A Sustainable Island
Growing responsibly to meet the needs of current and future generations without depleting resources.

- Kaua‘i is a sustainable island, rooted in principles of aloha and mālama ‘āina, and remarkable in its thriving ecosystems.
- Kaua‘i is a place where conservation and restoration of land and water resources provide the foundation of sustainable policies for land use, energy, infrastructure, society, and economy.

A Unique and Beautiful Place
Stewardship and protection of the natural, cultural, social, and built environment assets that are of value to the community.

- Kaua‘i is a place of distinctive natural beauty that honors its Native Hawaiian heritage, values historic places, and is shaped by diverse languages and cultural traditions.
- Kaua‘i is an island of unique communities that are united in a common vision and in care for their neighbors and ‘ohana
- Kaua‘i is a place where rural character and natural landscapes are preserved through compact, walkable communities separated by scenic and functional open spaces.
- Kaua‘i is a place that welcomes visitors, providing adequate facilities and a variety of cultural and recreational opportunities while maintaining the principles of aloha and mālama ‘āina.

A Healthy and Resilient People
Increasing health, vitality, and resilience of communities through improving the natural, built, and social environment and responding to impacts from climate change.

- Kaua‘i is a place with healthy people and vibrant community life, safe facilities for walking and biking, places to gather and socialize, and venues for arts and culture.
- Kaua‘i is a resilient community that shares kuleana in planning for the future, proactively responding to and preparing for changes, and providing for the needs of people from keiki to kūpuna.
- Kaua‘i is a place that supports agriculture and a diversity of farming practices and produces food and other products that contribute to Kaua‘i’s self-sufficiency.

An Equitable Place, with Opportunity for All
Fostering diverse and equitable communities with vibrant economies, access to jobs and housing, and a high quality of life.

- Kaua‘i is an island of economic opportunity where businesses, cottage industries, and entrepreneurs thrive, and where youth have broad access to education, enrichment, and economic opportunity.
- Kaua‘i is a place where housing for all ages and income levels is integrated into the fabric of each community, and where people can live close to work and services.
Kaua‘i residents widely agree that sustainability should drive planning for the future. This recognizes that Kaua‘i’s natural environment provides the foundation for a sustainable and equitable society, which in turn creates and supports a sustainable economy. The 2000 General Plan broke ground toward recognizing sustainability goals for the County, but this General Plan is the first to adopt it as an overarching goal.

Sustainable development does not endanger the natural systems that support life: air, water, soil, and living organisms. It means meeting the basic needs of society and extending to all people the opportunity to satisfy their aspirations for a better life. It means integrating economic and environmental considerations in policy and decision-making.\(^1\) A key concept related to sustainability is managing growth without depleting the natural environment.

Many feel the island is near or at carrying capacity with regard to resources, such as parks, roads, and public infrastructure. There is also concern that Kaua‘i’s natural resources and ecosystems are being irreversibly stressed or depleted. Addressing these issues sustainably means frankly assessing the existing conditions and identifying the tools and resources available to provide for their sustainable use and protection into the future.

There is a common desire to manage or limit growth, visitor traffic, and development on Kaua‘i. There is agreement that growth should be concentrated around existing centers to promote efficiencies in infrastructure while preserving open space and contributing to health. Adequate infrastructure should be provided to support current and anticipated needs.

A sustainable society is one with a strong and diverse community fabric, where people of all ages, origins, economic statuses, and abilities co-exist and thrive. They share a desire to strengthen communities to withstand economic and environmental pressures and provide for needs from keiki to kūpuna. A sustainable economy requires increased self-reliance for food, energy, and other resources. This means each individual taking the responsibility, or kuleana, to reduce their ecological footprint in their own lifestyle and land use.

Sustainability also means recognizing the County’s role in the larger world. For example, sustainability is threatened by global climate change, and Kaua‘i must reduce its greenhouse gas emissions and adapt in ways that are sensitive to the environment. Local sustainability efforts are strengthened by statewide initiatives and partnerships. In 2008, the Hawai‘i 2050 Sustainability Plan was finalized. In 2014, the County became a signatory of the Aloha+ Challenge, a statewide commitment to achieve integrated sustainability goals by 2030. The program’s priorities include clean energy, local food production, natural resource management, waste reduction, smart sustainable communities, and green workforce and education. The General Plan’s sectors and performance measures align with and support these priority areas.


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**GOAL #1: A SUSTAINABLE ISLAND**

Sustainability means growing responsibly to meet the needs of current and future generations without depleting important resources.

The United Nations Brundtland Commission defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

- United Nations, 1987

**Community Voices**

“In the words of Edward R. Murrow, American journalist, 1908-1965: ‘The obscure we see eventually. The completely obvious, it seems, takes a little longer.’”

“Well, we have waited too long already, so let’s design and build a ‘Self-sufficient and Sustainable Kaua‘i for the people of Kaua‘i.’ And yes, we not only can be a model for the rest of the state, country, and world, we SHOULD BE, we owe it to our children and future generations!”

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Kaua‘i Kakou art contest entry by Aaliyah Cadiente-Numazawa of Wilcox Elementary School.
GOAL #2: A UNIQUE AND BEAUTIFUL PLACE
Kaua‘i’s people share responsibility, or kuleana, to care for and protect treasured resources, traditions, and qualities of the natural, built, and human environment.

Kaua‘i’s natural ecosystems, coupled with its multi-ethnic culture, are what make Kaua‘i truly unique. These qualities and features are irreplaceable and exist nowhere else in the world, and therefore deserve protection in perpetuity. Specific examples include endemic and endangered species, historic structures, archaeological sites, cultural traditions, beliefs, practices, stories, and legendary places (wahi pana).

There is a legendary belief that applying traditional Hawaiian concepts of resource management, such as the ahupua’a system, can help to develop and support a culture of stewardship on Kaua‘i. In addition, there is a recognition of the need to protect the public trust resources provided special protection in Article 11.1 of the Constitution of the State of Hawai‘i, which states:

“For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai‘i’s natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.”

Many of these resources are under private or shared management between different levels of government. The General Plan identifies those resources and qualities in need of stewardship, identifies issues and challenges, and sets forth policies that strengthen, uphold, or support their protection. The Heritage Resources Sector identifies special resources in need of protection.

Community Voices
“The land is chief. We are but stewards of the land. If we take care of the land, the land will take care of us. All in the community must take into consideration how important it is to take only what one needs; to share, if there is abundance; to combine resources whenever possible; to contribute one’s talents and capabilities in the spirit of shared kuleana (responsibility).”

Waimea Canyon, Waimea-Kekaha District
GOAL #3: A HEALTHY AND RESILIENT PEOPLE
We seek to increase the resilience and vitality of Kaua‘i’s communities and promote better health outcomes through improving the natural, built, and social environment.

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
Source: World Health Organization, 1946

Health is influenced by the built environment, including the quality and affordability of housing; ability to walk or bicycle to key destinations; access to education, health care, and public services; availability of healthy foods; and access to the recreational areas that support active lifestyles.

Healthy communities are also multi-generational, supporting the needs of all from keiki to kūpuna. Community health is strengthened by locally grown food, compact walkable communities, preservation of natural areas, and access to jobs that support a high quality of life.

Resilience refers to the ability of a system to absorb disturbance and still maintain its basic function and structure.

Resilient communities understand their strengths and vulnerabilities, and have resources and networks that enable self-sufficiency in responding to changes. Having weathered multiple disasters, Kaua‘i’s residents have a heightened awareness of the need to prepare for and recover quickly from disruptive events. This awareness is an asset that can be employed in planning for other hardships due to climate change or economic fluctuations.

Self-sufficiency is another aspect of resiliency. This includes increasing local food production and crops for fuel and fiber. It means transitioning to renewable energy sources rather than relying on imported fossil fuels. It means hardening key infrastructure and siting it and other development away from vulnerable areas over time.

Resiliency also requires strong community fabric. Factors that erode community fabric include: the high cost of living; loss of opportunities for youth; residents priced out of the housing market; lack of common gathering areas; and sprawling development which weakens our town centers. The General Plan addresses these concerns through policies and actions for revitalizing towns and encouraging affordable housing.

Finally, resilience needs a strong and diverse economy. Workers must have access to living-wage employment and opportunities for advancement. Kaua‘i’s heavy reliance on the visitor industry – from the number of jobs supported by visitor spending to the percentage of real property revenue generated from resort uses – is considered a threat to resilience. The General Plan’s policies and actions support renewal, rather than expansion, in the visitor industry, strengthening of the agricultural sector, and economic diversification.

Community Voices
“The plantation camps should be used as a community model where safety, health, and welfare can be provided in a planned community:

- Community rules are formed and adhered to.
- Dispensaries and child caring centers can be established.
- Yurts or tiny homes on decks can be used and when more room is needed, smaller units.
- Porta potties are used and water must be brought in by residents or catchment systems used.
- On demand water heaters are used if there is water provided by county. Solar if not.”

“Emphasize the relevance between the importance of being self-reliant and self-sustaining, along with the ways in which the essence of aloha becomes possible – to take care of ourselves, each other and our environment for generations to come!”

Kaua‘i Kakou art contest winner Zixin He of Kapa‘a Elementary School.
Opportunity is about equal access to a high quality of life, which includes adequate housing, employment, and pathways to upward mobility. Perhaps the greatest challenge to opportunity is Kaua‘i’s high cost of living, often called the “Price of Paradise.” There is great concern that the cost of living has pushed local families away from Kaua‘i, and keeps many families in or near poverty.

The majority of new and available housing is not affordable to the average working household. This has also led to a sense that development contributes to inequality by serving off-island interests. When transportation and electricity costs are factored in, the average Kaua‘i household spends more than 60 percent of its income on housing and transportation.

Some residents manage the high cost of living through supplemental backyard food production, hunting, fishing, and multiple jobs. Others turn living rooms or garages into bedrooms for long-term guests and extended family. Still, the number of houseless individuals and families on the island is increasing, and many more are at risk of becoming houseless. Those unable to manage the costs become the working poor, continually in “survival mode” — or they abandon Kaua‘i and seek opportunity elsewhere.

