial training, incubation, and assistance with permitting, licensing, and regulatory issues.
6. Expand offerings for mentorship, networking, and affordable workspaces.
7. Support programs and initiatives that encourage manufacturing and support Kaua'i's small-scale independent manufacturers.
8. Strengthen market linkages between the tourism industry and Kaua'i made products such as fashion, food, and music.
9. Expand opportunities for innovation and tech-based businesses.
10. Increase access to capital for small businesses and start-ups.
11. Educate businesses on financial planning and funding sources for hazard preparedness and recovery, including insurance options for business interruption, natural disasters, and other unexpected occurrences.

ONLINE VERSION

ONLINE VERSION

districts, such as the Nā Pali Coast, are listed in their entirety. All registered archaeological sites are included in the Heritage Resources Map in Chapter 5.

Kaua'i has several areas eligible to be listed as Historic Districts through the National Register of Historic Places, including the Wailuanuiahoano ahupua'a and portions of the southern Olohena and Hanamā'ulu ahupua'as. Continued research and inquiry is needed to establish if other historic assets might merit designation. In addition to formally listed sites, there are hundreds of other sites that have not been documented or inventoried by SHPD. Discoveries of new cultural sites are generally triggered through the archaeological site surveys required for certain development activities.

Burial sites are also important resources. In Native Hawaiian culture, burial sites are sacred since within the iwi (skeletal remains) resides a person's mana. Therefore, the proper treatment of Native Hawaiian skeletal remains and burial goods must be ensured. SHPD has jurisdiction over the management of burial sites over 50 years old, whether they are previously identified or inadvertently discovered. When new development uncovers burials, recommendations to relocate or preserve in place any iwi are made by the Kaua'i Island Burial Council, with preference given to the wishes of the lineal descendants of the remains.

2.2 Perpetuating Cultural Practices through Restoration, Stewardship, and Education

There is a strong and growing commitment to perpetuating and spreading awareness of Native Hawaiian culture, stories, and practices. Attention and stewardship is needed to educate the community, restore structures, and preserve the legacy of wahi pana. Unfortunately, the significance of certain cultural sites is not always widely known. As a result, some sites sit unrestored and vulnerable to further damage through neglect, vandalism, and land-altering activities such as unpermitted grading. One model that could be replicated is that of Kāneiolouma – an ancient cultural complex which was restored through a stewardship agreement with the County and a community organization.

Other cultural sites still function as they did in historic times such as the salt making pans at Pū'olo Point. Important lo'i kalo, dry land field systems, and fishponds are examples of Hawaiian engineering tailored to particular ecological conditions. Protecting and restoring them is vital to the restoration of culture, Hawaiian way of life, flourishing ecosystems, and local food production. For example, the community-stewarded lo'i of Waipā and Kē'ē connect residents to the places where many no longer can afford to reside. Other culturally significant sites, such as known burial locations, are stewarded by Native Hawaiian families without a formal agreement.

Residents also celebrate the ethnic diversity and cultural practices associated with Kaua'i's modern history. Kaua'i's plantation era and the legacy of migrant workers is recognized through events such as the Kōloa Plantation Days Celebration.

2.3 Raising Awareness of Place Names and Land Divisions

The ability of people to recognize the significance of wahi pana helps instill a sense of pride and curiosity about Native Hawaiian culture and history. Awareness of the original names and the stories behind them connect people to the island's history and culture. The Kaua'i Nui Kuapapa program is a joint effort between the County and community to raise public awareness of significant place names and historic land divisions. The names, history, and unique features of Kaua'i's six moku and 54 ahupua'a are conveyed through signage and online information. The boundaries are shown in Figure 3-18.

2.4 Protecting Kuleana Lands

Prior to 1850, kuleana were "plots of land given, by the governing ali'i of an area, to an 'ohana or an individual as their responsibility without right of ownership."[47] When land was privatized in 1850, less than one percent of all lands in Hawai'i were awarded to Hawaiian maka'āinana families who lived on and tended the land. Extensive information was recorded about these parcels including family and place names, and information on surroundings, hydrology, and cultivation. These lands are house sites, taro patches, and some fishponds or salt pans, and often contain 'iwi. Lands where Hawaiian families continue to care for and live on lands in the same areas as their ancestors are increasingly rare. Tax and land use regimes impeding families from keeping their ancestral lands should be revisited and revised accordingly.

47 Pūku'i & Elbert 1975

ONLINE VERSION

ONLINE VERSION

3. Support creation and implementation of corridor plans for historic and scenic roadways.

C. PROJECTS AND PROGRAMS

1. Support Kaua'i Nui Kuapapa and other efforts to spread awareness of Kaua'i's original place names.
2. Support implementation of the corridor management plan for the Holo Holo Kōloa Scenic Byway.

D. PARTNERSHIP NEEDS

1. Support the Hawai'i Scenic Byways Program.
2. Support the Kaua'i Open Space Commission in identifying and acquiring priority open space areas.

ONLINE VERSION

ONLINE VERSION

various means including land use planning, economic development, transportation planning, and County government operations.

Efforts to reduce energy consumption are just as important as power generation, particularly during nighttime hours when solar power generation is not available. Energy conservation begins at home, and technologies such as "smart meters" are available to KIUC customers to allow them to better manage their energy use. These and other measures have helped Kaua'i residents reduce their electricity consumption by an average of ten percent from 2007 levels. Kaua'i's average household electricity use of 465 kilowatt-hours per month was the lowest of any County in the State in 2013. As more renewable sources come online from public and private sources, and as more residents use smart meters, greater energy conservation and lower monthly energy bills will benefit residents and businesses.

1.2 Green Buildings and Structures

The energy efficiency of buildings has a great impact on total emissions. Green buildings are sited, designed, constructed, and operated to be environmentally responsible and resource efficient. The U.S. Green Building Council estimates that green buildings reduce per person emissions by over 50 percent, especially if that building is located in a walkable environment. The most widely used benchmark for sustainable buildings is the LEED rating system. Currently, LEED certification is voluntary and often encouraged for major projects through conditions imposed by the Planning Commission. There is an opportunity to encourage increasing the number of LEED buildings through requirements and/or incentives.

A. PERMITTING AND CODE CHANGES

1. Promote increased energy conservation and renewable energy production.
2. Optimize the mix of energy crops that can provide fuel for power production on Kaua'i.
3. Streamline and expedite planning and permitting processes involving renewable energy facilities.
4. Require new buildings to incorporate economically feasible design and equipment for energy sustainability, including but not limited to: solar hot water capacity and proper insulation.
5. Conduct an audit of the County's development standards to identify regulations that are obstacles to, or could be altered to better encourage or require, green building practices.

B. PLANS AND STUDIES

1. Work with the University of Hawai'i to conduct an islandwide study of energy crop production, and determine how much energy production comes from locally grown crops.

C. PROJECTS AND PROGRAMS

1. Install more solar energy systems on County facilities.
2. Pursue green energy conservation, including but not limited to: groundskeeping and farming equipment/machinery, and ground transportation, by:

    a. Installing more, and regularly maintaining and repairing, electric vehicle charging stations.

    b. Introducing residential and commercial incentives to transition to electric groundskeeping and farming equipment/machinery.

    c. County transition from fuel-powered to electric vehicles, machinery, and equipment, where feasible.
3. Conduct regular reviews of County operations to identify ways to conserve energy, particularly during nighttime hours.

D. PARTNERSHIP NEEDS

1. Support the Kaua'i Island Utility Cooperative (KIUC) and private initiatives for solar, biomass, hydro, and other clean energy production types.
2. Identify sites where new renewable energy facilities might be co-located with other land uses.
3. Continue regular monitoring of the amount of Kaua'i's energy production that is from fuel produced on the island.
4. Support State and Federal efforts to price carbon, such as a carbon tax or fee and dividend programs.

ONLINE VERSION

ONLINE VERSION

fossil fuel consumption for transportation will largely depend on individuals changing personal travel patterns and behaviors. The airlines and visitor industry can also promote alternative fuels and carbon offset programs. Emissions from air travel to support both resident and visitor travel accounted for an approximately equal share of petroleum use compared to ground transportation and electricity in 2013. The State's 1998 climate change action plan noted: "*...the difficulty Hawai'i faces in making significant reductions in its emissions. Jet fuel is essential to Hawai'i's tourism-based economy and the wellbeing of its people.*"

Since that time, the airline industry has made considerable strides in improving per passenger efficiency through both aircraft technology and seat management. However, growth in tourism has offset much of these gains and aviation emissions remains a critical challenge. This is particularly true in Hawai'i due to our much greater dependence on air travel than in less isolated communities.

Although local government influence over airline emissions is very limited, the County, with help from the State, can regularly track these emissions and assure that the industry is meeting the commitments it has laid out to fit into a low-carbon society in the coming decades.

2.4 Inventorying Greenhouse Gases

According to the *State of Hawai'i Greenhouse Gas Inventory* of 1990 and 2007, Kaua'i contributed 1.2 million metric tons of carbon dioxide equivalent gases in 2007. These emissions were primarily from the combustion of fossil fuels for electricity, ground transportation, and air transportation.

Maintaining an accurate greenhouse gas inventory will be critical to tracking progress as we move towards our goals. The State Department of Health is completing its third sector-based statewide greenhouse gas inventory. Future efforts should include building an inventory tool that automatically updates from various data sources, as opposed to the current practice of periodic, static reporting. Sector based emissions tracking is relatively straightforward, with data already available from multiple sources, and several well-established protocols existing for municipalities that are accepted on an international level.

Notably, current inventories do not reflect the greenhouse gas emissions embodied in the significant volume of consumer goods imported to Kaua'i every year. Portland, Oregon, and Oakland, California, two of the first jurisdictions to analyze consumption-based emissions in their community, found that emissions from consumer goods accounted for approximately twice the amount of greenhouse gas produced by other sectors. In order to effectively manage our emissions, tracking and managing the embodied emissions associated with the manufacture, production, and delivery of imported goods we use will be an important component of our efforts.

2.5 Planning for Climate Action

A community-led climate action planning process is needed to maintain progress toward the long-term emissions reduction goal. Such a process will need to be maintained with an ongoing commitment both by the County and by community partners. Focus on key sectors and their interrelationships will be necessary to continue progress in emissions reductions. Key sectors include infrastructure, ground transportation, tourism, consumption and materials management, food and agriculture, and natural resource management.

The process should seek to continually integrate climate change mitigation and adaptation goals to a greater and greater extent with existing planning processes including the General Plan, Community Plans, and individual sector plans as they are revisited.

Finally, successful climate action planning will hinge on continuous engagement across the community. The majority of Kaua'i's greenhouse gas emissions are the result of individual choices over the short and long term by Kaua'i residents and businesses. Engaging the people in our community and encouraging them to take ownership of the process will be key to gaining the support and collaboration needed for long-term success.

2.6 Transformation as Opportunity

Kaua'i's extensive fossil fuel dependence means that there is a large task ahead to transform, and ultimately decarbonize, Kaua'i's economy. There will be many benefits to making this transformation. Clean energy in the electricity sector already provides local jobs, helps stabilize electricity costs, and reduces dependence on imported fossil fuels. Transforming the ground transportation sector will encourage healthier living, revitalize neighborhoods and downtown business areas, and allow those with limited mobility more options for getting where they need to go. Addressing tourism and air travel will be very challenging, but

ONLINE VERSION

ONLINE VERSION

the National Weather Service and the Pacific Tsunami Warning Center to ensure Kaua'i residents and visitors receive life-saving information on potential hazards in a timely manner.

In the event of a major disaster, KEMA directs Federal disaster relief efforts, as well as recovery dollars, to ensure disaster relief funds reach communities in need and restore essential services as quickly as possible. Currently, KEMA is staffed with only six employees. To keep pace with the projected growth of the resident and visitor population, KEMA will need to increase the number of permanent positions in the organization, and the equipment and software packages it uses to fulfill its coordination functions will require improvement, expansion, and modernization.

2.2 Creating Resilient Communities and Prepared Citizens

Kaua'i understands the importance of planning and preparation at the individual and neighborhood levels. Depending on the scale and duration of the event, it could be days or weeks before recovery efforts begin in isolated neighborhoods. Consequently, some communities have developed their own plans and procedures for emergency response. The *Hanalei to Hā'ena Community Disaster Resilience Plan* (2014) provides a model that other communities can follow. The County provides information, programs, and resources to support community based preparedness efforts, such as Community Emergency Response Team (CERT) training to individuals and groups. The ultimate goal is to have CERT teams in every neighborhood.

The *Kaua'i Climate Change and Coastal Hazards Assessment* (2014) focused on the coastal hazards present on Kaua'i (erosion, flooding, wave inundation, and wind) and how these hazards are affected by climate change and sea level rise.

Kaua'i's Multi-Hazard Mitigation and Resilience Plan (MMRP) (2015) includes a definition of resilience that encompasses the need to strengthen and support community, economy, and environment alike:

"The communities of Kaua'i County actively build resilience through local planning and environmental initiatives. This resilience of the communities enhances their ability to withstand the impacts of disasters and longer term effects of climate change. Focus on agriculture and local livelihoods enhances sustainability, and will enable survival should catastrophic events occur that prevent imported products from reaching Kaua'i. Environmental restoration efforts in the ahupua'a of Kaua'i have improved the ecological resilience of the environment."

Recommendations from both documents are incorporated into subsection actions.

2.3 Public Safety and the Tsunami Zone

Many transient vacation rentals are located within tsunami evacuation areas. Unlike resorts, which have tsunami evacuation plans and procedures in place to protect guests, visitors staying in units without onsite managers may be less prepared and more vulnerable should a disaster occur. Vacation rentals may not be equipped with emergency supplies or adequate information about warning sirens, evacuation shelters, and other important safety information. Informing visitors about tsunamis and other natural hazards should begin before they arrive on island at the time of booking. Educational materials should be readily available and prominently displayed. Clear signage indicating the tsunami evacuation area and evacuation routes will help those unfamiliar with the island to reach safety.

2.4 Homeland Security, Threats, and Health-Related Hazards

In addition to managing Kaua'i's susceptibility to natural hazards, KEMA and emergency response professionals (i.e., Police and Fire Departments) must also be prepared to mitigate and respond to potential threats that stem from society itself. Such security threats and health-related hazards include but are not limited to: acts of terrorism, acts of war, biological warfare/terrorism, nuclear attacks/threats, hazardous materials, and disease outbreaks and epidemics.

As with natural hazards, communities and school campuses must be educated on the best practices and techniques for preparing for and responding to these unique types of threats and hazards. This includes the universal understanding for all residents of what to do when prompted by the outdoor siren warning systems.

The Kaua'i Police Department is the lead agency responsible for Active Shooter Training for the County. Additionally, KEMA will occasionally coordinate Department of Homeland Security trainings on this issue. The Hawai'i Emergency Management Agency is the lead in public education and outreach for Nuclear/

ONLINE VERSION

ONLINE VERSION

Ballistic Missile Preparedness and Awareness; KEMA is the County lead, with support of on-island trained personnel from KPD, KFD, and the Department of Health, Kaua'i District Office. The State Department of Health, Kaua'i District Health Office is the on-island lead for all Public Health and Epidemiological emergencies; KEMA will assist with coordination amongst partners and relaying information to the public.

Actions that encourage hazards resiliency and community preparedness are provided below.

A. PERMITTING AND CODES CHANGES

1. Minimize coastal development in areas of high risk of erosion, flooding, tsunami inundation, and sea level rise.
2. Provide for adequate emergency shelters and communication systems in all planning districts.
3. Periodically review building codes and permitting standards for alignment with disaster risk reduction (DRR) efforts.
4. Designate areas to serve as public shelters when designing and constructing new public buildings.
5. Include conditions in transient vacation rental and homestay permits that require disclosure to visitors and occupants of hazard risks and instructions for evacuation in cases of natural hazards, such as tsunamis, hurricanes, or flooding. Require disclosure of hazards prior to reserving or booking.

B. PLANS AND STUDIES

1. Encourage community-based disaster resilience plans and incorporate components into future Community Plan updates. Plans should include an assessment of risks and vulnerabilities in the local economy to hazards.
2. Develop an inventory of Critical Infrastructure and Key Resources, according to the standards of the National Incident Management System (NIMS), which can be used for mitigation and disaster recovery efforts.
3. Work with the State Office of Conservation and Coastal Lands (OCCL) to update the *Coastal Erosion Mitigation Plan* for Kaua'i.
4. Identify and index communities that have existing disaster resilience plans. Provide support to current and ongoing community hazard risk reduction, mitigation, and planning efforts.
5. Periodically review and update the *Multi-Hazard Mitigation and Resilience Plan*.

C. PROJECTS AND PROGRAMS

1. Ensure that the County's GIS database, including all maps, data, and hazard information, is consistently available to all agencies. Facilitate data sharing through participation in the Hawai'i Geographic Information Coordination Council.
2. Update, maintain, and enhance the use of the County's GIS and database to improve decision-making and ensure consistency in planning, permitting, and construction regulations to reduce disaster risk.

D. PARTNERSHIP NEEDS

1. Designate evacuation routes, critical facility access routes, and public shelters in cooperation with local communities. Encourage storage of food and water in communities in order to encourage local recovery.
2. Encourage the integration of agricultural planning and coordination into disaster risk management to improve local food security, sustainability, and community resilience to hazards.
3. Plan for maintenance of critical facilities and infrastructure in the event of a hazard. Identify mitigation opportunities in utility service plans and implementation resources.
4. Improve public awareness materials distributed by the County through periodic updating with the best available data and maps.
5. Enhance channels to the community by distributing materials at outreach and community events, via online and printed media, discussion on radio and news media, and by incorporating into the process of community resilience planning.

ONLINE VERSION

ONLINE VERSION

exacerbated flooding, storm surge, and erosion due to sea level rise.

c. Strengthen rebuilding restrictions for non-conforming structures such that these structures are relocated a safe distance from the shoreline in hazardous areas.

d. Evaluate conditions that prohibit shoreline armoring.

7. Update the subdivision standards to:

   a. Restrict residential subdivisions in areas prone to current and future coastal hazards, including sea level rise.

   b. Outside of these natural hazards areas, provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources.

8. Periodically update the building codes to ensure that the standards for strengthening and elevating construction to withstand hazard forces in hazardous areas utilize the best available science and planning information.

9. When considering project alternatives during the environmental review process, evaluate relocation outside of hazardous areas, elevation of structures, and "soft" hazards such as beach nourishment. When considering environmental mitigation, incorporate climate resilience measures.

B. PLANS AND STUDIES

1. Conduct detailed hazard, risk, and vulnerability assessments for critical infrastructure and low-lying coastal communities when updated sea level rise, erosion rates, and wave inundation information is available.

2. Identify priority planning areas where resources and planning efforts need to be focused and identify how and where to use adaptation strategies such as accommodation, retreat, and protection.

3. Encourage strategic retreat and relocation to safer areas based on the results of the assessments above.

4. Use results of hazard, risk, and vulnerability assessments to inform adaptation strategies to be incorporated into Community Plans or other planning processes.

5. Acknowledge, support, and/or take part in university, government, and private efforts to develop planning information and guidance to address how accelerated sea level rise will affect erosion rates and wave inundation.

6. Support implementation of the Hawai'i Climate Adaptation Initiative (Act 83) and development of the *Sea Level Rise and Vulnerability Adaptation Report for Hawai'i* and the *Statewide Climate Adaptation Plan*.

C. PROJECTS AND PROGRAMS

1. In accordance with Hawai'i State Planning Act Priority Guidelines, consider multiple scenarios of SLR and associated flooding, wave inundation, and erosion impacts when developing and approving capital improvement projects.

D. PARTNERSHIP NEEDS

1. Work with the State Department of Land and Natural Resources (DLNR) to ensure conservation lands have appropriate vegetative ground cover to prevent soil erosion, including native and non-native plant species appropriate for Pu'u Ka Pele and Nā Pali-Kona Forest Reserve locations.

2. Ensure consistent public access to communications, warning systems, roads, and infrastructure in remote areas in the event of a hazard.

3. Consider incentive programs, such as a tax incentive program or a transfer of developments rights program, to relocate potential or existing development out of hazardous or sensitive areas. Consider creating a relocation fund through increased development fees, in lieu fees, or other funding mechanisms.

ONLINE VERSION

ONLINE VERSION

Table 3-4 Hawaiian Immersion Charter Schools

Name	Grades	Type	Description	Location
Ke Kula o Ni'ihau	K-12	Public Charter	Emphasis on perpetuating the language and culture of Ni'ihau.	Kekaha
Kula Aupuni Ni'ihau a Kahelelani Aloha (KANAKA)	K-12	Public Charter	Emphasis on acquisition of English and functional skills while sustaining Ni'ihau language for native speakers.	Kekaha
'Aha Pūnana Leo o Kaua'i	Pre-K	Private	Immerses 3-4 year-olds in Hawaiian language and provides curriculum through a cultural- and 'ohana-oriented context.	Puhi
Kawaikini New Century Public Charter School (NCPCS)	K-12	Public Charter	The school's vision is "a thoughtful, knowledgeable, and healthy community where the language, beliefs, and practices of the indigenous people of Hawai'i have become instinctive."	Puhi
Kanuikapono	K-12	Public Charter	Provides programs designed to improve the educational achievements of youth and families through Hawaiian culture and nature-based programs.	Anahola

others. Between 2000 and 2015, Kaua'i public school enrollment declined by 1,400 students – making current enrollment far below the projected increase in the previous General Plan. Despite this decrease, the State DOE estimates that enrollment will increase from approximately 9,300 in 2015 to 11,500 by 2035.

School facilities also serve vital community functions, such as being venues for public meetings, religious services, and events. In many cases they function as public shelters in the event of hurricane and tsunami events.

In addition to public schools, Kaua'i has a number of small but active private and charter schools. Some of these schools are based on religious belief while others provide alternative educational experiences. Kaua'i's four Hawaiian immersion schools help sustain the Hawaiian language and culture.

The County's main role is to coordinate with the State DOE over siting of new schools and to help guide facility expansion in the case of new development. This includes ensuring there are proper and supportive land uses and safe transportation networks adjacent to schools.

2.3 Improving K-12 Education beyond the Classroom

As supported in the State DOE Strategic Plan, schools should serve the community by graduating students who are ready to become positive and contributing community members. This includes reducing bullying and preparing youth for careers. The Keiki to Career Program is a network of 40 community organizations that collaborate to strengthen families, reduce bullying, and assist schools with real-world relevancy, financial literacy training, and career preparation. In addition, more lifelong learning and inter-generational education is needed, particularly for developing stronger and more supportive parenting.

The County and Kaua'i's business community should work in concert with local K-12 schools to better prepare the next generation of the 21st century workforce. In an effort to produce high school graduates with fundamental workforce-ready skills, local businesses and employers will partner with educators to provide teachers and students with training opportunities outside of the classroom. Also, educators should coordinate with local businesses and entrepreneurs to incorporate Kaua'i-specific learning opportunities

ONLINE VERSION

ONLINE VERSION

into their DOE-approved curricula. This would expose high school graduates to the local job market and help develop interest in working and remaining on island. By establishing these types of working relationships between K-12 programs and the economy, students can be encouraged to enter the local workforce and improve upon it.

2.4 Supporting the Kaua'i Community College and Increasing Training Opportunities

Kaua'i Community College (KCC), part of the University of Hawai'i system, is Kaua'i's only post-secondary educational facility and offers several associate degree programs. In addition to academic training, the college provides technical, vocational, and cultural learning programs. Sustainability, agriculture, and science have become a focus of recent programs and initiatives at KCC. The college is undertaking a master planning effort to increase student enrollment and guide facility development.

'A'ohe o kāhi nānā o luna o ka pali; iho mai a lalo nei; 'ike i ke au nui ke au iki, he alo a he alo.

The top of the cliff isn't the place to look at us; come down here and learn of the big and little current, face to face.

Many community members were concerned that the lack of a university on Kaua'i forces keiki to seek their bachelor's and advanced degrees off-island, which results in a "brain drain" of local talent. On-campus housing would encourage neighbor island and out-of-state enrollment, and support the students and faculty who otherwise have long commutes. Although KCC has considered expanding its capacity with respect to on-campus housing and four-year university accreditation, there are no plans to pursue such changes in the near future. Nonetheless, the potential for expansion shall remain given the recent establishment of the University Zoning District in the Comprehensive Zoning Ordinance and the SLUD boundary amendment from Agriculture to Urban. Given its location in Līhu'e, a major growth area, there is room for the campus to develop and expand needed facilities. Additionally, as more infill development and missing middle housing occurs in Līhu'e, this will increase the range of housing types available to students. To support this, the Future Land Use Map designates the campus area as "University," a new designation in the General Plan intended to facilitate the growth and development of KCC.

2.5 Supporting the Language, Culture, and Knowledge of Kaua'i

The number of public charter schools in Hawai'i is growing as parents look for alternatives to public school curriculums. Charter schools are smaller in size, provide for multiple-grade level integration, multiple-discipline projects, and place-based learning. Many are focused on the Hawaiian language and culture.

It is said that understanding the language of a place allows one to see life through the eyes of its original people. In this context, schools that focus on the Hawaiian language and culture provide children with a way of understanding and interacting with the world and people around them in the same way ancestors of our island were able to. It is typical for Hawaiian language-based schools to include the learning of moon phases and agriculture as part of science and math education. Field trips take classroom lessons outdoors to learn about nature and caring for the land. Older children are made responsible for younger ones while younger children are in turn given responsibilities in keeping with their role in the 'ohana or society. Learning English and "western concepts" are usually integrated at some level at all schools. For children who are native speakers, there are schools that specialize in improving English skills and the understanding of western concepts in order to increase their success in college and future careers.

On Kaua'i, there are several private and public charter schools (pre-K to 12) whose curriculum is rooted in Hawaiian language, culture, and values.

Enrollment of Hawaiian language and culture-based schools has steadily grown across the State since the establishment of the very first Hawaiian language school, 'Aha Pūnana Leo on Kaua'i in 1982. Table 3-4 lists Hawaiian Immersion Charter Schools on Kaua'i. As the schools grow and graduate more speakers of Hawaiian language and students of Hawaiian culture, it will be important to continue support of integration of language and culture in all aspects of community, in order to perpetuate the identity of Kaua'i and support communities and jobs stemming from this knowledge base.

ONLINE VERSION

ONLINE VERSION

3.3 Advancing Native Hawaiian Health Equity

Native Hawaiian health has been a long-standing equity issue in Hawai'i. Recorded health disparities led to the enactment of the Native Hawaiian Health Care Act of 1988 which established Papa Ola Lokahi in Hawai'i, including Ho'ola Lahui Hawai'i, which is Kaua'i's Native Hawaiian Health System. One of their programs, Malama I Na Pua Program, raises health awareness among Native Hawaiian youth who attend a Hawaiian Language Charter School. In 2013, continued health equity concerns led the State Legislature to establish a Native Hawaiian Health Task Force to improve the health of Native Hawaiians. The work of the task force will also impact other Pacific Islanders and the community as a whole.

3.4 Addressing Substance Abuse

Life Choices Kaua'i was created in 2003 to deal with Kaua'i's substance abuse issues. Since then, headway has been made in certain areas. For example, the number of drug-related offenses by adults has dropped from 290 in 2010 to 58 in 2014.[57] However, many community members feel the increasing use of meth and other serious drugs is a top community issue, especially for youth. The *2015-2020 Kaua'i Drug Response Plan* calls for a continuum of on-island treatment facilities and services. For example, the County has a need for a residential treatment facility. It is expensive to send those in need to O'ahu, especially as treatment is often a lengthy process. An adolescent treatment and healing center is being planned for Kaua'i that would provide residential substance abuse treatment and healing services.

3.5 Anticipating Future Threats to Community Health

In 2015, a legislative report acknowledged that climate change will intensify existing and cause new health threats, including acute and chronic disease, stress and mental health issues, and dengue fever and other vector diseases.[58] These impacts will more heavily fall on vulnerable populations, including the elderly and households experiencing poverty.

The following actions are comprehensive in nature and address broad community health needs.

A. PERMITTING AND CODE CHANGES

1. Provide access to frequent and convenient public transit near major job centers and health care facilities.
2. Ensure community design supports healthy and active lifestyles.
3. Consider zoning options that limit new fast food restaurants close to schools, daycare centers, or parks.
4. Support the built environment and land use recommendations provided by the Native Hawaiian Health Task Force and similar community health initiatives.

B. PLANS AND STUDIES

1. Include community health concerns in community planning.
2. Implement and update the *Kaua'i Community Drug Response Plan*.
3. Implement and update the *Kaua'i Plan on Aging*.
4. Implement and update the *Kaua'i Community Health Improvement Initiative*.

C. PROJECTS AND PROGRAMS

1. Prioritize sidewalk and bus stop improvements for accessibility near major health care facilities and group homes.
2. Improve the connectivity of essential services, including emergency response.
3. Ensure that low-income neighborhoods have high-quality parks, playgrounds, and green spaces.
4. Leverage Federal resources such as community development block grants and neighborhood-focused programs to create opportunity-rich neighborhoods.
5. Adopt policies for smoke-free cars with keiki, beaches, parks, and condos.

57 *2015-2020 Kaua'i Drug Response Plan*
58 *Climate Change and Health Working Group Report,* 2015

ONLINE VERSION

ONLINE VERSION

is not allowed or desirable due to environmental, public safety, and other concerns. On the beach near and adjacent to PMRF, national and U.S. Department of Homeland Security laws preempt State laws and public access is restricted. However, the overall need is for increased and improved public access to the shoreline.

4.2 Protecting Native Hawaiian Access Rights

Protecting access for Native Hawaiian traditional and customary gathering practices is guaranteed in the Hawai'i State Constitution. In addition to protecting development and private property interests, agency decisions must make specific findings related to the identification of traditional and customary practices in existence on land proposed for development and potential impacts of any proposed development. Decisions should include actions to reasonably protect cultural rights to the extent feasible. Case law, including the Pele Defense Fund v. Paty case; Public Access Shoreline Hawai'i, also known as PASH; and the Ka Pa'akai O Ka 'Āina cases reaffirm the State's duty to protect access to traditional and customary rights, such as gathering rights on the shoreline and upon land.

4.3 Increasing Access to Privately Owned Recreational Space

There are many valued recreational, cultural, and scenic resources that are privately owned or accessed through private property. Privately held recreational space include waterfalls and undeveloped coastal areas including Kīpū Kai and Māhā'ulepū. Such areas are used for hiking, hunting, gathering, swimming, and other reasons. These areas also include wahi pana, such as heiau and known burial sites. Unfortunately, the trend is toward lessening public access to these areas due to liability concerns, desire for privacy, and other reasons. For example, many waterfalls that were previously popular swimming holes are now closed, including Kīlauea, Kīpū, and Ho'opi'i Falls. When such resources become popular, especially with the rise of social media, they are vulnerable to overuse, vandalism, and littering, as well as increased risks of user injury and death. These concerns often spur private landowners to restrict access. Liability concerns can be addressed through a variety of legal and land use tools. However, the use of these tools requires specialized knowledge and a willingness on behalf of the landowner to protect and improve access. Public land trusts, such as the Hawaiian Islands Land Trust, exist to support partnerships and solutions to increasing access.

4.4 Improving Access through County Initiatives

In 2002, the County's Public Access, Open Space, and Natural Resources Preservation Fund Commission was established to manage the "Public Access, Open Space, and Natural Resources Preservation Fund." This commission is commonly referred to as the Open Space Commission. The fund is intended for property or easement acquisition for access to beaches and mountains, preservation of cultural and historic sites, and other conservation purposes. In Fiscal Year 2017-2018, the fund earned 0.5 percent of the County's real property tax revenue. Priority projects are updated and discussed in the Commission's annual report. Given the limitations of the fund, there is also an opportunity for the Commission to work with the State and non-profit organizations, such as land trusts, and on collaborative projects that will increase public access to Kaua'i's special places.

A. PERMITTING AND CODE CHANGES

1. Require a minimum accessway width of 10 feet and locate accessways at convenient intervals.
2. Protect and preserve mauka and makai access for traditional Hawaiian cultural practices.
3. Require identification and mitigation of potential impacts of subsistence activities and resources when reviewing development permits.

B. PLANS AND STUDIES

1. Maintain, inventory, and provide information on legal public accessways to beaches and inland recreation areas. Conduct research on easement documents that have been executed or signed but not recorded.
2. Create regional networks of public trails. Partner with private landowners for missing connections via managed access.
3. Explore solutions for protecting access to recreational opportunities, including fishing, hunting, surfing, hiking, and other activities in community planning.

ONLINE VERSION

ONLINE VERSION

Table 4-1 General Plan Objectives and Draft Performance Measures

Objective	Draft Measures (* indicates the measure aligns with the Aloha+ Challenge Measures)
1. To accommodate and support Kaua'i's projected population growth and housing needs.	Conformance with population allocations
2. To meet future housing needs through "missing middle" housing types that are affordable by design.	Building type of new residential units
3. To protect rural character by ensuring new growth designed to be compact and focused around existing town cores.	Consistency with the Future Land Use Map
4. To manage land use and development in a manner that respects the unique character of a place.	Development under Special Planning Areas
5. To locate residential growth in and near jobs centers.	Housing units within 1/2 mile of major jobs centers Reduction in average commute time
6. To increase overall community health through design that supports safe and accessible parks, streets, and other shared spaces.	Non-commute mode share
7. To encourage the development of Līhu'e as Kaua'i's primary urban center within an urban edge boundary.	Development within Urban Edge Boundary
8. To increase resiliency by limiting new development in areas impacted by future sea level rise.	Development in flood zone/sea level rise impacted areas
9. To conserve the upper watershed and restore native habitat and forested areas.	Acres of Native Watershed under high level protection*
10. To protect, restore, and enhance freshwater resources to support aquatic, environmental, and cultural resources.	Increase in fresh water capacity by 100 mgd*
11. To preserve and protect sandy beaches and public access to the shoreline.	Health of reefs
12. To protect the flora and fauna unique to Kaua'i and Hawai'i and to mitigate the impact of invasive species.	Manage Federally listed threatened and endangered species*
13. To increase housing opportunities for low- to moderate-income households.	New affordable housing units
14. To support mixed use, higher density, and walkable development in existing towns.	New Housing Units in Neighborhood General and Neighborhood Center
15. To develop compact, walkable communities consistent with the Future Land Use Map.	Entitled projects consistent with Future Land Use Map
16. To expand housing opportunities for workers on farms.	New farm worker housing units
17. To support the Department of Hawaiian Home Lands in their mission to provide housing to their beneficiaries.	New lots awarded in DHHL communities

ONLINE VERSION

ONLINE VERSION

Objective	Draft Measures (* indicates the measure aligns with the Aloha+ Challenge Measures)
18. To accommodate the needs of an aging population through age-friendly community design and assisted living facilities.	New elderly housing units or assisted living facilities
19. To reduce Kaua'i's population of those who are houseless and at risk for houselessness.	Houseless population
20. To reduce the impact of resort uses on communities outside the Visitor Destination Area.	Attrition of nonconforming use
21. To safely and efficiently move people and goods with a choice of transportation options.	Mode shift in overall trips
22. To provide a safe and accessible County road network that supports the Future Land Use Map.	New roads or retrofits designed to be context sensitive Crashes with fatalities
23. To enhance the viability of transit as a transportation choice for residents and visitors.	Transit ridership
24. To create connected and safe bicycle networks that accommodate all riders.	Miles of bicycle facilities Bicycle crashes
25. To provide connected and safe pedestrian facilities in communities.	Miles of pedestrian facilities Crashes involving pedestrians
26. To implement efficient parking strategies that support community needs.	Parking audits or strategies implemented
27. To ensure water infrastructure is planned to accommodate domestic needs and protect the public trust.	Water improvements in Urban Center, Neighborhood General, and Neighborhood Center designations
28. To mitigate the impact to Kaua'i's fresh and ocean waters from wastewater.	Number of cesspools
29. To provide environmentally-sound waste disposal and collection services.	Tons recycled*
30. To support the modernization and user-friendliness of Kaua'i's airports and harbors.	Capital expenditures for Kaua'i's airports and harbors
31. To develop town centers as attractive places to work, live, and play.	Zoning and use permit applications in the Neighborhood Center designation
32. To provide a variety of quality and accessible parks and recreational facilities.	Percentage of households within walking distance of park with facilities
33. To expand and improve access to Kaua'i's shared-use paths and trails.	Miles of shared use paths and trails

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Objective	Draft Measures (* indicates the measure aligns with the Aloha+ Challenge Measures)
34. To improve the resident and visitor experience at Kaua'i's State Parks.	Capital expenditures for State Parks
35. To focus new resort development in areas designated for visitor use.	Visitor Unit Inventory
36. To ensure the long-term viability and productivity of agricultural lands.	Agricultural employment
37. To promote opportunities for small business and emerging economic sectors to thrive.	Number of small businesses CEDS programs implemented
38. To preserve and enhance historic buildings, structures, and places.	Places recognized on Federal or national registry
39. To recognize and protect the resources and places important to Kaua'i's history and people.	Stewardship agreements
40. To preserve important landmarks and protect scenic resources.	Number of scenic resources identified through community plans
41. To increase energy self-sufficiency and maintain a reliable, resilient, and cost-efficient energy system.	Increase in renewable energy*
42. To acknowledge the human contribution to global warming and reduce Kaua'i's greenhouse gas emissions.	Decrease in emissions*
43. To ensure adequate coverage of public safety and emergency services as Kaua'i grows.	Deaths due to drowning and other hazards
44. To ensure that Kaua'i is prepared for natural disasters and other emergencies.	Number of residents trained under the Community Emergency Response Team Program
45. To prepare for the impacts of climate change on the natural and built environments.	Percentage of areas impacted by sea level rise that is undeveloped
46. To recognize and address inequities in health and well-being among Kaua'i's diverse ethnic, racial, and income groups.	Decrease in inequity between racial groups
47. To support educational programs that foster cultural knowledge, employability, and civic participation of local residents.	Kaua'i Community College enrollment
48. To encourage healthy lifestyles and accessible health care.	Obesity rate
49. To actively protect and increase access to the places where recreational and subsistence activity occurs.	Identified and signed accessways

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5.3 HERITAGE RESOURCE MAPS

The General Plan's set of Heritage Resources Maps includes an island map and six district maps at a larger scale. These maps document important natural, scenic, and historic features, particularly in relation to the urban and agricultural lands that are developed or may be developed in the future, including:

- Registered Historic Sites (State/Federal)
- Cultural Features
- Priority Public Access Points
- Fishponds
- Streams & Waterbodies
- Wetlands
- Major Roads
- Planning District Boundaries
- Traditional Cultivation Areas
- Ahupua'a Boundaries
- Coral Reefs
- Scenic Corridors
- State & County Parks
- Preserves
- Reservoirs
- Regulated Fishing Areas
- Open Space Acquisition Priorities
- Sand Dunes
- Threatened & Endangered Species
- Critical Habitat

Purposes of the Heritage Resource Maps

The purposes of the Heritage Resource Maps are:

- To depict natural, cultural, and scenic resources that are important to the County of Kaua'i and that are intended to be conserved. The mapping of important landforms, streams, and other physical elements represents the general location of the resource. The mapping of historic and archaeological sites, other features, and Scenic Roadway Corridors is intended to be representational, not precise.
- To classify important landforms that shall be designated as "Natural" on the General Plan Land Use Map and shall be zoned accordingly, in order to protect steep slopes and streams from erosion and to protect landforms from development that might affect scenic views.
- To be a guide when preparing Community Plans and in preparing or revising land use ordinances and rules, including but not limited to the following: revisions to the Comprehensive Zoning Ordinance or the Zoning Maps, zone change ordinances, revisions to the Special Management Area (SMA) rules or boundaries, revisions to the Subdivision Ordinance, and the preparation of new ordinances or rules, such as a Scenic Roadway Corridor ordinance.
- To be a reference for projects undertaken with State or County lands or funds shall be designed to conserve heritage resources.
- To guide in the review of subdivision and land use permit applications, but may not be used alone to prohibit a land use that is allowed by the Comprehensive Zoning Ordinance or by permit.

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Table 5-1 Kaua'i Island Transportation Roadway Map Key

IMPROVEMENTS TO EXISTING ROADS
1. Kīlauea Road Multimodal Access Improvements to Kīlauea Lighthouse National Wildlife Refuge
2. Multimodal capacity improvements to Kawaihau Road
3. Widen the northern segment of Kapa'a Bypass Road to two-lane and two-way from the northern end of the Bypass to the roundabout at Olohena Road
4. Operational improvements such as signalization and left turn restrictions on Kūhiō Highway from Kapa'a Town to Kuamo'o Road
5. Add one lane on Kūhiō Highway from southern end of Kapa'a Bypass Road to Kuamo'o Road
6. Extension of right turn lane on Haleilio Road at Kūhiō Highway
7. Add one lane on Kūhiō Highway from Kuamo'o Road to Kapule Highway
8. Implementation of Līhu'e TIGER Grant Project Improvements
9. Congestion Management project on Kaumuali'i Highway from Anonui Street to Maluhia Road
10. Multimodal capacity improvements to Po'ipū Road
NEW ROADS
11. (a) New Kīlauea Entry Road; and (b) Kīlauea Entry Road Expansion
12. Connections between Kapa'a Bypass Road and Neighborhoods
13. Connection between Kūhiō Highway and Kapa'a Bypass Road
14. Connection between Kuamo'o Road and Ma'alo Road
15. Līhu'e Mauka Route
16. Northerly Leg of the Western Access Road
SHARED USE PATHS
17. North Shore Path (alignment location and phases to be determined)
18. Completion of Ke Ala Hele Makalae from Ahihi Point to Anahola
19. Completion of Ke Ala Hele Makalae to Līhu'e
20. South Shore Path (see South Kaua'i Community Plan)
21. West Side Path (Phase 1 Hanapēpē Town to Salt Pond and Waimea to Kekaha. Future phases and alignments to be determined)
Projects in this table are not listed in order of priority. Numbers refer to Figure 5-36, which maps these projects geographically. Other types of projects not listed include safety (such as Safe Routes to School and intersection improvements) and system preservation (such as resurfacing and bridge replacement/repair). Other bikeway projects are noted in community plans and the Kapa'a Transportation Solutions Plan.

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Population Projections by Planning District

As shown on Table 2 and Figure 4, a great majority of population growth is planned to occur in the Līhu'e and South Kaua'i districts (Kōloa-Po'ipū-Kalāheo). The Līhu'e district had 21.9 percent of Kaua'i's population in 2010 and is expected to house 26.6 percent in 2035. The Kōloa-Po'ipū-Kalāheo area had 17.4 percent of the County population in 2010 and will have up to 18.5 percent on 2035.

Policies and actions to address this anticipated growth are reflected in the Community Plans for the Līhu'e and South Kaua'i Districts that were completed and adopted in 2015. The percentage of the County's population in each of the remaining districts will decrease slightly by 2035.

The Līhu'e District is expected to absorb nearly half of the island's population growth through 2035, in keeping with the County's policy of designating Līhu'e as the island's main center of population and employment.

Table 2. Kaua'i County Population, Island-wide and By District (1990-2035)

Year	1990	2000	2010	2020	2030	2035
County of Kaua'i	51,676	58,463	67,091	74,693	83,328	88,013
Līhu'e	11,169	12,507	14,683	18,017	21,595	23,456
South Kaua'i	9,600	10,545	11,696	13,623	15,737	16,855
Hanapēpē-'Ele'ele	3,873	4,362	6,157	6,463	6,860	7,094
Waimea-Kekaha	4,698	5,660	5,561	5,901	6,323	6,566
North Shore	5,913	6,605	8,002	8,286	8,686	8,933
East Kaua'i	16,192	18,784	20,992	22,403	24,128	25,110

Jobs Trends Since the 2000 General Plan

The 2000 General Plan used a high and low estimate for jobs, as a factor of population growth. Figure 5 shows that number of actual jobs on Kaua'i in 2010 was higher than the high estimate predicted in the last General Plan. However, the rate of job growth, indicated by the slope of the lines on the graph, is closer to the low estimate contained in the 2000 General Plan. This slower rate of growth means that if the 2000 GP estimates are projected beyond 2020, the job numbers would likely to be closer to the low estimate provided in the 2000 General Plan.

County-Wide Job Projections

According to the 2014 Socioeconomic Analysis and Forecasts technical report prepared for the GP Update, average annual job growth for the County of Kaua'i is expected to equal 0.79% between 2015 and 2020. Between 2020 and 2030, job growth is expected to occur at an average annual rate of 0.66%. The rate is expected to dip again to 0.53% during the period between 2030 and 2035, adding less than 1,000 jobs. Economic opportunity is a key issue for Kaua'i moving forward, to ensure that Kaua'i's residents not only have access to jobs, but can earn a living wage that can support housing and transportation needs.

Job Projections by Planning District

The Līhu'e Planning District has historically been the main job center on Kaua'i. With the policy to direct the majority of future growth to Līhu'e, that trend is expected to continue for the next 20 years, with more jobs and a higher growth rate. The South Kaua'i and the East Kaua'i Districts have the next highest volumes of jobs in the County.

Between 2010 and 2035, average annual job growth for Kaua'i's six planning districts is expected to range from 1.23 percent for Līhu'e to 0.37 percent for the

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Table 3. Kaua'i County Jobs By District (1990-2035)

Year	1990	2000	2010	2020	2030
County of Kaua'i	30,350	28,150	31,900	34,000	34,900
Līhu'e	12,473	12,554	14,519	15,820	16,403
South Kaua'i	5,299	5,027	5,617	5,892	6,003
Hanapēpē-'Ele'ele	999	695	779	821	838
Waimea-Kekaha	1,888	1,791	1,986	2,064	2,094
North Shore	4,143	3,513	3,801	3,839	3,839
East Kaua'i	5,548	4,570	5,199	5,565	5,724

North Shore district. From approximately 2016-2020, Līhu'e is expected to have an average annual job growth rate of 1.06 percent. In the following decade, this rate is projected to be slightly lower (0.90% per year) and between 2030 and 2035, Līhu'e's anticipated annual growth rate for jobs is 0.74 percent.

Over the two decades preceding this General Plan, a substantial number of jobs were generated within the visitor industry (arts, entertainment, recreation, accommodations, and food services). While Līhu'e has had fewer of these jobs than the rest of the County (20% vs. 22% in 2010), the difference is not large. On the other hand, Līhu'e District has had larger shares of non-visitor industry jobs in several areas, including retail trade (18% vs. 12%); transportation, warehousing, and utilities (8% vs. 5%); finance insurance and real estate (7% vs. 5%); public administration (7% vs. 5%); wholesale trade (3% vs. 2%); and the information industry (3% vs. 1%). Most of the types of jobs projected by DBEDT to increase are included in the job types listed above. Thus, it is assumed that Līhu'e will continue to hold its position as the center for employment in the County and to increase the percentage of new jobs compared to other districts.

Households

The number of households[53] in the County is a function of the population in any given year and the average household size. The Census equates a household with an occupied housing unit.

Historical data for the number of households on Kaua'i was taken from the U.S. Decennial Census for Hawai'i in 1990 and 2000, and from the American Community Surveys for 2008 through 2011. Data from the Hawai'i Housing Planning Study, 1992, 1997, 2003, 2006, and 2011 were used to supplement this historical data. The same sources provide figures for household size and persons living in group quarters.[54] Persons per household data were obtained from the Decennial Census for 1990 and 2000. American Community Survey data was included for 2008 through 2011.

The forecast method for households employed three steps:

1. Determine the number of persons per household, defined as the ratio of total persons in the population to total households.
2. Forecast the persons per household.
3. Divide the persons living in households by the

53 The U.S. Census Bureau defines a household as those persons who reside in a residential housing unit. Residents are defined as persons who report that the residence is their usual place of residence, sleep there most of the time, and take their meals there. Persons who reside at the housing unit for less than five months of the year are not considered part of the household. Households may be family households or non-family households, which can include some unrelated individuals. The household size is the number of individuals who reside in a given housing unit.

54 Persons who do not live in households are classified as "In Group Quarters." Their number includes persons in institutionalized settings (hospitals, prisons, dormitories, nursing homes, etc.) and groups of unrelated individuals occupying a housing unit.

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APPENDIX D – SEA LEVEL RISE MAPS

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APPENDIX F – ENTITLED PROJECTS BY DISTRICT

Entitled Projects on Kaua'i

Kaua'i has a number of projects that have been entitled or are at various stages of approval. These planned projects may accommodate projected future demand of certain land uses. Many have been "on the books" for years with little to no progress. Because many permits run with the land in perpetuity, the County must take its development potential into account when planning for future land use patterns.

An analysis of existing entitled lands on Kaua'i was undertaken as part of the General Plan process to identify and quantify these lands that may be subject to future development. This Appendix describes the methodology and results of that analysis.

Methods

Data on entitled projects was collected from the COK Planning Department:

- Major projects with an existing PDU or Class IV Zoning Permit; and
- Large zoned projects, with or without subdivision approvals, but with a master plan.
- Projects at the Land Use Commission, requesting SLUD Boundary Amendment

Entitled projects were mapped and tabulated by district and project type (Housing, Commercial, Resort)

Caveats

- Many of these projects have been on the books for years and their current status is uncertain.
- Build-out is subject to multiple factors not within County's control: the market, construction costs, landowner willingness, State DOT infrastructure requirements, etc.
- There are no expirations on certain types of County permits, meaning that once projects are entitled, there are limited options for modifying or preventing them from proceeding.

How the Analysis was Used

- This analysis, along with the Land Use Buildout Analysis, represent key pieces of information that tell us how Kaua'i will grow over the next twenty years and identify opportunities that exist for shaping that growth to meet the vision.
- The understanding of where growth is planned and desired to occur informed the development of land use policy and maps.

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Entitled Residential Projects by District

District	Project Name	Housing Units
East Kaua'i	Pi'ilani Mai He Kai (DHHL Anahola)	49%
	Kulana	
	Kapa'a Highlands, Phase 2	
	TOTAL	**1,122**
'Ele'ele	A&B 'Ele'ele Residential	201
	Lima Ola (Affordable)	450
	TOTAL	**651**
Līhu'e	DHHL Wailua, Phase 1	188
	Kohea Loa - D.R. Horton	444
	Pikake Subdivision	146
	Grove Farm Wailani Residential	1,450
	Koamalu	220
	Waiola Phase I	47
	Waiola Phase II	56
	Waiola Phase II	93
	TOTAL	**2,644**
North Shore	Kolopua (Princeville Affordable)	44
	TOTAL	
South Kaua'i	Brydeswood Ranch (A&B)	24
	Kōloa Creekside	72
	Kukui'ula Employee Housing	100
	Kukui'ula	750
	The Village at Kōloa Town	34
	Kōloa Camp - Waihononu	50
	CIRI (CLDC) Subdivision	10
	TOTAL	**1,040**
Waimea	Kekaha lots	40
	Kīkīaola Mauka	270
	Kīkīaola - Field 14	56
	TOTAL	**366**
	TOTAL	**5,867**

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Entitled Commercial Projects by District

District	Project Name	Commercial Square Footage
Kōloa	Kōloa Rum Company Store and Café	9,000
	TOTAL	**9,000**
Līhu'e	Hokulei Village	222,000
	Grove Farm Wailani Commercial	1,132,299
	Weinberg Foundation Renovation	24,250
	Kukui Grove Commercial Buildout	96,000
	Weinberg Foundation/Ahukini	20,000
	TOTAL	**1,494,549**
North Shore	Kīlauea Crossings	6,070
	Kīlauea Town Center	46,800
	Hanalei Halelea Office	2,000
	TOTAL	**54,870**
South Kaua'i	Village at Kōloa Town	96,000
	Kukui'ula ABC Store	21,000
	Kōloa Marketplace	76,000
	Old Glass Warehouse	7,200
	TOTAL	**200,200**
	ISLAND TOTAL	**1,758,619**

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Residential

Map #	Project Name	Housing Units	GP Land Use Designation	Status
1	Kūlana	172	Agriculture	Permitted as Agricultural Development
2	Kapa'a Highlands Phase II	769	Urban Center, Agriculture, Open	Seeking SLU Amendment
3	Pi'ilani Mai He Kai (DHHL Anahola)	181	Urban Center, Agriculture, Open	Phase II Began 2012
	TOTAL	**1,122**		

Resort

Map #	Project Name	Housing Units	GP Land Use Designation	Status
4	Coconut Plantation	192	Resort	Submitted annual status report (2/8/11)
5	Coco Palms	350	Resort	Approved March 2015
6	Coconut Beach Resort	335	Resort	Construction to start 2015
	TOTAL	**1,122**		

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APPENDIX G – ACTION MATRIX

Label Key

The following matrix lists actions included in Chapter 2.1 and Chapter 3. The first column of the matrix lists the action's label, which corresponds to its section in the General Plan. The action matrix label key is listed below.

LABEL FULL NAME

WA The Watershed
WA A Wao Nahele - The Upper Watershed
WA B Kahawai - Middle Watershed, Drainage, and Freshwater Resources
WA C Kahakai - Coastal Areas and Shorelines
WA D Threatened and Endangered Species
HO Housing
HO A Affordable Housing
HO B Infill Housing
HO C New Communities
HO D Agriculture Worker Housing
HO E Hawaiian Home Lands
HO F Elderly Housing and Assisted Living Facilities
HO G The Houseless Population
HO H Impact of Resort Uses on Housing Inventory
LT Land Transportation
LT A General
LT B County Roads
LT C Transit Program
LT D Pedestrian Program
LT E Bicycle Program
LT F Parking Management
CI Critical Infrastructure
CI A Domestic Water
CI B Wastewater, Septic Systems, and Cesspools
CI C Solid Waste Disposal and Recylcing
CID Airports and Harbors
SS Shared Spaces
SS A Town Centers
SS B Parks
SS C Linear Parks and Trails
SS D State Parks
EC Economy
EC A Tourism
ECB Agriculture
ECC Small Business & Promising Economic Sectors
HR Heritage Resources
HR A Historic Buildings, Structure, and Places
HR B Wahi Pana, Cultural Sites, and Resources
HR C Landmarks and Scenic Resources
ES Energy Sustainability & Climate Changes Mitigation
ESA Energy Sustainability
ESB Reduction of Greenhouse Gas Emissions
PS Public Safety & Hazards Resiliency
PSA Police, Fire, Ocean Safety, Emergency Services
PSB Hazard Resiliency
PSC Global Warming and Climate Change Adaptation
OH Opportunity & Health for All
OH A Social Equity
OH B Access to Quality Education and Training
OH C Community Health
OH D Access to Recreation and Subsistence Activities
LU Future Land Use

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Action Objectives

The last column of the matrix lists the action's corresponding objective number. Objective numbers are listed below.

The Watershed

1: To conserve the upper watershed and restore native habitat and forested areas.

2: 1) To protect, restore, and enhance freshwater resources to support aquatic, environmental, and cultural resources; and, 2) to recognize and mitigate impacts from the built environment to the mid-watershed area.

3: To protect and enhance coastal resources and public access to the shoreline.

4: To protect the flora and fauna unique to Kaua'i and Hawai'i and to mitigate the impact of invasive species.

Housing

5: To increase housing opportunities for low to moderate income households.

6: To support mixed use, higher density, and walkable development in existing towns.

7: To develop compact, walkable communities consistent with the Future Land Use Map.

8: To expand housing opportunities for workers on farms.

9: To support the Department of Hawaiian Homelands in their mission to provide housing to their beneficiaries.

10: To accommodate the needs of an aging population through age-friendly community design and assisted living facilities.

11: To reduce Kaua'i's population of those houseless and at risk for houselessness.

12: To reduce the impact of resort uses on communities outside the Visitor Destination Area.

Land Transportation

13: To safely and efficiently move people and goods about Kaua'i by creating a more multimodal land transportation system. As a percentage of total trips, increase transit trips to 3.6%, walking trips to 11.5%, and bicycle trips to 7.6% by 2035 using 2010 data as a baseline.

14: To provide a safe and accessible County road network that supports the Future Land Use Map.

15: To enhance the viability of transit as a transportation choice for residents and visitors.

16: To provide connected and convenient pedestrian facilities in communities.

17: To create connected and safe bicycle networks that accommodate all riders.

18: To implement parking strategies that support community needs.

Critical Infrastructure

19: To ensure water for Kaua'i's water needs under the Public Trust Doctrine and integrate traditional ahupua'a methods of preserving water for future generations—not taking more than is needed and leaving enough for everyone.

20: To preserve and protect our fresh and ocean waters and other water resources from wastewater and other pollutants.

21: To provide environmentally-sound waste disposal and collection services with a goal to reduce the solid waste stream by 70 percent.

22: To support the modernization and user-friendliness of Kaua'i's airports and harbors.

Shared Spaces

23: To develop town centers as attractive places to work, live, and play.

24: To provide a variety of quality and accessible parks and recreational facilities.

25: To expand and improve access to Kaua'i's shared-use paths and trails.

26: To improve the resident and visitor experience at Kaua'i's State Parks.

Economy

27: To focus new resort development in areas designated for visitor use.

28: To ensure the long-term viability and productivity of agricultural lands.

29: To promote opportunities for small business and emerging economic sectors to thrive.

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Heritage Resources

30: To preserve and enhance historic buildings, structures and places.

31: To recognize and protect the resources and places important to Kaua'i's history and people.

32: To preserve important landmarks and protect scenic resources.

Energy Sustainability & Climate Change Mitigation

33: To increase energy sustainability and maintain a reliable, resilient, and cost-efficient energy system.

34: To expand strategies and mechanisms to reduce greenhouse gas emissions on Kaua'i.

Public Safety & Hazards Resiliency

35: To ensure adequate coverage of public safety and emergency services as Kaua'i grows.

36: To ensure that Kaua'i is prepared for natural disasters and other emergencies.

37: To prepare for and adapt to the impacts of climate change on the natural and built environments.

Opportunity & Health for All

38: To recognize and address inequities in health and well-being among Kaua'i's diverse ethnic, racial, and income groups.

39: To support educational programs that foster cultural knowledge, employability, and civic participation of local residents.

40: To encourage healthy lifestyles and accessible health care.

41: To actively protect, restore, and increase access to the places where recreational and subsistence activity occurs.

Future Land Use

42: 1) To accommodate Kaua'i's projected population growth and housing needs. 2) To meet future housing needs through "missing middle" housing types that are affordable by design and located near jobs centers. 3) To protect rural character by ensuring new growth is designed to be compact and focused around existing town cores. 4) To manage land use and development in a manner that respects the unique character of a place. 5) To locate residential growth in and near major jobs centers. 6) To increase overall community health through design that supports safe and accessible parks, streets, and other shared spaces. 7) To encourage the development of Līhu'e as Kaua'i's primary urban center within an urban edge boundary. 8) To increase resiliency by limiting development in areas impacted by future sea level rise.

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1. PERMITTING ACTIONS AND CODE CHANGES				
#	Label	Action	Lead Agency	Objective
1	WA 1.A.1	Review State DLNR Forest Reserve Plans when development is adjacent to Forest Reserves.	Planning	1
2	WA 1.A.2	Require best management practices for resource management.	Planning	1
3	WA 2.A.1	Avoid impacts to natural hydrologic recharge areas, stream corridors, floodplains, and wetlands through standards that: a. Guide development to avoid disturbance of natural drainage features, preserve wetlands and streams, and provide riparian buffer areas to prevent land disturbance and filter runoff. b. Require best management practices designed to control stormwater and polluted runoff. c. Ensure drainage systems are properly sized, built, and maintained. d. Incorporate trees, rain gardens, swales, green roofs, and other features that mimic natural systems.	Public Works / Planning	2
4	WA 2.A.2	Reduce erosion and retain sediment onsite during and after construction.	Planning / Public Works	2
5	WA 2.A.3	Ensure that Good Agricultural Practices and other runoff reduction measures are addressed when reviewing agricultural grading permit exemptions.	Planning	2
6	WA 2.A.4	Review and update drainage regulations and the drainage constraint district to incorporate and encourage green infrastructure concepts.	Planning	2
7	WA 2.A.5	If large detention basins are required to control drainage, design them for multiple uses and treat them as an important tool.	Planning	2
8	WA 2.A.6	Utilize existing Water Management Plans as examples of best management practices.	Planning	2

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#	Label	Action	Lead Agency	Objective #
9	WA 2.A.7	Expressly and consistently condition development and subdivision approvals, building permits, and other discretionary approvals for actions that may impact surface water resources, on at least one of the following: a. The prior implementation of updated instream flow standards and a monitoring plan for any surface water sources that are needed for any permitted project or development, when there is a reasonable possibility that public trust purposes are or may be harmed. b. Ground- or surface- water management area designation for any aquifer area where new or expanded water sources will need to be developed, when there is a reasonable possibility of harm to public trust purposes in either ground or surface waters. c. The explicit application and execution of the "framework" of analysis set forth by the Hawai'i Supreme Court in the Kaua'i Springs case, prior to the issuance of any permit or other discretionary approval by the County Planning Department, Planning Commission, or County Council.	Planning	2
10	WA 2.A.8	Provide for the crossing of water courses by spanning rather than by culverts when possible, so that natural streambeds will not be altered.	Public Works / Planning	2
11	WA 2.A.9	Support the protection, restoration, and enhancement of surface and subsurface water resources, stream habitats, and watershed areas to support: groundwater aquifer recharge; aquatic and environmental processes; riparian, scenic, recreational, and Native Hawaiian cultural resources; and constitutionally-protected Native Hawaiian traditional and customary practices.	Planning	2
12	WA 2.A.10	Support mauka to makai streamflow, which is essential to the survival of native stream life.	Planning	2
13	WA 2.A.11	Support mediated agreements, such as that in Waimea, to restore streamflows to meet public trust purposes for Wailua River, Hule'ia River, and others, while avoiding costly litigation.	Planning	2

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
14	WA 3.A.1	Minimize coastal hazard risks through planning and development standards that: a. Ensure the safety of individuals, families, and communities within coastal hazard areas and communicate the dangers to residents and tourists. b. Discourage development or redevelopment (including tourist uses) within hazardous areas, while preserving adequate space for expected future growth in areas located outside these areas; c. If hazard risks are unavoidable, minimize hazard risks to new development over the life of authorized structures. d. Ensure property owners assume the risks associated with new development in hazardous areas; e. Limit development near vulnerable water supplies; and, f. Manage water supply issues resulting from saltwater intrusion, such as limits on groundwater withdrawal or diversification of water supplies.	Planning	3
15	WA 3.A.2	Avoid or minimize coastal resource impacts through development standards that: a. Protect public beach, rocky coasts, dune, wetland, river, and stream resources in all coastal planning and regulatory decisions. b. Protect the quality of coral reefs through standards that address, prevent, and minimize impacts from development. c. Minimize impacts to view corridors from roads or public places to the ocean and from mauka to makai. d. Preserve and protect Kaua'i's sandy beaches and shorelines from erosion and degradation while ensuring continued public access to them. e. Ensure adequate parking and convenient public access to coastal lands in all zoning and subdivision permits.	Planning	3
16	WA 3.A.3	Promote strategic beach nourishment in public use areas.	Planning	3
17	WA 3.A.4	Seek to preserve natural beach processes and avoid the construction of shoreline protection structures.	Planning	3
18	WA 3.A.5	Do not allow permanent armoring of the shoreline.	Planning	3

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
19	WA 3.A.6	Include the following guidelines for coastal development in the CZO: a. For resorts and other multi building complexes, transition from low building heights along the shoreline to taller buildings on the interior of the property. b. Provide an open, vegetated visual buffer between the shoreline and buildings. c. Protect community accessways laterally along the coast in the buffer zone mauka of the shoreline. d. Maintain existing stands of trees or plant trees within the buffer zone to provide sun and wind protection and to moderate the appearance of large buildings.	Planning	3
20	WA 3.A.7	Update the Shore District in relation to the SMA regulations.	Planning	3
21	WA 3.A.8	Continually incorporate new information on climate change into shoreline policies and regulations.	Planning	3
22	WA 4.A.1	Avoid development or land use intensification on critical habitats and in areas that are essential to the health, safety, and life of vulnerable native species.	Planning	4
23	WA 4.A.2	Require the use of noninvasive plant species for landscaping of newly developed areas, public lands, and roadways.	Planning	4
24	WA 4.A.3	Require future development to address potential impacts on threatened or endangered flora and fauna: a. Evaluate potential loss of habitat. b. Identify all endangered and threatened species present. c. List minimization efforts. d. If mitigation is needed, join an established Habitat Conservation Plan or develop one.	Planning	4
25	WA 4.A.4	Encourage new development to implement voluntary actions to encourage a net gain in protection efforts of our threatened and endangered species.	Planning	4
26	WA 4.A.5	Minimize risks to threatened and endangered species in construction and development activity.	Planning	4
27	HO 1.A.1	Update the County's Housing Ordinance into a workable law requiring all developers to contribute a fair share of resources to build affordable housing in a "win-win" manner.	Housing	5

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
28	HO 1.A.2	Design and locate affordable housing projects in or near job centers to minimize household transportation costs, community and household fossil fuel usage, and traffic congestion.	Housing	5
29	HO 1.A.3	Support economically integrated communities by requiring affordable housing mandates to be met on site.	Housing	5
30	HO 1.A.4	Amend Ordinance 860, Workforce Housing, to incentivize the creation of affordable housing development.	Mayor's Office / County Council	5
31	HO 1.A.5	Preserve the affordable housing stock by adopting a policy that any units built with taxpayer moneys or required under the Housing Ordinance for the general welfare shall be perpetually affordable to allow the inventory of affordable homes to grow rather than contract (which happens when such units are allowed to be sold on the open market).	Housing	5
32	HO 1.A.6	When possible, encourage the design of affordable, energy-efficient residential projects with civic spaces, shade trees, and pedestrian/bicycle amenities to enhance livability, equity, and safe transit options, especially for children.	Housing	5
33	HO 1.A.7	For county-sponsored housing subsidized with public money, the County shall require the units to be affordable for the life of the building and the land to remain in county ownership in perpetuity.	Housing	5
34	HO 2.A.1	Allow for multi-family structures and a variety of accessory dwellings such as 'ohana units and additional rental units within the Neighborhood Center, Neighborhood General, and Residential Community designations.	Planning	6
35	HO 2.A.2	Facilitate the development of small-footprint homes or "tiny homes" on small lots.	Planning	6
36	HO 2.A.3	Update zoning in and around town centers to facilitate mixed use and infill development, such as units above commercial space.	Planning	6
37	HO 2.A.4	Streamline permit approvals for infill development and housing rehabilitation by removing barriers, such as administrative delays.	Planning	6
38	HO 2.A.5	Incentivize infill development by reducing or eliminating tipping fees, wastewater and water facility charges, permit review fees, and park and environmental assessment fees.	Planning	6
39	HO 2.A.6	Update the building code to reduce construction costs and facilitate cost-saving materials and technology while maintaining health and safety.	Planning	6

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
40	HO 2.A.7	Reevaluate the definition of "kitchen" to provide flexibility for multi generational housing.	Planning	6
41	HO 2.A.8	Increase lot coverage allowances to provide for more ADUs within the residential district.	Planning	6
42	HO 3.A.1	Locate new communities only in areas designated for growth in the Land Use Map.	Planning	7
43	HO 3.A.2	Avoid sprawl development patterns and inefficient infrastructure and service delivery by maximizing density in new communities.	Planning	7
44	HO 3.A.3	Substantially increase the amount of market rate multi-family and "missing middle" housing on Kaua'i by requiring housing type diversity in all new subdivisions.	Planning	7
45	HO 3.A.4	Increase opportunities for moderate- and low-income households to become homeowners by providing a range of housing types.	Planning	7
46	HO 3.A.5	Build housing in proximity to jobs, parks, community resources, and services.	Housing / Planning	7
47	HO 3.A.6	Ensure subdivisions are designed to support housing type diversity, maximize density, provide safe pedestrian/bicycle connections, and slow speed on roads.	Planning	7
48	HO 3.A.7	Take a proactive role in supporting zoning amendments and redistricting consistent with the General Plan and updated Community Plans.	Planning	7
49	HO 3.A.8	Allow higher density to increase profitability for developers, resulting in a cheaper housing per unit cost.	Planning	7
50	HO 3.A.9	New communities should incorporate green infrastructure into their design and be water and energy efficient.	Planning	7
51	HO 3.A.10	Require non-entitled new communities in this General Plan to attain full State and County district and zoning approvals by 2027. Require short-duration expiration dates should development not be constructed as permitted, unless stated otherwise.	Planning	7
52	HO 3.A.11	Prohibit future subdivision and development from restricting construction of ADUs in their deed and covenants.	Planning	7

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
53	HO 4.A.1	Support the development of a limited amount of housing on agricultural land for farm workers and their families by: a. Improving the existing process to obtain Farm Worker Housing Permits and remove barriers to participation. b. Providing outreach on the Farm Worker Housing Law to increase participation.	Housing / Economic Development	8
54	HO 5.A.1	Prior to the issuance of development and subdivision approvals, building permits, and other discretionary approvals for actions that may impact water sources that could also serve or impact the water needs of DHHL, consult with DHHL regarding their projected water needs and other rights to water under the public trust, such as those described or referenced under Hawai'i State Constitution Art. XII § 1; Hawai'i Revised Statutes §§ 168-4, 171-58, and 174C-49; Hawaiian Homes Commission Act §§ 220 and 221; and interpretive case law.	Planning / Housing	9
55	HO 6.A.1	Provide additional housing and assisted living facilities for Kaua'i's increasing elderly population by: a. Increasing the supply of housing that is affordable, accessible to services, and promotes aging-in-place. b. Allow multi-generational housing that accommodates family home care situations. c. Revising development standards to facilitate approval of assisted living units and continuing care communities.	Planning	10
56	HO 6.A.2	Integrate universal design standards into Kaua'i's building code.	Planning	10
57	HO 7.A.1	Allow managed micro-housing developments or camp sites for the houseless.	Housing	11
58	HO 7.A.2	Allow development of Single Resident Occupancy unit projects.	Housing	11

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
59	HO 8.A.1	Reduce the impact and number of transient vacation rentals and similar uses, such as Bed & Breakfasts, in the communities outside the VDA by: a. Continuing aggressive enforcement against illegal TVRs. b. Supporting attrition and amortization of non-confirming TVRs, especially in high hazard areas. c. Monitoring and enforcing laws against new types of transient rentals facilitated by sharing economy websites, such as Airbnb and VRBO. d. Creatively exploring ways to use the tax code for enhanced compliance of non-conforming TVRs.	Planning	12
60	HO 8.A.2	Set fines and taxes on illegal and legal vacation rentals respectively that remove homes from the local residential market supply. The penalties should be high enough to deter illegal use.	Planning / County Council	12
61	LT 1.A.1	Coordinate land use planning with transportation to minimize the impact of growth on congestion, improve walkability in town centers, revitalize commercial areas, and enhance mobility in places where people live, work, learn, and play.	Planning / Transportation	13
62	LT 1.A.2	Require that transportation impact analysis reports and other traffic studies analyze a project's potential to encourage mode shift.	Planning / Transportation	13
63	LT 2.A.1	Complete new street design standards to address all users.	Public Works	14
64	LT 2.A.2	Amend the zoning and subdivision codes to support multimodal transportation options and safety for all users.	Planning / County Council	14
65	LT 2.A.3	Develop a traffic calming toolkit and update the County Traffic Code to allow for traffic calming features.	Public Works	14
66	LT 2.A.4	Designate, sign, and enforce truck routes.	Public Works / Police	14
67	LT 2.A.5	Update the school zone ordinance and signage.	Planning	14
68	LT 3.A.1	Provide density bonuses for workforce housing near transit.	Planning	15
69	LT 4.A.1	Identify high-priority pedestrian safety projects based on crash data.	Planning / Public Works	16
70	LT 5.A.1	Incorporate bicycle parking requirements into the Comprehensive Zoning Ordinance.	Planning	17
71	CI 1.A.1	Prioritize increasing domestic water supply, storage, and distribution systems to meet projected needs while encouraging conservation.	Water	19

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
72	CI 1.A.2	Prioritize water infrastructure improvements in infill development areas.	Water	19
73	CI 1.A.3	Encourage alternatives for non-potable water usage, such as rainwater catchment and greywater recycling.	Water	19
74	CI 1.A.4	Support water savings through land use practices like low impact development (LID), *Ahwahnee Water Principles for Resource Efficient Land Use*, new green building programs, and onsite and offsite conservation land use practices.	Water	19
75	CI 1.A.5	Conduct an audit of the County's dependency on surface water regarding future development, based on legal availability and water regulations.	Planning	19
76	CI 2.A.1	Require large-scale developers to contribute funds toward improved recycled water production and distribution, or to construct their own wastewater reclamation facility.	Planning / County Council	20
77	CI 2.A.2	Manage wastewater treatment and disposal in a manner that safeguards human and environmental health, accommodates future growth, is efficient and cost effective, and uses recycled water from treatment where possible.	Public Works	20
78	CI 2.A.3	Improve the quality of effluent discharged into injection wells, especially those in the Special Management Areas.	Public Works	20
79	CI 2.A.4	Support innovative treatment systems that produce effluent at appropriate water quality levels to encourage reuse such as irrigation, industrial uses and other non-potable use.	Public Works	20
80	CI 3.A.1	Reduce construction and demolition debris disposal in landfills by requiring recycling, particularly for large contractors and construction projects.	Public Works	21
81	CI 4.A.1	At airports, accommodate shuttles that transport visitors to resort destinations.	State DOT	22
82	CI 4.A.2	Do not expand the Princeville Airport, except for use as a parking hub and gateway for visitors to the North Shore.	Planning	22