Reversing this trend means ensuring that Kaua‘i residents, regardless of factors such as geographic location, age, race, gender, and economic status, have access to housing that is adequate, employment that can sustain their needs, essential services, transportation options, and opportunities for recreation and enjoyment of shared spaces. It means making sure that planning and land development decisions do not unfairly burden disadvantaged groups. It means encouraging and celebrating diverse, mixed income neighborhoods. It means providing for workforce housing in new growth areas and areas to be redeveloped. It means providing access to services and opportunities in rural communities so that the people there can maintain their desired lifestyle while meeting their needs.

This General Plan includes policies that will help Kaua‘i provide opportunity for its people from keiki to kūpuna. This will require creative thinking, collaboration, and collective action in the spirit of Kaua‘i Kākou.

Community Voices

“I believe that most of the long-term Kaua‘i residents are more concerned with the issues of opportunity and challenges faced by their children, resolving infrastructure issues, housing opportunities for the less affluent local community, cost of living, etc. In other words, survival.

If the only house you can afford is a black and grey apartment in Princeville, yet your job is in Līhu‘e — you’re stuck wasting four hours per day in traffic. It’s our development patterns that guide our addiction to cars, not the other way around.”

Kaua‘i Kakou art contest entry by Aljhay Flores of Kaumuali‘i Elementary School.
1.4 POLICIES TO GUIDE GROWTH

Nineteen policies address the issues most important to Kaua‘i residents in the face of existing issues and future growth. The policies guide objectives and actions and inform the Future Land Use Map.
Nineteen policies articulate the County’s path forward toward meeting the community’s vision and goals of sustainability, unique character, resilience, and equity. The policies address the critical issues and opportunities identified through the community process. They are not listed in order of priority, as all are important. These policies were the subject of a community-wide survey that was completed by more than 1,000 respondents across Kaua‘i, and indicated widespread agreement with the policy direction. Results of the survey are summarized in Appendix B.

Each policy statement is numbered and accompanied by a heading and icon. The icons are used in Chapter 3 to illustrate policy consistency.

**POLICY #1: MANAGE GROWTH TO PRESERVE RURAL CHARACTER**

Preserve Kaua‘i’s rural character by limiting the supply of developable land to an amount adequate for future needs. Prohibit development not adjacent to towns. Ensure new development occurs inside growth boundaries and is compact and walkable.

Rural character is what makes Kaua‘i a unique and beautiful place valued by residents and visitors alike. However, this character is threatened by low-density development occurring on agricultural lands that are non-adjacent to existing towns. This development pattern also increases traffic—another threat to Kaua‘i’s rural character. Because our population will grow, we need to manage growth in a way that is sustainable and preserves our character. By concentrating growth within or adjacent to existing towns, we designate where urban uses belong in order to better preserve agricultural lands and open space. Infill and compact growth in existing towns will minimize infrastructure costs and help maintain separation between towns. When combined with transportation improvements, compact growth can reduce traffic congestion by reducing the need for long trips in single occupancy vehicles, increasing walking and biking within towns, and improving access to transit.

This policy is implemented spatially through the Land Use Map in Chapter 5 (Urban Edge Boundaries and amount of new urban district allocated to districts) and through actions for Housing, Land Use, and the Economy.
POLICY #8: PROTECT KAUAʻI’S SCENIC BEAUTY

Protect the island’s natural beauty by preserving the open space and views between towns.

Kauaʻi is home to distinctive natural views and landmarks that define Kauaʻi’s sense of place for residents and visitors. Mauka and makai scenic views of places such as Waiʻaleʻale, Kawaikini, Kēʻē Beach, and Waimea Canyon need to be protected regardless of population growth, development, and other changes. Many of our natural landmarks also serve as important physical cues to help orient people at sea. Protecting our scenic beauty and natural landmarks will ensure that our island’s historical significance and unique identity will be preserved over time.

This policy is implemented through the Land Use Map and actions for Heritage Resources.

POLICY #9: UPHOLD KAUAʻI AS A UNIQUE VISITOR DESTINATION

Protect the identity of Kauaʻi’s visitor industry by focusing on revitalization and limiting new resort growth only to existing Visitor Destination Areas. Reduce visitors’ impacts on infrastructure and communities.

Growth in the Average Daily Visitor Count leads to economic activity. However, with the advent of disruptive forces in our traditional notion of visitor accommodations (e.g., transient vacation rentals, house sharing), and the inability to restrict travel due to federal constitutional rights, any permitted growth in the visitor industry needs to consider the negative impact it can have on our infrastructure and our communities. Many areas like Hāʻena, Wainiha, and Hanalei have had their community character dramatically altered as a consequence of non-traditional visitor industry operations encroaching on their way of life. This impact has left Kauaʻi with a clear increase in traffic – an impact not sustainable to our island. With the tools that the county has at its disposal, legal methods of limiting the physical footprint of transient accommodation uses should be encouraged.

This policy is implemented through the Land Use Map, and actions for the Economy, Housing and Shared Spaces.
POLICY #10: HELP BUSINESS THRIVE

Create and foster thriving commercial areas in Town Centers through improved infrastructure, civic space, streetscapes, updated zoning standards, and streamlined approval processes.

In order to provide equity and opportunity for all, a focus on job creation and economic growth is necessary. Historically, economic growth has centered on the tourism industry, leading to overuse of the rural and natural areas that make Kaua‘i a unique and beautiful place. Future economic growth should support existing town centers to become more vibrant hubs of commerce and promote opportunities for small businesses and cottage industries. Infrastructure, investment, and community-building efforts should be directed toward existing town center areas and provide ease of regulation for nascent enterprise.

This policy is implemented through the Land Use Map and actions for Shared Spaces, Heritage Resources, and Economy.

POLICY #11: HELP AGRICULTURAL LANDS BE PRODUCTIVE

Support economic diversification and access to locally produced food by increasing the productivity and profitability of all forms of agriculture. Nurture small-scale farms, promote crop diversity, and form stronger public/private partnerships with farmers.

The Hawai‘i Baseline Agricultural Study11 reported that only 21,494 acres of land on Kaua‘i are being used for agriculture (out of approximately 136,908 acres within the State Land Use Agricultural District). Less than 1,000 acres of the lands in production are used to grow food crops, not including coffee.

Having a productive agricultural system not only involves having lands available for farming, but creating the mechanisms necessary to support vibrant agriculture. While Kauai’s people may have different opinions on what type of agriculture should be allowed, increasing agricultural production is crucial for food, resources, and economic sustainability, as well as to the cultural heritage and identity of the island.

This policy is implemented through the Actions for Economy, and Opportunity and Health.

11 2015 UH Hilo/DOA
**POLICY #12: PROTECT OUR WATERSHEDS**

Act with the understanding that forests, biodiversity, and water resources are fragile and interconnected. Restore and protect our watershed from mauka to makai.

The health of our island is the health of our community, and it starts with protecting our watersheds. The public has called the health of our watersheds into question, and the increasing threats of pollution and overuse are apparent. Recognition of our environment as a living system transcending land boundaries and physical walls should always be woven into our actions moving forward. Emphasis should be placed on actions that address the disproportional impacts of growth on our watersheds. Traditional approaches of land use and resource management, including the understanding of water and watershed resources as public trust resources, promote our sense of place and make environmental sense when seeking options that balance our growing community and the need to maintain healthy watersheds. Though current estimates show water withdrawals under maximum sustainable yield for much of the county, and though Kaua‘i is not a regulated groundwater area, there are increasing concerns and questions regarding future availability of both surface and groundwater. This plan will need to be adapted to reflect updated projections in light of climate change and increasing evidence that groundwater withdrawals may reduce stream flow and vice versa. Water conservation and reuse, and stream restoration are key measures to ensure sustainable water supply on our island in future.

This policy is reflected spatially on the Land Use Map and implemented through Actions for the Watershed.

**POLICY #13: COMPLETE KAUA‘I’S SHIFT TO CLEAN ENERGY**

Mitigate climate change and reduce system-wide carbon emissions by at least 80 percent by 2050 through deep reductions in energy use and by transforming electricity, transportation, and infrastructure systems toward the use of clean energy.

Kaua‘i’s shift to clean energy is in line with the goals of being a sustainable and resilient island. By doing our part to reduce greenhouse gas (GHG) emissions, we will help to prevent global average temperatures from rising. In 2007, Kaua‘i contributed 1.2 million metric tons of carbon dioxide gases, which primarily came from the combustion of fossil fuels for electricity, ground transportation, and air transportation. Although Kaua‘i is leading the State in generating local renewable energy production (approximately 40% of our electrical demand), there is still much work to do in reducing the GHG emissions generated from the transportation sector.

This policy is reflected in the Actions for Energy Sustainability & Climate Change Mitigation and Public Safety and Hazards Resilience.

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12. *Hawaii Greenhouse Gas Inventory, 2007*
**POLICY #14: PREPARE FOR CLIMATE CHANGE**

Prepare for impacts to the island economy, food systems, and infrastructure that will be caused by climate change.

Climate change and resulting sea level rise (SLR) are evidenced and documented on global, national, as well as local levels. While data forecasts are in flux, the best available science for our island indicates we should plan for at least three feet of sea level rise. As an island with the majority of residences and activities located on or close to the coastline, it is important to provide direction to prepare our island for increased coastal hazards and their impacts to business, homes, roadways, drinking water, and ultimately health and safety.

This policy is implemented through the Land Use Map and Actions for Public Safety and Hazards Resilience.

**POLICY #15: RESPECT NATIVE HAWAIIAN RIGHTS AND WAHI PANA**

Perpetuate traditional Native Hawaiian rights and protect public trust resources and cultural sites in all land use development and activities.

Native Hawaiians have refined systems for sustainable stewardship and collaboration that honor the island’s beauty and bounty as well as one another. These principles are still alive today through the language, stories, dance, and ceremonies of our native people. Mālama 'Āina, or caring for the land, is ingrained within the fabric and language of Hawaiian culture. Also rooted within stories and traditions are the struggles and accomplishments of the Ka Poʻe Kahiko, or the People of Old, valuing significance of place, the origins of things, safety, health, and cooperation. Our Kanaka Maoli o Kaua‘i are a vibrant and integral foundation of our community, and their ancestral knowledge about the land and resources, how to care for one another, and customary gathering rights and traditions must be passed on to future generations. It is understood as a resident, native or not, that Nā Kanaka o Kaua‘i are treasures to be respected and that lands and resources must be protected for perpetuation of cultural practice.