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
83	SS 1.A.1	Encourage vibrant shared space and destinations in town centers by: a. Implementing design standards to ensure the aesthetic character of buildings blends in and matches the desired scale and character of the town. b. Allowing historic buildings on small lots to redevelop without the imposition of new setbacks or off-street parking requirements. c. Siting new commercial development contiguous to towns, within walking distance of residential development. d. Supporting the creation of and improvement of venues for art and culture. e. Providing comfortable and safe walking environments, including context-sensitive sidewalks along main roads. f. Enhancing shade resources, including trees on streets and in public parks, and improving criteria for species selection and programs for tree maintenance. g. Providing more on-street parking.	Planning	23
84	SS 2.A.1	Provide comprehensive, well-designed, and highly functional parks and recreational facilities that meet public needs, provide attractive places to exercise, accommodate diverse groups and activities, make suitable use of resources, and are compatible with surrounding uses.	Parks & Recreation	24
85	SS 2.A.2	Provide a range of civic space and functional parks in large residential projects and in new communities.	Planning	24
86	SS 2.A.3	Streamline permitting of public facilities to efficiently coordinate the development and expansion of parks.	Planning	24
87	SS 2.A.4	Allow in-lieu funding expenditure on facility capital improvements through the Park Dedication Ordinance.	Parks & Recreation / County Council	24
88	SS 3.A.1	Provide safe and convenient access to beaches and inland resources through the park system.	Parks & Recreation	25
89	SS 3.A.2	Identify and design new shared use paths to provide safe corridors for pedestrians and cyclists.	Public Works	25
90	SS 3.A.3	Encourage the development of access ways to the path, when development is adjacent to or near a shared use path.	Planning	25
91	SS 3.A.4	Increase opportunities for public access to mountainous and forested areas in a way that is ecologically sustainable.	DLNR	25

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
92	EC 1.A.1	Revitalize—rather than expand—the existing Visitor Destination Areas in Po'ipū, Līhu'e, Wailua, and Princeville.	Planning	27
93	EC 1.A.2	Focus visitor uses, services, facilities, and accommodation in the Visitor Destination Area.	Planning / Economic Development	27
94	EC 1.A.3	Do not expand existing Visitor Destination Area boundaries beyond resort-designated areas.	Planning	27
95	EC 1.A.4	Allow existing resort entitlements to build out and require any non-entitled resort-designated areas in this General Plan to attain full State and County zoning resort-related approvals by the year 2027, or within ten years of Community Plan approval if an area is conditionally designated.	Planning	27
96	EC 1.A.5	Require short-duration expiration dates should development not be constructed as permitted.	Planning	27
97	EC 1.A.6	Where appropriate, negotiate with entitled resort projects to reduce unit count if discretionary permits are sought again.	Planning	27
98	EC 1.A.7	Create a regulatory system that ensures resort developers pay their own way by paying their fair share of system expansion for all public systems, including but not limited to land transportation improvements, housing, water, sewer, cables, and parks.	Planning	27
99	EC 2.A.1	Ensure agriculture-designated lands are used for agriculture and related activities, including aquaculture, commercial forestry, and animal husbandry.	Planning	28
100	EC 2.A.2	Use urban growth boundaries or other land preservation easements to limit conversion of agriculture-designated lands to non-agricultural uses.	Planning	28
101	EC 2.A.3	Control the subdivision and alteration of agriculturally-zoned land to prevent the dissipation of agricultural potential, the loss of rural character, and the conversion of land use to urban land use designations.	Planning	28
102	EC 2.A.4	Provide criteria to allow clustering of allowable density for landowners of Important Agricultural Land (IAL).	Planning	28

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
103	EC 2.A.5	To the extent that public trust purposes would not be impacted or continue to be impacted, or where serviced agricultural operations constitute a reasonable and beneficial use that furthers the interests of the public, require preservation of viable irrigation systems – both government owned and privately owned – to support the supply of irrigation water to farms, provided that mitigation measures are taken to minimize any impacts to public trust purposes.	Planning	28
104	EC 2.A.6	Support landowner and farmer-initiated designations of important agricultural lands that at least meet criterion number five of Act 183 (SLH 2005), "land with sufficient quantities of water to support viable agricultural production."	Planning	28
105	EC 2.A.7	Use IAL maps and tools when reviewing landowner/ farmer-initiated petitions for the designation of IAL or for evaluating priority lands for IAL designation proposed by the State or County.	Planning	28
106	EC 2.A.8	Revise the agricultural property tax regime, including but not limited to the Agricultural Dedication program, to increase incentives to lease land for productive farms.	Economic Development / Finance	28
107	EC 2.A.9	Clarify rules and authority related to permitting of agricultural structures and uses on IAL.	Planning	28
108	EC 2.A.10	Include community gardens as a permitted use in residential areas.	Planning	28
109	EC 2.A.11	Require that prospective buyers of property adjacent to agricultural land be notified through title report that they could be subject to inconvenience or discomfort resulting from accepted farming activities, pursuant to HRS Chapter 205-4.5.	Planning	28
110	EC 3.A.1	Lessen zoning restrictions for home-based businesses.	Planning	29
111	EC 3.A.2	Reduce the costs and regulatory hurdles associated with starting a business.	Economic Development	29
112	EC 3.A.3	Increase inventory of industrial zoned lands.	Planning	29
113	HR 1.A.1	Broaden the types of uses allowed in historic structures.	Planning	30
114	HR 1.A.2	Support the reuse and renovation of historic structures through building code amendments.	Planning	30
115	HR 1.A.3	Update and create Special Planning Areas in towns to ensure new development and redevelopment of existing sites or structures is done in a "historically sensitive" manner.	Planning	30

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
116	HR 2.A.1	Preserve, restore, and maintain customary access to important archaeological and cultural sites.	Planning	31
117	HR 2.A.2	Create natural, landscaped buffers between archaeological sites and adjacent uses.	Planning	31
118	HR 2.A.3	In the case of development where burials are known to exist, ensure an Archaeological Inventory Study (AIS) is prepared and Kaua'i Island Burial Council recommendations are adhered to before final approvals are given.	Planning	31
119	HR 2.A.4	Require developers to provide archaeological and cultural assessments prior to clearing or development of land in areas of historical significance.	Planning	31
120	HR 2.A.5	Promote, encourage, and require the correct use of traditional place names.	Planning	31
121	HR 2.A.6	Establish archaeological districts where high concentrations of sites exist.	Planning	31
122	HR 2.A.7	Encourage restoration, management, and practitioner access for significant cultural sites on private land, as allowed by law.	Planning	31
123	HR 2.A.8	Encourage the restoration, management, and use of Kaua'i's fishponds and lo'i kalo.	Planning	31
124	HR 2.A.9	Preserve Māhā'ulepū, a wahi pana, where scenic landmarks, natural resources, archaeological sites (including Waiopili Heiau), and burials are found along with subsistence fishing and gathering, agriculture, research and education, and recreation.	Planning	31
125	HR 2.A.10	Movement of kuleana lands through the subdivision process is inconsistent with their intrinsic cultural and historic value and negatively impacts traditional and customary Native Hawaiian rights and practices, which are protected by the Hawai'i State Constitution. Prior to any decision, any movement requires proper due diligence to ensure any historic value relating to the kuleana's past land use is identified and protected to the fullest extent possible consistent with Article XII, Section 7 of the Hawai'i State Constitution, the Ka Pa'akai test, and HRS Chapter 6E. In addition, proper notice must be afforded to the State Office of Hawaiian Affairs and beneficiaries and heirs of the kuleana at issue before any movement is approved.	Planning	31

#	Label	Action	Lead Agency	Objective #
126	HR 3.A.1	Prepare amendments to the CZO, Special Management Area Rules, and the Subdivision Ordinance to provide specific criteria and guidelines for evaluating and protecting scenic views, view planes, and landmarks in the siting of new development.	Planning	32
127	HR 3.A.2	Consider regulatory tools such as zoning overlays or corridors to preserve views from roads or public places to the ocean, and to and from mauka to makai.	Planning	32
128	ES 1.A.1	Promote increased energy conservation and renewable energy production.	Mayor's Office	33
129	ES 1.A.2	Optimize the mix of energy crops that can provide fuel for power production on Kaua'i.	Mayor's Office	33
130	ES 1.A.3	Streamline and expedite planning and permitting processes involving renewable energy facilities.	Planning	33
131	ES 1.A.4	Require new buildings to incorporate economically feasible design and equipment for energy sustainability, including but not limited to: solar hot water capacity and proper insulation.	Public Works	33
132	ES 1.A.5	Conduct an audit of the County's development standards to identify regulations that are obstacles to or could be altered to better encourage or require green building practices.	Planning	33
133	ES 2.A.1	Promote higher density residential development near job centers and amenities, while strongly discouraging development that will require residents to commute via automobile to jobs in other areas of the island.	Planning	34
134	ES 2.A.2	Reduce the carbon footprint of both new and existing buildings and infrastructure by maximizing energy efficiency and minimizing the use of fossil fuel resources on the grid.	Planning	34
135	ES 2.A.3	Accelerate the transition to alternative, carbonfree fuels in the ground transportation sector with regulations and policies that support electric vehicle adoption and other alternative fuel infrastructure, and support electric groundskeeping and farming equipment/machinery.	Transportation / Economic Development	34
136	ES 2.A.4	Require large new developments and infrastructure projects to include a project carbon footprint analysis estimating the anticipated change in emissions resultant from the proposed project and documenting the emissions reduction strategies deployed by the project to minimize its emissions.	Planning	34

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
137	ES 2.A.5	Support continued reductions in emissions from local energy production.	Mayor's Office	34
138	PS 1.A.1	Maintain effective levels of public safety services to protect the growing population.	Mayor's Office / County Council	35
139	PS 1.A.2	Upgrade and enhance facilities to address existing vulnerabilities and support necessary growth in emergency response personnel.	Emergency Management	35
140	PS 2.A.1	Minimize coastal development in areas of high risk of erosion, flooding, tsunami inundation, and sea level rise.	Planning	36
141	PS 2.A.2	Provide for adequate emergency shelters and communication systems in all planning districts.	Emergency Management	36
142	PS 2.A.3	Periodically review building codes and permitting standards for alignment with disaster risk reduction (DRR) efforts.	Emergency Management	36
143	PS 2.A.4	Designate areas to serve as public shelters when designing and constructing new public buildings.	Planning	36
144	PS 2.A.5	Include conditions in transient vacation rental and homestay permits that require disclosure to visitors and occupants of hazard risks and instructions for evacuation in cases of natural hazards, such as tsunamis, hurricanes, or flooding. Require disclosure of hazards prior to reserving or booking.	Planning	36
145	PS 3.A.1	Use the best available climate and hazard science to inform and guide decisions. Determine a range of locally relevant (context specific) sea level rise (SLR) projections for all stages of planning, project design, and permitting reviews. At the time of this General Plan Update publication, the science suggests a planning target of three feet of sea level rise.	Planning	37
146	PS 3.A.2	Regularly review and refine relevant policies, rules, and regulations based on the most currently available climate and hazard science and projections.	Planning	37
147	PS 3.A.3	Identify lands/areas that may serve as buffers from coastal hazards and restrict development within them.	Planning	37
148	PS 3.A.4	Periodically update the shoreline setback and coastal protection article of the comprehensive zoning ordinance to allow for adjustments in the setback calculations based upon best-available SLR data.	Planning	37
149	PS 3.A.5	Update the Floodplain Management Program to incorporate sea level rise planning information, utilizing options detailed in the *Kaua'i Climate Change and Coastal Hazards Assessment* or other relevant resources.	Planning	37

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
150	PS 3.A.6	Within the Special Management Area (SMA) and Zoning Permit program: a. Require applicants to analyze coastal hazard impacts and include mitigation in permit applications. b. Impose development conditions upon permits that minimize the impacts of exacerbated flooding, storm surge, and erosion due to sea level rise. c. Strengthen rebuilding restrictions for non-conforming structures such that these structures are relocated a safe distance from the shoreline in hazardous areas. d. Evaluate conditions that prohibit shoreline armoring.	Planning	37
151	PS 3.A.7	Update the subdivision standards to: a. Restrict residential subdivisions in areas prone to current and future coastal hazards, including sea level rise. b. outside of these natural hazards areas, provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources.	Planning	37
152	PS 3.A.8	Periodically update the building codes to ensure that the standards for strengthening and elevating construction to withstand hazard forces in hazardous areas utilize the best available science and planning information.	Planning / Public Works	37
153	PS 3.A.9	When considering project alternatives during the environmental review process, evaluate relocation outside of hazardous areas, elevation of structures, and "soft" hazards such as beach nourishment. When considering environmental mitigation, incorporate climate resilience measures.	ALL	37
154	OH 1.A.1	Limit the proliferation of predatory lending establishments through licensing and zoning powers.	Planning	38
155	OH 1.A.2	Expand and preserve affordability in neighborhood centers around the island through zoning, incentives, and development.	Planning	38
156	OH 1.A.3	Provide affordable housing in proximity to community resources and services.	Planning	38
157	OH 1.A.4	Mitigate impact to Native Hawaiian traditional and customary practices and the resources they rely upon through district boundary amendments and zoning amendments.	Planning	38

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
158	OH 2.A.1	For large residential projects and in new communities, ensure the development of adequate school facilities, either at existing schools or at new school sites.	Planning	39
159	OH 2.A.2	Have developers pay their share of all costs needed to provide adequate school facilities for the children anticipated to live in their development.	Planning	39
160	OH 2.A.3	Support the use, expansion, and development of family childcare homes, preschools, parent/child kindergarten readiness programs, and charter schools.	Planning	39
161	OH 3.A.1	Provide access to frequent and convenient public transit near major job centers and health care facilities.	Transportation	40
162	OH 3.A.2	Ensure community design supports healthy and active lifestyles.	Planning	40
163	OH 3.A.3	Consider zoning options that limit new fast-food restaurants close to schools, daycare centers, or parks.	Planning	40
164	OH 3.A.4	Support the built environment and land use recommendations provided by the Native Hawaiian Health Task Force and similar community health initiatives.	Planning	40
165	OH 4.A.1	Require a minimum accessway width of 10 feet and locate accessways at convenient intervals.	Planning	41
166	OH 4.A.2	Protect and preserve mauka and makai access for traditional Hawaiian cultural practices.	Planning	41
167	OH 4.A.3	Require identification and mitigation of potential impacts of subsistence activities and resources when reviewing development permits.	Planning	41
168	LU A.1	Implement a zoning program to comprehensively redistrict and rezone lands consistent with the Future Land Use Map and updated Community Plan and map designations.	Planning	42
169	LU A.2	Build upon place types in future Community Plans and update zoning and development standards to be place-based.	Planning	42
170	LU A.3	Support State Land Use Boundary Amendment Petitions for new Urban District consistent with the Future Land Use Map.	Planning	42
171	LU A.4	Given that the Future Land Use Map is conceptual, the size of future amendments to the State Land Use District Urban District should consider the General Plan's population allocations, housing projections, and the objectives for New Communities.	Planning	42

ONLINE VERSION

ONLINE VERSION

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ONLINE VERSION

ONLINE VERSION

2. PLANS AND STUDIES				
#	Label	Action	Lead Agency	Objective
1	WA 1.B.1	Utilize the Forest Reserve and Natural Area Reserve Plans in community planning processes and share information regarding forest management activities with the public.	Planning	1
2	WA 1.B.2	Through appropriate county departments, support KWA members in the development of future watershed management plans and appropriate studies as needed for the health of the upper native forests.	Planning	1
3	WA 2.B.1	In Community Plans, include protection actions for streams and inland water bodies to prevent degradation of water quality and address non-point source pollution.	Planning	2
4	WA 2.B.2	Establish a drainage system database to better understand the drainage network on Kaua'i and to assist with water quantity and quality impacts.	Public Works	2
5	WA 2.B.3	Periodically review the County's flood control measures and plans using updated information and forecasts on climate change.	Planning / Public Works	2
6	WA 2.B.4	Develop drainage master plans for flood-prone areas such as Hanalei, Nāwiliwili, Kapa'a, Wailua, Po'ipū, and Kekaha.	Planning / Public Works	2
7	WA 3.B.1	Restore lost and unrecorded beach accesses by identifying, recording, and demarcating accessways for public use.	Planning	3
8	WA 3.B.2	Develop detailed hazard, risk, and vulnerability assessments in low-lying coastal areas based on future data and forecasts regarding climate change. Use this assessment to identify where resources and planning efforts should be focused and to develop adaptation strategies and inform stakeholders including tourists of these dangers.	Planning	3
9	WA 3.B.3	Recognize scientific uncertainty by using scenario planning and adaptive management techniques that adjust policies and rules based on monitoring efforts.	Planning	3
10	WA 3.B.4	Analyze options and criteria for relocation of development outside of hazardous areas along the coast and incorporate findings into a long- term relocation plan.	Planning	3
11	WA 3.B.5	Support studies to assess impacts to coastal and cultural resources at Salt Pond Beach and Pū'olo Point in collaboration with community members, including but not limited to the salt making practitioners.	Planning	3

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
12	HO 1.B.1	Find ways to insulate affordable housing units from the market, whether rentals or for ownership, to preserve the affordability of units.	Housing	5
13	HO 1.B.2	Review existing affordable housing requirements in plans and zoning amendments to assess impediments to affordable housing creation.	Planning	5
14	HO 1.B.3	Assess the County's affordable housing needs and priorities through the five-year Consolidated Plan and one-year Action Plans.	Housing	5
15	HO 1.B.4	Establish a ratio for the housing needs for workforce, elderly, and disabled households, and amend existing laws and plans as needed.	Housing	5
16	HO 2.B.1	Prevent displacement of vulnerable renters through rent stabilization policies and tax incentives for long-term rentals.	Housing/Finance	6
17	HO 5.A.1	Integrate the recommendations of DHHL plans into community planning.	Planning	9
18	HO 7.B.1	Support the implementation and update of the *Kaua'i Houseless Solutions Summit Plan*.	Mayor's Office	11
19	LT 1.B.1	In all Community Plans, incorporate planning of roadway, transit, bike and pedestrian facilities, and transportation needs to support economic revitalization.	Planning	13
20	LT 1.B.2	Include analysis of the planned transportation system's ability to accommodate proposed growth, manage congestion, and achieve the County's mode shift targets in all Community Plans.	Planning	13
21	LT 1.B.3	In all Community Plans, develop a regional traffic circulation plan that includes all modes of transportation.	Planning	13
22	LT 3.B.1	Implement the *Short-Range Transit Plan*.	Transportation	15
23	LT 3.B.2	Complete a Mid-Range (4-7 year) Transit Plan for longer-term transit planning.	Transportation	15
24	LT 3.B.3	Address the feasibility and practicality of accommodating luggage, surfboards, and other large objects on County and private buses.	Transportation	15
25	LT 4.A.1	Identify high-priority pedestrian safety projects based on crash data.	Transportation	16
26	LT 5.B.1	Establish an islandwide bikeways plan with priorities for implementation through the community planning process.	Planning / Public Works	17
27	LT 6.A.1	Implement parking audits in areas where parking resources are perceived to be limited and where additional parking resources or parking management may be needed such as Kapa'a Town, Hanalei, and Po'ipū.	Planning	18

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
28	LT 6.A.2	In partnership with the State, develop and implement a Parking Management Plan for the Līhu'e Civic Center.	Planning	18
29	CI 1.B.1	Implement and update the County Water Plan to guide system expansion, improvement, rehabilitation, and rate structures to support growth consistent with the General Plan and Community Plans.	Water	19
30	CI 1.B.2	Reduce potable water usage through recycled water and alternative individual water systems such as rainwater catchment and greywater recycling, and incorporate these into the County Water Plan Update.	Water	19
31	CI 1.B.3	Update sustainable yield of aquifers, incorporating most recent United States Geological Survey (USGS) low-flow studies and surface water data into the County Department of Water budget, with appropriate reservations for public trust purposes including environmental protection, traditional and customary Native Hawaiian rights, appurtenant rights, domestic water uses, and the needs of the Department of Hawaiian Home Lands.	Water	19
32	CI 1.B.4	Reconcile water service areas with County planning districts to integrate facilities with Community Plans.	Water	19
33	CI 2.B.1	Develop and update wastewater facility plans to guide decisions regarding the allocation of treatment capacity, the expansion of wastewater systems, and system improvement priorities.	Public Works	20
34	CI 2.B.2	Coordinate public and private planning, development, operation, and management of wastewater treatment and disposal systems.	Public Works	20
35	CI 3.B.1	Update and implement the *Solid Waste Integrated Management Plan* to set policies for solid waste programs, facility planning, capital improvements, operations, user fees, and financing facilities and operations.	Public Works	21
36	CI 3.B.2	Plan and prepare for emergency debris management and disposal due to future major storms and tsunamis.	Public Works	21
37	SS 1.B.1	Acknowledge the important role of town squares and other civic space in town centers and seek to improve usability of such venues.	Planning	23
38	SS 1.B.2	Establish or update urban design standards through Community Plans.	Planning	23
39	SS 1.B.3	Identify public art opportunities and funding in community and facility planning.	Planning	23
40	SS 2.B.1	Plan for safe routes to parks, especially in areas with high concentration of youth.	Parks & Recreation	24

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
41	SS 2.B.2	Utilize vacant or underused County-owned land for community purposes.	Mayor's Office	24
42	SS 2.B.3	Update and implement the *Kaua'i Parks & Recreation Master Plan (2013)*.	Planning	24
43	EC 1.B.1	Implement and update the *Kaua'i Tourism Strategic Plan*.	Economic Development	27
44	EC 1.B.2	Explore the development of the carrying capacity for various sites around the island and a monitoring system that tracks visitor impacts within the context of "limits of acceptable change" or other metric.	Economic Development	27
45	EC 1.B.3	Create a comprehensive incentive and disincentive plan to address visitor numbers and impacts in specific areas.	Economic Development	27
46	EC 2.B.1	Consider the relationship and proximity of other land uses to agricultural land in planning efforts. Define "rural" and include its relationship to agriculture.	Planning	28
47	EC 2.B.2	Update and implement the *Agricultural Water Use and Development Plan*.	Water	28
48	EC 2.B.3	Improve upon or develop a system for local and export marketing of food and primary resources.	Economic Development	28
49	EC 2.B.4	Create an agriculture database of key information and indicators that would enable the monitoring of agricultural progress and growth.	Economic Development	28
50	EC 2.B.5	Increase access to healthy food in underserved neighborhoods and build more equitable food systems, from cultivation to disposal.	Economic Development	28
51	EC 2.B.6	Update and implement the *Kaua'i Agriculture Strategic Plan*.	Economic Development	28
52	EC 3.B.1	Implement and update the Comprehensive Economic Development Strategy (CEDS).	Economic Development	29
53	EC 3.B.2	Develop business improvement districts and Main Street programs to fund revitalization efforts.	Economic Development	29
54	HR 1.B.1	Update and maintain the inventory and management plan for historic resources.	Planning	30
55	HR 2.B.1	Inventory and acknowledge the importance of archaeological sites and wahi pana during community planning processes.	Planning	31
56	HR 2.B.2	Create an inventory of kuleana lands and describe their vulnerability to sale and development.	Planning	31
57	HR 2.B.3	Create a county-level tax break for ancestral family lands that do not qualify for kuleana tax breaks for situations such as hanai (adoption), families without birth and death certificates, and other circumstances.	Planning	31
58	HR 3.B.1	Identify key landmarks, exceptional trees, and scenic resources through Community Plans.	Planning	32

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
59	HR 3.B.2	Develop an inventory of scenic resources/views, view planes, visual resources, and key landmarks through joint collaboration of the Kaua'i Historic Preservation Review Commission and the Open Space Commission.	Planning	32
60	HR 3.B.3	Support creation and implementation of corridor plans for historic and scenic roadways.	Planning	32
61	ES 1.B.1	Work with the University of Hawai'i to do an island-wide study of energy crop production, and determine how much energy production comes from locally grown crops.	University of Hawai'i / Economic Development	33
62	ES 2.B.1	Develop a climate plan that focuses on key sectors and their interrelationships with respect to emissions reductions, to be updated every five years. Include intermediate year emissions reductions for all major sectors.	Mayor's Office	34
63	ES 2.B.2	Accelerate "zero waste" strategies, including policies and actions that encourage island residents to move towards lower levels of consumption, and to reuse materials to the maximum extent possible.	Public Works	34
64	ES 2.B.3	Conduct a greenhouse gas emissions inventory for the County.	Economic Development	34
65	PS 2.B.1	Encourage community-based disaster resilience plans and incorporate components into future Community Plan updates. Plans should include an assessment of risks and vulnerabilities in the local economy to hazards.	Emergency Management	36
66	PS 2.B.2	Develop an inventory of Critical Infrastructure and Key Resources, according to the standards of the National Incident Management System (NIMS), which can be used for mitigation and disaster recovery efforts.	Emergency Management	36
67	PS 2.B.3	Work with the State Office of Conservation and Coastal Lands (OCCL) to update the *Coastal Erosion Mitigation Plan for Kaua'i*.	State DLNR	36
68	PS 2.B.4	Identify and index communities that have existing disaster resilience plans. Provide support to current and ongoing community hazard risk reduction, mitigation, and planning efforts.	Emergency Management	36
69	PS 2.B.5	Periodically review and update the *Multi-Hazard Mitigation and Resilience Plan*.	Emergency Management	36
70	PS 3.B.1	Conduct detailed hazard, risk, and vulnerability assessments for critical infrastructure and low-lying coastal communities when updated sea level rise, erosion rates, and wave inundation information is available.	Planning/ Emergency Management	37

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
71	PS 3.B.2	Identify priority planning areas where resources and planning efforts need to be focused and identify how and where to use adaptation strategies such as accommodation, retreat, and protection.	Planning	37
72	PS 3.B.3	Encourage strategic retreat and relocation to safer areas based on the results of the assessments above.	Planning	37
73	PS 3.B.4	Use results of hazard, risk, and vulnerability assessments to inform adaptation strategies to be incorporated into Community Plans or other planning processes.	Planning	37
74	PS 3.B.5	Acknowledge, support, and/or take part in university, government, and private efforts to develop planning information and guidance to address how accelerated sea level rise will effect erosion rates and wave inundation.	Planning	37
75	PS 3.B.6	Support implementation of the Hawai'i Climate Adaptation Initiative (Act 83) and development of the *Sea Level Rise and Vulnerability Adaptation Report for Hawai'i* and the *Statewide Climate Adaptation Plan*.	Planning	37
76	OH 1.B.1	Complete a study to establish ratios for different categories of housing for workforce (less than 140 percent of median income), elderly, and disabled.	Housing	38
77	OH 3.B.1	Include community health concerns in community planning.	Planning	40
78	OH 3.B.2	Implement and update the *Kaua'i Community Drug Response Plan*.	Mayor's Office	40
79	OH 3.B.3	Implement and update the *Kaua'i Plan on Aging*.	Elderly Affairs	40
80	OH 3.B.4	Implement and update the *Kaua'i Community Health Improvement Initiative*.	Planning	40
81	OH 4.B.1	Maintain, inventory, and provide information on legal public accessways to beaches and inland recreation areas. Conduct research on easement documents that have been executed or signed but not recorded.	Planning	41
82	OH 4.B.2	Create regional networks of public trails. Partner with private landowners for missing connections via managed access.	Planning	41
83	OH 4.B.3	Explore solutions for protecting access to recreational opportunities, including fishing, hunting, surfing, hiking, and other activities in community planning.	Planning	41
84	LU B.1	Use the community planning process to update and refine the Future Land Use Maps as needed.	Planning	42

ONLINE VERSION

ONLINE VERSION

3. PROJECTS AND PROGRAMS				
#	Label	Action	Lead Agency	Objective #
1	WA 1.C.1	Support projects that conserve and protect our remaining endemic forests and landscapes in the upper watershed.	Planning	1
2	WA 1.C.2	Develop collaborative projects that support goals shared by the Forest Reserve Management Plans, County's Open Space Commission, Nā Ala Hele Commission, the Kaua'i Watershed Alliance, and others.	Planning	1
3	WA 1.C.3	Establish a watershed task force or watershed liaison within the County whose mission is to facilitate better communication and coordination between agencies and organizations that work in the watershed (County, State, and non-governmental organizations), mauka to makai.	Mayor's Office	1
4	WA 1.C.4	Utilize best practice watershed management plans, such as the Hanalei Watershed Management Plan, as examples for other communities to employ.	Planning	1
5	WA 2.C.1	Utilize green infrastructure concepts and best management practices in County projects.	Public Works	2
6	WA 2.C.2	Mark stormwater drains as "going to the ocean."	Public Works	2
7	WA 2.C.3	Complete the update of the *Kaua'i County Water Use and Development Plan.*	Planning	2
8	WA 3.C.1	Adequately fund and utilize the Public Access, Open Space, and Natural Resources Fund to actively acquire shoreline lands and accessways for public use and consider development of an "Offer To Dedicate" (OTD) Coastal Easement or Land Banking Program.	Mayor's Office / County Council	3
9	WA 3.C.2	Acknowledge, support, and participate in government, university, and private efforts to better understand and predict climate change impacts on coastal areas.	Planning	3
10	WA 4.B.1	Increase wildlife and habitat protection knowledge and expertise within the County government.	Planning	4
11	WA 4.B.2	Develop a protocol that will help minimize the current feral cat population to lessen the impact of direct endangered species fatalities, as well as the spread of diseases, such as toxoplasmosis.	Public Words	4
12	WA 4.B.3	Adopt a comprehensive animal control ordinance to reduce or eliminate populations of feral, abandoned, and stray cats.	County Council	4
13	WA 4.B.4	Develop a list of native plant species suitable for landscaping.	Public Works	4

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
14	HO 1.C.1	Complete the Lima Ola affordable housing project.	Housing	5
15	HO 1.C.2	Seek and acquire land in or near town centers with access to transit, public water, and sewers for future affordable housing development.	Housing	5
16	HO 1.C.3	Create dedicated sources of funding and continue to use the Housing Revolving Fund to finance affordable housing projects.	Housing / County Council	5
17	HO 1.C.4	Develop and rehabilitate affordable housing low-interest loan programs and awards, such as the Rental Housing Revolving Fund through the Hawai'i Housing Financing and Development Corporation.	Housing	5
18	HO 1.C.5	Support the housing needs of low income households through the Federal Housing Assistance Payments Program (Section 8).	Housing	5
19	HO 1.C.6	Support a flexible planning process and robust monitoring system to allow timely changes in strategy and resource allocation for the housing program.	Housing	5
20	HO 1.C.7	Develop a quasi-public housing development or redevelopment agency to support affordable housing projects, particularly infill housing development projects within town centers.	Housing	5
21	HO 1.C.8	Pursue and establish a source of capital for the development and maintenance of affordable housing. Possible sources include: earmarking a percentage of real property taxes for affordable housing development; a conveyance tax surcharge on high-priced real estate transactions and earmarked for affordable housing development; an expanded Low Income Housing Tax Credit (LIHTC) that increases availability of the tax credit; and setting eligibility higher than the current 60 percent of median income.	Mayor's Office	5
22	HO 1.C.9	Continue and expand the County's efforts to provide and require homeownership classes, including financial literacy, for families potentially eligible for county affordable housing projects.	Housing	5

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
23	HO 1.C.10	Review best practices from elsewhere and test in pilot programs the methods that significantly reduce the cost of building a home, including infrastructure and system costs. The Mayor and the County Council should work with community to use Hawai'i Revised Statutes Section 46-15 to "designate areas of land for experimental and demonstration projects, the purposes of which are to research and develop ideas that would reduce the cost of housing in the State."	Housing	5
24	HO 2.C.1	Improve infrastructure and facility improvements in town centers to support a mixed use environment and increased density.	Planning	6
25	HO 2.C.2	Hold educational sessions for landowners in Special Planning Areas to inform them of new development standards and potential infill development opportunities.	Planning	6
26	HO 5.B.1	Partner with DHHL on infrastructure projects that will support development of both County and DHHL priority growth areas.	Water/Public Works	9
27	HO 5.B.2	Partner with DHHL to relocate the Wailua Wastewater Treatment Plant out of the tsunami zone and to support future residential development on DHHL land.	Public Works	9
28	HO 7.C.1	Regularly convene a Kaua'i Houseless Solutions Summit to develop collaborative short-term homeless solutions involving Kaua'i's faith-based community with support from health and human service organizations and County and State agencies.	Housing	11
29	HO 7.C.2	In addressing homelessness, adopt and implement the Housing First approach to reduce and ultimately eliminate homelessness.	Housing	11
30	LT 1.C.1	Establish transportation priorities using a performance-based evaluation process, which considers the following criteria: a. Safety; b. System preservation; c. Economic development/community access; d. Support of growth areas as designated in the General Plan and Community Plans; e. Congestion management; and f. Environmental and cultural impacts.	Planning/Public Works	13

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
31	LT 1.C.2	Support completion of the priority projects in the *Kapa'a Transportation Solutions Report* to include the following: a. Add one lane on the Kūhiō Highway from the southern end of the Kapa'a Bypass Road to Kuamo'o Road. b. Widen the northern segment of the Kapa'a Bypass Road to two-lane and two-way from the northern end of the Bypass to the roundabout at Olohena Road. c. Operational improvements, such as signalization and left turn restrictions on Kūhiō Highway. d. Extension of right turn lane on Haleilio Road at Kūhiō Highway. e. Congestion management on Kūhiō Highway, from Kuamo'o Road to Kapule Highway.	Transportation	13
32	LT 1.C.3	Incorporate and integrate transit strategies in the *Kapa'a Transportation Solutions* framework.	Transportation	13
33	LT 1.C.4	Following a priority evaluation process, complete priority circulation and multimodal capacity projects identified in the General Plan Transportation Maps.	Planning/Public Works	13
34	LT 1.C.5	Consider implementing Transportation Demand Management strategies with County of Kaua'i employees who work in Līhu'e as a pilot program that can be replicated by other employers. Strategies may include the following: a. Staggered work hours; b. Bulk rate bus passes; and c. Incentives to encourage commuting by other than single-occupancy vehicles.	Transportation	13
35	LT 2.B.1	Complete priority resurfacing, reconstruction, retrofit, and repair of existing roads and bridges based on available funding.	Public Works	14
36	LT 2.B.2	Retrofit existing roads to incorporate facilities for all users where feasible and appropriate, and as indicated in Community Plans or other network plans, as a part of resurfacing and reconstruction projects.	Public Works	14
37	LT 2.B.3	Implement maintenance of roadside vegetation and roadway surfaces to increase safety.	Public Works	14
38	LT 3.C.1	Increase mainline service frequency to every 30 minutes, with 15 minute frequency at peak times on peak routes.	Transportation	15

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
39	LT 3.C.2	Identify and implement service modernization features, including GPS location of buses and integration with transit apps; electronic fare recovery; on-board wifi; and other amenities to streamline service and attract riders.	Transportation	15
40	LT 3.C.3	Focus initial phases of service expansion in areas of highest ridership potential.	Transportation	15
41	LT 3.C.4	Improve bus route and schedule information.	Transportation	15
42	LT 3.C.5	Complete bus shelters and amenities at 50 priority bus stops.	Transportation	15
43	LT 3.C.6	Identify priorities for ADA-compliant pedestrian access to bus stops. Develop a construction schedule and funding plan for priority projects.	Transportation	15
44	LT 3.C.7	Provide adequate and efficient bus storage and maintenance facilities.	Transportation	15
45	LT 3.C.8	Identify locations for park and rides, especially in coordination with a North Shore shuttle.	Transportation	15
46	LT 3.C.9	Convert bus fleet to sustainable fuels.	Transportation	15
47	LT 3.C.11	Update maintenance facilities to continue maintainence of the bus fleet.	Transportation	15
48	LT 5.C.1	Complete planning, engineering, and construction for the West Side Path from Waimea to Kekaha and from Hanapēpē to Salt Pond.	Public Works	17
49	LT 5.C.2	Complete the Ke Ala Hele Makalae path from Anahola to Līhu'e.	Public Works	17
50	LT 5.C.3	Complete planning and first phase construction of a North Shore Path in areas supported by the community.	Public Works	17
51	LT 5.C.4	Complete at least one segment of a shared use path identified in the *South Kaua'i Community Plan and the Līhu'e Community Plan*.	Public Works	17
52	LT 5.C.5	Complete priority bikeway projects as identified in Community Plans.	Public Works	17
53	CI 2.C.1	Locate and relocate wastewater facilities in appropriate geographic areas, based on traditional, cultural, and biological natural filtration systems for the optimization and expansion of wastewater systems and system improvement, considering alternative reclamation technology or tertiary treatment.	Planning	20
54	CI 2.C.2	Provide adequate trunk sewer and collection main capacities to serve existing and future urban development.	Public Works	20

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
55	CI 2.C.3	Plan for and implement regional wastewater treatment solutions for South Kaua'i and Kīlauea.	Public Works	20
56	CI 2.C.4	Monitor the disposition and potential effect of cesspool seepage and injection wells on the groundwater and nearshore water quality.	State DOH	20
57	CI 2.C.5	Support water reuse projects and increase the use of recycled water.	Public Works	20
58	CI 2.C.6	Explore opportunities to utilize the Clean Water State Revolving Fund Program for financing water quality infrastructure projects, including energy savings at plants, capacity increases including new pump stations, and drainage improvements.	Public Works/Parks & Recreation	20
59	CI 2.C.7	Improve wastewater infrastructure through grant and loan programs, such as the USDA Rural Development Program.	Water	20
60	CI 3.C.1	Site and construct a new landfill.	Public Works	21
61	CI 3.C.2	Establish an automated weekly, curbside collection system for residentially generated green waste and recyclables.	Public Works	21
62	CI 3.C.3	Reduce solid waste volume through source-reduction programs that reuse building materials, minimize packing materials, and other measures. Focus attention on large volume purchasers and developers.	Public Works	21
63	CI 3.C.4	Divert at least 70 percent of solid waste through increased source reduction, recycling, biodiversion, and landfill diversion methods.	Public Works	21
64	CI 3.C.5	Maximize effective life of existing and future landfill capacity.	Public Works	21
65	CI 3.C.6	Increase the convenience of recycling centers for users.	Public Works	21
66	CI 3.C.7	Provide commercial volume-based collection with enhanced recycling programs, including incentives for businesses to adopt zero-waste collection programs.	Public Works	21
67	SS 1.C.1	Implement economic revitalization projects in town centers, such as the Līhu'e Town Core TIGER grant project.	Public Works	23
68	SS 1.C.2	Construct centralized parking lots in towns with parking management issues.	Public Works	23
69	SS 1.C.3	Improve criteria for species selection and maintenance of street trees and landscaping.	Planning	23

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
70	SS 1.C.4	Identify opportunities for public art installation in projects, such as roundabouts, parks, and streetscape improvements.	Planning	23
71	SS 2.C.1	Support priority projects in the *Kaua'i Parks & Recreation Master Plan*.	Parks & Recreation	24
72	SS 2.C.2	Prioritize park improvements and provide safe routes to parks, especially in low-income neighborhoods with high concentrations of youth.	Parks & Recreation	24
73	SS 2.C.3	Implement a playground development and rehabilitation program to provide high quality play environments, especially in underserved communities.	Parks & Recreation	24
74	SS 2.C.4	Enhance parks by making them more conducive to physical activity through shared use paths, play equipment for more than one age group, skate parks, disc golf, tennis facilities, and other improvements.	Parks & Recreation	24
75	SS 2.C.5	Promote social interaction through facility improvements, such as pavilions, shade trees, and seating.	Parks & Recreation	24
76	SS 2.C.6	Expand indoor recreation spaces at selected parks.	Parks & Recreation	24
77	SS 2.C.7	Ensure safety and cleanliness at Kaua'i's beach parks. Use Crime Prevention Through Environmental Design (CPTED) when planning improvements.	Parks & Recreation	24
78	SS 2.C.8	Address illegal camping in parks.	Parks & Recreation	24
79	SS 2.C.9	Provide accessibility features at popular facilities such as beach parks.	Parks & Recreation	24
80	SS 2.C.10	Develop and install uniform signage, including interpretive signage that promotes a sense of place and educates the public at County beach parks regarding sensitive coastal and marine ecosystems and wildlife.	Parks & Recreation	24
81	SS 2.C.11	Provide canopy trees and shading at regional parks, such as over unshaded bleachers, to guard against heatstroke and other heat hazards especially during football, baseball, and soccer seasons.	Parks & Recreation	24
82	SS 3.B.1	Complete Ka Ala Hele Makalae from Anahola to Līhu'e.	Public Works	25
83	SS 3.B.2	Construct the Waimea-Kekaha Shared Use Path.	Public Works	25
84	SS 3.B.3	Construct the North Shore Share Use Path.	Public Works	25
85	SS 3.B.4	Construct a South Kaua'i Shared Use Path.	Public Works	25

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
86	EC 1.C.1	Improve route and destination signage to alleviate congestion associated with difficulties in finding desired locations.	Public Works	27
87	EC 1.C.2	Improve waste disposal, collection, and management at popular destinations and provide more recycling options.	Public Works	27
88	EC 1.C.3	Support projects to encourage visitor transportation mode shift from single occupancy vehicles to other modes.	Transportation/ Economic Development	27
89	EC 2.C.1	Provide economic development programs to promote and support agriculture.	Economic Development	28
90	EC 2.C.2	Reestablish an Agricultural Specialist position with the Office of Economic Development.	Economic Development	28
91	EC 2.C.3	Support the Sunshine Markets and other means of marketing Kaua'i agricultural and food products to residents, businesses, and visitors.	Economic Development	28
92	EC 2.C.4	Establish a minimum goal for designation of IAL. Improve the IAL program to effectively preserve high-quality agricultural land. Develop related County-level incentives, specifically to encourage food production to increase self-reliance.	Planning	28
93	EC 2.C.5	Increase incentives to lease land to small farmers through revisions to the agricultural property tax regime.	Finance	28
94	EC 2.C.6	Improve water infrastructure for irrigation in priority areas, such as IAL.	Water	28
95	EC 2.C.7	Develop community food hubs, commercial kitchens, and other initiatives that provide places for community members to grow and prepare their own food.	Planning	28
96	EC 2.C.8	Allow the use of SNAP benefits at farmers markets.	Economic Development	28
97	EC 2.C.9	Reduce water rates for landowners of agricultural lands in active production.	Water	28
98	EC 2.C.10	Establish a County-wide composting program.	Public Works	28
99	EC 3.C.1	Invest in shared facilities and resources that can be utilized by multiple opportunity clusters, such as creative industries and technical services.	Economic Development	29
100	EC 3.C.2	Provide infrastructure that increases the competitiveness of businesses on Kaua'i and allows them to thrive in all parts of the island.	Planning	29

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
101	EC 3.C.3	Utilize County facilities and funds to support shared workspaces, makerspaces, and equipment for small businesses to utilize.	Economic Development	29
102	EC 3.C.4	Support programs and infrastructure that enables employees to telecommute or work in satellite locations.	Economic Development	29
103	EC 3.C.5	Attract technology and energy businesses that complement Kaua'i's economic and sustainability goals.	Economic Development	29
104	EC 3.C.6	Build capacity for economic development in the target industry clusters identified by CEDS.	Economic Development	29
105	HR 1.C.1	Maintain the character of historic structures and bridges by implementing best management practices that adhere to the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* when rehabilitating and/or renovating historically significant buildings and structures.	Public Works	30
106	HR 1.C.2	Educate and encourage property owners to nominate structures and sites to the State and National Register of Historic Places.	Planning	30
107	HR 1.C.3	Provide a real property tax exemption for historic properties, including commercial properties.	Finance/County Council	30
108	HR 1.C.4	Explore utilizing the Open Space Fund for historic preservation purposes.	Finance	30
109	HR 2.C.1	Promote the diversity of stories and sites on Kaua'i, including those related to Native Hawaiian history and mythology, migrant worker history, and modern history.	Planning	31
110	HR 2.C.2	Establish historical trails, markers, and events that draw attention to the history of Kaua'i.	Parks and Recreation/ State Parks	31
111	HR 2.C.3	Through stewardship agreements, ensure proper management and interpretation of significant cultural resources and sites.	Parks and Recreation/ State Parks	31
112	HR 2.C.4	Achieve permanent preservation of highly significant cultural landscapes where multiple heritage and ecological values are located.	Planning	31
113	HR 3.C.1	Support Kaua'i Nui Kuapapa and other efforts to spread awareness of Kaua'i's original place names.	Mayor's Office	32
114	HR 3.C.2	Support implementation of the corridor management plan for the Holo Holo Kōloa Scenic Byway.	Public Works	32
115	ES 1.C.1	Install more solar energy systems on County facilities.	Economic Development	33

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
116	ES 1.C.2	Pursue green energy conservation, including but not limited to: groundskeeping and farming equipment/machinery, and ground transportation, by: a. Installing more, and regularly maintaining and repairing, electric vehicle charging stations. b. Introducing residential and commercial incentives to transition to electric groundskeeping and farming equipment/ machinery. c. County transition from fuel-powered to electric vehicles, machinery, and equipment, where feasible.	Economic Development	33
117	ES 1.C.3	Conduct regular reviews of County operations to identify ways to conserve energy, particularly during nighttime hours.	KUIC	33
118	ES 2.C.1	Establish capture and containment of methane at all landfills and County waste facilities.	Public Works	34
119	ES 2.C.2	Adopt a county-wide zero-waste strategy, including but not limited to: recycling pick-up at households and public locations and events, and building and maintaining a materials recovery facility with staff assigned to locate markets for recycled material.	Public Works	34
120	ES 2.C.3	Support the expansion of electric vehicle charging station infrastructure at County facilities.	Economic Development	34
121	PS 1.B.1	Upgrade bridges in key areas to ensure emergency vehicles can service all residents and visitors.	Public Works	35
122	PS 1.B.2	Construct new fire stations to accommodate anticipated growth in the firefighting force.	Fire	35
123	PS 1.B.3	Strive to attain a police force, firefighting force, and water safety officer force whose coverage meets or exceeds national standards.	Police/Fire	35
124	PS 1.B.4	Support continuous training for all emergency response officers.	Emergency Management	35
125	PS 1.B.5	Encrypt County radio communications systems.	Police/Fire	35
126	PS 2.C.1	Ensure that the County's GIS database, including all maps, data, and hazard information, is consistently available to all agencies. Facilitate data sharing thorugh participation in the Hawai'i Geographic Information Coordination Council.	Planning	36

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
127	PS 2.C.2	Update, maintain, and enhance the use of the County's GIS databse to improve decision-making and ensure consistency in planning, permitting, and construction regulations to reduce disaster risk.	Planning	36
128	PS 3.C.1	In accordance with Hawai'i State Planning Act Priority Guidelines, consider multiple scenarios of SLR and associated flooding, wave inundation, and erosion impacts when developing and approving capital improvement projects.	State DLNR	37
129	OH 1.C.1	Develop funding sources to expand, improve, and maintain high-quality transportation, water, parks, broadband, and other infrastructure in underserved neighborhoods.	Planning	38
130	OH 1.C.2	Leverage infrastructure investments to bring jobs and housing opportunties to underserved communities.	Economic Development	38
131	OH 1.C.3	Increase access and affordability of public transit for youth and other transit-dependent populations.	Transportation	38
132	OH 1.C.4	Ensure all residents have an opportunity to have a voice in County initiatives by making special efforts to reach low-income people, youth, non-English speaking immigrants, people with criminal records, and other traditionally underserved groups.	Planning	38
133	OH 1.C.5	Establish health and opportunity criteria for prioritizing County programs and policies.	Mayor's Office	38
134	OH 1.C.6	Establish community standards for wages and benefits, ensure fair scheduling, and support worker organizing.	Human Resources	38
135	OH 1.C.7	Ensure fair hiring, equal pay, and equitable promotion opportunities within the County workforce.	Human Resources	38
136	OH 1.C.8	Reduce barriers to employment and services, such as credit checks and criminal history questions on applications for jobs and housing, in both the private and public sector.	Human Resources	38
137	OH 1.C.9	Target economic development efforts to grow high-opportunity industries that have potential for growth and to create jobs for people with less than a four-year degree.	Economic Development	38
138	OH 1.C.10	Leverage the County's procurement and contracting to assist minority and female entrepreneurs and triple-bottom-line businesses such as social enterprises, cooperatives, and B Corps.	Finance	38
139	OH 2.B.1	Prioritize pedestrian, bicycle, and road safety improvements around and adjacent to schools.	Public Works/ Transportation	39

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
140	OH 2.B.2	Prioritize the development and improvement of play areas or tot lots for small children in areas with high concentrations of family care homes, such as Līhu'e and Kapa'a.	Parks and Recreation	39
141	OH 3.C.1	Prioritize sidewalk and bus stop improvements for accessibility near major health care facilities and group homes.	Transportation	40
142	OH 3.C.2	Improve the connectivity of essential services, including emergency response.	Emergency Mangement	40
143	OH 3.C.3	Ensure that low-income neighborhoods have high-quality parks, playgrounds, and green spaces.	Parks & Recreation	40
144	OH 3.C.4	Leverage Federal resources such as community development block grants and neighborhood-focused programs to create opportunity-rich neighborhoods.	Housing/Planning	40
145	OH 3.C.5	Adopt policies for smoke-free cars with keiki, beaches, parks, and condos.	County Council	40
146	OH 4.C.1	Acquire priority projects identified by the Open Space Commission.	Planning	41
147	OH 4.C.2	Pursue easements, acquisitions, and landowner agreements to expand trails, access, open space, protection of coastal lands, and wilderness areas.	Planning	41
148	OH 4.C.3	Establish a task force including landowners, land trust experts and attorneys, the Open Space Commission, and others, to study and recommend legal and land use measures to address and ameliorate liability on lands dedicated to managed public uses.	Mayor's Office	41

ONLINE VERSION

ONLINE VERSION

4. PARTNERSHIP NEEDS				
#	Label	Action	Lead Agency	Objective
1	WA 1.D.1	Support the management and protection of Kaua'i's forest resources and upper watershed areas in the Conservation District.	State DLNR	1
2	WA 1.D.2	Support the State's "World Conservation Congress Legacy Commitment: 30 by 30 Watershed Forests Target" to protect 30% (253,000 acres) of Hawai'i's highest priority watershed forests by 2030.	Planning	1
3	WA 1.D.3	Educate the public and visitors about native species protection, wildfire prevention, the spread of invasive species, and water quality protection.	State DLNR	1
4	WA 1.D.4	Increase opportunities for public access to forests in a way that is ecologically sustainable.	State DLNR	1
5	WA 1.D.5	Promote education and enforcement campaigns to curb littering and dumping in forest areas. Provide trash and recycling receptacles near popular trailheads and picnic areas.	State DLNR	1
6	WA 1.D.6	Support and educate about State and Federal landowner-assistance programs that support private forest-restoration efforts, such as the Conservation Reserve Enhancement Program and Forest Stewardship Program.	State DLNR	1
7	WA 2.D.1	Collaborate with community groups and stakeholders to better manage water resources in a cooperative fashion, avoiding adversarial fights that can divide the community.	State CWRM	2
8	WA 2.D.2	Encourage collaborative watershed and stream protection through the efforts of non-profit and volunteer environmental groups, such as the Hanalei Watershed Hui and Kaua'i Watershed Alliance.	State DLNR	2
9	WA 2.D.3	Develop instream flow standards for Kaua'i's perennial streams, with a focus on the existing project to develop standards for Southeast Kaua'i.	State CWRM	2
10	WA 2.D.4	Maintain stream flows by periodically removing excessive debris and vegetation from stream channels and beds that can impede drainage.	State DLNR	2
11	WA 2.D.5	Monitor the quality of coastal and inland waterbodies, using an operational groundwater-level monitoring network and a stream monitoring network, to ensure compliance with instream flow standards.	State DLNR / State DOH	2
12	WA 2.D.6	Support the establishment of community-based councils to assist with watershed management issues.	State CWRM	2

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
13	WA 2.D.7	Seek to prevent stream overflow in low-lying communities by maintaining natural drainageways and preventing the buildup of debris.	State DLNR	2
14	WA 2.D.8	Support the update of the *Hawai'i State Water Plan* components as they relate to Kaua'i, including the *Water Resource Protection Plan, Water Quality Plan, State Water Projects Plan,* and *Agricultural Water Use and Development Plan*.	State DLNR	2
15	WA 3.D.1	Manage local marine resources through community-based strategies, such as the Hā'ena Community-Based Subsistence Fishing Area.	State DLNR	3
16	WA 3.D.2	Address loss of beach areas due to sea level rise through a comprehensive beach management strategy, including local financing plans for beach and dune restoration.	Planning / Parks & Recreation	3
17	WA 3.D.3	Encourage citizen groups to take responsibility for water resource monitoring and protection, such as through the expansion of the Makai Watch Program.	State DLNR	3
18	WA 3.D.4	Adopt tax policies favorable to public shoreline access.	Finance	3
19	WA 3.D.5	Dissuade beach driving through enforcement and by educating drivers about the laws, safety, and environmental and cultural impacts of driving on beaches.	State DLNR / State Parks / Parks and Recreation	3
20	WA 3.D.6	Provide preferred tax status and other incentives to help community groups, non-governmental organizations, and government agencies restore native lowland forests.	Finance / County Council	3
21	WA 4.C.1	Provide enforcement and education regarding endangered species regulations.	State DLNR	4
22	WA 4.C.2	Provide interpretive signage within protected areas to educate people about native flora and fauna.	State DLNR	4
23	WA 4.C.3	Design and install signage informing motorists and pedestrians about the presence of threatened or endangered species in wildlife hazard zones and during yearly times of increased danger.	Public Works / State DOT	4
24	WA 4.C.4	Utilize predator-proof fencing and new technology to protect endangered species, such as seabirds, from lights and powerlines.	State DLNR	4
25	WA 4.C.5	Complete and implement native species Habitat Conservation Plans, such as the Kaua'i Seabird Habitat Conservation Plan and the Kaua'i Nēnē Habitat Conservation Plan, which address legal issues regarding human-wildlife interaction while allowing for economic development.	State DLNR	4

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
26	WA 4.C.6	Protect and restore forest bird corridors, seabird flyways, waterbird habitat, and areas of monk seal loafing.	State DLNR	4
27	WA 4.C.7	Promote greater protection of Kaua'i's native flora and fauna biodiversity by reducing the threats of invasive species: a. Rapidly identify and address invasive species on County lands and coordinate with other public and private landowners to control sources of invasive species. b. Track invasive species and focus attention on the most damaging, persistent, and emerging invasive species from other islands in Hawai'i that have not yet become established on Kaua'i. c. Collaborate with State and local partners, such as the Kaua'i Invasive Species Committee, on comprehensive biosecurity strategies at ports of entry to prevent invasive species, such as the mongoose, from spreading to Kaua'i. d. Support State, County, and non-profit organization efforts to control invasive species, identify and address invasive species on County lands, and coordinate with other public and private landowners to control sources of invasive species through the work of DLNR, the Hawai'i Invasive Species Council (HISC), the Kaua'i Invasive Species Committee (KISC), the Kaua'i Watershed Alliance (KWA), and others. e. Increase public awareness of specific invasive species threats through both targeted and wide-scale campaigns, as appropriate to the nature and geographic extent of individual threats. Focus attention on what is at stake and whom to contact for invasive species detection.	State DLNR	4
28	WA 4.C.8	Acquire shoreline areas that could serve as refugia for species impacted by sea level rise or areas that could be appropriate sites for coastal habitat creation or restoration.	State DLNR	4
29	WA 4.C.9	Utilize conservation easements and partnerships with land trusts to acquire natural areas and promote mitigation banking.	State DLNR	4

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
30	WA 4.C.10	Promote protection, restoration, and identification of critical habitats for our native, threatened, and endangered flora and fauna through the following actions: a. Regularly evaluate and update a database listing environmental resource sites. b. Identify specific areas of habitat across the island that are in need of more heightened protection and/or restoration. c. Protect and restore existing wetlands that serve as critical habitats for existing species. d. Require developers and land-users to provide a protection buffer around existing habitats and wetlands. e. Encourage more reforestation and native flora outplantings across the island to help increase and enhance habitats. f. Preserve and establish connectivity between existing habitats and critical areas of interest.	State DLNR	4
31	WA 4.C.11	Ensure adequate inspection and review of shipments that may contain invasive species.	State DOA	4
32	WA 4.C.12	In schools, develop programs that improve education and awareness of: a. The role of native species and the importance of biodiversity in Hawai'i. b. Projects that support the prevention and eradication of invasive species, and the protection and conservation of threatened and endangered species and habitats.	State DOE	4
33	WA 4.C.13	Protect endangered species through programs, including but not limited to the Mānā Plain Wetland Restoration Project, Kīlauea Point National Wildlife Refuge, Kaua'i Endangered Seabird Recovery Project, and Kaua'i Forest Bird Recovery Project.	State DLNR	4
34	HO 1.D.1	Provide the highest level of housing and community development assistance through partnerships and non-profit organizations such as a Community Land Trust.	Housing	5
35	HO 2.D.1	Support programs that facilitate infill development and economic revitalization of town cores.	Planning	6
36	HO 2.D.2	Collaborate with the State to review and streamline infill development projects.	Housing	6
37	HO 3.B.1	Work with the State Office of Planning to explore large-scale State land use redistricting consistent with the General Plan and updated Community Plans.	Planning	7

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
38	HO 3.B.2	Enter into public/private partnerships to move forward development in new communities, especially in Līhu'e, South Kaua'i, and Kīlauea.	Mayor's Office / Planning	7
39	HO 3.B.3	Leverage market-rate development to support long-term affordable housing through inclusionary zoning and other tools.	Housing	7
40	HO 5.D.1	Respect and support the mission of DHHL to prioritize planning for their beneficiaries.	State DHHL	9
41	HO 6.C.1	Provide and anticipate increasing services to the elderly and their caregivers, including access to transit, nutrition services, fitness programs, and personal care.	Housing	10
42	HO 7.D.1	Support the development and expansion of shelters to increase temporary housing for the houseless and other at-risk populations.	Housing	11
43	HO 7.D.2	The Mayor and the County Housing Agency shall work with the State of Hawai'i Department of Human Services and nonprofit community to implement a robust Housing First program that provides 24/7 wraparound services and makes available transitional and permanent housing for all houseless persons who desire such housing.	Housing	11
44	HO 7.D.3	Identify partnership opportunities with landowners and community organizations to accommodate sheltering and transitional housing needs for houseless populations and people with disabilities.	Housing	11
45	HO 7.D.4	Develop a coordinated, integrated system of services that facilitates entry, offers wraparound services, and supports system exit when appropriate.	Housing	11
46	HO 7.D.5	Provide transportation to enable the houseless to access services (offer rides, bus vouchers, pay as you go card, or other options).	Transportation	11
47	HO 7.D.6	Support rehabilitation programs for the houseless.	Housing	11
48	HO 7.D.7	Prioritize resources for houseless families with children, youth, women, veterans, and people with disabilities.	Housing	11
49	LT 1.D.1	Improve the process of collaboration with HDOT to involve both the County and State in planning, scoping, design, and funding of transportation plans and projects.	Planning/Public Works	13

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
50	LT 1.D.2	In collaboration with HDOT, develop a process to apply "least cost planning" and "practical design" into transportation planning and projects with a focus on congestion management for Kūhiō Highway and Kaumualiʻi Highway. Select a pilot project to test the process and outcomes.	Planning/Public Works	13
51	LT 1.D.3	Restructure the Transportation Coordinating Committee as a working group with representatives from Kauaʻi County Long Range Planning, the County's Transportation Planner, Public Works Engineering, Capital Improvement Program Manager, Transportation Agency, and HDOT.	Planning/Public Works	13
52	LT 1.D.4	Identify and actively seek non-County revenue sources (Federal, State, and private) to supplement County funding of the transportation network).	Planning/Public Works/ Transportation	13
53	LT 1.D.5	Enhance community partnerships for roadway maintenance (including landscaping) and education of all roadway users.	Public Works	13
54	LT 1.D.6	Continue to support the Built Environment Task Force of Get Fit Kauaʻi as a primary venue for public discussion of funding and implementing our land transportation system.	Transportation	13
55	LT 1.D.7	Regularly evaluate and update Council-determined land transportation user fees, such as bus fares, registration, and fuel and vehicle weight tax rates.	Transportation / County Council	13
56	LT 2.C.1	Improve systems, communcations, and resources so that County projects funded by the State Transportation Improvement Program (STIP) are completed on schedule.	Transportation	14
57	LT 2.C.2	Secure resources and partnerships for maintenance of County roadways.	Mayor's Office	14
58	LT 3.D.1	Expand the bulk bus pass program to generate transit revenue and encourage ridership.	Transportation	15
59	LT 3.D.2	Coordinate with HDOT to incorporate transit stops and pullouts on State Highway projects where needed.	Transportation	15
60	LT 3.D.3	Work with State and Federal agencies and local employers to establish a dedicated funding source for transit.	Transportation	15
61	LT 3.D.4	Partner with HDOT to design bus stops on rural highways.	Transportation	15
62	LT 3.D.5	Develop a transit-ready development pilot project on State lands pursuant to the *State Transit Oriented Development Strategic Plan*.	Transportation	15

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
63	LT 3.D.6	Provide housing adjacent to transit stops, with a special focus on transit hubs.	Planning	15
64	LT 4.B.1	Continue a robust Safe Routes to School Program with Engineering, Encouragement, Education, Enforcement, and Evaluation.	Public Works	16
65	LT 4.B.2	Complete priority pedestrian projects as identified in Community Plans and other studies.	Public Works	16
66	LT 4.B.3	Work with HDOT to identify and implement appropriate pedestrian crossings on State Highways.	Public Works	16
67	LT 4.B.4	Develop a Safe Routes to Parks program to identify priority pedestrian improvements within neighborhoods to parks.	Public Works	16
68	LT 5.D.1	Work with HDOT to have adequate and safe bicycle facilities on all State Highways, including bridges.	Public Works	17
69	LT 5.D.2	Leverage Federal funding to complete bicycle and pedestrian access improvements on Kīlauea Road to Kīlauea Point National Wildlife Refuge.	Public Works	17
70	LT 5.D.3	Prepare a bikeshare feasibility study and implement a bikeshare program.	Public Works	17
71	LT 5.D.4	Continue to support bicycle safety and education programs in collaboration with community partners.	Public Works	17
72	LT 6.B.1	Establish staff resources and funding for Countywide parking enforcement.	Police	18
73	LT 6.B.2	Work with State agencies to address the parking impact at beaches and other State-owned parks and scenic areas such as Kē'ē Beach.	Planning/ Economic Development	18
74	LT 6.B.3	Work with employers and resort areas to establish parking management strategies that incentivize mode shift.	Transportation	18
75	LT 6.B.4	Consider the establishment of parking districts in town centers.	Transportation	18
76	CI 1.C.1	Encourage water conservation at the individual, business, and municipal levels.	Water	19
77	CI 1.C.2	Collaborate with community groups on cooperative approaches to water management.	Water	19
78	CI 2.D.1	Reduce the number of cesspools through septic conversion or through connection to a new or existing regional wastewater system.	Water	20
79	CI 2.D.2	Institute best practices for diverting and reusing wastewater.	Water	20
80	CI 4.B.1	Support DOBOR with master planning and acquiring funding for expansion and maintenance of all small boat harbors.	Parks & Recreation	22

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
81	CI 4.B.2	Update the Līhu'e Airport Master Plan and address capacity issues.	State DOT	22
82	CI 4.B.3	Collaborate with HDOT Airports Division in the implementation of the TAM.	State DOT	22
83	CI 4.B.4	Collaborate with HDOT Airports Division and other agencies in future planning of land uses at Burns Field in Port Allen as a part of the Hanapēpē-'Ele'ele Community Plan.	Planning	22
84	CI 4.B.5	Support HDOT – Harbors Division to implement and update the *Kaua'i Commercial Harbors 2025 Master Plan*.	Planning	22
85	SS 1.D.1	Foster civic engagement in town centers through placemaking activities.	Planning	23
86	SS 1.D.2	Conduct community events that bring people together.	ALL	23
87	SS 1.D.3	Activate and revitalize public spaces with artwork, programs, and performances.	Economic Development	23
88	SS 1.D.4	Use underutilized public space as venues for creative expression.	Public Works	23
89	SS 2.D.1	Expand the County's park stewardship agreement program.	Parks & Recreation	24
90	SS 2.D.2	Explore alternative sources of funding for priority park improvements, such as crowdfunding and community initiatives or collaborations.	Parks & Recreation	24
91	SS 2.D.3	Implement programs for beach and dune restoration, especially at beach parks experiencing erosion such as Po'ipū Beach Park.	Parks & Recreation	24
92	SS 2.D.4	Encourage expansion of programs and legislation supporting septic systems in place of cesspools located within 200 feet of a shoreline, perennial stream, or wetland.	Public Works	24
93	SS 3.C.1	Explore expansion of the Nā Ala Hele trail system, especially in Planning Districts without formal trails.	Parks & Recreation	25
94	SS 4.A.1	Implement the Waimea Canyon, Kōke'e, and Hā'ena State Park Master Plans.	State Parks	26
95	SS 4.A.2	Complete master planning for Russian Fort, Polihale, and Wailua River State Parks.	State Parks	26
96	SS 4.A.3	Support adequate funding and staffing for capital improvements, including maintenance and enforcement for public parks, trails, and recreation areas.	State Parks	26
97	SS 4.A.4	Improve and coordinate infrastructure and transportation to reduce visitor impacts.	State Parks	26

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
98	EC 1.D.1	Provide visitors with a unique, positive, culturally-rich, and safe experience on Kaua'i. Encourage cultural sensitivity and cultural exchange.	Economic Development	27
99	EC 1.D.2	Develop alternative transportation options for visitors, including shuttles and car sharing, to reduce visitor impact on our roads, highways, and scenic places.	Transportation/ Economic Development	27
100	EC 1.D.3	Establish a County tax on rental cars to fund alternative transportation options for visitors.	Mayor's Office / County Council	27
101	EC 1.D.4	Lift the cap on existing Transient Accommodation Tax (TAT) funds distributed by the State to Counties, thus increasing the allocation to Kaua'i for services and infrastructure.	Mayor's Office/ County Council	27
102	EC 1.D.5	Develop and promote community programs that reinforce the unique sense of place of communities, such as those with historical and cultural significance.	Economic Development	27
103	EC 1.D.6	Encourage more use of Native Hawaiian place names and increase understanding of the meanings.	Planning	27
104	EC 1.D.7	Encourage tourism that provides eco-friendly and educational experiences, products, and services; leverages and supports local business and agriculture; relies less on cars; and embraces the rich historic and cultural foundation upon which Kaua'i's communities were built.	Economic Development	27
105	EC 1.D.8	Attract new employees, especially local residents, to the visitor industry to ensure an available, well-qualified workforce.	Economic Development	27
106	EC 1.D.9	Train the visitor workforce in understanding Kaua'i's local culture.	Economic Development	27
107	EC 1.D.10	Encourage the visitor industry, airlines, and the growing cruise line industry, to buy and promote Kaua'i products and support businesses on Kaua'i.	Economic Development	27
108	EC 1.D.11	Increase use of renewable fuel sources and support carbon offset programs and incentives for passengers traveling to and from Kaua'i.	Economic Development	27
109	EC 2.D.1	Expand commercial agriculture, attract new agricultural support- and value-added industries, and promote locally-grown commodity sales.	Economic Development	28
110	EC 2.D.2	Increase small-scale diversified farming, including, but not limited to, fruits and vegetables, building materials, medicinal plants, aquaculture, apiaries, flowers, and livestock.	Economic Development	28
111	EC 2.D.3	Expand aquaculture and livestock farming.	Economic Development	28

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
112	EC 2.D.4	Improve water access and infrastructure for agricultural purposes.	Water	28
113	EC 2.D.5	Support regional agricultural parks and centers.	Planning	28
114	EC 2.D.6	Support commercial agricultural producers with agricultural cooperative extension services, marketing, and business development. Market agriculture and food products within Kaua'i and to out-of-state markets.	Economic Development	28
115	EC 2.D.7	Prepare youth for future careers in diversified agriculture and aquaculture, with additional emphasis on business skills.	Economic Development	28
116	EC 2.D.8	Provide incentives and opportunities for agricultural housing, jobs, training, processing/transport of goods, and other needs. Expand direct financial and tax assistance to agricultural enterprises.	Economic Development	28
117	EC 2.D.9	Review legislation impacting agriculture on Kaua'i. Coordinate position statements with the Kaua'i Community College, the Farm Bureau, and other agricultural interest groups.	Economic Development	28
118	EC 2.D.10	Clarify the reclassification incentive provided through designation of Important Agricultural Lands (IAL).	Planning	28
119	EC 2.D.11	Support education and cooperation relating to protection of native birds and protecting the right to farm.	Planning	28
120	EC 3.D.1	Build the capacity of all businesses and increase the skills and readiness of Kaua'i's students and workforce.	Economic Development	29
121	EC 3.D.2	Invest in opportunity industries that can diversify Kaua'i's economy and provide living wages.	Economic Development	29
122	EC 3.D.3	Promote cross-sector linkages between Kaua'i's anchor and opportunity industries to grow the market for local products and services.	Economic Development	29
123	EC 3.D.4	Support initiatives and programs to revitalize town centers and increase demand for local-serving businesses.	Economic Development	29
124	EC 3.D.5	Provide business planning assistance, career planning, entrepreneurial training, incubation, and assistance with permitting, licensing, and regulatory issues.	Economic Development	29
125	EC 3.D.6	Expand offerings for mentorship, networking, and affordable workspaces.	Economic Development	29
126	EC 3.D.7	Support programs and initiatives that encourage manufacturing and support Kaua'i's small-scale independent manufacturers.	Economic Development	29

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
127	EC 3.D.8	Strengthen market linkages between the tourism industry and Kaua'i made products such as fashion, food, and music.	Economic Development	29
128	EC 3.D.9	Expand opportunities for innovation and tech-based businesses.	Economic Development	29
129	EC 3.D.10	Increase access to capital for small businesses and start-ups.	Economic Development	29
130	EC 3.D.11	Educate businesses on financial planning and funding sources for hazard preparedness and recovery, including insurance options for business interruption, natural disasters, and other unexpected occurrences.	Economic Development	29
131	HR 1.D.1	Support partnerships between the County of Kaua'i, KHPRC, the public, and various historical and archaeological organizations to preserve important historic buildings and structures that illuminate Kaua'i's history.	Planning	30
132	HR 1.D.2	Establish a low-interest revolving loan fund for rehabilitation of historic properties.	Planning/County Council	30
133	HR 1.D.3	Develop a County of Kaua'i standard operating procedure (SOP) for engaging with SHPD and the "Section 106" and/or "HRS 6E" processes. Implement the SOP to improve interagency coordination and communication between SHPD and the applicable County, State, and Federal agencies.	Planning	30
134	HR 2.D.1	Work with the State Historic Preservation Division and KHPRC to educate landowners about the historic preservation review process.	SHPD	31
135	HR 2.D.2	Promote County and community partnerships to preserve and raise awareness about traditional cultural places.	Economic Development	31
136	HR 2.D.3	Increase community awareness and stewardship of Kaua'i's historic and cultural resources.	Planning	31
137	HR 2.D.4	Enhance the Hawaiian sense of place by promoting understanding of moku and ahuapua'a land divisions. Recognize and preserve the unique natural and cultural characteristics of each moku and ahupua'a.	Planning	31
138	HR 2.D.5	Seek to create community managed subsistence areas, also known as kīpuka, in every ahupua'a, in the tradition of kīpuka at Kē'ē and Waipā.	State DLNR	31
139	HR 2.D.6	Commence a collaborative planning effort to explore options that would make it possible to preserve the irreplaceable natural and cultural resources of Māhā'ulepū and to sustain the special experiences of this place.	Planning	31

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
140	HR 2.D.7	During the "Section 106" and "HRS 6E" review processes, utilize cultural practitioners and community authorities on historic preservation to serve an advisory function and provide guidance on heritage and cultural issues.	Planning	31
141	HR 2.D.8	Implement tax breaks and support programs to prevent foreclosures on kuleana lands caused by failure to pay taxes.	Finance / County Council	31
142	HR 3.D.1	Support the Hawai'i Scenic Byways Program.	Public Works	32
143	HR 3.D.1	Support the Kaua'i Open Space Commission in identifying and acquiring priority open space areas.	Planning	32
144	ES 1.D.1	Support the Kaua'i Island Utility Cooperative (KIUC) and private initiatives for solar, biomass, hydro, and other clean energy production types.	KIUC	33
145	ES 1.D.2	Identify sites where new renewable energy facilities might be co-located with other land uses.	KIUC	33
146	ES 1.D.3	Continue regular monitoring of the amount of Kaua'i's energy production that is from fuel produced on the island.	KIUC	33
147	ES 1.D.4	Support State and Federal efforts to price carbon, such as a carbon tax or fee and dividend programs.	KIUC	33
148	ES 2.D.1	Share best practices regarding climate planning, including support for system-wide carbon fees or taxes at the state or national level.	Mayor's Office	34
149	ES 2.D.2	Meet emissions reductions goals through partnerships within the electricity, transportation, tourism, agriculture, waste, and small business sectors. Collaborate to establish short term, intermediate, and long term (2050) emissions reduction targets in ground transportation, electricity, air transportation/tourism, and consumption and materials management.	Mayor's Office	34
150	ES 2.D.3	Increase the availability of information about buildings that are energy-efficient (e.g., with solar hot water, green building designs and materials, and KIUC's household energy audit) around the island for both the residential and commercial sectors.	Mayor's Office	34
151	ES 2.D.4	Support the expansion of electric vehicle charging station infrastructure at strategically accessible locations along the main highway and other major thoroughfares.	Public Works	34
152	PS 1.C.1	Support the State and County's coordinated response system to wildfires.	Fire / State DLNR	35