This policy is implemented in the Heritage Resources Map and Actions for Heritage Resources.
POLICY #16: PROTECT ACCESS TO KAUA’I’S TREASURED PLACES

Protect access to and customary use of shoreline areas, trails, and places for religious and cultural observances, fishing, gathering, hunting, and recreational activities, such as hiking and surfing.

The beaches, mountains, and other natural areas of Kaua’i are cherished by its people for recreation, physical, mental, and spiritual rejuvenation, and family and cultural connections. In addition, many community members continue to provide for themselves and their families through subsistence practices – fishing, hunting, or gathering of foods, materials, and medicines – that have been perpetuated for generations. Development pressures mauka and makai, as well as emergencies caused by visitors getting hurt in some of the places our residents otherwise know as kapu, threaten continued access to Kaua’i’s most treasured places for fear of liability. Promoting collaboration, providing for local and visitor education, enforcing rules protecting access, and providing signage and wayfinding where appropriate, perpetuate the protection of natural resources and the Hawaiian value system of mālama ʻāina.

This policy is reflected in the Heritage Resources Map and implemented through actions for Shared Spaces and Heritage Resources.

POLICY #17: NURTURE OUR KEIKI

Value youth as Kaua’i’s most treasured resource. Provide them with safe communities, great schools and facilities, and financially sustainable jobs, housing, and transportation opportunities so they are able to seek livelihoods on Kaua’i.

Kaua’i continues to see more births than deaths. However, the statistics also show the exodus of young people for greater opportunities. The loss of our next generation creates an unsustainable trend of population aging that could disproportionately cause economic and social issues over the long-term. Actions to promote education, housing, and economic opportunity are necessary to keep our keiki from permanently moving away from home.

This policy is implemented through Actions for Health and Opportunity, Economy, and Shared Spaces.
**POLICY #18: HONOR OUR KŪPUNA**

Prepare for the aging of Kauaʻi’s population through housing, services, and facility improvements that meet the needs of elderly households.

Kauaʻi’s population is aging. About one third of Kauaʻi’s population will be 65 and over in 2035. In comparison to the other counties, Kauaʻi has a relatively high median age and a higher percentage of older adults.

Here on Kauaʻi, kūpuna are honored and cared for as they are the foundation of our families and communities. By supporting kūpuna-friendly communities, kūpuna will be able to age in place and live an active and independent lifestyle as long as possible. Many of our communities today are not conducive to an aging population because of zoning regulations that have separated neighborhoods and commercial uses to be accessible only by car. In preparing for an aging population, we must rethink our community design by including the needs of our kūpuna.

*This policy is implemented through the Actions for Housing, Shared Spaces, Health and Opportunity, and Transportation.*

**POLICY #19: COMMUNICATE WITH ALOHA**

Kauaʻi’s residents care about planning and decision-making. Government must share information, encourage input, improve public processes, and be responsive.

During the update process, community members and agencies asked how implementation of the 2000 General Plan was monitored in order to determine accomplishments and challenges. Although there were many successes, feedback mechanisms and metrics were absent or not consistent.

Tracking the many actions that support the policies that help us to attain our goals will take a thoughtfully crafted system with room to evolve. Establishing performance measures, monitoring progress, reinforcing accountability, and involving the community in the future of the island are integral to our success.

*This policy is implemented through the Implementation & Monitoring Chapter of the General Plan.*
The theme of the General Plan, Kaua‘i Kākou, acknowledges that Kaua‘i’s strength lies in its strong, diverse community and ability to work together to provide for a better future.
2.1 FUTURE LAND USE

Future Land Use Objectives:

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 Līhuʻe as Kauaʻi’s primary urban center within an urban edge boundary.
8. To increase resiliency by limiting development in areas impacted by future sea level rise.

Policy Alignment:
Directing How Kaua‘i Grows

The Future Land Use Map, shown in Chapter 5, is the backbone of the General Plan and is a critical element in the State and County’s land use and regulatory planning system. Map consistency is required for all boundary and zoning amendment actions. The map represents the development pattern needed to accommodate projected growth and support the 2035 Vision and Goals. The Map was updated through an in-depth public and technical process. Specific changes were based on community input obtained through visioning workshops, community meetings, and stakeholder consultation. Existing entitlements and legal rights were considered as well. Updated population projections determined the extent of new growth areas, while sea level rise and other technical planning information directed whether or not certain areas are appropriate for development.

The Future Land Use Map aligns with the General Plan’s policy by directing growth to existing communities through infill and mixed-use development that provides a range of more affordable housing types. New communities, located adjacent to existing towns, will be designed to support housing for locals, a range of civic space, and the County’s multimodal transportation goals. Consistent with the desire to limit growth north of the Wailua Bridge due to congestion concerns, the majority of growth is steered to the Līhu’e and South Kaua‘i Planning Districts. This also serves to reduce the cost of living by locating more housing near major job centers. Additional growth is allocated to the Waimea-Kekaha, Hanapēpē-%Ele’ele, East Kaua‘i, and North Shore planning districts based on historic and natural increase trends.

Building Upon Historic Settlement Patterns

Prior to Western settlement, a complex system of land division existed across Hawai‘i. An island, or mokupuni, was divided into several moku, the largest units within each island. Kaua‘i has five moku and Ni‘ihau represents a sixth. Moku were divided into ahupua‘a, land sections that extended from the mountains to the sea. The size of the ahupua‘a depended on the resources of the area. Each was a self-sustaining unit, with resources to provide for the local population, and sufficient surplus to allow for trade. Kaua‘i embraces the concepts of moku and ahupua‘a and seeks to perpetuate the names, symbols, and knowledge associated with them through education and signage.

Kaua‘i’s towns were originally sited at harbors and

Commercial area in Nāwiliwili, Līhu‘e District (Courtesy of Prayitno Hadinata, through Flickr.com Creative Commons).
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 Kauaʻi’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, Kapaʻa, 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 Kauaʻi’s Rural Character
Kauaʻi’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 Kauaʻi’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 Līhuʻe is widely seen as the appropriate urban center for the island, most people in outlying communities would rather not drive to Līhuʻe 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 Kauaʻi 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 Kauaʻi 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 Kauaʻi’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 Līhuʻe Town Core Urban Design Plan (2010) and the South Kauaʻi 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 Līhuʻe Community Plan (2015), 47 percent of future growth is allocated to the Līhuʻe District. South Kauaʻi will accommodate 26 percent of future growth. East Kauaʻi, 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, Waima-Kekaha, and Hanapēpē-ʻEleʻele – to provide for natural population increase.
2.2 LAND USE DESIGNATIONS

The Future Land Use Map designations describe the desired type of land use in broad terms. All boundaries are generalized and do not carry the legal weight of metes and bounds. In many cases, more specific planning and regulatory action is required to refine and implement the map. Some previous designations have been carried through, but the policy for these designations may have changed. Other designations have been consolidated or modified into new categories. Designations were developed or updated based on an in-depth public process described in Appendix B. The twelve designations are:

1. Natural

Areas designated as Natural have either limited development capacity or are not suitable for development due to topography, hazards vulnerability, sensitive resources, and other constraints. They include all State Land Use Conservation District lands and some County Open Zoning District land. These areas include the many ridges, waterfalls, river valleys, and rugged coastlines of the island that comprise its open spaces and scenic views. Very few residential uses are found in the Natural designation and are generally not encouraged.

Actions for the Natural designation are found in the following Chapter 3 sectors: The Watershed, Shared Spaces, and Heritage Resources.

Changes from the Previous General Plan Land Use Map

Natural replaces the Open Designation in the previous General Plan. The Open Designation included undeveloped natural areas as well as some areas that are vegetated but developed and actively managed, such as golf courses.

2. Agriculture

It is the County’s policy to preserve and protect Agriculture lands, particularly those of the highest quality. Therefore, Important Agriculture Lands (IAL) are also identified on the Future Land Use Map. Preserving agricultural lands contributes to self-sufficiency and helps preserve Kaua’i’s rural character and lifestyle. Agriculture lands are held in reserve for agricultural purposes with little residential development. These areas range in scale from large agricultural fields to small diversified farms.

While the 2000 General Plan acknowledged issues related to residential encroachment into agricultural lands, this development pattern continued to expand, especially on the North Shore and East Kaua’i. The General Plan
recognizes that residential development on agricultural lands is an unsustainable trend, and emphasizes preserving agricultural lands in intact form while limiting other uses. When development does occur, it should be clustered so as to minimize the requirements for new infrastructure and the impacts on open space and adjacent land uses. Actions for the Agriculture designation are found in the following Chapter 3 subsections: Agriculture and Agricultural Worker Housing.

Changes from the Previous General Plan Land Use Map
The Agriculture designation was expanded to include those lands no longer designated Resort or Residential Community. It has also been modified to differentiate between Important Agriculture Lands (IAL) and non-IAL.

3. Homestead

Homesteads are existing low-density rural residential communities that were created in the early 1900s under the 1895 Land Act. There are numerous homestead lots, mostly within the South Kaua‘i and East Kaua‘i districts, that have a residential community form. The Homestead designation allows for single-family dwellings even if the parcel is in the State Land Use Agricultural District. The State Land Use Law requires residential dwellings within the State Land Use Agricultural district to be “farm dwellings,” meaning that the occupant needs to earn income from agricultural use of the land. \(^{10}\) However, single-family dwellings are permitted on lots existing before June 4, 1976. \(^{11}\) Lands mapped as Homestead are included within this designation although the underlying zoning is agriculture because they are entitled to residential use and many parcels have long been developed with single-family residences. The policy for Homestead areas is to allow incremental buildout of existing areas, while limiting the development and dispersal of new homesteads and agricultural communities.

Changes from the Previous General Plan Land Use Map
The Homestead designation is new and was created to acknowledge existing rural community form of homesteads in Kalāheo, Wailua, and Kapa‘a.

4. Neighborhood Center

Neighborhood Center is a new designation focused on historic town cores and corresponds to existing or future areas appropriate for accommodating infill development and growth. Centers consist of a mixed-use core with a cluster of retail and service activity, civic spaces and primary destinations, along with residential uses. This core area can support an interconnected network of streets and blocks that encourage multimodal transportation access. Centers typically comprise a mix of detached and attached buildings between 1-5 stories in height.