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
153	PS 1.C.2	Implement and update the *Kaua'i Community Wildfire Protection Plan*.	Fire	35
154	PS 1.C.3	Strengthen hazard monitoring systems, such as stream flow and river gauges.	Emergency Management	35
155	PS 1.C.4	Participate in quarterly disaster response training and exercises.	Emergency Management	35
156	PS 2.D.1	Designate evacuation routes, critical facility access routes, and public shelters in cooperation with local communities. Encourage storage of food and water in communities in order to encourage local recovery.	Emergency Management	36
157	PS 2.D.2	Encourage the integration of agricultural planning and coordination into disaster risk management to improve local food security, sustainability, and community resilience to hazards.	Emergency Management	36
158	PS 2.D.3	Plan for maintenance of critical facilities and infrastructure in the event of a hazard. Identify mitigation opportunities in utility service plans and implementation resources.	Public Works	36
159	PS 2.D.4	Improve public awareness materials distributed by the County through periodic updating with the best available data and maps.	Planning/ Emergency Management	36
160	PS 2.D.5	Enhance channels to the community by distributing materials at outreach and community events, via online and printed media, discussion on radio and news media, and by incorporating into the process of community resilience planning.	Emergency Management	36
161	PS 2.D.6	Improve data gathering and accounting for risk and vulnerability assessments for wind, droughts, and wildfires.	Emergency Management	36
162	PS 2.D.7	In assessing telecommunications vulnerabilities and planning pre-disaster preparedness measures, consult with the Utility Disaster Preparedness and Response Group for advice and recommendations.	Emergency Management	36
163	PS 2.D.8	Utilize local communications networks, community organizations, and local information sharing modes, both traditional and new (such as social media), to disseminate warning, response, and preparedness information. Include local communications strategies in resilience plans.	Emergency Management	36
164	PS 2.D.9	Ensure that existing designated shelter and critical services are built or retrofitted to withstand projected hazard scenarios. Incentivize and encourage residents and hotels to integrate hardened shelters into their structures.	Emergency Management	36

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
165	PS 2.D.10	Reduce "flash fuels" such as dry vegetation in high use areas and encourage vegetation clearing and clean-up programs.	State DLNR DOFAW	36
166	PS 2.D.11	Assess the need for specialized accommodations at shelter facilities to improve accessibility for special needs groups and pet owners.	Emergency Management	36
167	PS 2.D.12	Ensure the capacities of shelters, infrastructure, and critical facilities can accommodate the population exposed to catastrophic events according to recent census numbers, projected growth models, and projected hazard scenarios.	Emergency Management	36
168	PS 2.D.13	Support the development of a Common Operational Picture, which incorporates real-time asset status tracking for Emergency Management.	Emergency Management	36
169	PS 3.D.1	Work with the State Department of Land and Natural Resources (DLNR) to ensure conservation lands have appropriate vegetative ground cover to prevent soil erosion, including native and non-native plant species appropriate for Pu'u Ka Pele and Nā Pali-Kona Forest Reserve locations.	State DLNR	37
170	PS 3.D.2	Ensure consistent public access to communications, warning systems, roads, and infrastructure in remote areas in the event of a hazard.	Emergency Management	37
171	PS 3.D.3	Consider incentive programs, such as a tax incentive program or a transfer of developments rights program, to relocate potential or existing development out of hazardous or sensitive areas. Consider creating a relocation fund through increased development fees, in lieu fees, or other funding mechanisms.	Planning/Finance	37
172	OH 1.D.1	Ensure low-income students receive quality public education through strategies including comprehensive, place-based cradle-to-career initiatives.	State DOE	38
173	OH 1.D.2	Support reform to school disciplinary policies to keep youth in school and on track to graduate.	State DOE	38
174	OH 1.D.3	Partner with Kaua'i Community College for workforce development and training programs and apprenticeships.	Kaua'i Community College	38
175	OH 1.D.4	Foster racially and economically integrated neighborhoods.	Planning	38

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
176	OH 1.D.5	Require applicants to demonstrate knowledge of Hawaiian land and water laws as a prerequisite for licensing or professional registration with State boards and commissions that license professions relating to transfer of land ownership or land development. These include the Real Estate Commission, Board of Registration for Professional Engineers, Architects, Surveyors, and Landscape Architects.	State CWRM	38
177	OH 2.C.1	Treat schools as community resources for learning about specialized environmental, cultural, and historic subjects pertinent to Kaua'i.	State DOE	39
178	OH 2.C.2	Support community use of schools during non-school hours, such as recreational centers, meeting facilities, and emergency shelters.	State DOE	39
179	OH 2.C.3	Design school facilities to facilitate community use during non-school hours.	State DOE	39
180	OH 2.C.4	Retrofit existing facilities and design and construct new schools to serve as hurricane shelters.	State DOE	39
181	OH 2.C.5	Support the Keiki to Career Kaua'i programs and activities.	State DOE	39
182	OH 2.C.6	Continue and expand the Safe Routes to School program to encourage healthy, safe, and active living.	Public Works	39
183	OH 2.C.7	Support increased enrollment at Kaua'i Community College and the development of supportive housing, transportation, and facilities for students, staff, and faculty at the Puhi campus.	Kaua'i Community College	39
184	OH 2.C.8	Support both public and private educational programs that emphasize the Hawaiian language and Native Hawaiian culture, science, and practices.	State DOE	39
185	OH 3.D.1	Implement and update the *State Physical Activity and Nutrition Plan*.	State DOH	40
186	OH 3.D.2	Support pilot programs for community gardens and nutrition education programs.	Economic Development	40
187	OH 3.D.3	Provide anti-tobacco education in schools.	State DOE	40
188	OH 3.D.4	Increase access to programs that provide reproductive health and family planning education and services.	State DOH	40
189	OH 3.D.5	Support programs to increase participation in vaccination, disease screening, and early detection and management of chronic disease, such as the "Better Choices, Better Health" Program.	State DOH	40

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
190	OH 3.D.6	Support healthy food options in underserved communities by: a. Increasing the visibility of healthy food in stores, particularly those that accept Supplemental Nutritional Assistance Program (SNAP) and electronic benefit transfer (EBT) purchases. b. Allowing the use of Supplemental Nutrition Assistance Program (SNAP) benefits at farmers markets. c. Encouraging fast-food restaurants to offer healthy options and improve labeling. d. Increasing access to nutritional counseling. e. Taxing sugar-sweetened beverages. f. Eliminating the General Excise Tax on purchases of fresh fruits and vegetables.	State DOH	40
191	OH 3.D.7	Support programs that improve Kaua'i's ability to respond to and recover from public health threats such as infectious disease and mosquito-borne disease outbreaks.	State DOH	40
192	OH 3.D.8	Anticipate and plan for the health impacts of climate change.	State DOH	40
193	OH 3.D.9	Increase access to mental health services and the availability of mental health providers.	State DOH	40
194	OH 3.D.10	Support the Malama I Na Pua health and wellness program for Native Hawaiian youth.	State DOH	40
195	OH 4.D.1	Inventory and improve hunting access to Forest Reserves and government trails.	State DLNR	41
196	OH 4.D.2	Seek funding for trail acquisition, development, and maintenance through the Nā Ala Hele Program and the Hawai'i Tourism Authority.	Parks & Recreation / State Parks	41
197	OH 4.D.3	Focus trail acquisition in areas with a low number of public trails compared to the population, including South Kaua'i, Līhu'e, Anahola, and Hanapēpē-'Ele'ele.	State DLNR	41
198	OH 4.D.4	Improve public access to landlocked State land that is managed by DOFAW. Increase recreational opportunities in these areas.	State DLNR	41
199	OH 4.D.5	Use surfing reserves to protect access to surf breaks, improve parking for surfers at key surf destinations, and provide appropriate signage.	State DLNR	41
200	OH 4.D.6	Increase opportunities for access to subsistence hunting, fishing, and gathering.	State DLNR	41
201	OH 4.D.7	Manage lateral shoreline access concerns, including vegetation that encroaches on the beach transit corridor.	State DLNR	41

ONLINE VERSION

ONLINE VERSION

#	Label	Action	Lead Agency	Objective #
202	OH 4.D.8	Develop more ATV, motorcycle, and mountain bicycling facilities so such activity is focused in areas not vulnerable to environmental damage.	State DLNR	41
203	OH 4.D.9	Develop a public shooting range.	State DLNR	41
204	OH 4.D.10	Promote access with kuleana through stewardship agreements, work days, jobs, and other means, to engage community members in caretaking.	State DLNR	41

ONLINE VERSION

EXHIBIT "I-27"

KAPAA-WAILUA DEVELOPMENT PLAN

KAUAI COUNTY
STATE OF HAWAII

Prepared for: County of Kauai

Prepared by: Joint Venture of

LMLI Architects/Planners, Inc.
and
Hawaii Real Estate Research, Inc.

The preparation of this report was financed in part through an urban planning grant from the Department of Housing and Urban Development, under the provision of Section 701 of the Housing Act of 1954, as amended.

December, 1973
Honolulu, Hawaii

December, 1973

Planning Commission
County of Kauai
Lihue, Kauai, Hawaii 96766

Gentlemen:

It is with pleasure that we hereby submit the final draft of the KAPAA-WAILUA DEVELOPMENT PLAN.

We hope that this study will serve as a useful guide for the community and government officials in the attainment of the economic, social, cultural and environmental goals of this study area.

While it is difficult to give full recognition to all who contributed to this report, we would like to express our appreciation to members of the Kauai Planning Commission, the Kapaa-Wailua Citizens' Working Committee, Brian Nishimoto, Planning Director, and his staff, students of the anthropology class at Kauai High School and to the citizens of the community.

Consultants who assisted with this report are William Hee & Associates, civil engineers; Francis Oda and Abe Mitsuda of Group 70 Lab; Si-Si Stamper, economic consultant; Kem Lowery, editorial consultant; Mel Lau, landscape architect and Momi Cazimero, graphic consultant.

Although this report culminates a nine month effort, it is really the first step by the community in a continuing cycle of action, re-evaluations and revisions to achieve their goal of a better environment for living.

Very truly yours,

LMLI ARCHITECTS/PLANNERS, INC.
HAWAII REAL ESTATE RESEARCH, INC.

Clarence T. Miyamoto

Paul Tajima

TABLE OF CONTENTS

SECTION	TITLE	PAGE
I	INTRODUCTION	I-1
	Background to the Study	I-2
	The Setting	I-4
II	GOALS AND OBJECTIVES	II-1
	The Deliberative Process	II-2
	Community Goals and Objectives	II-2
III	ANALYTICAL PROCESS	III-1
	The Process	III-2
	The General Plan	III-2
	Human Resources	III-5
	Economic Conditions & Prospects	III-12
	Identification & Analysis of Elements	III-16
	Design Parameters	III-31
IV	THE DEVELOPMENT PLAN	IV-1
	Policy Implications	IV-7
	The Development Plan	IV-7
	Design Criteria	IV-14
V	THE DEVELOPMENT PROGRAM	V-1
	Program for Implementation	V-2
	Community Action Program	V-5
	Development Phasing	V-9
VI	APPENDIX	
	Acknowledgments	
	References	

BACKGROUND TO THE STUDY

Some months ago, the Kauai County Planning Commission initiated a study of the Kapaa-Wailua area. The objectives of the study were to:

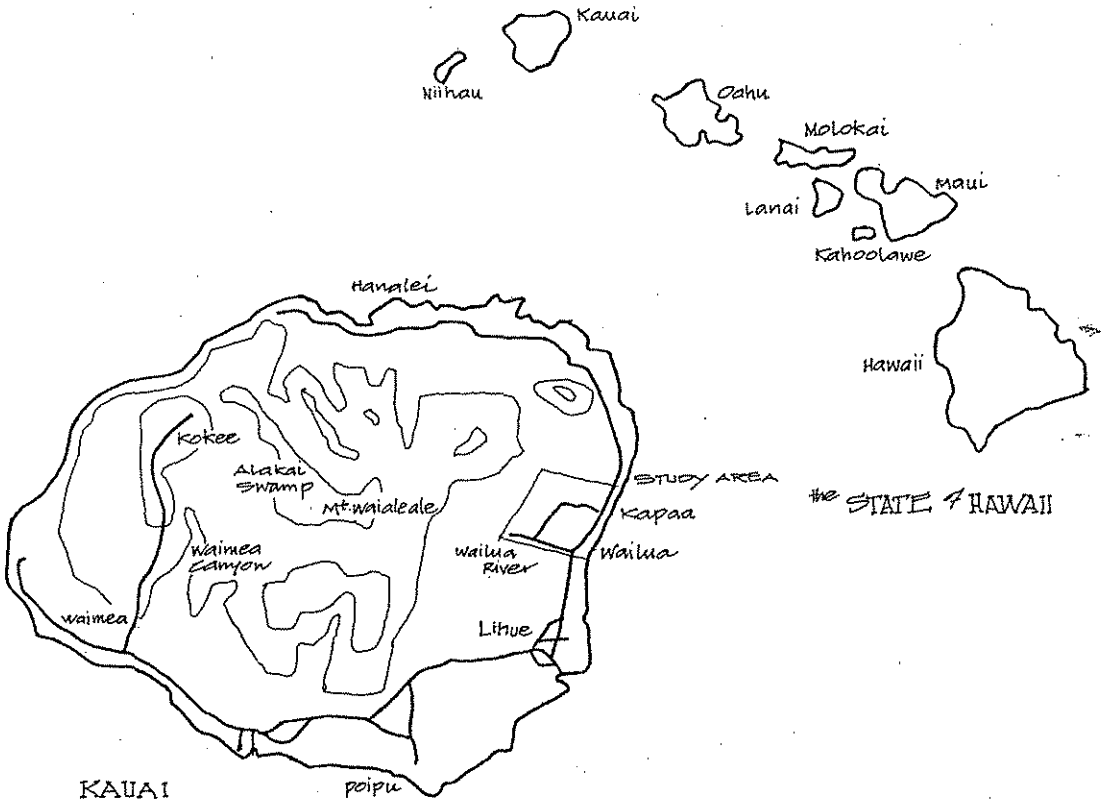
- -- describe the social and economic patterns of the area
- -- inventory and analyze existing and proposed streets, highways, parking
- -- define inventory and analyze areas requiring urban rehabilitation and/or renewal
- -- inventory and analyze existing and proposed business and commercial developments and areas
- -- analyze existing and proposed public facilities and utilities
- -- identify and define historical sites and structures

The purpose of the study was to provide a basis for proposing a development plan for Kapaa-Wailua; a development plan that would both protect the natural beauty of the area and provide a framework for the orderly growth of the community. More specifically, the plan is envisioned as a means of providing harmony among different uses of the land; of coordinating the spacial arrangement of structures and open spaces; housing and transportation, business and recreation areas in ways that would both meet the current requirements of an active community while anticipating the needs of Kauai's future citizens.

In other words, a community development plan is an expression of community values. It provides form and substance to the goals and aspirations of those who live and work and play in an area. It is a statement of their present needs and of the kind of community they want for their children.

In commissioning the Kapaa-Wailua study project, the Planning Commission also stipulated that the means for implementing a developmentplan would be proposed. This condition was based on the recognition that close collaboration of state and local officials and the people of the area will be needed in order to translate the development plan into reality. Among other things, ordinances and regulations will need to be written and enforced. Budget priorities and financing are requisites to construction and maintenance of facilities such as bikeways and bridges, boat ramps and other public facilities. Perhaps the key element in the implementation process, however, is the degree of commitment of the citizenry to the plan and to the guidelines for change and for preservation.

The basic framework for the Kapaa-Wailua Development Plan is provided by the Kauai County General Plan which was adopted in 1971. The General Plan is a broad statement of land use goals for the county. The means for the implementation of these goals is provided by the Comprehensive Zoning Ordinance. The task faced by those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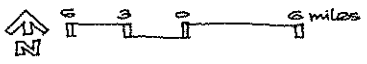
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involved in the Kapaa-Wailua planning process was to select goals specific to that area and to suggest the specific means by which these goals could be implemented. The planning that has gone into the Kapaa-Wailua Development Plan has involved a nine month process of community meetings, surveys, and interaction between members of the community, county and state officials and planning consultants. A Citizens' Working Committee composed of members of the community and planning officials has met twice each month during this period to draw up goals for the community and to review alternative design proposals. Surveys aimed at determining the preferences of students, businessmen and other groups within the community have been conducted. Studies of the economic needs, transportation requirements, population projections and land use patterns were also part of the planning process. All these elements have been combined in the drafting of the proposed development plan.

The result is a Development Plan and Program for Kapaa-Wailua. The details of that plan form the body of this report.

THE SETTING

Kauai is the oldest and fourth largest island of the Hawaiian Archipelago. Famed for its verdent valleys, sparkling beaches, Kauai is aptly called "The Garden Isle." But the Garden Isle is in a state of transition. Perhaps in no other area of the island are the elements of that process of change so evident as they are in Kapaa-Wailua. Blessed by nature with much of the natural beauty for which Kauai is faced and figuring prominently in the history of the islands, Kapaa-Wailua is a community whose residents are seeking to harmonize this beauty and historical tradition with the needs of a changing community and the growth potential of one of the Island's major tourist destination spots.

The Kapaa-Wailua area is situated along the eastern shore of the Island in the Kawaihau District. It is defined by the Pacific Ocean to the east and the agricultural lands and the mountains to the west. Its white sand beaches stretch from Lydgate Park, Wailua resort area to the south, to the Kealia Beach to the north. The terrain is level along the coastline and rises gently to the agricultural plateau before ascending to the mountains in the west. Kapaa-Wailua is blessed by a mild tropical climate with average temperatures ranging between 65 and 80 degrees. Trade winds from the northeast sweep the area throughout most of the year and rainfall averages 53 inches annually. Tropical vegetation characterizes the coastal plain giving way to a sugar cane belt and meadowlands on the uplands. The higher slopes are covered by native and planted forests. White sand beaches extend virtually uninterrupted from Wailua to Kapaa except

for brief stretches at Waipouli. The area includes another geographical feature of particular note...inland waterways with qualities that make it unique in the State of Hawaii

The Kapaa-Wailua area figures prominently in Hawaiian history and mythology. It is reported that all the kings of Kauai from ancient times to Kaumualii were born at Wailua. Similarly, the legend of the Naha stone refers to Wailua as the origin of the stone. From the late 18th century on, the history of the area follows the familiar contours of the state's social history: the advent of plantation agriculture, the importation of labor to work the fields, and the eventual decline of sugar and pine as the mainstays of the state's economy.

In 1793, Capt. James Vancouver landed in the Kapaa-Wailua area. In 1876, King Kalakaua and Capt. James Makee established a joint venture that resulted in the formation of the Makee Sugar Co. and with the construction, in 1877, of the Makee Sugar Co. mill in the town of Kapaa. One of the first colonies of Hawaiian homesteads was established in 1878 near Kealia. The census of that year indicated that a total of 5,634 people lived in the area. The Kapaa English School was established in 1883 for the purpose of educating the children of Portuguese immigrants imported to work on the sugar plantations. The same year many of the schools conducted in Hawaiian were closed. The pineapple industry made its entry into the area in 1913 with the organization of the Hawaiian Canneries Co., Ltd. at Kapaa. In 1915, the first pack comprising 19,932 cases of pineapple was canned. By 1934, the mill at Kealia had ceased grinding cane and the dwindling prospects for independent sugar cultivation in the area made small diversified farming more attractive and by 1960, the population of the Kawaihau District had increased to 6,498, most of whom lived in and around Kapaa. On January 26 of that year, the Hawaiian Canneries Co. announced its plans to cease its operations.

The economic base of the community was further threatened when, in mid-1972, the Stokley-Van Camp Co. announced that its Hawaiian Fruit Packers pineapple operations at Kapaa would close. Appeals by Governor John A. Burns bought a one year reprieve and a State Agricultural Task Force was formed to explore alternatives to pineapple. The task force has recommended shifting pineapple lands to diversified agricultural uses, but, at present, the economic future of the more than 1,500 employees of the cannery remains problematic. The economic disruption resulting from the decline of agriculture poses a serious challenge to the citizens of Kauai in general and the Kapaa-Wailua area in particular. Tourism is an economic alternative but a variable one; dependent as it is on economic conditions on the mainland and in the Pacific basin. Tourism also requires that the natural beauty of Kauai be jealously protected. The challenges facing Kauai can be met with sound planning. The obstacles to economic viability and orderly change are not insurmountable, but only the concerted efforts of county and state officials working with the

citizenry can ensure that the processes of change will not be disruptive; that all that which makes Kauai "The Garden Isle" will not be sacrificed.

This report, and the collaborative efforts that have gone into its preparation, are part of that effort.

THE DELIBERATIVE PROCESS

The process of choosing goals for Kapaa-Wailua was a collaborative effort involving many interested groups, individual citizens and officials. The Citizens' Working Committee had the primary responsibility for formulating the preliminary statement of objectives as this initial phase of the plan process. This committee was composed of sixteen community representatives and fourteen ex-officio members, all of whom were appointed by the Planning Commission. Among the groups represented on the committee were the Kapaa Businessmen and Professional Men's Association, Wailua Young People's Club, Wailua Homesteads Community Association, Kapaa Lions Club, Kapaa Booster Club, Kapaa High School, the ILWU, and the Kauai Community College. Other members represented the visitor industry, senior citizens and the community at large. This committee has met twice a month for the past nine months to discuss the future of the community, analyze current trends and needs, receive and review responses to community surveys and to evaluate development proposals and suggest alternatives. This deliberative process has been long and time consuming for all concerned, but the final product justifies the efforts. The residents of Kapaa-Wailua can take pride in a plan based on a set of objectives which they played the principal role in shaping. The analysis which served as a basis for the statement of community goals and objectives was conducted in two parts. One portion was based on statements of community attitudes and concerns in the form of surveys and participation in public hearings. The other portion was based on demographic and employment data.

COMMUNITY GOALS AND OBJECTIVES

Planning rests on the assumption that future events can be influenced by present actions. We assume that the community in which we live could be made "better". What would a "better" community be like? Planning a "better" community involves, first of all, defining what "better" means by seeking agreement on community goals. The process of choosing goals for a community is not an easy task. Not everyone shares the same views about what is good for Kapaa-Wailua. It is important, however, to have goals and to make them explicit. Only then is it possible to have a common basis for evaluating specific alternatives and for formulating the means by which the alternatives can be implemented.

The Citizens' Working Committee labored for many months in determining goals for Kapaa-Wailua. After months of reviewing and discussing community needs and problems in relation to overall county goals and objectives, they identified the following concerns which constitute the basis of the Kapaa-Wailua Development Plan.

KAUAI COUNTY GOALS	KAPAA-WAILUA COMMUNITY OBJECTIVES
I. Living, Housing & Employment	I. Living, Housing & Employment
a) To create opportunities for a greater diversity of employment....	a) Small stores should be "protected" and enhanced. An industrial "park" potential should be investigated. Day care and nursery facilities should be investigated.
b) To provide a desirable house or living quarters for all residents of all income levels....	b) Multi-family residential units should be strategically located with respect to places of employment, retail and service establishments, and community facilities. Housing for elderly should be centrally located and convenient to stores and community centers. Subsidized public housing projects should have parks and recreational facilities.
c) To guide physical growth so that island and visitor communities will develop in social and economic concert with each other....	c) "Heavy" and noxious industrial activities should be located so as to minimize community disturbance. Park dedication provisions should apply to developers of residential lots as well as of hotel sites.
d) To create, develop & sustain an economy and a population that will require and encourage the educated youth to live on the island and contribute to the formulation of a new dynamic society.	d) The community college should include training of skills needed in the economy.

KAUAI COUNTY GOALS	KAPAA-WAILUA COMMUNITY OBJECTIVES
II. Education & Recreation	II. Education & Recreation
a) To create opportunities for a greater fulfillment of life through the development of a broad spectrum of educational and cultural pursuits....	a) The educational program should be separated into three levels--kindergarten to sixth, seventh to ninth, and tenth to twelfth grades--corresponding to the three "social" levels of attitudes. The educational facilities should include a separate high school in the Kawaihau district and several neighborhood elementary schools. Library facilities should be expanded and improved. There should be an expanded program of education and active recreation.
b) To provide for a maximum variety of outdoor recreational activities....	b) Develop neighborhood parks as needed. Develop recreational facilities in mountain (forest) areas. Recreational boating facilities should be improved and investigate feasibility of small boat "harbor". Improve and/or develop beach park facilities. A community "sports" complex should be developed. Hotels should be developed in balance with the community's recreational resources.

KAUAI COUNTY GOALS	/ KAPAA-WAILUA COMMUNITY OBJECTIVES
III. Community, Cultural Activities & Beautification	III. Community, Cultural Activities & Beautificiaton
a) To maintian the concept of Kauai as "The Garden Isle"; thus insisting any growth be in consonance with the unique landscape and environmental character of the island....	a) Develop and implement community beautification program. Preserve and develop beach parks and scenic drives. Private as well as public real property should be properly maintained and in a state of good repair. Protect the shoreline and attendant resources of Kapaa-Wailua area.
b) To guide and control development to take full advantage of the island's form, beauty and climate and preserve the opportunity for an improved quality of life....	b) Develop off-street parking facilities. Develop controls for construction of buildings and signs.
c) To recognize those aspects of the island and its people which are historically significant, and to preserve and promote them as a continuing expression of the island's physical and social structure.	

KAUAI COUNTY GOALS	/ KAPAA-WAILUA COMMUNITY OBJECTIVES
IV. Transportation, Utilities & Services	IV. Transportation, Utilities & Services
a) To insure that all physical growth is consistent with the overall ecology of the island....	a) Investigate "by-pass" highway alignment or widening of existing highway. Develop relocation program of overhead utility lines.
b) To promote and protect the health, safety and welfare of all residents..	b) Determine placement and spacing of community "bus stops". Develop both pedestrian and vehicular access to beach areas. Develop integrated bikeways and walkways, particularly along the old railroad right-of-way near the beach. Encourage better health care services such as a medical clinic and/or expanded hospital services. Improve police protective services. Encourage and expedite adoption and implementation of sewer system for the Kapaa-Wailua area. Provide adequate street lights.
c) To promote the improvement and expansion of the island's economy by recognizing and carefully utilizing land and water resources....	c) Encourage a centralized light-industrial area.
d) To provide workable planning tools to meet the changing needs of the community....	d) Develop a safe and efficient roadway master plan. Develop "landscape" or "beautification" ordinances. Develop landscape plan to control erosion and preserve scenic views.

ANALYTICAL PROCESS

THE PROCESS

The analytical process attempted to provide the broad framework of knowledge, and within which specific problem statements could be enunciated and solution alternatives formulated. In brief, this process examined the Kapaa-Wailua portion of the Kauai General Plan, and the implications of implementation; investigated the characteristics, attitudes and concerns of the community's human resources; and reviewed both current and projected economic conditions and trends affecting the area.

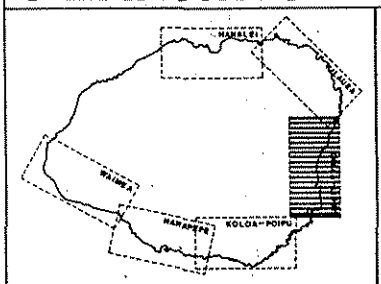
The next phase of study was directed towards the identification, evaluation, and alternative of the plan elements or components first as separate entities and secondly, as parts of the whole. This phase suggests various design parameters for specific elements. The final step attempted to integrate all pertinent elements into overall land use pattern or alternates. These aspects are described in the following section.

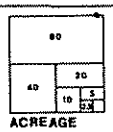
THE GENERAL PLAN

In addition to the County Goals (see pages II- 2-6), the Kauai County General Plan further delineates various existing and proposed public facilities such as highways, parks, schools, recreation and community buildings, etc. These items are related to the overall pattern of proposed land uses such as single and multiple residences, commercial and industrial sites, parks and open areas, agriculture, institutions, etc. (see Plate II). The General Plan also presents planning guidelines including a matrix which shows the composite relationship of existing conditons and proposed actions. Another important tool is the Development Restriction Zone (see Plate III) which helps in resolving conflicts between the desired use and physical characteristics or constraints. For the most part, the desired General Plan land uses have been incorporated in the Comprehensive Zoning Ordinance which was enacted by the County Council as one of the important General Plan implementation measures. For purposes of this study, additional detailed information was obtained concerning the ownership of land (see Plate IV).

As indicated in the County General Plan, Kapaa Town can no longer function as a regional commercial center due to competitive pressure from Lihue and because of deteriorating structural conditions. It was noted that Kapaa Town is run-down and extensive renewal and redevelopment efforts must be undertaken to bring the commercial core to competitive standards with other major shopping centers. This

KAPAA-WAILUA PLANNING AREA





GENERAL PLAN

- Residential Sfd
- Residential Mfd
- Resort
- Park
- Commercial
- Agriculture
- Public
- Military
- Scenic Road
- Open
- Existing Road
- Proposed Road
- Project District
- Industrial

- Government Office
- Hospital/Clinic
- Major Airport
- Elementary School
- Fire Station
- Airstrip
- High School
- Power Plant
- Heliport
- Community College
- Historic/Cultural
- Deep Water Harbor
- Community Center
- Sports Complex
- Small Boat Harbor
- Mill/Cannery
- Scenic Site
- Golf Course

MARCH 14, 1970

0 1000 feet ½ mile 1 mile 2 miles

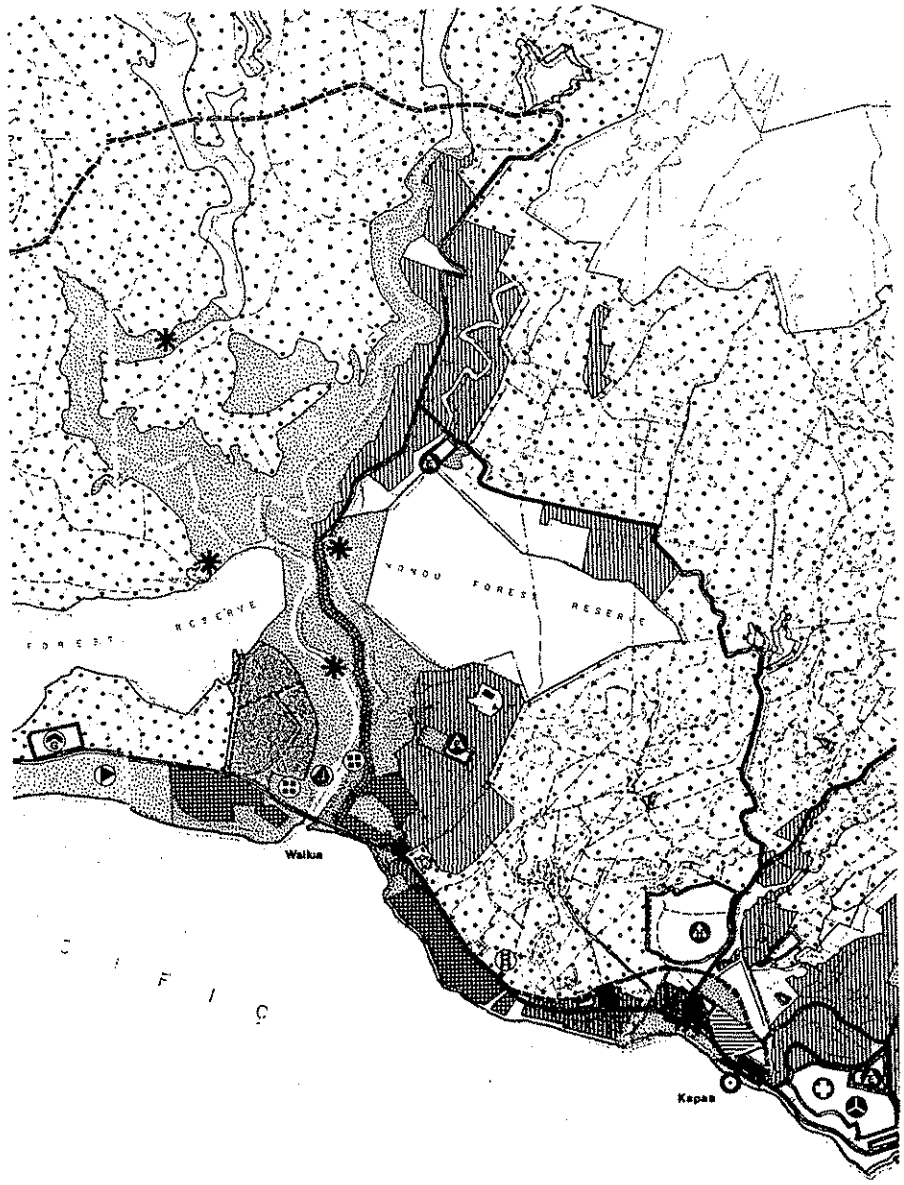
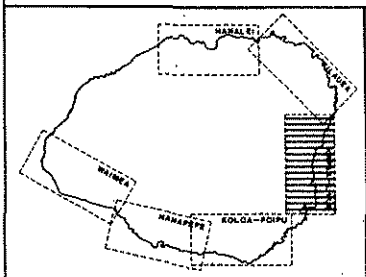
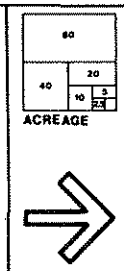


plate III

KAPAA-WAILUA PLANNING AREA

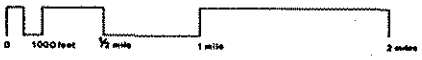


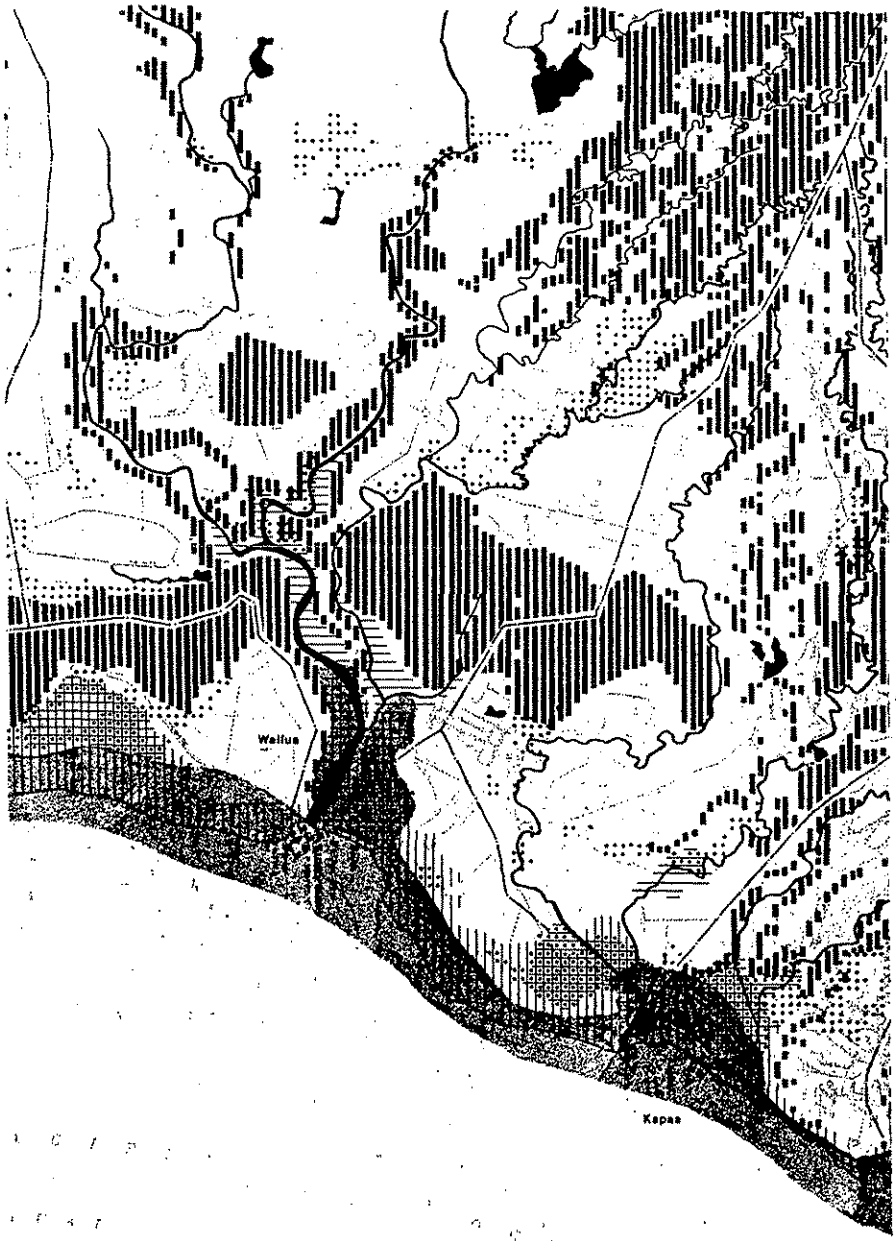


DEVELOPMENT RESTRICTION ZONES

- SLOPES OVER 20%
- SUBJECT TO TSUNAMI INUNDATION
- SUBJECT TO FLOODING
- INADEQUATE SOIL CONDITIONS
- SURFACE WATER, MAJOR OUTFALL
- SHORELINE
- WATERSHED BOUNDARY

MARCH 14, 1970





conclusion as well as changing economic conditions and community attitudes suggest several alternative solutions to the basic problem. These are discussed in the section on Design Parameters (see page III- 31).