10 HRS §205-4.5(a)(4)
11 HRS §205-4.5(b)
Actions for the Neighborhood Center designation are found in the following Chapter 3 subsections: Town Centers, New Communities, and Transportation.

**Changes from the Previous General Plan Land Use Map**
Neighborhood Center is a new designation. It updates the previous Town Center boundary and replaces Urban Center and Residential Community in some areas. The designation works with Neighborhood General to indicate existing and new mixed use centers where growth and revitalization should be prioritized.

### 5. Neighborhood General

The Neighborhood General Designation applies to the walkshed surrounding Neighborhood Centers. This designation is intended for medium intensity mixed-use environments that support the town core with housing, services, parks, civic/institutional, home occupation, and commercial uses. Buildings in this designation are mostly detached, with some attached, 1-2 stories in height that can accommodate a range of multi-family housing types.

Actions for the Neighborhood Center designation are found in the following Chapter 3 sectors: Housing, Shared Spaces, and Land Transportation.

**Changes from the Previous General Plan Land Use Map**
Neighborhood General is a new designation. It was designated over the existing Urban Center and Residential Community designation where it was included within a quarter mile radius of Neighborhood Center. This included the Agriculture designation in some areas.

### 6. Residential Community

This designation indicates existing areas that are primarily residential with few to no other uses. These areas are located outside the quarter mile boundary of Neighborhood Center and are no longer intended to be utilized as a growth tool to indicate areas of future development. The exception is the Lima Ola affordable housing project in ‘Ele’ele. Instead, the majority of future residential needs are directed to the existing and proposed Neighborhood Center and Neighborhood General designations.

Actions for the Residential Community designation are found in the following Chapter 3 sectors: Housing and Shared Spaces.

**Changes from the Previous General Plan Land Use Map**
In addition to being largely replaced by Neighborhood Center and Neighborhood General, Residential Community was removed from areas where it was not possible to accommodate compact and walkable development directly adjacent to existing towns. This includes areas west of Waimea Town, along Ala Kalanimaka in Kōloa, on the Huleia Plateau in Puhi, and mauka of the Princeville Airport. All these areas have converted to Agriculture.
7. Urban Center

The Urban Center designation has largely been replaced by Neighborhood Center and Neighborhood General. Urban Center is only applied in the Līhuʻe District, which is expected to absorb approximately half of the island’s future growth to 2035. Līhuʻe contains multiple neighborhood centers with overlapping walksheds, creating a nearly continuous urban fabric. In this district, Urban Center is applied to urbanized areas that accommodate intensive urban uses and zoning such as general commercial and general industrial.

Actions for the Urban Center designation are found in the Līhuʻe Community Plan and the following Chapter 3 sectors: Shared Spaces and Housing.

Changes from the Previous General Plan Land Use Map
Previously, the Urban Center designation was applied to “centers of government, commerce and transportation that serve the entire County or a large region.” In addition to Līhuʻe, this included Port Allen and an area adjacent to Kapaʻa Middle School. The Urban Center designation is replaced with Neighborhood Center and Industrial in Port Allen, and Neighborhood Center and Neighborhood General in Kapaʻa. The policy addressing Wailua-Kapaʻa Traffic and managing growth north of the Wailua Bridge influenced the decision to remove the swath of Urban Center from the area adjacent to Kapaʻa Middle School.

8. Resort

Entitled or partially entitled resort development could add more than 3,000 resort units to the existing visitor unit inventory. Most of these entitlements have no expiration date. Given concerns regarding stressed infrastructure including roads, wastewater systems, and parks, the policy is to prohibit expansion of Visitor Destination Area (VDA), and where possible, to reduce VDA boundaries and remove Resort areas where entitlements do not exist. Many in the community desired a shift toward a “use it or lose it” approach toward resort development. Use it or lose it refuses lack of action toward entitling over the past few decades, indicates the market’s ability to start and absorb this type of product in that spatial location, or a developer’s willingness to make forward progress toward utilizing the General Plan designation. Given this community desire, the General Plan Update reduces the island’s total resort acreage.

Actions for the Resort designation are found in the Chapter 3 sector: Economy.

Changes from the Previous General Plan Land Use Map
Consistent with the policy to not expand the Visitor Destination Area (VDA), Resort designation was removed in unentitled areas (without County Resort Zoning or VDA) where there was little community support for resort expansion, such as Nukoliʻi and Princeville (Table 2-1). Further restrictions are required on remaining areas without entitlements, by policy, in the Tourism subsection, to ensure furtherance of the “use it or lose it” policy, and provide a short window for areas like Kīkīaola to commit investment toward the resort use of the area. Otherwise, the designation of the area will revert to Agriculture.
9. Industrial and Transportation

These designations apply to areas that exclusively accommodate business, transportation, production-oriented, and light industrial uses. In general, these uses need to be buffered from surrounding land uses due to noise and other considerations. Lands within the Transportation designation are used predominantly for major shipping and transportation facilities including Līhuʻe Airport, Nāwiliwili Harbor, and Port Allen Harbor.

Actions for Industrial and Transportation are found in Chapter 3 sectors: Land Transportation and Critical Infrastructure.

Changes from the Previous General Plan Land Use Map
The Transportation designation was newly applied to the Princeville Airport, which was previously designated Residential Community. The Industrial designation is new. Industrial applies to areas with existing Industrial zoning and includes potential Industrial areas such as the Olokele and Kōloa mill sites.

10. Military

The Military designation describes lands under the control of the U.S. Armed Forces. It is unchanged from the equivalent designation in the 2000 General Plan. Uses within the Military designation include residential, office, and various facilities related to the mission of the installation. The public is typically restricted from access. This designation is limited to the Pacific Missile Range Facility at Barking Sands.

Changes from the Previous General Plan Land Use Map
The Military designation is unchanged.
11. University Zone

University Zone is applied to the parcels owned by the Kaua‘i Community College (KCC), the island’s only post-secondary educational institution. The designation acknowledges KCC’s plans for expansion and that the area should provide facilities, housing, and uses to serve the student, faculty, and staff population.

Actions for Access to Quality Education are found in Chapter 3 sector: Opportunity and Health for All.

**Changes from the Previous General Plan Land Use Map**

The University Zone designation is a new designation on the General Plan Land Use Map.

12. Parks and Golf Courses

The Park designation describes major active public and private parks. The designation includes state parks, regional and district parks, stadiums, linear parks, and beach parks. Actions for parks are found in Chapter 3. A new designation is “Golf Courses.” Golf Courses were previously included in the Open and Parks and Recreation designations.

Actions for Shared Spaces are found in Chapter 3 sector: Shared Spaces.

**Changes from the Previous General Plan Land Use Map**

All State and County parks, as well as the National Tropical Botanical Garden’s properties in South Kaua‘i, were included to the extent allowed by the scale of the map. A new designation is “Golf Courses.” Golf Courses were previously included in the Open and Parks and Recreation designations.
### Table 2-2 Major Designation Changes by Planning District

<table>
<thead>
<tr>
<th>District</th>
<th>Action</th>
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| **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. |
| **Lihu‘e**                                   | • Neighborhood Center applied to Lihu‘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 Kipū 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 Oloheana 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. |


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.
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 Haleilo 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 Haleilo 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
identified along Kawaihau Road, roughly between Kuahale Street and Pu'uka'a Street. This area in the future can accommodate a mix of medium-intensity residential uses, along with additional commercial and service uses, in a configuration that is supportive of transit.

**Kapa'a Town**

Kapa'a Town’s future growth pattern depends largely upon the intensity of implementation related to a key community policy regarding traffic north of the Wailua bridge. The 2000 General Plan does earmark large residential growth at the Hokua Place property near Kapa’a Middle School. The area is designated as Urban Center. However, community opinion remains divided, with strong concerns about the perceived impacts of the proposed development on traffic. Supporters cite the great need for housing and the consistency of the Hokua Place proposal with smart growth principles. Others feel that the proposed traffic mitigation measures won’t be enough to counteract negative impacts, that sewer infrastructure is constrained, and that because of the East Kaua‘i congestion, affordable housing development should be concentrated in Lihue. Another concern is that much of Kapa’a Town is within tsunami evacuation and flood zones. Sea level rise projections show that much of the area could be inundated if SLR reaches 3 feet, as is currently anticipated by the year 2100. These considerations raise further questions about how much growth should be encouraged and accommodated within the Kapa’a-Wailua corridor.

In the public consultation process, two map alternatives were developed for Kapa’a Town’s future that reflected this dual input. In the first alternative, Kapa’a transforms from a Small Town to a Large Town place type. The existing Town Center boundary is extended mauka along Olohena road with the idea that the Main Street environment at Olohena and Kūhiō could extend mauka to the roundabout and the northeast corner of the Hokua property. Hokua Place would organize medium-intensity residential neighborhoods on the makai side of the property and lower-intensity neighborhoods to the west. In this alternative, residential growth would be absorbed on the Hokua site as well as on opportunity sites in and around central Kapa’a. In particular, sites around the Baptiste sports complex may need infrastructure investment (such as flood control) to make medium-intensity development feasible.

In the second alternative, Kapa’a would maintain a Small Town place type, concentrating growth in and around three nodes of existing development along the Kūhiō Highway rather than at Hokua Place. In this alternative, residential growth would be absorbed on opportunity sites in and around central Kapa’a. This alternative would require more intense development patterns in order to accommodate a similar amount of growth as the first alternative.

The Future Land Use Map moves forward the 2000 General Plan’s higher-intensity designation for the area, but also updates and refines the designation based on the first alternative map scenario and new population projections. The previous Urban Center designation is changed to Neighborhood General, which will require a mix of residential building types and a walkable, compact form where connectivity to the school and Kapa’a Town is emphasized. The size of the future Urban District boundary amendment should consider walkshed boundaries and accommodate future housing projections.

**Anahola**

Much of the land in Anahola is owned and managed by the State Department of Hawaiian Homelands (DHHL). According to the Kaua‘i Island Plan, Anahola is DHHL’s largest residential homestead area on Kaua‘i and is their priority development area. DHHL’s Anahola Regional Plan (2012) calls for future development of residential homesteads and agricultural uses in the area, as well as the establishment of a new Town Center along Kūhiō Highway. The Anahola Town Center Plan (2012) describes the proposed Town Center. While a portion of site designation for the Town Center has since been replaced by a solar farm, the East Kaua‘i Community Workshop held as part of this General Plan confirmed that the community still supports the Town Center, and this General Plan identifies it as a Village place type. In addition, the community was largely supportive of the preservation of an existing...
small center at the Anahola Post Office, which has been designated as a Crossroads place type.

**Land Use Map Changes for East Kaua‘i**

The East Kaua‘i Land Use Map is shown on Figure 5-6. Updates to Land Use Designations since the 2000 General Plan version are described below.

**Urban Center**

The previous Urban Center designation on and surrounding the Kapa‘a Middle School has been updated to Neighborhood General.

**Neighborhood Centers and Walksheds**

This General Plan Land Use Map includes new Neighborhood Centers at Wailua and Kapahi, based on community input. The Neighborhood General designation replaces residential designations within 1/4-mile of Neighborhood Centers. In Kapa‘a Town, Neighborhood Centers are shown in three locations.

A new Neighborhood Center is designated at the location of the planned Anahola Town Center, with Neighborhood General designation replacing residential designations within 1/4-mile of the Neighborhood Center. A smaller Center and Neighborhood General area is established at the post office. Due to hazard vulnerability in this area, the extent of the Center and General areas at this location are limited.

**Other Land Use Map Changes**

No additional changes to the land use map for East Kaua‘i are made.

**Natural Hazards and Climate Change Resilience in East Kaua‘i**

The East Kaua‘i district is vulnerable to natural hazards, including marine and terrestrial flooding, wave inundation, erosion, storms, and tsunamis. All of these hazards are expected to be exacerbated by climate change and sea level rise, threatening residential, commercial, and agricultural activities. This calls for a need to employ resiliency strategies in community siting, design, and relocation. The coastal area between Wailua and Kapa‘a is particularly vulnerable due to development density. Smaller rural communities of Anahola and Moloa‘a are also vulnerable to flooding due to their low-lying nature adjacent to stream mouths.

The Kaua‘i Climate Change and Coastal Hazards Assessment conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs for these areas (Needs Assessment) utilizing “bathtub” still water flood modeling from the National Oceanic and Atmospheric Administration (NOAA) SLR viewer. The inundation maps for the 1-foot, 3-foot, and 6-foot SLR scenarios can be found in Appendix D. In advance of or in conjunction with the Community Plan Update, it is recommended that a hazard, risk, and vulnerability assessment for coastal hazards with climate change and SLR be conducted with particular focus on critical infrastructure, residential, commercial, and visitor areas along the Kapa‘a-Wailua corridor including but not limited to areas around Moikeha and Waiakeha Canals, mauka residential areas where freshwater wetlands are expected to emerge due to rising water table, and areas around the Wailua River.

The NOAA SLR flooding data shows little flooding or coastal change along the shoreline and this underestimates SLR related hazards because the model does not account for increased coastal erosion and wave induced flooding with increasing sea level rise. The hazard, risk, and vulnerability assessment should incorporate planning information depicting the

Mountain views from Anahola
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 sea level 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.


3. Discourage development away from scenic corridors and areas of cultural significance.
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 Kuamoʻo and Olohena Road for pedestrian and bicyclists safety and comfort.
2. Provide alternative routes for pedestrian and bicyclists from Wailua Houselots to Kuamoʻo Road.
3. Add bicycle lanes on Kuamoʻo 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.
3.0 ACTIONS BY SECTOR

Along with future land use and Community Planning, the following ten sectors represent important areas to be addressed when planning Kaua’i’s growth and development. In identifying the sector objectives and actions, care was given to ensure consistency with the goals and policies from Chapter 1. Table 3-1 illustrates the cross-cutting nature of the goals and sectors.

The sectors are:
I. THE WATERSHED
II. HOUSING
III. TRANSPORTATION
IV. CRITICAL INFRASTRUCTURE
V. SHARED SPACES
VI. ECONOMY
VII. HERITAGE RESOURCES
VIII. ENERGY SUSTAINABILITY & CLIMATE CHANGE MITIGATION
IX. PUBLIC SAFETY & HAZARDS RESILIENCY
X. OPPORTUNITY & HEALTH FOR ALL

The following four implementation tools are used to categorize each subsection’s actions:

Permitting and Code Changes
Actions within this tool address new development and how it is approved. Permitting actions will be reviewed during the approval process. Specific approvals include State Land Use boundary amendments; County Zoning amendments; and Zoning, Special Use, and Variance Permits. “Code Changes” indicates items to be addressed in future amendments to development standards.

Plans and Studies
This section calls for preparing and updating future plans and studies. The General Plan is broad in nature and more detailed follow-up work is needed in many areas. This underscores the importance of future planning efforts and the need to align such efforts with the General Plan’s direction.

Projects and Programs
Actions in this category identify priority County programs and capital projects and include guidance for project selection, design, and funding.

Partnership Needs
In many cases, County jurisdiction to move actions forward is limited. Partners are non-County entities, including State and Federal agencies, non-profit organizations, community based organizations, and the general community. Actions in this tool operate in the spirit of kākou and “silo-breaking” to acknowledge that other agencies and organizations must help move the policies forward. Actions also identify areas where agencies and the community can collaborate in new ways.
### Table 3-1 Summary of Goals and Sectors

<table>
<thead>
<tr>
<th>Sectors</th>
<th><strong>SUSTAINABILITY</strong>&lt;br&gt;Growing Responsibly</th>
<th><strong>STEWARDSHIP</strong>&lt;br&gt;Protecting Kauaʻi’s Unique Beauty</th>
<th><strong>HEALTH &amp; RESILIENCE</strong>&lt;br&gt;Strengthening Communities</th>
<th><strong>OPPORTUNITY</strong>&lt;br&gt;Promoting Diversity &amp; Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Watershed</td>
<td>Ensure use and enjoyment of resources without depletion.</td>
<td>Protect natural, historic, and cultural resources in perpetuity.</td>
<td>Protect resources and traditions that promote self-sufficiency.</td>
<td>Promote equal access to natural areas and recreation.</td>
</tr>
<tr>
<td>Housing</td>
<td>Provide housing to accommodate growth within and near town centers.</td>
<td>Prevent housing sprawl into Open and Agriculture lands.</td>
<td>Provide housing for multigenerational families and aging in place.</td>
<td>Ensure affordable housing is provided in proximity to job centers.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Promote multimodal shifts to reduce costs.</td>
<td>Decrease vehicle miles traveled to reduce carbon emissions.</td>
<td>Provide connectivity and safe routes to walk or bike to parks and schools.</td>
<td>Promote equal access to transportation.</td>
</tr>
<tr>
<td>Infrastructure &amp; Services</td>
<td>Provide adequate infrastructure to accommodate growth.</td>
<td>Preserve natural areas by concentrating growth and services in existing developed areas.</td>
<td>Provide equitable access to safe and sanitary services and facilities.</td>
<td>Ensure low-income communities have adequate facilities and services.</td>
</tr>
<tr>
<td>Shared Spaces</td>
<td>Provide adequate park facilities for resident and visitor enjoyment.</td>
<td>Protect popular destinations from deterioration and overuse.</td>
<td>Provide a diversity of facilities that support active lifestyles.</td>
<td>Increase access to parks and recreation in all neighborhoods.</td>
</tr>
<tr>
<td>Economy</td>
<td>Promote economic diversification.</td>
<td>Protect high-quality agricultural lands from development.</td>
<td>Partner to enhance education and employment opportunities.</td>
<td>Provide infrastructure to strengthen and grow small business.</td>
</tr>
<tr>
<td>Heritage Resources</td>
<td>Encourage preservation and restoration of historic structures and features in Kauaʻi’s town centers.</td>
<td>Preserve and protect the integrity of special places for current and future practices.</td>
<td>Preserve access to wahi pana for traditional cultural practices.</td>
<td>Celebrate the cultural and historic features that represent Kauaʻi’s diverse cultural influences.</td>
</tr>
<tr>
<td>Energy Sustainability &amp; Climate Change Mitigation</td>
<td>Reduce fossil fuels and transition to renewables.</td>
<td>Encourage use of alternative fuel sources.</td>
<td>Promote clean energy from non-harmful sources.</td>
<td>Explore solutions to reduce energy costs to residents.</td>
</tr>
<tr>
<td>Public Safety &amp; Hazards Resiliency</td>
<td>Protect or relocate assets, develop outside hazard areas, and reduce greenhouse gas emissions.</td>
<td>Identify and protect those resources vulnerable to climate change.</td>
<td>Strengthen preparedness, response, and recovery to hazards and climate change.</td>
<td>Increase and diversify food grown and consumed on island.</td>
</tr>
<tr>
<td>Opportunity &amp; Health for All</td>
<td>Foster shared responsibility for sustainable choices.</td>
<td>Protect residents’ access to shoreline and recreational areas.</td>
<td>Improve health aspects of natural and built landscapes.</td>
<td>Ensure widespread access to health care, education, and services.</td>
</tr>
</tbody>
</table>
Kaua‘i’s 66 watersheds convey rainwater from mauka to makai and replenish aquifers along the way. This water flow has shaped Kaua‘i over six million years, sculpting the Na Pali Coast and Waimea Canyon while creating the coastal plains where human settlement occurs. The health of the watershed, from ridge to reef, makes all life possible. Yet our island’s watersheds are fragile and under threat from human activities, invasive species, and climate change.