HUMAN RESOURCES

New information for the Kapaa-Wailua planning area from the 1970 Census (which came after the studies in the Kauai General Plan), and special attitude surveys conducted in the community, delineate the overall as well as specific human resources within the Kapaa-Wailua planning area. Presented for consideration as a part of the planning process area: an analysis of the social and economic characteristics of the population, in terms of changes in size, age group and ethnic characteristics, education, occupation, and income; and attitudes, expectations, and interests of the community.

Social and Economic Characteristics

Population Size

The population of the planning area from 1960 to 1970 increased more than that of any other district on Kauai. In 1960 there were 6,216 residents in the Kapaa-Wailua area. In ten years the population increased by 539, or 8.7% to 6,755. While this numerical increase may be a relatively small one over a decade, this change is greater than all other districts in both absolute and percentage terms (see Appendix Table 1).

Appendix
Table 1

DISTRICT	RESIDENT POPULATION			
	1960	1970	Change	% Change
Kawaiahu (Kapaa-Wailua-Anahola)	6,498	7,393	+ 895	+13.8
Kapaa-Wailua	6,216	6,755	+ 539	+ 8.7
Waimea	7,057	7,569	+ 512	+ 7.3
Koloa	7,012	6,851	- 161	- 2.3
Lihue	6,297	6,766	+ 472	+ 7.4
Hanalei	1,312	1,182	- 130	-10.1
ALL KAUAI	28,176	29,761	+1,585	+ 5.6

Within the planning area, Kapaa showed a gain of 355 persons, or 10.3%, and Wailua showed a gain of 184 persons, or 6.6%. The 1970 population and households in the two sections of the planning area were as follows:

	Kapaa	Wailua
Population	3,794	2,961
Households	1,101	830

Age and Sex Characteristics

Kapaa's population has a generally older age characteristic as compared to Wailua, both in terms of the median age, and the age groupings. Kapaa's population has a median age of 29.9 years in 1970 and Wailua's population had a median age of 27.3 years, both figures being higher than the State's overall median of 25 years. Persons under 18 years comprised 36% of the population in Kapaa and 38% of the population in Wailua; persons 65 and over comprised 11% of the population in Kapaa and 8% of the population in Wailua.

Appendix
Table 2

	KAPAA		WAILUA	
	No.	%	No.	%
Under 18 years	1,375	36.2	1,124	38.0
(under 5 years)	(350)	(9.2)	(252)	(8.5)
18-64 years	1,956	52.4	1,587	53.6
65 and over	433	11.4	250	8.4
MEDIAN AGE	29.9 years		27.3 years	

(The median age for Wailua includes the 638 persons in Anahola Village.)

The male-female ratio was similar for Kapaa and Wailua, with males comprising 51.8% of the residents in Kapaa and 51.6% of those in Wailua.

Nativity and Residence

Roughly three-fourths of the residents in the planning area were born within the State of Hawaii, as reported in the 1970 Census. In Kapaa about 8% of the residents were born in a different state, and in Wailua (including Anahola) about 10% of the residents were born in a different state. Added to these are a portion of the residents who

were born at sea or who did not report their birthplace. Foreign-born residents comprised 10.7% of the total resident population in Kapaa and 7.5% in Wailua (including Anahola). In 1970, 5.7% of the residents in Kapaa had lived in a different state in 1965; and 6.9% of the residents in Wailua had lived in a different state in 1965. In Kapaa 4.9% had lived in a different county in the state in 1965 and in Wailua (including Anahola) 8.3% had lived in a different county five years prior. In Kapaa, 58.3% of the residents had lived in the same house in which they lived in 1965; in Wailua (including Anahola) the percentage was similar at 58.1%.

Ethnic Composition

In Kapaa the ethnic composition of the population is as follows: Japanese, 34.5%; Caucasian, 28.2%; Filipino, 22.2%; and Hawaiian, 10.4%. In Wailua (including Anahola) the composition is Caucasian, 31.5%; Japanese, 30.7%; Hawaiians, 17.3%; and Filipino, 17.0%. The ethnic background information in the 1970 Census refers to the race of the respondent's father.

Educational Attainment

The median number of school years completed is a measure of the educational attainment. The median was 9.1 years among Kapaa residents and 12.1 years among Wailua residents (including Anahola). These compare with a statewide median of 12.3 years. Residents who have completed high school comprised about one-quarter of the population of Kapaa, with about one-half having completed only 8 years or less of school. In Wailua, about one-third of the residents completed high school, with 37% having completed only 8 years or less. About 8-1/2% of the residents in the planning area completed 4 years or more of college education.

Occupation of the Employed Residents

At the time of the 1970 Census, approximately 4 out of 10 of the residents of the planning area were employed. Between 1960 and 1970, employment had increased by about 570 to 2,900 (including Anahola). Professional, technical and kindred workers, and managers and administrators comprised nearly 20% of the population; sales and clerical and kindred workers comprised 19%; craftsmen, foremen and kindred workers and equipment operators together comprised 26%; service workers comprised 20%, and laborers, farm workers and private household workers about 14%.

In the decade between 1960 and 1970, increases were registered for all occupational groups in both Kapaa and Wailua except for declines

in farm laborers and private household workers, and a decline in the number of equipment operators. The detailed occupational structure is shown in Appendix Table 3.

Appendix
Table 3

Occupation (1970 Census)	KAPAA	WAILUA*
Professional, Technical & Kindred Workers	151	203
Managers & Administrators	99	114
Sales Workers	94	90
Clerical & Kindred Workers	168	205
Craftsmen, Foremen & Kindred	273	228
Operators of Equipment	130	136
Service Workers	322	268
Laborers, except farm	149	111
Farm Laborers	172	76
Private Household Workers	4	7
TOTAL EMPLOYED	1,462	1,438

*Includes Anahola Village

Income

Median annual family income in Kapaa (in the 1970 Census, and pertaining to 1969) was $8,932; median family income in Wailua (including Anahola) was $10,835. These measures compare with the Kauai overall median of $9,946, and the median for the State of $11,554. The median income in Lihue was $12,296. Median income of unrelated individuals was $3,535 in Kapaa and $1,897 in Wailua. Families below poverty level numbered 90 or 10% in Kapaa and 101 or 11-1/2% in Wailua. Families with income below $10,000 numbered 505 in Kapaa, representing 57% of the total; in Wailua, families in this group numbered 405, or 46%. In Kapaa, 21 families or 2-1/2% reported incomes above $25,000; in Wailua there were 35 families or 4%

Community Attitudes, Expectations, and Interests

An important part of the human resources of a community rests in the attitudes, expectations, and interests of the people who live and work and play in the area. Beginning with the students of the senior class at Kapaa High School at the close of the school year, and

continuing with the households and businesses in the Wailua-Kapaa-Kealia communities, questionnaires were distributed by teams of volunteers to enlist the interest of these sectors of the community in the planning process, and to gain insight and information into the attitudes and concerns of the community. Responses of 116 youths, 327 households, and 101 businesses evidence a strong interest in the community's condition and prospects. Overall attitudes in the community are highlighted in the following areas.

Opinions About the Community & Attitudes Toward Change

Slightly over one-half of the residents responding to the attitude survey felt that the community was a better place in which to live and work than it was a couple of years ago; slightly over one-third felt it is a worse place than before, and about a tenth indicated they felt there was "no change." In the youth group, however, one-half of the respondents felt Kauai has become a worse place to live as compared to a few years ago; a third felt it to be a better place now than before and a fifth felt there has been no change. Discussions of the possibility of moving from Kauai within the past six months occured in 17% of the households, but only 8% answered "very likely" to the question, "How likely do you feel it is that you might move from Kauai?" Among business firms, the expectations are 3 out of 4 for business to be better this year, about 7 out of 10 for business to be at least 5% better in the next year or two, and 3 out of 4 for business to be at least 10% better in the next five to seven years. Among business firms, 15% indicated they had considered relocating. In contrast with the relative stability indicated among the households and businesses, 2 out of 3 students indicated that they would like to live elsewhere than in Kapaa-Wailua ten years from now. Residents were asked, "Do you agree with the statement that there is no point in trying to plan the future of an entire community?" Ninety percent of the households answered "no".

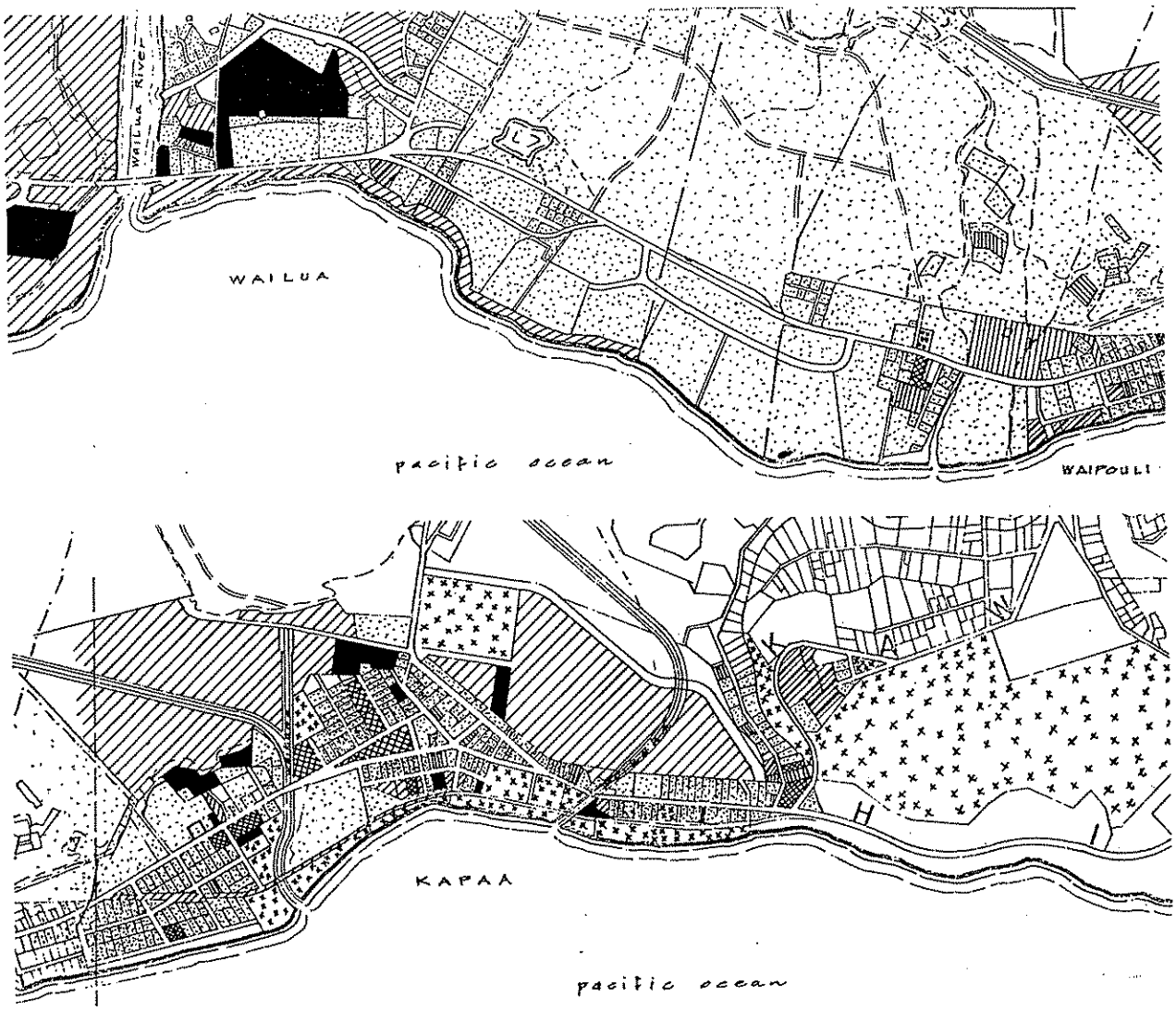
Attitudes Towards Visitor Facilities Development

Favorable attitudes towards increasing visitor industry development were expressed by 53% of the households; among students, a negative attitude towards such development was expressed by 58% of the respondents, with 19% indicating a positive response and 23% indicating they felt increased development is alright if properly carried out. However, 64% of the students responded positively to the question of whether they would be willing to participate in a training program to develop skills to qualify them for work in the visitor industry. Among households, the question on new training among already experienced workers understandably draws a smaller response, with 37% answering "yes". Of the responding business firms, 37 firms or 37% sent in comments on the question of visitor facilities

development. Of these firms, 62% favored visitor industry and facilities development, with another 30% favoring a balanced development that includes the needs and desires of the local residents. The remaining 3% of those who sent in comments were opposed to visitor sector development or felt there is enough land zoned for visitor-development type of usage.

Community Needs

Among households, the predominant general category of community needs and priorities was in the improvement of housing, sewage, road or traffic conditions, with 42% of the respondents sending in specially written comments on these matters and their need for improvement. Recreation facilities and parks, and quality developmnent were suggested as priorities by one-fifth of the respondents, with various other types of needs and combinations of needs representing the remainder. Among students, the comments sent in indicated 60% of the youth group felt the community needs clean-up, painting, remodeling, and repair work; 23% felt that the most important thing was to put in new buildings or rebuild; 17% suggested various other improvements and combinations of improvements. About 9 out of 10 of the responding business firms indicated that the appearance of Kapaa Town needs improvement. Ways in which the physical appearance of Kapaa Town can be improved as suggested by the business respondents include: Renew and rebuild own establishments; clean-up and re-paint; rebuild but preserve character; better codes and adherence to them; clean-up areas in front of own establishments, instead of using it as storage area; get landlords involved as well as the businesses occupying the sites; government aid, including buying out absentee land owners; formation of corporation, profit or non-profit, to own all buildings in Kapaa and rent these to business community; mall-type shopping center development; better signs; pressure on businesses collectively to carry out responsibility for own establishment and its appearance and maintenance; tree planting; increase parking space, limit parking on roads, widen roads. Eight out of ten business respondents answered "yes" to the question, "Will the improvement of physical appearance of the town affect the town's prosperity in general and your firm's own business acitivities in particular?" Ninety-five percent of the business respondents answered "yes" to the question, "Should the business community actively participate and support the improvement program of the town?" Business firms were asked, "In your opinion, should the qualities which give Kapaa its unique identity be retained?" About 62% answered "yes" and 38% answered "no". Some of the elements indicated by responding firms as desirable to retain include: "small-town atmosphere", "quaintness", "small shops", "Coconut Grove and Coconut Plantation", "building style", "beaches and parks", "Aloha Spirit", and "low-rise buildings". Building style and small-town atmosphere predominate in elements of uniqueness that should be retained.



Legend
- state fee, unencumbered
- state tenant lease
- county & Kauai fee
- county executive order
- private one owner
- private multiple owners
- estate & trusts
- eleemosynary

LAND OWNERSHIP

N 0 1000 ft. 1/2 mile

ECONOMIC CONDITIONS AND PROSPECTS

General Trends on Kauai

The Kauai economy has performed along the lines generally anticipated at the time of the preparation of the revised Kauai General Plan, with roughly stable sugar production and slowly declining sugar employment, phasing out of pineapple production and employment, and with the major economic gains deriving from increased visitor industry activities. No major changes have taken place in diversified agricultural production and diversified manufacturing, although experimentation and enterprise continue in both these areas.

As has been the case on Maui and Hawaii the expansion in visitor-related services on Kauai has brought about a reversal of the prior decade's declines in population. Employment increases underlying the population increase have been taking place in hotel and other services, in retail trade, in the financial and real estate fields, in transportation, communication and utilities, in construction, and in State government services. These trends are continuing.

Population increases in Kauai County as compared to the counties of Hawaii and Maui are shown below:

	April 1, 1960*		April 1, 1970*		July 1, 1973**
Kauai County	28,176		29,761		31,385
		+1,585 (+5.6%)		+1,625 (+5.5%)	
Hawaii County	61,332		63,468		70,872
		+2,146 (+3.5%)		+7,404 (+11.7%)	
Maui & Kalawao Counties	42,855		46,156		51,872
		+3,301 (+7.7%)		+5,716 (+12.4%)	

* U.S. Census of Population
**Hawaii State estimates

At mid-year 1973, Kauai's population is estimated at 31,385 or 5.5% greater than in April, 1970. Although the percentage rise is the smallest of the three counties, the gain in the three-year period since 1970 has been equal to the gain in the decade of 1960-70. In the past three years, the county has had a net population increase of 1,625 persons. [1]

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[1] Because of the methods used in estimating current population of counties, the probable error may be substantial.

One measure of visitor industry activity, the number of hotel units, totalled 2,926 on Kauai in October, 1973 as compared with 596 units in 1963 and 1,914 units in 1968. In October, 1973, Hawaii County had 4,781 hotel units, and Maui County had 4,643 units.

In the 5 years from 1967 to 1971, per capita income increased 42% to $3,731.

Review & Re-Evaluation of Economic Base Analyses and Assumptions In Kapaa Planning Area Projections As Contained in the Kauai General Plan in the Light of New Information Since March, 1970

The 1970 General Plan projections for hotel units on Kauai forecasts a total of 2,580 rooms by 1973. The actual figure is 2,609 units, indicating that the projections were very close.

Employment in hotels were projected to total 1,810 employees for the whole county. State Department of Labor estimates indicate that about 1,100 persons are presently employed in hotels. This represents about four employees for every ten hotel rooms, rather than seven employees for every ten units as was projected by the General Plan with the adjustment in hotel employment and the resultant adjustment in the visitor facilities support employment, and with all other primary sectors fairly close to subsequent 1970 figures, the total primary employment for Kauai as a whole would be about 5,700 instead of the 6,775 employees projected for 1973.

The economic base projections and employment, households and populations projections for the Kapaa-Wailua area as reflected in the General Plan are shown in Table 4.

In the Kapaa-Wailua area, new information indicated that the number of hotel rooms in 1970 was slightly higher than projected; 1,224 units rather than the projected 1,021 units.

There are 1,931 households in the area with an average household size of 3.5 people. Revised estimates indicate that households may decline in size to 3.3 in 1975 and 3.1 by 1980.

The number of hotel units is expected to increase from 2,234 at the end of 1973 to about 2,800 units in 1980. The ratio of employees to hotel is expected to be about six employees for every ten units. It is estimated that there will be three people employed in visitor support jobs for every ten hotel units.

The re-evaluations that have been made are for only the purpose of providing new insight to the citizenry based on new information, as an important part of the continuing planning process in the Kapaa-Wailua Plan.

Basis for Alternatives and for Developmental Planning

In 1975, the major source of new income and employment is expected to be the visitor industry. Given the estimates of new hotel construction, household size, and employment growth, Kapaa-Wailua can anticipate a resident population of between 8,500 and 9,000 people. This would mean a demand for 600 to 750 new housing units by 1975. This additional demand does not include replacement needs.

Projections to 1980 indicate a population of about 12,000 people. This would mean an increased demand from the area's own employment growth of 1,500 to 2,000 new housing units exclusive of replacement requirements.

These projections indicate that the supply of housing is an important planning consideration in the area. Although it is conceivable that some of the new employees generated by the growth in the tourist industry may find housing in other areas of the county, it is preferable to house people as close to their places of employment as possible.

The population resident in the area is dependent, in addition to the employment growth factor, upon the supply of housing in the area relative to adjacent neighborhoods. Thus, if the additional housing does not materialize in the area, and if adjacent area housing should prove more available or more attractive, the population of the area itself may be less than the level created by the employment in the area. Experience in recent years and social trends point to the desirability of planning for an environment where work is near and not removed from the residence.

The 1970 Census showed a total of 1,143 housing units in Kapaa and 898 units in Wailua. Owner-occupied units comprised 51% of the total in Kapaa and 55% of the total in Wailua.

Median value of owner-occupied housing units was $23,800 in Kapaa and $28,700 in Wailua (this median value figure includes 138 occupied units in Anahola).

Housing lacking all or some plumbing numbered 208 units in Kapaa, or 18% and 149 units or 17% in Wailua. Houses lacking telephone totaled 183 units or 17% in Kapaa and 88 units or 10% in Wailua. Housing considered over-crowded with 1.51 or more persons per room numbered 73 in Kapaa or about 7%; over-crowdedness characterized 55 units in Wailua or 6%.

In 1970, single-family or one-unit structures comprised 93% of the housing in Kapaa and 95% of the housing in Wailua. In planning for 1975 and 1980, low-rise multiple-unit structures may introduce a suitable mix to the housing stock.

Commercial Activities

Accompanying population and employment increases are increased demands for trade and service activities. Furthermore, as the level of real income increases in a community, the demand for services will increase even faster than the general demand in the commercial sector.

The per capita expenditures of residents in the area in retail establishments was estimated to be $1,800 in 1970, based on retail establishment data for Kauai in the 1967 Census of Business and adjusted for price increases since then. This would put total retail sales of retail establishments at roughly $12 million in 1970. In 1973, it is estimated to be about $13 million. In 1975 and 1980, the volume of sales in retail establishments, without including sales to tourists, is estimated to be $15 million and $24 million, respectively, based on 1973 prices.

These retail volumes indicate a general requirement of some 25 to 30 net acres for retailing facilities. In proportion to the increase in service facilities, and based on the housing of non-retail commercial facilities and offices in average three-story buildings, the general requirement for such facilities would be about 12-15 net acres.

Construction Trends and Continuing Area Data Development

The value of construction completed on Kauai is estimated at $7.6 million in 1972, a 55% increase from the 1962 rate of $4.9 million. Building permit authorizations for single-family units increased from 119 in 1962 to 522 in 1972; building permit authorizations for multiple-family units increased from 13 in 1962 to 367 units in 1972. The value of permits for new commercial and industrial buildings totalled $1.0 million in 1962, and $2.5 million in 1972.

These figures for Kauai indicate that along with investments in tourist facilities and related businesses, and supporting the improvement and additional needs of the growing community, there has been an increase in the volume of construction. Such figures are not available annually for the Kapaa Planning Area, which includes Kapaa, Wailua, and Kealia. The planning process for the area would be greatly enhanced if such data could be developed for specific areas as a part of the program of the County Planning Department.

IDENTIFICATION & ANALYSIS OF ELEMENTS

In order to properly relate the stated community needs and concerns with solutions or answers compatible with the County Goals and Objectives, the committee divided the various parts of the development plan and program into identified components or elements. These components were then studied individually so that they could be related collectively in terms of development alternatives.

Kuhio Highway, the By-pass Road & the Cane Haul Road

The General Plan states "because of future increases in traffic volume, it is recommended that a by-pass road be constructed from Kawaihau Road going inland and running parallel to the existing cane haul road. With this by-pass the through traffic which does not contribute directly to the economy of the community, will not cause congestion and inconvenience to the shoppers in the commercial area. Also, the by-pass departures and junctions can create a landscape identity for Kapaa." Furthermore, it states, "Between the area from the Wailua heiau to a point past the Coco Palms Hotel the cane haul trucks utilize the existing Kuhio Highway with the exception of the Wailua River crossing. With the projected growth in population, the Kuhio Highway could ultimately become a four lane facility. It is proposed that the Wailua River crossing be elevated high enough across Wailua River to allow small pleasure craft to have adequate width and loading capacity so that large cane haul trucks can be accommodated on this bridge. The existing cane haul crossing should be removed." The General Plan indicate this major circulation corridor crossing Wailua River over the existing bridge, following Kuhio Highway in front of Coco Palms Hotel through the Waipouli resort area and swinging mauka after crossing the canal, then around Kapaa Town until it meets Kuhio Highway again at a right angle connection in the vicinity of Kawaihau Road.

Problems:

1. The projected heavy traffic, presumably high speed, presents a hazard in front of Coco Palms to the increased pedestrian usage of the area for both visitors and residents seeking access to the public beach.

2. Because of the limited dimensions in the Coco Palm area, any road widening would be at a sacrifice to the hotel or to the public beach and in either case would destroy the unique rural character that exists in that area.

3. The transition of the by-pass road into Kuhio Highway in the Kawaihau Road area must be a more gradual one than that indicated in the General Plan. This would mean condemnation of a number of private properties in that area.

4. Although the cane haul road is a private road, it should receive careful consideration in the development plan because of its importance in the overall economy of the island. Access to Kuhio Highway in the Kawaihau Road area, dimensional limitations for a parallel road situation around Kapaa, and the dust, noise and safety problems in the Coco Palms area and lack of alternate routes to bypass the Kapaa-Wailua area were problems identified by the committee. The design of the by-pass road must consider partial or the entire integration of the cane haul system within the Kapaa-Wailua area.

Opportunities: IF the by-pass road becomes an absolute necessity and
IF it can bypass the entire Kapaa-Wailua area,

THEN:
1. The existing Kuhio Highway can once again become a local street with minimum congestion and hazard.
2. The unique character in front of Coco Palms Hotel can be preserved and improved for increased recreational use of the beach.
3. The visual experience of traveling along Kuhio Highway can be preserved and a new visual experience can be designed--one in which the visual elements of the Kapaa-Wailua area can be experienced from another view point--in a new sequence--at a different speed.
4. The by-pass can structure future growth patterns.

Local Streets

Problems:
1. Unlike a subdivision where new street patterns can be designed, the development plan must work within the framework of existing physical conditions along with related "people problems" or reaction to change.
2. Because the existing Kuhio Highway serves as both a belt highway and a local road, improvements must consider this dual role and future changes.
3. Intersections to various residential areas need improvement.

Off-street Parking

Problems:
1. When the existing Kuhio Highway is improved through Kapaa, the diagonal parking will be replaced with parallel parking with a resulting decrease in parking capacity.
2. Lot sizes, as well as existing structures, limit on-site parking for many properties.
3. Municipal parking plan requires financial commitment by the community.

Opportunities:
1. Income potential of private parking lots.

Bikeways

This is a growing national as well as local trend--the popularity of bicycling. Although this is not a critical community need, there should be recognition that the need can grow, both for recreation and for practical purposes.

Problems:
1. Acquisition of property rights along streets and funding.

Opportunities:
1. There is an abandoned railroad right-of-way owned by the County and State which goes through portions of the study area that can be used for bike ways as well as pedestrian ways.

Vehicular Access

Problems:
1. A number of hazardous access points are present. These include the connections at Kuhio Highway with Haleilio, Kukui Street, and Kawaihau Roads.
2. Vehicular access particularly from the Kapaa industrial area is accommodated through narrow local streets.
3. The uneven connection between the Kauai Resort Hotel and the Wailua River Marina is hazardous.
4. Vehicular access to the public beach in front of Coco Palms Hotel is limited.
5. Although pedestrian rights-of-way to the shoreline have been provided at various intervals, there appears to be a need for a vehicular access and turn around to the shoreline near the northern end of the Coconut Plantation resort area.

Opportunities:

1. The construction of the proposed by-pass can include limited access along this highway as well as improved intersections of all major connectors providing vehicular access to the mauka residential areas.

2. Design alternatives for off-street parking areas in Kapaa commercial and industrial areas will minimize uncontrolled vehicular access to and from individual parcels, particularly along the existing Kuhio Highway.

3. The conversion of the existing Kuhio Highway when the by-pass is completed will facilitate vehicular access to resort facilities and beach areas.

Scenic Resources & The Visual Structure (see plates V & VI)

Man experiences his environment primarily through his senses. However, much of this experience and emotional response first reaches us through the faculty of vision. It is through the eyes and for many, the camera, that we record those impressions that form the image of the Kapaa-Wailua area. One part of the visual experience is the natural scenic resources.

Opaekaa Falls
Nounou Mountains (Sleeping Giant)
Fern Grotto
Coconut groves at Coco Palms Hotel & Coconut Plantation
Beaches at Wailua and Kapaa
Wailua Falls
Wailua River
Views to Mt. Waialeale, Anahola & Kalepa Ridge.

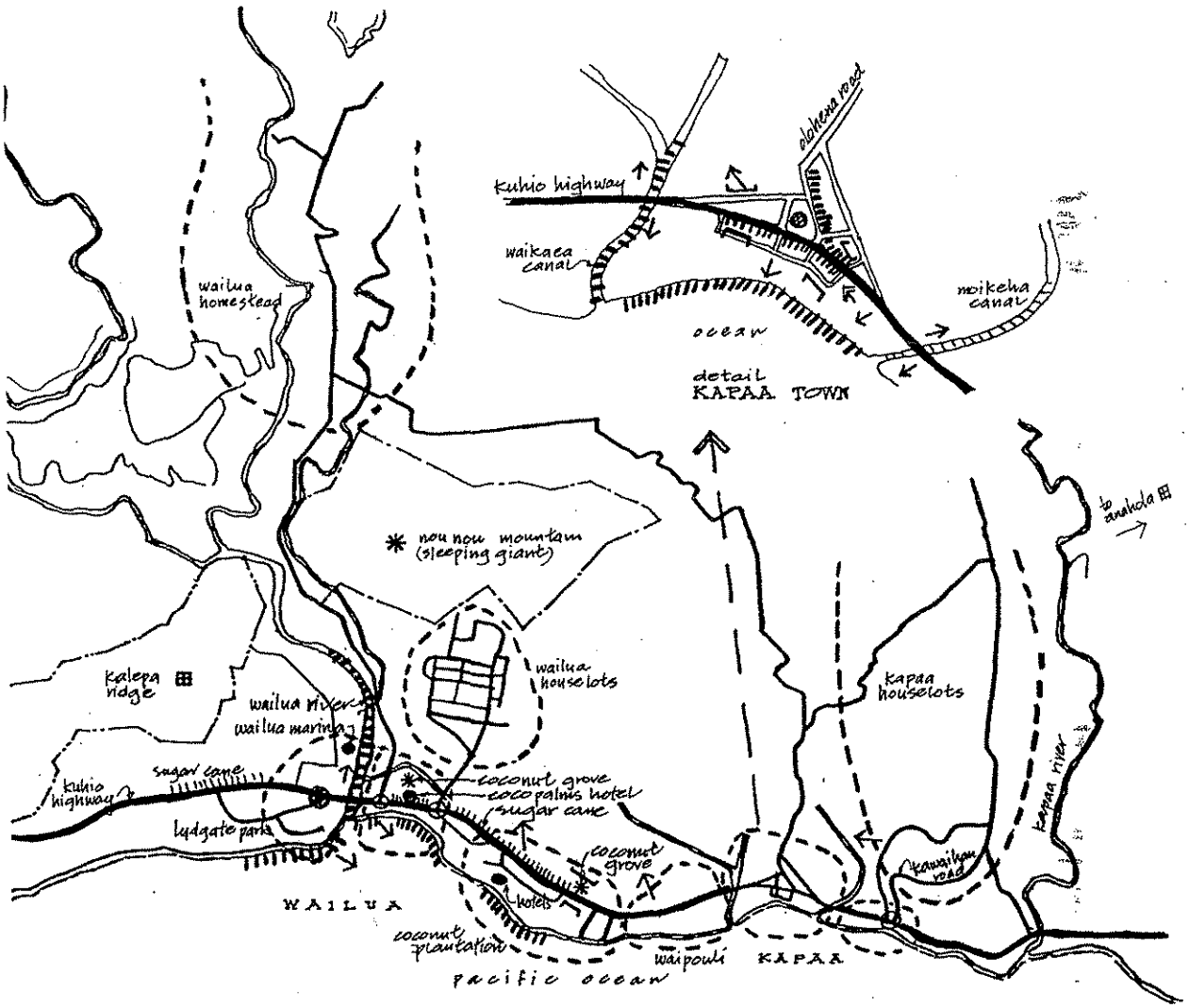
The other part of the visual experience is related to the visual structure or organization. Each individual intuitively constructs various physical relationships of man-made and natural forms. The resulting image of the Kapaa-Wailua area may be described in several basic elements.

District

Definition: A large definable area of one general identity where the observer mentally experiences entering, being inside of, and leaving.

Existing Districts: Wailua Marina/Lydgate area
Coco Palms & beach area
Wailua Homesteads

plate V



legend

	path	edge	node	district	landmarks
major	▬	▥	⊛	⬭	✳
minor	—	▯▯▯	⊘		⊞

→ open views
→» contained views
]I[enclosure

SURVEY of the VISUAL STRUCTURE

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Coconut Plantation area
Wailua Houselots
Waipouli residential area
Kapaa Town between Waikaea & Moikeha canals (core)
Kapaa Houselots & Homestead
Kapaa from Moikeha Canal to Kawaihau Road

Problem: Although component districts are clear, the Kapaa-Wailua area lacks a homogenous identity.

Landmarks

Definition: A major visual element that is used for orientation throughout the community area.

Existing Landmarks: Major: Nounou Mountains (Sleeping Giant)
Coconut groves

Minor: Kalepa Forest Reserve
Anahola Mountains

Problems: The most favorable viewing area for the major landmark, Sleeping Giant, is overgrown with vegetation and lacks a parking area.

Nodes

Definition: An activity center created by its functional use or generated as a result of visual amenity or path flow decision making on the part of the user.

Existing Nodes: Major: Gateway to Wailua
Hotels and Marina
Kapaa Town

Minor: Various intersections of roads along Kuhio Highway to various districts.

Problems: The entry to the Wailua Marina area and intersections to residential districts need visual emphasis.

Opportunities: 1. The area south of Wailua River and the area just north of Kawaihau Road could be developed into attractive gateways into the Kapaa-Wailua area.

2. Kapaa Town could be a major activity area for visitors and residents.

Edges

Definition: A general line or zone that provides visually recognizable divisions of one district or element from another created by a change in district character.

Existing Edges: Major: Wailua River
Waikaea Canal
Beaches at Wailua and Kapaa
Building facades along Kuhio Highway and Kukui Street in Kapaa

Minor: Moikeha Canal
Cane fields at Waipouli

Problems: Views to one of its major edges, the ocean, is not visible along the highway entry to Kapaa Core.

Opportunities: Waikaea and Moikeha Canals are unique settings for possible water oriented commercial and residential developments.

Pathways

Definition: A circulation corridor which provides both physical and visual access throughout the community and to most districts.

Existing Pathways: Major: Kuhio Highway

Minor: Kawaihau Road
Olohena Road
Leilio Road
Kuamoo Road

Opportunities: In addition to pathways which provide visual contact with scenic views and landmarks, there is a need to consider direct physical linkages of the various parts of the community. For example, the triangular central plaza should be linked to the commercial, community service and recreational areas by pedestrian ways. Because of the advantages of public ownership along the shoreline, it is possible to develop a pedestrian way from Lydgate Park to the Kapaa Neighborhood Center which would be used by residents and visitors.

Enclosure

Definition: A situation in which a space or a space within a sequence of spaces is closed in either on several sides or overhead.

Major Enclosure: Urban spaces formed by building facades in Kapaa
Town area
Coconut grove areas

Opportunities: The building facades along Kuhio Highway in the Kapaa core define an open space which would, if preserved, contribute toward maintaining Kapaa's unique identity.