Perpetuating the Wisdom of Native Hawaiian Watershed Management

Water is held in trust by the state, for the benefit of the people. Public trust purposes, which receive priority over private commercial uses, include domestic uses, Native Hawaiian and traditional and customary rights, appurtenant rights, environmental protection, and reservations for the Department of Hawaiian Home Lands. Effective watershed management requires both landscape-scale conservation and site-specific mitigation all while balancing human uses with resource protection. Fortunately, Kaua‘i can use its traditional system of resource management - the ahupua‘a system - as a model for cultivating environmental stewardship. For many centuries, Hawaiian society thrived under the recognition that the community, forests, streams, and ocean are interconnected. This view is embodied in the ahupua‘a system, which was utilized across Hawai‘i in i ka wā kahiko (meaning “in old times/long ago/in the age of antiquity”). A typical ahupua‘a, or land division, follows watershed lines and extends from the highest point mauka down to the fringing reef. Within the ahupua‘a are several subzones: Wao Nahele (upland), Wao Kanaka (cultivated flat land/plateau), Kahawai (freshwater resources), and Kahakai (coastal areas). A konohiki managed the ahupua‘a to ensure the various ecological units functioned adequately to support and provide for the area’s residents. Kaua‘i’s ahupua‘a boundaries are shown on the Heritage Resources Map.
Today, the concept of ahupua’a management is not only recognized as Kaua’i’s cultural legacy, but also for its contribution to modern land and natural resource management. Although today’s average household may not draw from the ahupua’a for all their needs, everyone benefits from the services that a healthy watershed provides. Successful watershed management is paramount to a sustainable future. However, the growing population creates demands which place pressure on watersheds. The threats include development, improper agricultural practices, invasive species, erosion, climate change, and natural hazards. Furthermore, there is little doubt that climate change will impact watershed health in ways unprecedented in modern times. The legacy of this cultural practice is perpetuated through the General Plan’s goal of sustainability and the vision for thriving ecosystems. By building upon the wisdom of the ancient Hawaiians, who lived in harmony with the land, the General Plan recognizes the complexity and interrelatedness of our island’s watersheds and human uses. The organization of this sector’s subsections follows the ecological units identified in the ahupua’a: Wao Nahele (The Upper Watershed), Kahawai (Freshwater Resources and Drainage), and Kahakai (Coastal Areas). A fourth subsection, “Threatened and Endangered Species,” includes actions for protecting Kaua’i’s native plants and animals.

Figure 3-1 Components of the Watershed Sector

- A. Wao Nahele - Upper Watershed: Forests and Native Species Habitat
- B. Kahawai - Middle Watershed: Aquifers, Water Bodies, Streams, and Drainage
- C. Kahakai - Lower Watershed: Shorelines and Coastal Waters
- D. Threatened and Endangered Species
1. WAO NAHELE - THE UPPER WATERSHED

The upper watershed and its forests are critical to the health and integrity of the ecosystem. It provides the essential services of water quality protection, flood mitigation, and fire protection. Moreover, it comprises the vestiges of Kauaʻi’s native forests and landscapes which are the habitat for many endangered and at-risk species.

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

1.1 Supporting the State in Upper Watershed Management

Kauaʻi’s upper watershed is largely under State jurisdiction, both through ownership and by regulatory authority. The State Land Use Conservation District comprises 55 percent of Kauaʻi’s land area. Within the Conservation District are 24 State-managed reserves, preserves, and park areas. These are shown on the Heritage Resources Map in Chapter 5. The Department of Land and Natural Resources (DLNR) has responsibility for protecting the public trust and managing forest resources, natural area reserves, and state parks. The forests harbor rare and endangered plant and animal species, and include native ecosystems which are relatively intact. In 2011, the State launched “The Rain Follows the Forest” – a management initiative to sustain fresh water resources by doubling the amount of protected watershed area. State initiatives also include the Aloha+ Challenge and Governor Ige’s “World Conservation Congress Legacy Commitment: 30 by 30 Watershed Forests Target” to protect 30% (253,000 acres) of Hawaiʻi’s highest priority watershed forests by 2030.

1.2 Aligning Partners for Management of the Watershed and Forests

In 2003, the Kauaʻi Watershed Alliance (KWA) was formed. KWA’s members are the Department of Water and the public and private landowners within the State Land Use Conservation District. “The Mission of the Kauaʻi Watershed Alliance is to PROTECT, PRESERVE, and MANAGE our valuable watershed resources for the benefit of our residents, communities, and all future generations through the concerted efforts of its members.” Their projects focus on managing the landscape-scale damage to the watershed caused by feral animals and invasive weeds. Management activities include planning, strategic animal control, invasive weed control, monitoring of forest health, and constructing and maintaining protective fences. In alignment with the State’s goal in “The Rain Follows the Forest” initiative, the KWA Management Plan calls for fencing and managing 25,000 acres in the next ten years.

For the Wao Nahele—the Upper Watershed—to benefit from conservation efforts, the community should carefully consider the importance of balancing the sustainable use of this area with the sensitivity and uniqueness of these upper native forests. They have to-date survived the fate of our native lowland forests—destruction by invasive species, wildfires, and incompatible uses by humans. They have a great value to all of us, as they make up almost 50% of Kauaʻi’s land area.

A. PERMITTING AND CODE CHANGES

1. Review State DLNR Forest Reserve Plans when development is adjacent to Forest Reserves.

2. Require best management practices for resource management.

B. PLANS AND STUDIES

1. Utilize the Forest Reserve and Natural Area Reserve Plans in Community Planning processes and share information regarding forest management activities with the public.

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.
C. PROJECTS AND PROGRAMS

1. Support projects that conserve and protect our remaining endemic forests and landscapes in the upper watershed.

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.

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.

4. Utilize best practice watershed management plans, such as the Hanalei Watershed Management Plan, as examples for other communities to employ.

D. PARTNERSHIP NEEDS

1. Support the management and protection of Kaua‘i’s forest resources and upper watershed areas in the Conservation District.

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.

3. Educate the public and visitors about native species protection, wildfire prevention, the spread of invasive species, and water quality protection.

4. Increase opportunities for public access to forests in a way that is ecologically sustainable.

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.

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.
2. KAHAWAI - MIDDLE WATERSHED, DRAINAGE, AND FRESHWATER RESOURCES

The rainclouds captured by Kaua‘i’s lofty peaks, such as Wai‘ale‘ale and Kawaikini, supply our perennial streams and restore the underground aquifers, upon which we all depend.

**Objective: 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.**

2.1 Understanding Our Reliance on Aquifers and Streams

Water is a public trust resource in Hawai‘i. The DLNR is responsible for managing water resources and water use statewide, including the protection of watersheds and natural stream environments. These management activities are guided by the State Water Plan, which includes five components: Water Resource Protection Plan, Water Quality Plan, State Water Projects Plan, Agricultural Water Use and Development Plan, and the County Water Use and Development Plan.

The Kaua‘i Water Use and Development Plan (WUDP) assesses the sustainable yield of the aquifer in relation to current and future water demands. The WUDP is currently being updated and will set forth polices to guide the County in its planning and management of water resources.

Kaua‘i’s aquifer supplies the vast majority of our domestic water and is divided into three sectors that are comprised of 13 systems (see Figure 3-2). The systems range in size from 68 square miles in the Makaweli aquifer system to 18 square miles in the Kilauea aquifer system. An estimated 312 million gallons per day (mgd) can be safely withdrawn from the aquifer. This is defined by the Commission on Water Resources Management (CWRM) as sustainable yield. Actual withdrawal is a small fraction of total sustainable yield. Total well production on Kaua‘i was 14.37 mgd in 2014 compared to an estimated sustainable yield of 312 mgd.

The aquifer is fed primarily through rainfall, which ranges from 20 to 400 inches annually across the island. Groundwater recharge is also affected by evapotranspiration, agricultural irrigation water, and streamflow. Studies show that our aquifer sectors have ample water supply for the island. Also, Kaua‘i has no State-designated Groundwater Management Areas.

**KAUA‘I’S AQUIFER SYSTEM CAN SUSTAINABLY PROVIDE AN ESTIMATED 312 MILLION GALLONS OF WATER PER DAY.**

While sustainable yield is adequate, the difficulty and expense of extracting and distributing water are limiting factors in providing water to service new development. In addition, groundwater levels are affected by the combined effects of prolonged drought, withdrawals, and the reduction of agricultural irrigation, as observed by the community to date in the Līhu‘e Basin.

Kaua‘i’s groundwater quality is good, although certain aquifers are vulnerable to contamination due to their location and/or geological composition. On a remote island, there are no practical substitutes for groundwater as the primary source of domestic water. Our aquifers depend on continual recharge by seepage from rainfall and streamflows through permeable ground surfaces. In this respect, the quality and quantity of Kaua‘i’s groundwater relies upon the same policies and actions that protect watersheds, streams, and water bodies, and reduce nonpoint source pollution. An illustration of the hydrologic cycle can be found in Figure 3-3.

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13 Adequacy of Future Infrastructure Analysis, 2015
14 Fukunaga & Associates, County of Kaua‘i Water Use & Development Plan Update (unpublished draft)
15 Technical Memorandum, May 2015 and Sept 2015 updates
16 Effects of Irrigation and Rainfall Reduction on Ground-Water Recharge in the Līhu‘e Basin, 2006

SECTOR: I. THE WATERSHED | 3.0 ACTIONS BY SECTOR | 101
Figure 3-2 Aquifer Sectors on Kaua’i

Figure 3-3 Hydrologic Cycle
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. 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
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
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.

3. KAHAKAI - COASTAL AREAS AND SHORELINES

Kaua‘i’s coastal areas – including beaches, the shoreline, and near-shore waters – are heavily used by residents and visitors. Protecting and preserving the coast and its waters is essential to sustaining our communities, economy, and way of life. This will require retaining and improving the coast’s valued characteristics which include good water quality, sandy beaches, abundant marine life, scenic views, and public access. However, coastlines are dynamic by nature and face constant threats from development, erosion, hurricanes, and tsunamis. Effective management can minimize negative impacts and help preserve coastal areas for the use and enjoyment of current and future generations.

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

3.1 Addressing Human-Caused Coastal Erosion

Centuries of erosion have shaped Kaua‘i’s 90 miles of coastline resulting in dramatic contrasts from the Na Pali cliffs to the low-lying wetlands of the Mānā Plain. While Kaua‘i has only 12 percent of the State’s coastline, it has more than one-third of its beach sand including the longest stretch of beach in Hawai‘i. However, approximately 70 percent of our beaches are eroding and Kaua‘i has lost an estimated four miles of beach over the past century.18 Although erosion is a naturally occurring force, the human contribution to beach erosion includes coastal development and coastal armoring, which exacerbates sand loss and the narrowing of beaches. Such structures cover approximately ten percent of the shoreline. Sea level rise, which is accelerating worldwide due to global warming, is another human contribution to beach erosion.

3.2 Regulating Coastal Development and Activities

The State of Hawai‘i participates in the federal Coastal Zone Management (CZM) Program, established through the Coastal Zone Management Act of 1972. The Program seeks to “Preserve, protect, develop, and where possible, to restore or enhance the resources of the nation’s coastal zone” and is administered by NOAA.19

The Hawai‘i CZM Program employs a wide range of strategies to manage coastal issues, mitigate detrimental environmental impacts resulting from development, and uphold environmental laws. Through statewide planning and community initiatives, such as the Ocean Resources Management Plan (ORMP) and Marine and Coastal Zone Advocacy Council (MACZAC), the CZM Program sponsors State and County efforts related to coastal stewardship, planning, permitting, education, and outreach.20

The Special Management Area (SMA) was established in 1975 as part of the Hawai‘i CZM Program. Pursuant to HRS 205A, counties are authorized to determine SMA boundaries and administer SMA permits and shoreline setback provisions. The SMA covers coastal areas including roads, natural areas, and resort development. Proposed development within the SMA is subject to an assessment to determine whether an SMA Major Use Permit or an SMA Minor Permit is required. SMA permits do not prohibit development in coastal areas, but ensure development, uses, and activities comply with the CZM program and SMA Guidelines. The construction of a single-family residence as well as interior alterations, agriculture, and underground utilities are land uses and activities within the SMA that are generally excluded from the definition of “development” pursuant to HRS 205A-22.

The County also regulates coastal development through a Shoreline Setback Ordinance (2008) that prohibits development within a shoreline setback area. The setback line is based on average lot depth and long-term coastal erosion rates from the Kaua‘i Coastal Erosion Study (2012).21

18 Anderson et al., 2015
19 https://coast.noaa.gov/czm/act/
20 http://planning.hawaii.gov/czm/about-czm/
21 Fletcher, et al., 2012
3.3 Planning for Climate Change Impacts to Coastal Areas

Climate change is altering and aggravating natural forces such as sea level rise, rainfall patterns, high wave events, hurricanes, extreme tidal events, and beach erosion (see Figure 3-4). Ocean warming and acidification will continue to progressively impact Kaua‘i’s coastal waters and shorelines. Based on the best available science, we should plan for three feet of sea level rise by the latter half of the century. It is important to note that this estimate may be conservative, as some studies project upwards of six feet of sea level rise by 2100. The greatest uncertainty surrounding the projections concern the rate and magnitude of ice sheet loss primarily from Greenland and West Antarctica. This is also dependent on worldwide efforts to reduce greenhouse gas emissions. Infrastructure and private development built today can be expected to still be in place in the second half of this century when several feet of sea level rise becomes possible. Therefore, it is important to utilize planning approaches that are adaptive in nature, such as scenario-based planning.

Future sea level rise and ocean warming will greatly impact different types of coastal habitats, including intertidal areas, wetlands, estuaries, lagoons, tidal marshes and flats, and tidally influenced streams and rivers. Shorelines may migrate inland, moving sediment-rich backshore areas along with them. If coastal development impedes that migration, this sediment could be eroded, impacting coastal water quality and beaches. Wetland areas that play a vital role in filtering water flow to the ocean will also be affected. Increased coastal inundation from high wave events could also transport pollutants from agricultural, industrial, and wastewater treatment operations.

Fish populations in shallow water and inter-tidal and sub-tidal aquatic habitats could be affected by changes to pollutant levels and water salinity. Coral reefs may

Figure 3-4 Sea Level Rise Impacts to Coastal Areas
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.
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.
4. THREATENED AND ENDANGERED SPECIES

Kaua‘i is a global hotspot for biodiversity. Biodiversity allows ecosystems to function and thrive, and its loss negatively impacts water supply, food security, and resilience to extreme events. Kaua‘i has experienced a dramatic loss of animal, plant, and marine species in modern times. This is a statewide trend that has earned Hawai‘i the dubious honor of “Endangered Species Capital of the World.”

**Objective:** To protect the flora and fauna unique to Kaua‘i and Hawai‘i and to mitigate the impact of invasive species.

4.1 Saving our Natural Heritage

As the oldest and most isolated of the eight main Hawaiian islands, Kaua‘i’s unique geological and climatic conditions host hundreds of plants and animals that are found nowhere else, including over 140 plant and animal species that are on the Federal endangered species list. Among these are several threatened and endangered birds, such as the ‘Ua‘u (Hawaiian Petrel), ‘A‘o (Newell’s Shearwater), and Nēnē (Hawaiian Goose), as well as six forest birds that are found nowhere else on earth.

Since their arrival on Kaua‘i, people have depended on the natural world to survive and thrive. However, with an increasing population and modern technology, the relative balance that people had with their environment has deteriorated. Currently, many species are threatened by habitat reduction, disturbance, predation, overexploitation, and other human-introduced dangers. Without educated decision-making about how we expand and grow, wildlife will suffer. Already, human presence has caused over half of the species that existed here in pre-colonization times to become extinct. It is our responsibility to ensure that we provide for the continued presence of the remaining 50 percent. Preservation and protection of the growing number of endangered species requires a comprehensive approach through direct and indirect measures to ensure Kaua‘i’s natural legacy endures.

4.2 Countering the Threat of Invasive Species and Diseases

Invasive species threaten our environment, agriculture, human health, and quality of life. They represent a constant and evolving threat to Kaua‘i’s environment – particularly to the island’s already vulnerable endangered species. If left unchecked, invasive species can easily thrive and multiply in Kaua‘i’s hospitable environment, out-competing native life, and jeopardizing our watersheds.

Expanding global trade and travel, climate change, and unpredictable biological evolution are major factors driving the introduction and establishment of invasive species. Prevention, containment, and eradication of invasive species require persistent and coordinated attention by all levels of government as well as cooperation from businesses and the community. Port of entry controls are a critical method for preventing the introduction of invasive species. Airport and harbor inspections must occur regularly to prevent new threats from gaining a foothold on Kaua‘i.

Efforts to date have thus far prevented ecologically destructive invasive fauna such as snakes, mongoose, the varroa mite, coqui frogs, and little fire ants from establishing lasting footholds on Kaua‘i. Other invasive species such as the rose-winged parakeet and feral cats are established on the island and require effective management and containment strategies to minimize their impacts. The parakeets pose a significant economic and food safety issue on Kaua‘i, since the birds are naturally drawn to fruit trees on local commercial farms. Feral cats are also a public concern as they carry toxoplasmosis, a disease that enters the water supply from cat feces and has been documented to kill marine animals such as the endangered Hawaiian monk seal. Invasive flora have a wide range of detrimental effects on the island’s ecology and economy. Species such as banana poka (Passiflora tarminiana), miconia (Miconia calvescens), and strawberry guava (Psidium cattleianum) spread aggressively in forests and contribute to the hearty diet and proliferation of rodents and feral pigs, which subsequently cause both ongoing conservation issues and food safety concerns for local agriculture.
producers. Furthermore, invasive herbaceous and woody plant pests such as bush beardgrass (Schizachyrium condensatum), aramina (Urena lobata), wedelia (Sphagneticola trilobata), and fireweed (Senecio madagascariensis) 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 ‘Ōhi’a 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 Kaua’i Soil and Water Conservation Districts, HDOA, and DLNR), conservation groups (i.e., Kaua’i Conservation Alliance, KISC, Plant Pono, NTBG, the Nature Conservancy, and the Kōke’e Resource Conservation Program) and academic institutions (i.e., University of Hawai’i – CTAHR and local schools), prevention, monitoring, and eradication efforts will continue to combat the introduction and establishment of invasive species and diseases on Kaua’i.

4.3 Protecting Coastal and Near-Shore Habitats

Kaua’i’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.
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.
11. Ensure adequate inspection and review of shipments that may contain invasive species.

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.

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.
Declining housing affordability for locals has reached a crisis level with far-ranging social impacts. Home prices exceed 300 percent of the national average while affordable market rentals are few and far between. The lack of housing supply has been due in part to the effects of the Great Recession of 2007-2009. For almost 10 years, large-scale private development of housing has been nonexistent. Only high-end individual homes and several County-sponsored affordable housing projects were built (due to reduced land prices or prior inclusionary zoning requirements). At the household level, high housing costs cause stress, reduce disposable income, and limit transportation options. These impacts are felt community-wide. They contribute to a stressed local economy and frayed social fabric. The complexity of the housing crisis must be addressed on multiple levels if Kaua’i is to achieve its vision and become a place where housing for all ages and income levels is integrated into all communities and located close to work and services.

Understanding the High Cost of Housing

Many complex factors drive housing costs. These include slow inventory growth, limited developable land, a lengthy entitlement process, and high infrastructure and construction costs. The off-island market, willing to pay a premium for Kaua’i property, is another factor driving high costs. Recent major development on residential-zoned land, such as Kukui’ula and Po’ipū Kai, take advantage of this market. Between January 2008 and September 2015, 45% of homes sold were purchased by mainland and foreign buyers. High costs are also a product of a long and uncertain entitlement process, which often requires discretionary approval at both the State and County levels. The roads, water, and wastewater infrastructure needed to service new communities...
are largely funded by the development itself, which necessitates high sales prices.

Spurred by internal and external population growth, the growing number of households continues to outpace housing development. Given that there is a current deficit of 1,400 housing units, meeting the projected demand of approximately 9,000 homes by 2035 will be challenging (see Figure 3-5).

**Changing the Residential Development Paradigm**

New market construction may have increased housing inventory, but it has not produced the range of housing needed to serve Kauaʻi’s workforce. According to the Land Use Buildout Analysis (2015), over 80 percent of residential development is single family construction that occurs on Agriculture, Open, and R-1 through R-4 zoned land. This has exacerbated Kauaʻi’s low-density development paradigm. In order to confront the housing crisis, public and private partners must work together to ensure that increases to the housing inventory will be affordable to residents.

**Reducing the Cost of Living by Connecting Housing, Jobs, and Transportation**

When housing is built in automobile-centric subdivisions far from schools, shopping, and jobs, residents must largely rely on personal vehicles for all their trips. Such reliance not only contributes to traffic congestion, but is detrimental to the environment and overall health of the community. Additionally, it has heavy financial impacts to the average household. It is estimated that combined housing and transportation costs consume more than 60 percent of Kauaʻi’s
average household income.\textsuperscript{23} In fact, transportation costs outweigh housing costs. The high cost of transportation includes automobile ownership, insurance, repair, and fuel costs. The Future Land Use Map prioritizes residential growth in towns and near the major jobs centers of Līhuʻe and Poʻipū. This Map locates new communities near existing towns and requires a compact, walkable form. This land use pattern will encourage increased transit, bicycling, and walking trips, thus reducing average household transportation costs.