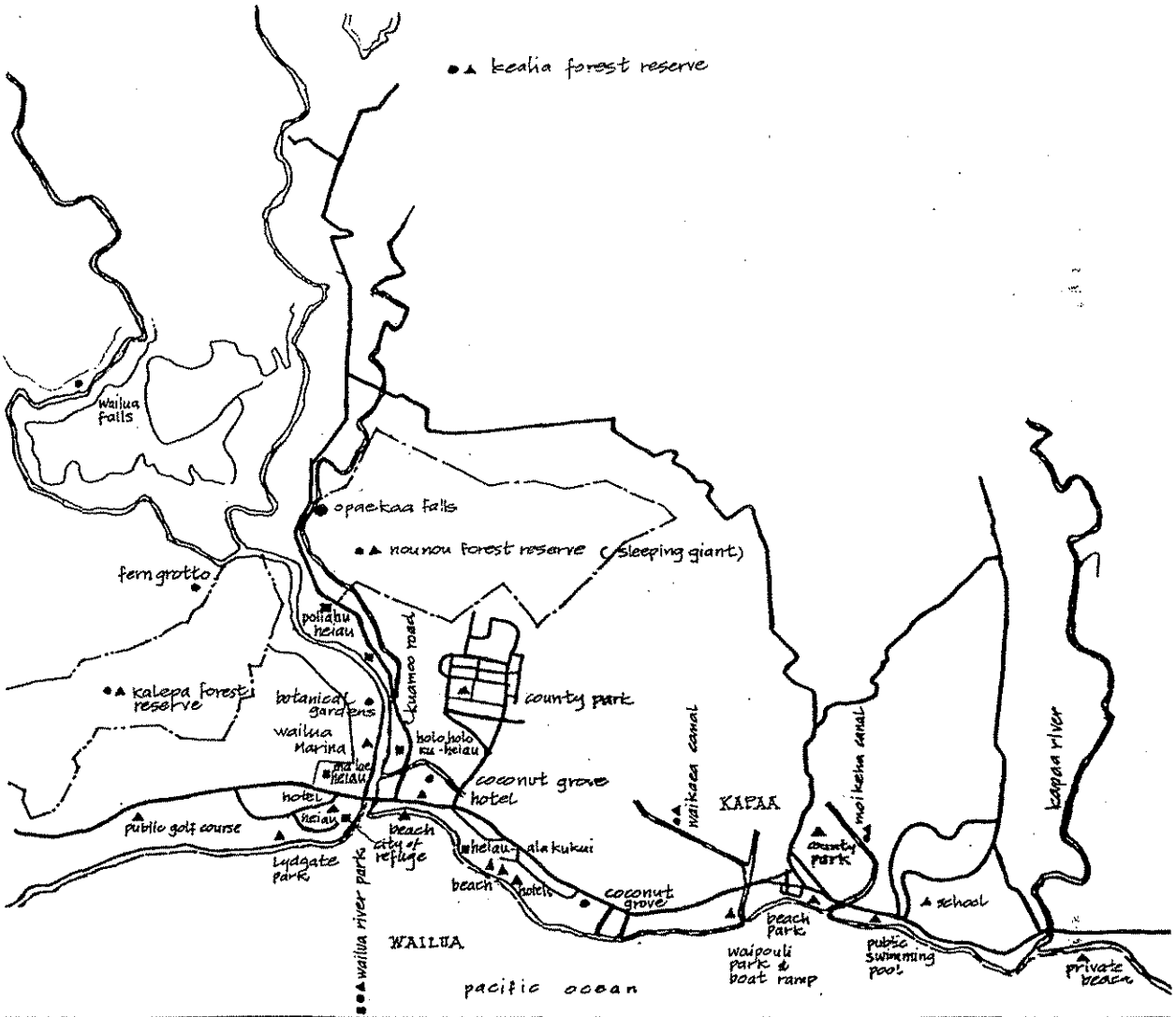
Recreation Resources (see Plate VI)

The Kapaa-Wailua area has many recreation resources--in number as well as in type. These provide opportunities for a variety of recreational pursuit--from a major regional state park complex at Wailua to the modest mini-park triangle in Kapaa. These are enumerated as follows:

1. Wailua River State Park - Fishing, boating, biking, camping, nature study, water sports.
2. Wailua Marina - Fishing, boating, services.
3. Wailua Municipal Gold Course
4. Lydgate Park - Camping, picnicking, swimming, skin diving, fishing, surfing.
5. Wailua Beach - Swimming, sunning, surfing, fishing.
6. Waipouli Park - Small boat ramp (ocean access), camping, fishing.
7. Kapaa Beach Park - Baseball, football, swimming, fishing, camping, picknicking.
8. Kapaa County Park - Tennis, volleyball, little league sports.
9. Kapaa Swimming Pool
10. Kalepa, Nounou and Kealia Forest Reserves - Various mountain type recreational activities.
11. Quasi-public and private facilities in resort areas.

Problems: 1. With the increase in resident population and the visitors from the resort areas, there will be a corresponding increase in the needs for recreational pursuits of all types--passive as well as active.

plate XI



legend
- scenic
- historic
- recreation

SCENIC HISTORIC & RECREATION RESOURCES

N

1/2 0 1 mile

2. Although the area is rich in recreational resources, there is a need for the development of neighborhood parks and facilities to serve the growing residential districts.

3. There is a need to inprove the launching facilities for small ocean-type crafts.

4. Conflicting uses should be resolved such as active organized sports in beach parks designed or appropriate for passive or less active recreational purposes.

Historic Resources (see Plate VI)

The Wailua River State Park is designed to maximize the interrelationship of the area's historic resources and the statewide recreational pursuits.

1. Mouth of Wailua River -
   Landing place of first alii from Tahiti. Location of Hauola, City of Refuge, and Hikia O Kala heiau and Alakukui heiau.

2. Malae Heiau -
   One of the most important Hawaiian religious centers before the introduction of Christianity into Hawaii.

3. Kuamoo Road - Follows the sacred Highway of Kings.

4. Holo-Holo-Ku Birthstones & Ka Lae A Manu Heiau -
   Birthplace of Kauai royalty.

5. Poliahu Heiau - Site of former King's home and temple.

6. Wailua River -
   Ancient seat of Kauai royalty and location of various archeological sites.

7. Kapaa - Former center of sugar cane and pineapple industries.

View Slots and Scenic Viewing Areas

In order to facilitate and broaden the visual experience for the people, certain types of facilities such as a viewing spot may be developed. While many of the natural scenic resources enumerated in the preceding section may be enjoyed while on a moving vehicle, more outstanding vistas or landmarks may be appreciated from a particular vantage point or points. Therefore, the design alternative for any individual element of the plan should consider the opportunities for maximizing this important community resource.

Community Spatial Quality and Building Setbacks, Building Mass and Architectural Character

These elements described and discussed in the sections on propositions.

Utilities

This element includes the domestic water system, treatment and handling of waste waters (sewage), drainage, and electrical and telephone lines and facilities. Problems and requirements for improvement of utilities have been stated and analysed by the various responsible agencies. Their long-range plans have been incorporated in this report by reference. However, the placement of major buildings and/or equipment such as pumps, transformers, poles, and related equipment and their housing are specific community concerns. For the most part, buildings for utility equipment and maintenance activities can be designed in accord with the design criteria proposed for the various parts of the Kapaa-Wailua area.

Problems:

1. Although the existence of "overhead" utility lines is associated with rural and small-town areas, the presence of high voltage electrical transmission lines and multiple distribution wires from overhead pole transformers do little to enhance the small-town character, and in many areas conflicts with the natural setting.

2. The relocation of overhead lines to an underground system can be accomplished, but at a cost to the community, the government and the utility companies.

3. Similarly, for the handling of sewage, a multi-stage treatment system would provide the highest level commensurate with public health (at present technology) for disposal of commercial, industrial, institutional, resort and residential waste, but also at a cost.

4. The basic problem is the relatively large amounts of capital commitment required for these facilities--and often beyond the financial capabilities of non-public entities.

Planting, Lighting and Signs

Although the section that follows discusses each of these elements as an entity, the intent is to combine these elements with other elements of the plan to form larger systems.

Lighting

Whereas the visual structure, identified in previous sections, is discussed primarily as a daytime experience, the visual experience at night is dependent on the quality of lighting.

Torch lights, neon lights, cold lights, warm lights, mass of lights, scattered points of lights, lights in many colors and forms can create a variety of visual environments. It is for this reason that the control of lighting is important in reinforcing and not dramatically altering the visual image of the development area.

The direction of solution seems to be minimum and subdued illumination without sacrifice to public welfare and safety.

Planting

If the visual image of the area is to be preserved, significant vegetative elements such as the agricultural edges, the forest reserve to the west, the coconut groves and the tall stand of trees along the shoreline at Waipouli should not be appreciably altered.

The general concept of new planting along the circulation corridors of the development area should be to reinforce the existing visual structure and contribute toward improvement of visual image. The planting material should be treated as functional elements of different systems that form the development plan and not merely as cosmetic treatment.

Exterior Signs

Signs in the Kapaa-Wailua area have not yet become disruptive elements in the visual environment. There appears to be a minimum of destructive competition to attract attention. This may be the most important asset to preserve and perhaps the most important underlying principle to guide further evaluation of sign controls. The Coconut Plantation with its mix of hotel and commercial establishments is a good example of the application of this principal. Outside of the Kapaa core area (see Proposition K) where special controls consistent with the desired objective are required, the only problem appears to be related to directional signs and identification of public and recreational facilities. The conflict lies in alerting motorists of key decision points without necessarily increasing the size or number of signs or compromising safety.

Land Use Pattern

As noted at the beginning of this chapter, the various elements of the General Plan which pertained to the physical structure of Kapaa-Wailua were identified and analyzed as separate entities. The inter-

relationships of these elements can be best explained as integrated parts of the whole. The land use component served as the common denominator. This overall pattern was examined in three different perspectives for the formulation of a development plan and program.

Alternate I

This alternate is basically the Kauai General Plan as it pertains to the Kapaa-Wailua sectors. The goals and objectives of the Kapaa-Wailua community were translated into specific design and development alternatives, and compared to the General Plan goals and objectives, designated public facilities, and land use pattern and allocation.

Problems:

1. The by-pass alignment as indicated on the General Plan will cross Wailua River at the present bridge location. The anticipated traffic volume will, in all probability, necessitate a right-of-way to accommodate four lanes for moving vehicles and acceleration and deceleration lanes at four intersections. The most critical section is between the Kauai Resort Hotel and the Coconut Plantation. The new highway in front of Coco Palms will reduce the beach area and parking, and block off the makai-mauka pedestrian movements unless an overhead walkway is provided. The cane haul trucks will continue to use this portion of the highway.

2. The Waipouli residential area is one hundred percent built with single-family residences. Although these homes vary in age, most are owner occupants and do not care to relocate. The parcel average is about 10,000± sq. ft. which is slightly less than optimum for apartment use.

3. The road pattern particularly in the Kapaa core area is not condusive to efficient traffic circulation.

4. The parcels in the commercial zoned areas are, for the most part, difficult to develop because of size, configuration and location with respect to vehicular access.

5. There is ample zoned use allocated for commercial uses which may effectively deter the conversion of existing single-family residential uses. The opportunity for multi-family residential uses is lacking.

6. There is no cohesive pattern of land use even within the commercial zoned areas. The uses range from industrial to retain commercial, and services to single-family.

7. Public facilities are not located in areas best suited to the users.

8. There is greater threat of separating or confining Kapaa Town from the overall trading area and community.

Alternate II

This alternate also attempted to formulate a development plan and program within the framework and context of the goals and objectives of the Kauai General Plan, but with minor varieties in the location of public facilities and land use pattern. Major differences from Alternate I included the realignment of the by-pass highway farther mauka to about 400 and 500 feet from the existing Kuhio Highway between Waipouli and Haleilio Road with either a widened highway between the Coco Palms Hotel and the Sandy beach or a by-pass near the back of the Coconut Grove. The Waipouli residential area was envisioned as low density (single-family)--the existing use--instead of medium density (multi-family), and the Kapaa commercial zoned areas were viewed primarily in terms of maintaining the integrity of existing businesses, and the "excess" areas were seen as multi-family apartments. Other land use components remained the same as in Alternate I.

Alternate III

This approach although adhering to the General Plan goals and objectives provided the greatest leeway or variation in the location of designated public facilities and land use patterns. The by-pass highway corridor was envisioned to minimize unnecessary traffic through Kapaa and Wailua but provide maximum accessibility from all parts of the Kawaihau District as well as from the northern and southern areas. The commercial activities core is seen as three nuclei instead of the strip pattern. The Waipouli residential area was treated in the same manner as in Alternate II.

The discussion which followed the study of the three Alternates provided the basis for the formulation of Alternate IV. Significant points were expressed by various citizen and community groups The major suggestions were:

1. The alignment of the by-pass as shown on Alternate #3 be incorporated into Alternate #1.

2. Provide a connecting main road from the by-pass highway to the present Kuhio Highway to be located near Pouli Street.

3. Locate a heliport near the fire station, thus providing the beginning of a government "emergency" center (could include police and first aid station.)

4. Consider extending commercial area to the south side of major connecting road opposite the National Guard armory site.

5. Identify visitor attraction or generators as possible growth elements, such as cultural (including religious) events and activities.

6. Farmers would prefer the by-pass alignment of Alternate #3 for faster and efficient movement to the terminal areas and other parts of the island.

7. The concept of a Farmers' Market be further explored--activity as well as facility.

8. Greenways should border canals to provide landscaped areas, walkways and bikeways.

9. Delete General Plan proposed residential expansion area north of Wailua Houselots and designate area makai of proposed by-pass for future urban expansion.

10. Establish a buffer between the existing Kuhio Highway and the single-family residential component within the urban expansion area opposite the Coconut Plantation development.

11. The "inadequacies" of the designated and "committed" industrial park should be shown and treated if possible.

12. Areas near Big-Save should be designated for future commercial expansion.

13. The Hawaiian Cannery site should be evaluated on the basis of compatible land use and community needs.

14. Areas designated for future urban expansion should be quantified by zoned use acreage allocation rather than shown as specific uses on the map.

15. A view slot and site (Sleeping Giant) should be located immediately south of the Episcopal Church property. This may be funded by the DOT. Also similar facility in conjunction with by-pass highway.

16. Consideration should be given to roadway pattern cutting across the existing Kuhio Highway in the vicinity of Ocean View Bar.

DESIGN PARAMETERS

The section that follows is a set of statements of design consideration drawn from an analysis of related community concerns. The statements have been cast in conditional language--IF the community desires goal X. THEN action Y is recommended. This formulation provides the community with a better basis of evaluating recommendations of the qualitative aspects of the plan and will be a useful "tool" in future investigations.

PROPOSITIONS A & B

The phrase "a small town atmosphere" represents the quality that the community values in preserving the unique identity of Kapaa. What makes Kapaa unique? What is a small town? What should be preserved and altered? These are the questions the first set of propositions tries to answer.

PROPOSITIONS C, D, E, & F

Once the essence of Kapaa was identified, its unique characteristic of location on Kauai was studied.

PROPOSITIONS G, H, I, J, K, & L

These propositions deal with various details and systems within Kapaa Town core.

PROPOSITIONS M & N

These deal with design alternatives for Waipouli and Wailua.

PROPOSITION A

IF : Kapaa is to preserve the "small town" quality associated with the core area,

THEN:
1. Waikaea and Moikeha Canals should be the physical boundaries of the core area's growth parallel to the coast.
2. The future by-pass highway and the shore should be the physical boundaries to the core area's growth in the mauka/makai directions.
3. "Mixed-uses" should be allowed in the core area.

PROBLEM: The residents of Kapaa are concerned that the core area retain the "small town" quality it now has. While this quality is difficult to specify, it is related to the following:

1. The sense of "smallness" which has to do with the height and human scale of buildings, and the feeling that one may walk anywhere within the core in a few minutes.

2. The sense of "town" which has to do with the specific identification of a core area which is not simply a shopping center nor a strip development. A shopping center is not a town because a center does not include the entire range of functions of a town such as residential, educational, cultural, as well as commercial functions. A strip development is not a town unless it has specific boundaries which set it apart from other parts of the community.

3. Social factors which have to do with the friendliness of residents.

While the friendliness of people cannot be planned, the physical characteristics of Kapaa's "small town" quality may be maintained in development policies. At present, however, the Kauai General Plan indicates that the growth of Kapaa's commercial district will stretch over a mile along Kuhio Highway. If this occurs, Kapaa will lose its small town quality for it will be neither small nor a town. For "downtown" Kapaa to remain "small", buildings should not be higher than 3 stories (see Proposition B) and one should be able to conveniently walk to any point in the locale. Experience indicates that the maximum distance a person will generally walk without first considering driving is 1/4 mile or 6-10 minutes at a leisurly pace. In Honolulu, the Ala Moana Shopping Center and the Fort Street Mall, both approximately 1/4 mile long, are successful examples of this distance criterion. In both cases, pedestrians are often not aware of the distances involved and, in fact, walk from one end to the other and back, a distance of 1/2 mile. Applying this 1/4 mile criterion to Kuhio Highway from a central point such as at the intersection of Kukui Street, Waikaea and Moikeha canals fall almost exactly within this distance. These canals, therefore, are appropriate physical boundaries for the lateral commercial development of Kapaa as a small town. This 1/4 mile standard in the mauka/makai direction, encompasses the proposed by-pass highway and the shoreline. The sense of town further may be maintained by retaining other functions besides commercial within the town boundaries. An especially important use which is characteristic of small towns such as Kapaa, and which disappears as towns grow into cities, is the presence of residences above ground floor commercial establishments. This and other functional relationships within the town should be strength-

ened with "mixed-use" zoning. This is in contrast to the type of zoning which segregates residences, businesses, etc., in distinct blocks. The result of this "block zoning" often has been the creation of sterile urban areas.

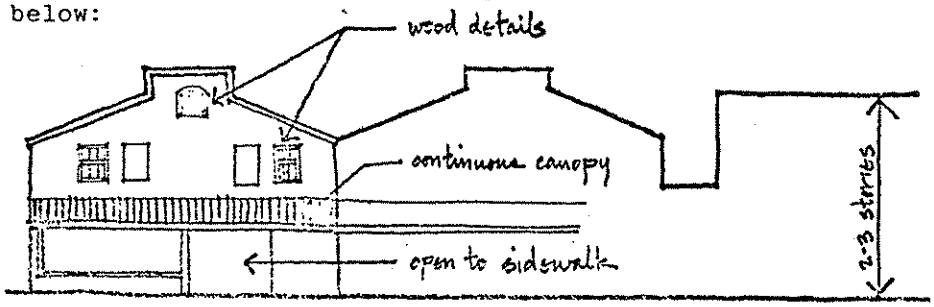
PROPOSITION B

IF : New and remodelled commercial buildings are to maintain the principle characteristics of existing buildings in Kapaa,

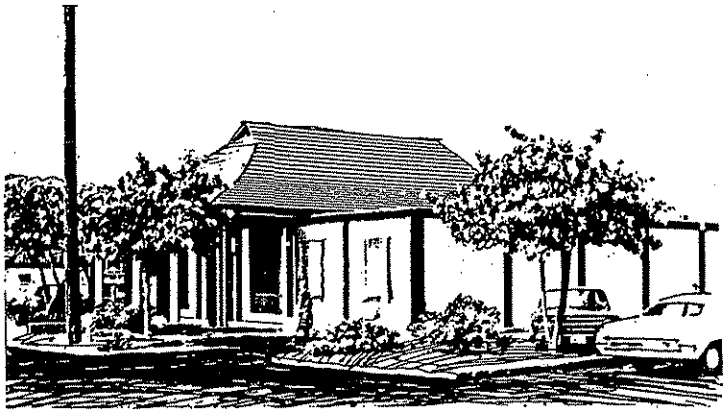
THEN:

1. They should be 2 and 3 stories in height.
2. They should be built-up to the sidewalk rather than set back from the sidewalk.
3. Interior spaces at the ground level should open visually to the sidewalk.
4. Each structure should provide a covering over its adjacent sidewalk. These coverings may be canopies or overhanging balconies.
5. Buildings should be constructed of wood when allowed by the codes or incorporate wood trim into their facades. This wood trim should be sympathetic in design to existing details.

PROBLEM: Two characteristics identify Kapaa Town core from adjacent developed areas and make it a unique center in Kauai. The first is Kapaa's density and siting of commercial establishments which are housed in 2 and 3 story buildings. The height of those buildings clearly differentiates the "downtown" from adjacent shopping centers and strip development. If buildings were uniformly one-story in height, an essential characteristic of Kapaa Town would be lost. The second characteristic is the "plantation western" architectural flavor of the existing buildings as identified below:



Few areas in the State have as homogeneous an architectural style as Kapaa. If this characteristic is lost, Kapaa Town would look like any other small town in the State and would be of little special interest to visitors. The designing of new structures and the renovating of older buildings in accord with the essential building characteristics of Kapaa, therefore is important to the Town's maintaining a tie with its past and to its future development as an interesting place in which to live, work, or visit. More recently constructed buildings, although of individual high quality, do not possess those characteristics and, in this regard, do not enhance and contribute to the urban quality of Kapaa. For example, the buildings pictured below are the better newer structures which do not fit Kapaa's existing character as defined by this parameter.



1. This building's one story height reduces the essential 2-story "downtown" scale of Kapaa and substitutes the scale of suburban strip buildings. With a predominance of one-story buildings, an essential characteristic of downtown Kapaa will disappear.

2. The interior spaces of the building are enclosed and not visible from the street so the building does not contribute to the visual life of the street.

3. Instead of opening on the sidewalk, this building is set back behind the landscaping as required by the codes. The result is a break in continuity along the street.

4. The structure does not provide a canopy over the sidewalk causing a gap in the town's covered walk system. Not only is this inconvenient for the pedestrian on both sunny and rainy days, but its continued omission in subsequent building will undoubtedly change the existing character of Kapaa.

5. The building does incorporate wood in its construction but it is detailed in the Southern California venacular rather than the "plantation western" style of Kapaa.

These buildings may be attractive when considered alone, but detract from the character of Kapaa. If many similar buildings are built in the future, the town's unique quality would disappear and be replaced by a style common to suburban shopping centers.

PROPOSITION C

IF : The sense of locational identity unique to Kapaa is to be preserved,

THEN: 1. The canal "edges" of Kapaa as defined in Proposition A and the landmarks related to Kapaa must be visible to pedestrians and motorists approaching the town.

2. The ocean and the "Sleeping Giant" should be visible from significant locations within the town such as the canal entrances to Kapaa, the central town green and the community cultural center. Therefore, buildings fronting the mauka side of Ulu Street between Ohia and Kukui St. should be a maximum of 2 stories in height.

PROBLEM: The specific locational landmarks of Kapaa are unique on Kauai. As the town grows, these landmarks may be lost to view unless major mauka/makai view channels are preserved and developed. The first of these mauka/makai view channels are along the canals which are entry points to the town. It should always be possible to see the canals when approaching them along Kuhio Highway, and to see the ocean and the "Sleeping Giant" from the canal bridges. On proceeding into town, the view of the "Sleeping Giant" is now available from the Hawaiian Evangelical Association property in the center of town but the view may be blocked by buildings of more than 2 stories along the mauka side of Ulu Street. Views of the ocean are now available makai along Kauwila Street from the proposed cultural center area. Vegetation, which now obscure the view at the beach end of the street, should be trimmed or relocated.

PROPOSITION D

IF : Waikaea and Moikeha canals which border Kapaa Town core are to enhance the physical quality of the town,

THEN:

1. Clear view channels (minimum 160 ft. wide at bridge points) should be created. In addition, tall trees which do not interrupt the view channels (such as Coco palms) should be planted to accent the bridge points.

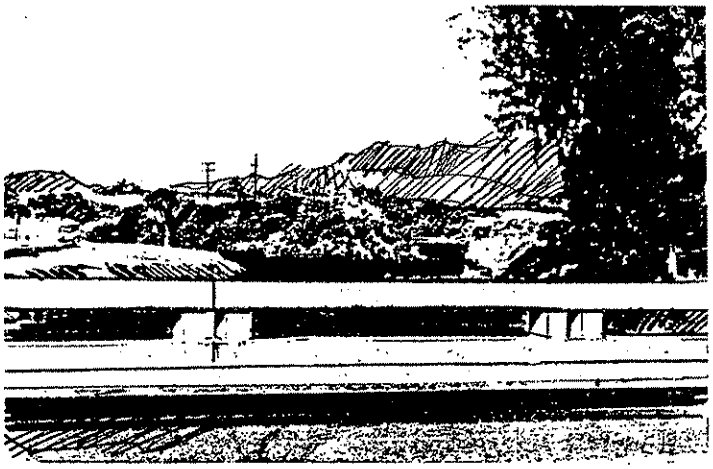
2. The banks of the canals should be developed as green belts for foot and bicycle paths, picnic and fishing areas. All future reinforcement of canal banks should be of stone rip-rap rather than monolithic concrete. The green belt should extend a minimum of 40 ft. on each side of the canals.

3. Facilities for fishing and pleasure boats, including a launching ramp, parking area, and restrooms should be developed along Waikaea Canal.

4. Commercial, restaurant and residential structures should be encouraged along the canals with all buildings set back a minimum of 40 ft. from the edge of the canal banks. Buildings adjacent to all canals should be no higher than 25 feet.

5. All future pedestrian and vehicular bridges over the canals should allow for boat clearance.

PROBLEM: The canals flanking Kapaa Town core are largely overlooked by residents and visitors because they are overgrown with weeds, not easily viewed and are usually devoid of human activity. The canals have the potential, however, of significantly contributing to Kapaa's life and character since they offer Kapaa a unique water-oriented periphery for recreational, residential and commercial activities.



1. Both canals are potential mauka/makai view channels. At present, however, not much of the view is evident and the canals are often missed by drivers who speed across the canal bridges. These bridges are potentially significant north and south gateways to the Kapaa Town core. To develop the gateway potential, tall Coco palm groves should be planted at both bridges. These trees will also serve to alert drivers that they are approaching a point of potential interest. Once forewarned, the average auto passenger going 25-30 mph would only have a few seconds to view the canals. To allow for longer recognition time, view channels 160 ft. wide at the street narrowing to 100 ft. at each canal should be created.

2. Recreational facilities should be provided within the 40 ft. wide green belts along each bank of the canals. Appropriate sites for parking should be provided for those using the canal's recreational facilities. Bike and pedestrian path connecting both canals along the beach front should be developed. Tourists walking along these paths to picnic, fishing and crabbing areas, small boat facilities, commercial shops, restaurants and the beach may choose to leave their cars at appropriate locations and walk through Kapaa Town.

3. The fact that Waikaea canal is navigable should be evident from Kuhio Highway. Small boat facilities should be located within sight of the Kuhio Highway bridge and related to access from the highway. Future tourist-oriented pleasure craft may be considered in the design of this marina, along with the needs of the resident fishermen.

4. Possibly the most important aspect of the future use of the canals is their development as a setting for generating commercial, residential and other non-recreational functions. Given the large amounts of open space on Kauai and in Kapaa which are much more interesting than these canals from the recreational viewpoint (such as Kapaa's sandy beach which is little used), the primary use of the canals may be functionally related to abutting living and shopping areas. The pedestrian life generated by commercial uses may be easily integrated into the green belts paralleling the canals. Any commercial structure should not overshadow the canal nor impinge on the flanking green belts. It should also fit into the general commercial scale of Kapaa. They should, therefore, be no more than 2 stories in height.

PROPOSITION E

IF : The Hawaiian Evangelical Association property in Kapaa is to become an "historical" space,

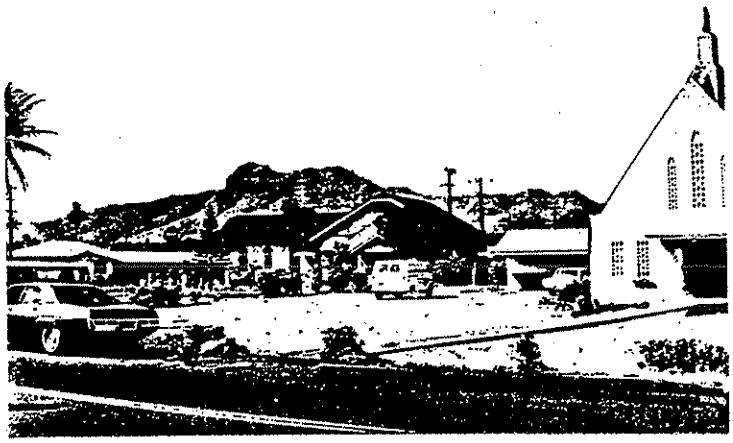
THEN: The property must maintain its present open character and should serve as the "town square". It should be landscaped to provide shady rest areas together with pedestrian paths which traverse the property.

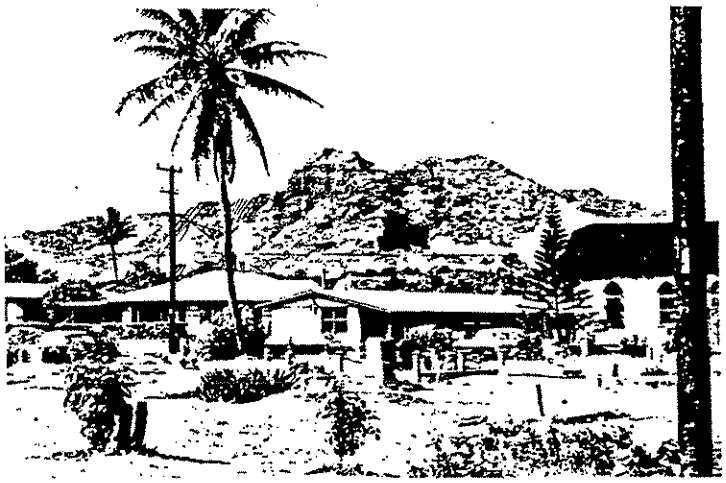
PROBLEM: This property has a unique location in Kapaa town. It is centrally located and bordered on all sides by streets, making it highly accessible. Allowing it to continue in its present poorly maintained, unusable and passive condition would be inconsistent with the development of an active commercial area. The prime location and historical value of this site cannot be measured. It must be preserved now and plans must be made to prevent new development from upsetting the character of this historical and cultural area.

1. Existing church buildings surrounding this property provide appropriate facades that enclose this proposed public space. The building heights, color, detail, texture, and materials should be respected by future development.

2. Present landscaping consists of low scattered shrubs and a few tall trees giving little relief from the sun. There is no interface between the property and the street. Future landscaping should provide much needed overhead cover and should be clustered around grave-sites of some historical significance. The edges of this property should also be intensely landscaped to accentuate its important role in the history and future of Kapaa.

3. A major portion of the Hawaiian Evangelical Association property is a cemetery. The image that a cemetery project will prevent people from utilizing it as a park or pass-through. However, this place can be given a more compatible image which would be an asset to the Kapaa Town core. The potential development of a museum displaying relics of the plantation period should be considered.





This property can be an integral part of the Kapaa Town core and the previously unused open space would effectively link the mauka and makai sections of Kapaa Town. The people would have more freedom of choice instead of using Kuhio Highway and Ulu Streets as the primary pedestrian corridors.

PROPOSITION F

IF : The beach and adjoining park between the two canals are to be developed for public use,

THEN:

1. The beach and grounds should be free of litter, the grounds professionally landscaped, and the erosion of sand prevented.

2. The beach and park should be visible from Kuhio Highway and from the existing and proposed commercial core area.

3. The beach and park should have pedestrian and bicycle access from residential areas and automobile parking for visitors from other areas on Kauai.

4. Public or supporting commercial facilities should be located near or within the park to create an urban atmosphere and to generate and attract activity by providing goods and services for public enjoyment.

PROBLEM: 1. The beach park in Kapaa is not being used to its full potential by the general public. One of the reasons for this is the lack of maintenance and park design. The trees are near the high water line, creating a visual barrier to the beach. The ground cover in many places in not suitable for sitting or reclining. The beach is eroded and even rocky in some areas. An initial step to park improvement would be to use existing trees and other species with more overhead cover in clusters to form intimate picnic areas. Park furniture such as tables, benches and cooking areas should also be provided within these picnic areas. Rock groins may be constructed to prevent the erosion of sand and may be designed to accommodate children's swim areas.

2. The beach and park are not visible from Kuhio Highway because of the level terrain and the lack of view corridors along existing streets perpendicular to the beach. Furthermore, there are no blocks within the existing commercial area which offer view slots of the beach between buildings. Streets perpendicular to the beach should be clear of buildings or landscaping which block the view of the ocean. Buildings in the commercial area should be spaced to take full advantage of views or access points to the beach.

3. Although beach and park are presently accessible to the motorist, it will be necessary for full utilization to provide pedestrian and bicycle paths to the beach along with convenient mobile parking sites.

4. There are many miles of good beaches on Kauai. The beach at Kapaa, although not outstanding, is in an urban setting. It would be relatively easy to generate beach recreation activity through the use of appropriate public and commercial facilities. Small shops and open air restaurants clustered near pedestrian paths can generate interesting and intimate urban activity with full view of the ocean.

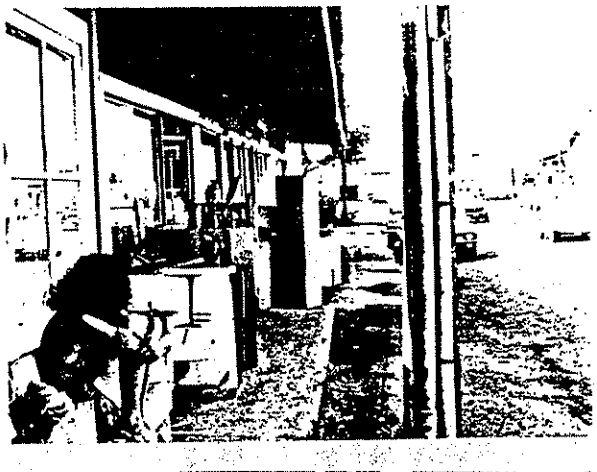
PROPOSITION G

IF : Kapaa's sidewalks are to be improved to facilitate and encourage pedestrian traffic,

THEN:
1. They should be at least 10 ft. wide along major streets to allow for landscaping and store displays.
2. Trees should be planted at planned intervals along the street side of sidewalks.
3. Street furniture such as benches, trash receptacles and light standards should be part of sidewalks improvements.
4. Where appropriate,sidewalks should expand to form mini-plazas, walls and sitting areas, particularly as related to abandoned rights-of-way.
5. "Ramps" should be provided at every street corner so that wheel chairs, baby buggies, etc., can go from raised walks to street level.

PROBLEM: Where they exist, sidewalks in Kapaa are narrow, not continuous nor level from block to block and are used by several shops as storage areas. While the widening of sidewalks in Kapaa would greatly improve conditions for pedestrians, an additional effort to develop sidewalks as landscaped elements would benefit shop owners as well as providing visual relief to automobile passengers.

The average pedestrian's desire for shade or protection from the rain, a place to sit and rest, to observe others or just a place totally from vehicular traffic can be provided by the careful design of sidewalks.



1. Protection from sun and rain may be provided by roadside trees or by overhanging building canopies discussed in Proposition B . While few can dispute the immediate and positive effects of trees along Kapaa's major streets, several conditions may interfere with their installation. The first may be the inadequate width of sidewalks. For example, the store canopies along Kuhio Highway project 3-4 ft. over the sidewalk. Since these canopies are essential to the overall comfort of pedestrians, sidewalks must be wide enough to allow mature trees on the street side of the canopies. Sidewalks with a minimum width of 10 ft. will permit the planting of medium sized tress with spreads of 12 feet in diameter.

2. The development of wide sidewalks will also allow benches, trash receptacles and other essential pieces of "street furniture" to be provided without hindering

pedestrian passage. As these furnishings are used by pedestrians, private shop owners may be encouraged to add to them by expanding portions of their retail and display spaces out to the street. A number of European, Asian and American cities, such as San Francisco, provide good examples of aesthetically pleasing uses of sidewalk areas for commercial purposes. Based on these examples, ordinances could be enacted to guide such commercial uses of public areas in ways consistant with overall design concepts.

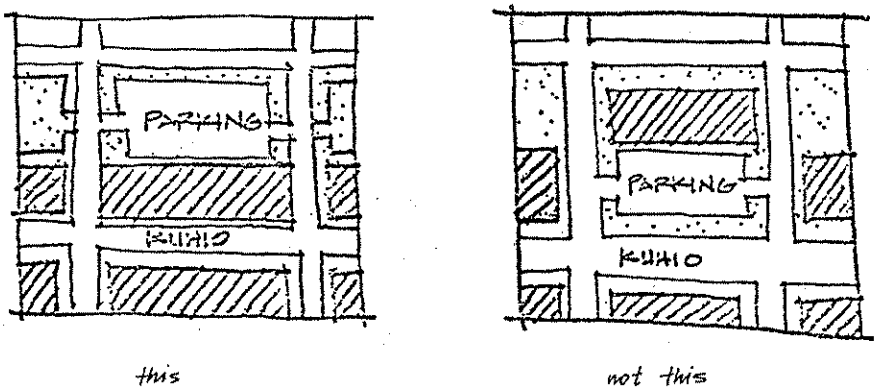
3. Variation of this idea is the development of mini-parks and sitting areas as extensions of sidewalks. These areas allow pedestrians to completely escape the car in quiet, landscaped pockets which may include public works of art. These areas may be developed in existing vacant spaces along major streets or on abandoned streets.

4. An important feature of any public facility is its accessibility for use by all members of the general public. Sidewalks are especially important in this regard since they also lead to other public facilities. For this reason, all sidewalks should conform in design, particularly ramps at intersections, with the recommendations of the American Standard guide to the design of facilities for expectant mothers, the aged, the temporarily injured, as well as the blind.

PROPOSITION H

IF : Off-street parking is to be developed in downtown Kapaa core,

THEN: Parking areas must be created adjacent to stores and accessible from major streets, but not visible from them. These parking areas should be located to the rear of shops and not on side streets. Roadside parking should be eliminated.



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Existing business parking in Kapaa Town is primarily along the road. This causes difficulties along major streets such as Kuhio since: (1) Parkers must reverse into traffic in order to get out of parking spaces, (2) pedestrians must walk around cars in order to cross streets, (3) parked cars take up almost all space available for sidewalks, (4) street parking cannot satisfy parking demand for busy commercial areas. Roadside parking should be removed from major streets and parking lots must be developed within convenient walking distances from shops and offices. Recent projects have provided parking between the road and the buildings. This arrangement creates the following problems:

1. The roadside view of the shopping area or office is blocked by cars (or landscaping if plantings to shield cars from road have been provided).

2. Access to buildings from public sidewalks is blocked by cars.

3. The visual continuity of the streets is fragmented by the gaps caused by parking lots.

Location of parking areas to the rear of shops or in the center of blocks provides the following benefits:

1. Sidewalks may then be developed along the roadside of shops. These sidewalks will provide a safe and pleasant space for pedestrian shoppers.

2. The front of shops are visually prominent from the roadside and sidewalk.

3. A secondary road system feeding the parking areas may be developed which will allow drivers to go from one parking area to another without having to enter the major street system.

Automobile parking for local resident shoppers should be within 300 feet distance of the destination in order to be effective. Local resident shoppers generally know which store they wish to patronize and want convenient access to that store.

PROPOSITION I

IF : Bikeways are to be developed in Kapaa,

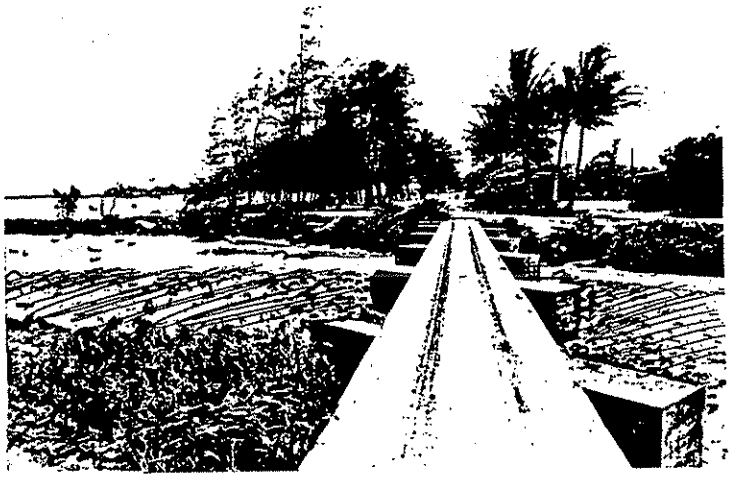
THEN: 1. The old railroad right-of-way should be converted to a bike path. A bike path can be used by bicycles as well as pedestrians.

2. Bike paths should intersect the by-pass highway at locations to link the school and residential area mauka of the highway to the commercial and recreational areas on the makai side. The banks of the canals offer excellent opportunities for scenic bike paths which could link up to the proposed bike path along the old railroad right-of-way.

3. Bike lanes (on existing vehicular streets) should not be provided along streets which are heavily travelled by autos.

4. Bicycle paths and lanes should be designed with specific dimensions and must be paved, marked, and regularly maintained.

PROBLEM: 1. The old railroad right-of-way is seldom used for circulation. Except for the bridges at the canals, the tracks have been removed, but the advantage of the right-of-way remains. Its proximity to the beach and the existing landscaping and view channels makes it ideal for a scenic bike path.



2. Unless access points are provided, the by-pass highway will separate the town of Kapaa from the proposed school and residential development on the mauka side. To promote the use of Kapaa Town core by local residents and students, bike lanes following vehicular

traffic over or under the by-pass road should be provided at Olohena Road.

3. Bicycle lanes which are designated for existing streets may restrict traffic flow by effectively narrowing the vehicular right-of-way. Therefore, streets which are experiencing a large volume of vehicles may have to be widened to accommodate a bicycle lane.

PROPOSITION J

IF : The commercial-cultural complex is to be located on the block bordered by Kauwila, Ulu, Kukui Streets and Kuhio Highway,

THEN: 1. The commercial-cultural complex should be directly accessible to pedestrians from the Kapaa First Hawaiian Church property as well as from properties abutting the other sides of this quadrangle.

2. The public spaces in the commercial-cultural complex should have either mauka or makai views.

3. Pedestrian paths between the shops along Kukui Street and shops on Kuhio Highway should naturally cross the commercial-cultural complex at the points of greatest activity and should link surrounding parking areas to the site.

4. Landscaping should provide adequate overhead cover along pedestrian paths and places of rest within the commercial-cultural complex.

PROBLEM: 1. The Kapaa First Hawaiian Church property bounded by Ulu, Kauwila, and Kuhio Highway is not completely functional in relation to the center of the Kapaa Commercial District. At present, the church property is used for worship services, senior citizens programs and a graveyard. Proposition E discusses the potential uses of this site and its importance in the future development of Kapaa. If this proposition is implemented, and the Kapaa First Hawaiian Church property becomes a highly utilized pedestrian and visitor area, its linkage to the commercial-cultural complex will become crucial. Presently, the two properties are separated by Kauwila Street, which is one of the proposed linkages (Olohena Road extension) be-

tween Kapaa Town core and the future by-pass highway.

2. The proposed commercial-cultural complex is in the center of the existing Kapaa Commercial District. However, existing structures makai of Kuhio Highway and the configuration of the existing street system prevent views of the sea. The existing theater also obstructs the mauka view. One clear view corridor to the ocean is possible along Kauwila Street. If this street is converted into a mall and the Hawaiian Evangelical property is connected with the proposed community center property, this mall could become the central focus of the community center facilities.

3. Existing parking facilities in Kapaa Town are located primarily on the street. Cars either park diagonally or parallel on the street adjacent to buildings or in parking lots facing the street. Proposition H suggests that future parking be accommodated at the rear of future commercial establishments with landscaping to "soften" the effect of the automobile. These proposed parking facilities should be located behind the existing or future structures located along Kuhio Highway and Kukui Street. Pedestrian access should be allowed through or around these structures which should be oriented toward the commercial-cultural complex. Landscaped view corridors are also possible along these pedestrian linkages. When the size and capacity of the commercial-cultural complex is established, the feasibility of on-site parking can be analyzed and programmed to serve in conjunction with surrounding parking facilities.

4. Kapaa Town area can be uncomfortable certain times of the year for people who walk. The abundance of paved areas and lack of landscaping exposes the pedestrian to the heat and direct rays of the sun. A few trees, especially those at the corner of Kukui Street and Kuhio Highway offer a visual relief and significantly affect the buildings and spaces around them. They provide much needed overhead cover and a pleasant resting place for pedestrians. Future landscaping plans for the commercial-cultural complex and the Kapaa First Hawaiian Church property should provide visual continuity between the two parcels. Presently, they exist independently and are physically unrelated because of sparse landscaping and randomly located structures. Rows of trees should provide shade along Kuhio Highway and Ulu Street, while landscaped clusters should be planted around areas such as gravesites of historical significance.

PROPOSITION K

IF : Exterior signs are to reinforce and not detract from the "small town atmosphere" of Kapaa,

THEN: Design controls should be established based on the concept that

1. The signs are keyed to pedestrian scale, rather than to motorists traveling at higher speeds.

2. The signs should primarily serve to identify rather than to advertise.

3. The functional aspects of viewing the signs at night should be de-emphasized except where public safety is involved.

4. The esthetic character should not be limited to the re-creation of past forms but allow for expression of current and future art forms.

PROBLEMS: 1. Much of the bad effects of signs can be attributed to competition for attention. If this effort is directed toward vehicular traffic, then the result would be a necessity of large sized, eye-catching shapes, bright colors and movement. Devices such as bright light sources and flashing lights have been utilized to draw the public's attention, particularly at night.

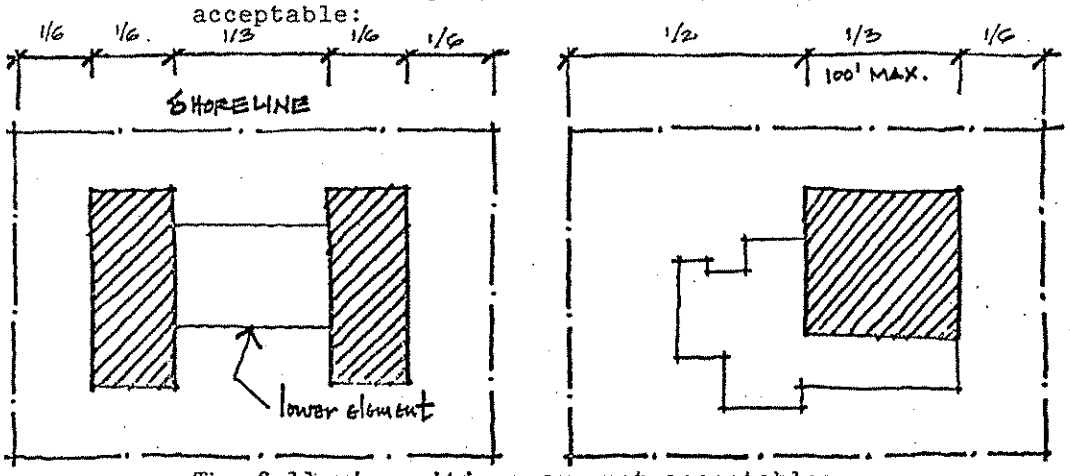
If this competition for attention is carried to the maximum degree by everyone, the net effect will be the cancelling out of the individual efforts as well as the necessary public signs and signals. The resulting pattern will be out of scale with other physical components and the overall character of the town.

PROPOSITION L

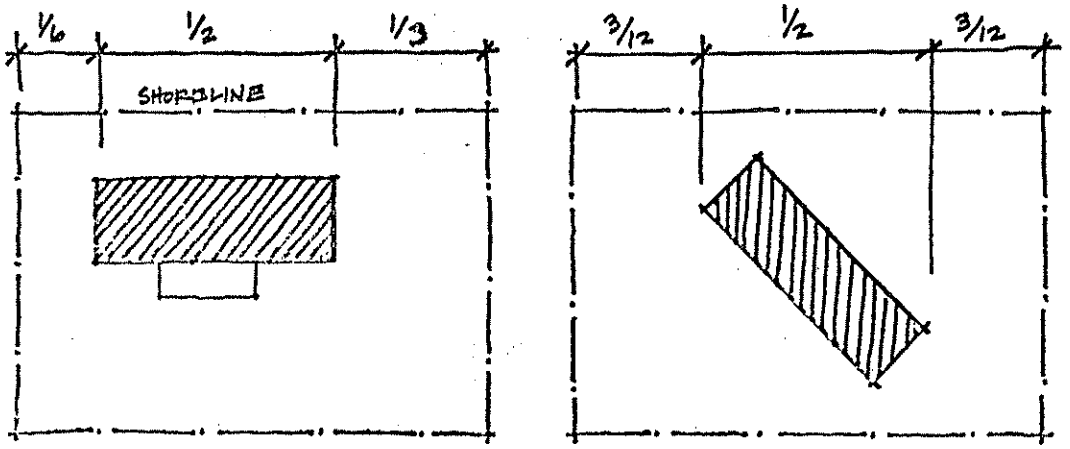
IF : The Wailua-Waipouli coastline is to remain natural in character and scale,

THEN: 1. All structures makai of Kuhio Highway should be no more than 3 stories in height (10 ft. maximum floor to floor) unless specifically exempted because of topography or adjacent vegetation.

2. Hotel structures to be built on parcels 4, 5, and 6 of the "Coconut Plantation" development may exceed the maximum height as indicated (10 ft. maximum floor to floor) provided that portions of the structures in excess of 3 floors do not obscure more than 33-1/3% of the ocean frontage as measured from property line to property line on the ocean side. For example, the following sitings are acceptable:



The following sitings are not acceptable:



COMMENT: The Kapaa-Wailua coastline is now uninterrupted by high-rise structures and derives much of its natural character from continuous groves of coco palms and ironwood trees along the shore. Existing construction along the coast has recognized a maximum height of 3 stories and is generally well hidden within the tree cover. While the height restriction of three stories is well suited to residential and commercial structures, it has proved to be not as efficient in design for hotels. The 3-story limit requires hotel facilities to sprawl over sites, generally blocking all ocean views at ground level and causing hotel operations to be inefficient and costly. The result is that few if any, major hotel chains are encouraged to locate in the Kapaa-Wailua vicinity even with the availability of prime beach front parcels. The ability to construct higher and more efficient facilities may encourage the construction of more hotels in the area. Since an important segment of the area's economy and future viability rests with the successful development of the visitor industry, opportunities to build "medium" or "high-rise" hotels in the area would be an asset to the community. The construction of these taller structures may, however, jeopardize the beauty and non-urban character of the area, especially along the beach, unless these structures were located within the tree mass and properly sited with relation to the shore and the view. Of the existing vacant parcels zoned for resort-hotel use, parlels 4, 5, 6 of the Coconut Plantation development are most suited for medium-rise development because of existing groves of tall coco palms, norfolk pine, and ironwoods on the sites. Medium-rise structures would extend slightly beyond the tree mass but with appropriate roof design and color would not disrupt any distant coastal views from areas such as Lydgate Park.

The visual impact of these structures from closer vantage points will depend not only on vegetation and tree cover, but the orientation of the structures to the view. From closer vantage points such as Kuhio Highway, these structures should not present their broad sides to viewers and should not obscure views of the ocean. They should therefore be limited in their orientations as compensation for height advantages.

Other sites similarly suited to mid-rise development may be considered for exemption from the 3-story height restriction only if these sites:

1. Will not disrupt coastline views from major vantage points such as Lydgate Park.

2. Are set within groves of trees, the average height of which equals the height of the proposed buildings (with max. of 8 floors).

3. May be situated in ways consistent with this proposition.

PROPOSITION M

IF : The mouth of the Wailua river should be preserved as a place of historical significance and scenic beauty,

THEN: 1. Any road traversing the Wailua River should not obstruct the view of the riverboat facility and the mauka view channel created by the river.

2. A visual or physical connection should be established between the heiau on the hill mauka of Kuhio Highway and the heiau site in Lydgate Park makai of the highway.

3. The mauka and makai sides of Kuhio Highway near the Wailua River should be intensively landscaped with Coconut palms.

PROBLEM: 1. The mouth of the Wailua River is a scenic attraction for both residents and visitors. It gives one the feeling of having "arrived" at a place. Mauka of Kuhio Highway, docking facilities for river boats are visible to the motorist or pedestrian while a broad white sand delta can be seen on the makai side. An additional cane haul bridge also crosses at the river's mouth. A third vehicular crossing for the proposed by-pass road at the river's mouth will detract from the existing character of the area by blocking views and by overbuilding an area which should be enhanced by natural amenities. There are several ways to give this proposed bridge a visual role more harmonious with the proposed character of the area.

a) It should be designed to maintain a low profile while high enough to allow boats to pass under it.

b) The structural system should allow a slenderness which minimizes obstruction of the view channel established by the river.

c) The overall appearance and design details should be in the mode of the existing bridge.

d) To eliminate conflict with the riverboat marina complex, this proposed bridge should cross the river on the makai side of this facility.

e) Another alternative would be to use the existing Kuhio Highway Bridge.

2. The heiau mauka of Kuhio Highway is an important historical and natural landmark which should be improved. The other heiau site makai of the highway presently accommodates restroom facilities. Because of the physical separation of the highway, these sites exist independent of each other. The mauka heiau surrounded by sugar cane fields is not readily accessible to the existing resort complex or residents who utilize the beach park. Future pedestrian linkages should be either over or at grade with the existing highway, and visual connection should be maintained by controls such as building heights or low landscaping between the sites. Any future road in addition to the existing Kuhio Highway should be located mauka of the heiau on the hill.

3. Motorists approaching the Wailua River from Lihue cannot see the Wailua River from a distance. Therefore, the sense of entry on "place" is not realized until the bridge is reached. One way to announce the existence of a special place to approaching motorists would be to introduce high coconut palms along the highway which become more dense as the Wailua River draws near. These trees would also give an indication of the old copra plantation which once contributed to the economy of the area.

(C) Develop agricultural subdivision standards

Subdivision standards for agricultural-zoned lands are the same as residential-zoned lands. As such, development on agricultural-zoned lands has characteristics of residential communities. Roadway widths, driveway paving, size of waterlines, and common driveway access standards could be reduced in agricultural areas to avoid looking like a standard residential subdivision.

4.4.2 IMPLEMENT PRIORITY CAPITAL IMPROVEMENT PROJECTS TO SUPPORT THE PREFERRED GROWTH SCENARIO

(A) Improve Local Multimodal Connectivity

As the project will be built in phases, begin from the southern and northern ends of the project. Improve mauka-makai connectivity for cars, bikes, and pedestrians at Kawaihau, Olohena, Niu, and Pouli Roads.

(B) Provide Adequate Water Supply for Future Growth

The Water Master Plan for East Kaua'i should give priority to expanding the supply, storage, and transmission of water to the expanded Urban Center, rather than outlying agricultural areas.

(C) Expand Wastewater Treatment Capacity

All new development in the Urban Center should connect to the County sewer system. This will require both the expansion of the Wailua Wastewater Treatment Facility and the development of a future wastewater treatment facility to serve Wailua-Kapa'a. Consideration should be given to placing the new wastewater treatment facility in a future industrial park.

4.4.3 SUPPORT LAND USE CHANGES TO IMPLEMENT PREFERRED GROWTH SCENARIO

These changes should be supported in conjunction with adequate restrictions on the urbanization of Agricultural lands and progress in implementing priority infrastructure improvements (see Section 4.5).

Support zoning amendments that implement Form Based Codes in urban centers

A master plan, infrastructure plan, and phasing plan will be required of projects listed above at the time of rezoning. Form Based Code principles of compact, mixed-use development, complete and connected streets, and energy efficiency should be incorporated into plans for these areas. Incorporating short- and long-term public facility needs is another important consideration, as well as concurrency of roadway improvements, and provision of affordable housing. Finally, compatibility with surrounding communities, environmental impacts, and protection of open spaces and view planes are criteria that will be reviewed at the time of application submission.

4.4.4 DIRECT FUTURE GROWTH IN ALIGNMENT WITH PREFERRED GROWTH SCENARIO

(A) Support a continuum of housing

New residential zoning is needed in the urban center to provide a continuum of housing. To encourage affordable and elderly housing, higher density residential zoning (R-10 and R-20) is needed. There should be a focus on not just building homes, but communities with meeting spaces, pedestrian, and transit access.

EXHIBIT "I-28"

8. INFRASTRUCTURE

This chapter addresses infrastructure systems within East Kaua'i. It is intended to guide long-range functional and facility plans by respective County agencies.

VISION STATEMENT

Infrastructure Improvements are directed in areas where growth is desired. New development is contingent upon the adequacy of infrastructure improvements. A new and/or renovated wastewater treatment plant and reclamation facility serves the community. Water source, storage, and distribution are adequate. County recycling and re-use programs to reduce solid wastes are embraced by East Kaua'i residents.

8.1 WASTEWATER MANAGEMENT

8.1.1 INDIVIDUAL WASTEWATER SYSTEMS

The vast majority of East Kaua'i is served by Individual Wastewater Systems (IWS), such as cesspools and septic tanks. IWSs are common in areas with low and moderate residential densities, including Wailua Homesteads, Wailua Houselots, Kapa'a Homesteads, Anahola, and Moloa'a.

Individual Wastewater Systems

The State Department of Health (DOH) regulates IWSs throughout the State. Specifically, the DOH limits IWSs to residential lots that are 10,000 square feet in size (equivalent to R-4 zoning) or larger. This lot size provides the sufficient area for effluent to seep into the ground. New residential subdivisions that are less than 50 units are also allowed to have IWSs, provided that sewer service is not available to the property. New subdivisions over 50 units must install wastewater treatment plants. Homeowners are responsible for maintaining their own systems.

8.1.2 WAILUA WASTEWATER TREATMENT PLANT

The Wailua Wastewater Treatment Plant (WWTP) is owned and operated by the County of Kaua'i. Developed in the 1960's, the Wailua WWTP serves the coastal area of Wailua, Waipouli, and Kapa'a. The plant was expanded in several phases. The most recent expansion took place in the early 1990s. The current permitted plant capacity is 1.5 million gallons per day (mgd). However, due to age and lack of redundancy, the current available capacity is 1.0 mgd. The plant is presently operating at 0.5 mgd.

Wailua Wastewater Treatment

The three major components of the wastewater treatment include collection, treatment, and disposal.

Collection: The collection system, generally located on the K hi Highway corridor, includes gravity sewer lines, service laterals to individual properties, as well as pump stations and "force mains" that convey wastewater uphill, where necessary.

Treatment: The Wailua WWTP includes several processes, using mechanical equipment, power, and operators. Biological processes are used to digest waste, and settling basins are used to separate solids from liquids.

Disposal: Effluent disposal includes reuse and ocean disposal. The primary method of effluent disposal is via reuse for golf course irrigation. The alternate method of effluent disposal, when rainfall limits application for golf course irrigation, is via an ocean outfall.

8.1.3 CRITICAL ISSUES

8.1.3.1 Aging Infrastructure

Pump stations and equipment at the Wailua WWTP need upgrades. The County has completed a "Facility Plan" that describes needed upgrades and costs.

8.1.3.2 Redundancy and Reliability

Wailua WWTP has some process equipment that is near capacity, and lacks redundancy. This requires careful scheduling of maintenance activities for such equipment.

8.1.3.3 Improve Effluent Quality

Current reclaimed water quality produced by the Wailua WWTP is R-2 and is primarily used for the Wailua Golf Course Irrigation system. Additionally, using a system of underground drip irrigation, R-2 reclaimed water is being used to irrigate adjacent soccer fields at Lydgate Park. An upgrade to R-1 would allow broader use of reclaimed water for surrounding uses, which, in turn, reduce the demand for potable water.

8.1.3.4 Capacity is Fully Committed

The County of Kaua'i is attempting to avoid over-committing the remaining 0.5 mgd in unused wastewater capacity to pending projects. Priorities include serving existing customers.

Sewer extensions are practical for infill projects (e.g., not far from the highway or the Kapa'a Highlands area). Extending service to other areas would depend on location and timeframe, however, the cost to provide sewerage to homesteads and houselots is costly and would likely require political will or a legal trigger to initiate it.

8.1.3.5 Expansion of Wailua WWTP

Expansion of the existing Wailua WWTP is possible. The long-term capacity of the plant is limited by the effluent disposal capacity, which is 2.0 mgd, based on the capacity of the existing ocean outfall.

8.1.3.6 New Treatment Plant

A new WWTP is recommended to accommodate future growth in the development plan area. Potential sites include State or private parcels that the County would need to acquire. The timing, size, and cost of this facility will be determined by future plans of the development that it will serve.

GOAL 1.0	Improve Facilities and Increase the Capacity of Wastewater Treatment in East Kaua'i.

Objective 1.1 Repair, maintain, and upgrade the Wailua WWTP to improve existing system operations and redundancy.

Objective 1.2 Support coordination between wastewater management and water supply.

Objective 1.3 Expand the system capacity of Wailua WWTP to support the projected population.

Objective 1.4 Develop a new WWTP to serve future growth in Wailua, Waipouli, and Kapa'a.

Objective 1.5 Determine the feasibility of and community willingness to participate in an improvement district to expand sewer system collection to existing residential neighborhoods adjacent to County sewer lines.

Implementing Entities: Department of Public Works, Wastewater Management Division, and Department of Planning.

- Planning Principles

1.0 All new developments in the expanded County General Plan's Urban Center should be connected to a County sewer service system.

2.0 Where feasible, effluent should be treated to produce R-1 quality reclaimed water, which offers the most versatile reuse applications.

3.0 Wastewater treatment plants should be located in areas planned for industrial use and away from residential areas.

4.0 Wastewater treatment plants and system capital costs should be funded by impact fees for new developments that directly correlate with the wastewater service provided.

8.2 WATER

8.2.1 WAILUA-KAPA'A WATER SYSTEM

The Wailua-Kapa'a Water System, considered the largest water system on Kaua'i, is comprised of three service areas: Wailua Homesteads, Kapa'a Homesteads, and the coastal services area (Wailua, Waipouli, and Kapa'a Town).[1] Water Plan 2020 forecasts a 15% increase in water use between 2000 and 2020.[2]

8.2.1.1 Supply

There are eight water well and tunnel sources in East Kaua'i. In general, the existing water sources are not adequate to supply new large-scale development in the coastal and inland areas. Several new source development projects are currently underway to increase the water supply capacity.

[1] Water Plan 2020, County of Kaua'i, Department of Water, March 2001, p. 7-53.
[2] Ibid. p. 7-58.

8.2.1.2 Storage

Five water storage tanks totaling 3.8 million gallons serve the Wailua-Kapa'a water system. Currently, existing storage facilities are not adequate to meet the needs of proposed large developments within the Kapa'a and Wailua Homestead systems. Until new storage facilities are constructed, meter restrictions have been imposed. In Kapa'a Homesteads, existing lots have a five meter restriction; in Upper Wailua Homesteads, existing lots have a two meter restriction.

8.2.1.3 Distribution

The water distribution system in the Wailua Homesteads is relatively old 6- and 8-inch pipes. The lines in the Kapa'a Homesteads are a combination of 8- and 10-inch pipes that serve residential customers along Kawaihau Road. While some 8- and 12-inch pipes have been installed, most of the agricultural and open zones are served by undersized and older piping. The coastal area is served by 12- and 16-inch distribution mains from the Nonou Wells in Wailua Houselots. Major distribution mains located along K hi Highway include 8- and 12-inch pipes.

In 2014, Phase 1 of the Wailua Houselots Main Replacement project was completed, with 12,500 feet of waterline upgraded along Eggerking, Lanakila, Hookipa, Kula, Makani, Wailana, Pua O'o, Ulana, Kamokila and Haleilio roads.

8.2.2 ANAHOLA WATER SYSTEM

The Water Plan 2020 projects a 60% growth in water use in Anahola between 2000 and 2020.[3]

8.2.2.1 Supply

There are two existing water wells owned and operated by the County of Kaua'i Department of Water (DOW). The DOW is developing Anahola Well "C," a 400 gpm well that will provide service to Department of Hawaiian Home Lands (DHHL) Unit 6 Residential Subdivision and future development within Anahola.

8.2.2.2 Storage

There are two water storage tanks totaling 650,000 gallons. DHHL is currently planning to build a 0.25 mg tank.

8.2.2.3 Distribution

There are 4-, 6-, 8-, and 12-inch mainlines through Anahola. Fire flow is deficient in Anahola Village. The Anahola Road water pipe was installed in 1929. Most of the remaining water pipes were installed after 1956. Six pipeline replacement projects are planned to replace old and undersized pipeline.

8.2.3 MOLOA'A WATER SYSTEM

The Moloa'a Water System is the smallest water system on Kaua'i in terms of size and number of customers.

8.2.3.1 Supply

The water source is a well that is privately owned and operated. The County of Kaua'i currently purchases water for seven consumers. The DOW is currently negotiating a purchase agreement to serve 100 consumers.

[3] Ibid. p. 7-67.

8.2.3.2 Storage

Water is stored in a 5,000-gallon steel storage tank. Construction of a new 100,000 gallon tank is underway.

8.2.3.3 Distribution

A 4-inch PVC water main is located along portions of Koolau and Moloa'a Roads. This water main is adequate to accommodate peak hour demand and required fire flow for this area.

8.2.4 CRITICAL ISSUES

8.2.4.1 New Sources and Storage Facilities are Needed

New sources and storage tank facilities are needed to accommodate future population growth in East Kaua'i. Proposed projects (over the next 20 years) are described in Table 8-1.

8.2.4.2 Fire Flow Standards

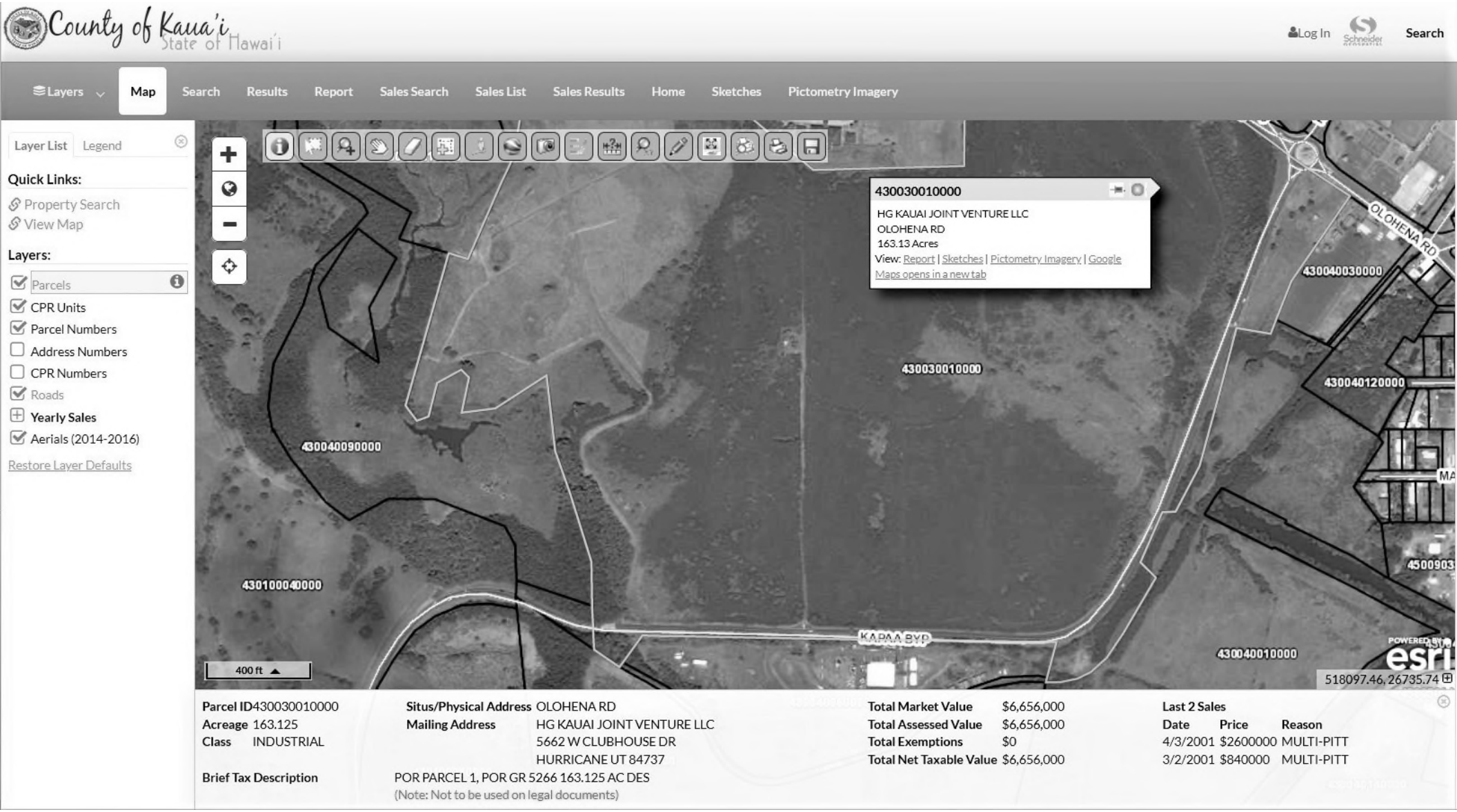
Many water distribution systems in older residential, agricultural, and rural areas do not meet fire flow standards. The undersized pipes are unable to deliver the amount of water required for fire protection. Replacement pipeline projects are needed to upgrade the undersized pipes. Planned and ongoing pipeline projects are described below.

8.2.4.3 Aging Distribution Lines

The old and undersized water pipelines are not adequate to maintain the current level of service in Kapa'a, Kapa'a Homesteads and Wailua Homesteads. Some pipes were installed before 1930; the Wailua Homesteads water main was installed in 1937 and the Kawaihau Road cast iron main was installed in 1945.

TABLE 8-1: PROPOSED WATER IMPROVEMENT PROJECTS IN EAST KAUA'I

Wailua-Kapa'a Water System	
Supply	Kapa'a Homesteads Well No. 3 & 4
	Wailua Homesteads Well No. 3
	Akulikuli Tunnel Rehabilitation
Storage	Kapa'a Homesteads new 1.0 MG tank
	Kapa'a Homesteads new .5 MG tank
	Wailua Homesteads new 1.0 MG tank
	Stable Tank new 1.0 MG tank
	Wailua Homesteads new .25 MG tank
Distribution	17 pipeline replacement projects described in Water Plan 2020
Anahola Water System	
Supply	Anahola Well "C"
Storage	Anahola new .25 MG tank (DHHL)
Distribution	Six pipeline replacement projects described in Water Plan 2020
Moloa'a Water System	
Supply	Purchase Agreement with private owner
Storage	Moloa'a 100,000 gallon tank
Distribution	Koolau Road, 6" Main & Water Meter & Backflow Device (1500')


County of Kaua'i
State of Hawai'i
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Search
Layers
Map
Search
Results
Report
Sales Search
Sales List
Sales Results
Home
Sketches
Pictometry Imagery
Layer List
Legend
Quick Links:
Property Search
View Map
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Parcels
CPR Units
Parcel Numbers
Address Numbers
CPR Numbers
Roads
Yearly Sales
Aerials (2014-2016)
Restore Layer Defaults
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HG KAUAI JOINT VENTURE LLC
OLOHENA RD
163.13 Acres
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400 ft
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Parcel ID 430030010000
Acreage 163.125
Class INDUSTRIAL
Situs/Physical Address OLOHENA RD
Mailing Address HG KAUAI JOINT VENTURE LLC
5662 W CLUBHOUSE DR
HURRICANE UT 84737
Brief Tax Description POR PARCEL 1, POR GR 5266 163.125 AC DES
(Note: Not to be used on legal documents)
Total Market Value $6,656,000
Total Assessed Value $6,656,000
Total Exemptions $0
Total Net Taxable Value $6,656,000
Last 2 Sales
Date Price Reason
4/3/2001 $2600000 MULTI-PITT
3/2/2001 $840000 MULTI-PITT

EXHIBIT "I-29"

MAP SHOWING
proposed
STATE LAND USE
URBAN BOUNDARY
affecting
PARCEL 1
TAX MAP KEY 4-3-03
being a portion of
Grant 5266 to Rufus P. Spalding
at
Kapa'a, Kaua'i, Hawai'i
September 23, 2011
TRUE NORTH
Scale: 1 INCH = 200 FEET
PARCEL 1
63.125 Acres
PROPOSED SLU
URBAN BOUNDARY
URBAN
(96.060 Acres)
AGRICULTURE
(55.554 Acres)
AGRICULTURE
(11.511 Acres)
PROPOSED SLU
URBAN BOUNDARY
GRANT 5266 TO RUFUS P. SPALDING
KAPAA BY-PASS ROAD
(RIGHT-OF-WAY & EASEMENT 11.894 ACRES)
KAPAA INTERMEDIATE
SCHOOL SUBDIVISION
LOT 1
KAPAA AGRICULTURAL LOTS
LOT 1
KAPAA BORROW
PIT SITE
KAPAA PARK
KAPAA HIGHLANDS
LOT 1
LOT 2
LOT 240-C-1
LOT 240-C-2
LOT 240-C-3
LOT 240-B-4
LOT 5
LOT 3
KAPAA RICE and KULA LOTS
PARCEL II
TMK 4-3-04
R.P. 4784
L.C. Aw. 8511 to Kaeo
6.613 Ac.
KAPAA QUARRY FARM
KAPAA HOMESTEAD FARM
KAPAA DRAINAGE CANAL
MOKENA CANAL
KUAMOA ROAD
OLOHENA ROAD
KAHALA ROAD
KAWAIHAU ROAD
CANE HAUL ROAD
CHASE VAIL ROAD
TMK: 4-5-15
TMK 4-3-03-8
TMK 4-3-03-9
CANE HAUL ROAD ROW (PART 4)
20' WIDE
GRANT 5231 to Hee Fat
STATE OF HAWAII
PARCEL A
20 FT. SHORELINE SETBACK LINE
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Petitioner's Exhibit No. 2

EXHIBIT "I-31"