**Moving Forward on All Fronts**

The solutions needed to stem the housing crisis will not come easily nor swiftly. Many factors are out of government control, such as off-island demand and high land and construction costs. However, major changes to the regulatory process can support inventory expansion through affordable housing projects, more infill housing, and the development of new walkable communities in designated growth areas. Also required are strong partnerships and special consideration for agricultural worker housing, DHHL development, elderly housing needs, and houselessness.

1. **AFFORDABLE HOUSING**

Affordable housing refers to those projects funded through County support, Federal tax credits, and/or imposition on developers. In other words, government and the developer, usually in partnership, bear the development costs to house individuals and families unable to obtain market-rate housing. Although such projects alone will never fill the housing gap, they are essential to providing a safety net and serving those most at need. Increases to the affordable housing inventory are desperately needed.

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

1.1 Producing Affordable Housing through Mandates

In 2008, Kauaʻi passed its first affordable housing ordinance, also known as inclusionary zoning. It requires developers to construct approximately 30 percent of their project as affordable housing. Similar mandates have been put in place as conditions of State Land Use District boundary amendment approvals or long range plans, such as the Kīlauea Town Plan. However, as of 2016, the affordable housing ordinance has not produced any affordable units. Many developers express concern that such mandates delay development and housing inventory growth, thus compounding the problem they are meant to solve. At the same time, the community does not support removing such requirements altogether. A more balanced approach is required and carefully crafted amendments to existing laws must be implemented if the desired result is production of affordable housing by the private sector.

1.2 Supporting County Sponsored or Required Affordable Housing Programs and Projects

The Kauaʻi County Housing Agency implements a variety of programs designed to promote...
homeownership, expedite the permitting of affordable housing, and support housing rehabilitation. 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 Līhuʻe, Hanamāʻulu, Princeville, and Kōloa – constructing over 300 affordable rental units since 2000. Since the year 2000, the County has also supported self-help housing at Pahi and Kapa’a, assisted Habitat for Humanity in developing its 119 units in ‘Eleʻele, and helped to rehabilitate 173 units at Līhuʻe 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 ‘Eleʻele. 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 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).
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.
2. INFILL HOUSING

Infill development, or housing located within existing communities, can expand our housing inventory without consuming precious open space. It may be less expensive than “greenfield” development because it utilizes existing infrastructure and services. Infill housing has the potential to play an important role in meeting future housing needs, but only if the zoning, infrastructure, and built environment can support higher density communities. It should also be appropriately scaled to the character of individual towns.

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

2.1 Countering the Threat of Residential Sprawl

Decentralized development or residential sprawl onto agricultural and open-zoned land erodes our rural character and town centers. Such development requires automobile dependence, which burdens our limited road network. It also incurs a greater cost per household for infrastructure and services. Expansion of this type of development will run counter to an environmentally and fiscally sustainable future. It also undermines the goal of preserving agricultural lands and the open spaces that separate towns.

2.2 Supporting Infill Development and “Missing Middle” Housing

The alternative to sprawl focuses new development in existing towns in order to leverage existing physical and social infrastructure while preserving vital open space. This fosters town centers that support infill housing and mixed use environments. For example, town centers should be centered on functional and attractive shared spaces where people can live, work, and play in the same area. Priority infill areas include the major employment centers of Līhuʻe and Kōloa. However, with the exception of hazard areas, additional infill growth should be encouraged in all towns.

Enabling this environment means creating or adapting planning and zoning requirements in a manner that will stimulate private investment in new or renovated structures. Additional dwelling units (ADUs) (also called ‘ohana units) are one example. ADUs are smaller and less expensive to construct, offering a County-sanctioned private sector option towards increasing housing in existing communities. ADUs are allowed on Residentially zoned lots where one home is permitted. Although previously permitted, new ADUs are not allowed on agricultural or open lands unless approvals were secured before 2007.

The County is also exploring whether to allow Additional Rental Units (ARU) in residential zoned areas. An ARU is a long term rental unit that includes a kitchen, bedroom(s), and bathroom facilities, attached or detached from a dwelling unit. Unlike ADUs, ARUs are restricted in size and allowed only in residentially zoned areas. ADUs are not restricted in size and were previously allowed within the Agriculture Zoning District and the Open Zoning District.

Infill development can further diversify Kauaʻi’s housing stock through “missing middle” housing in walkable communities. “missing middle” housing is characterized by small-scale, multi-unit housing types such as duplexes, fourplexes, bungalow courts, and mansion apartments, and can be integrated into communities with single-family homes.

A. PERMITTING AND CODE CHANGES

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.

2. Facilitate the development of small-footprint homes or “tiny homes” on small lots.

3. Update zoning in and around town centers to facilitate mixed use and infill development, such as units above commercial space.

4. Streamline permit approvals for infill development and housing rehabilitation by removing barriers, such as administrative delays.

5. Incentivize infill development by reducing or eliminating tipping fees, wastewater and water
facility charges, permit review fees, and park and environmental assessment fees.

6. Update the building code to reduce construction costs and facilitate cost-saving materials and technology while maintaining health and safety.

7. Reevaluate the definition of “kitchen” to provide flexibility for multi generational housing.

8. Increase lot coverage allowances to provide for more ADUs within the residential district.

B. PLANS AND STUDIES

1. Prevent displacement of vulnerable renters through rent stabilization policies and tax incentives for long-term rentals.

C. PROJECTS AND PROGRAMS

1. Improve infrastructure and facility improvements in town centers to support a mixed use environment and increased density.

2. Hold educational sessions for landowners in Special Planning Areas to inform them of new development standards and potential infill development opportunities.

D. PARTNERSHIP NEEDS

1. Support programs that facilitate infill development and economic revitalization of town cores.

2. Collaborate with the State to review and streamline infill development projects.

3. NEW COMMUNITIES

New communities are needed to accommodate future growth. Even though infill development is prioritized, there is not enough residential zoning capacity to accommodate projected housing demand. The General Plan’s policies and actions guide where and how these new communities will develop.

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

3.1 Designing Communities for Equity and Health

Communities that cater to a high-end market, resulting in enclaves of similar household incomes and housing types, are no longer acceptable. New communities must further the goals of sustainability, equity, and opportunity. This means that zoning and subdivision approvals for new communities must support multiple transportation options and provide shared space for a range of household types. Use of green infrastructure, which mimics natural systems and protects water quality through features such as trees and rain gardens, is also encouraged.

New communities should be walkable, built with a pattern where one can live with limited reliance on the automobile, conducive to destination walking and cycling, and with access to transit and shared spaces. Walkable areas are largely supported through a network of interconnected, tree-lined streets, a diversity of housing choices, and a mix of appropriate commercial and residential uses in a compact form. This type of compact design supports public transit and ultimately reduces infrastructure and service delivery costs to the County over the long-term.

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24 Kaua‘i 2035 General Plan Technical Study: Land Use Buildout Analysis, 2015
A. PERMITTING AND CODE CHANGES

1. Locate new communities only in areas designated for growth in the Land Use Map.

2. Avoid sprawl development patterns and inefficient infrastructure and service delivery by maximizing density in new communities.

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.

4. Increase opportunities for moderate- and low-income households to become homeowners by providing a range of housing types.

5. Build housing in proximity to jobs, parks, community resources, and services.

6. Ensure subdivisions are designed to support housing type diversity, maximize density, provide safe pedestrian/bicycle connections, and slow speed on roads.

7. Take a proactive role in supporting County zoning amendments and State Land Use redistricting consistent with the General Plan and updated Community Plans.

8. Allow higher density to increase profitability for developers, resulting in a cheaper housing per unit cost.

9. New communities should incorporate green infrastructure into their design and be water and energy efficient.

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.

11. Prohibit future subdivision and development from restricting construction of ADUs in their deed and covenants.

B. PARTNERSHIP NEEDS

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.

2. Enter into public/private partnerships to move forward development in new communities, especially in Līhu‘e, South Kaua‘i, and Kīlauea.

3. Leverage market-rate development to support long-term affordable housing through inclusionary zoning and other tools.

4. AGRICULTURE WORKER HOUSING

The lack of housing for farm workers is a major impediment to finding and supporting the labor necessary for agricultural enterprise. Housing units near agricultural operations reduce commuting time and deter vandalism and theft through increased surveillance.

Objective: To expand housing opportunities for workers on farms.

The Farm Worker Housing Bill allows farm operators to build small housing units on their agricultural properties. This useful zoning change could be more widely utilized through modest improvements to the ordinance and permit application process.

A. PERMITTING AND CODE CHANGES

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.

25 Ordinance 903, passed in 2010
5. HAWAIIAN HOME LANDS

The State Department of Hawaiian Home Lands (DHHL) owns 20,565 acres on Kauaʻi, primarily in the East Kauaʻi, Hanapēpē, 'Eleʻele, and Līhuʻe Planning Districts (see landowner maps in Appendix E). DHHL works to ensure that native Hawaiian families have homes and land to call their own.

Objective: To support the Department of Hawaiian Home Lands in their mission to provide housing to their beneficiaries.

5.1 Implementing the Kauaʻi Island Plan

DHHL defines beneficiaries as all Native Hawaiians (50 percent or more Hawaiian) and their successors, including existing lessees, applicants on the wait list, and Native Hawaiians who have not applied for a homestead award. The DHHL's mission is to develop and deliver land to Native Hawaiians. Prince Jonah Kūhiō Kalanianaʻole, who led the passage of the Hawaiian Homes Commission Act of 1921, advocated 'āina ho'opulapula, protecting the Native Hawaiian population. ‘Āina ho'opulapula involves creating self-sufficiency and planning for the future through investing in resources, such as education and housing.

The DHHL Kauaʻi Island Plan (2004) designates three priority tracts for residential development: Wailua, Hanapēpē, and Anahola/Kamalomalo‘o. These areas can accommodate a total of 2,351 residential lots of 10,000 square feet each, along with 84 acres of community space. Of high priority is a total of 621 lots to be developed across the three areas. Anahola is currently under development, but buildout has been slower than expected. Wailua will be the next priority area, although there is no timetable for development. The General Plan Land Use Maps incorporate the DHHL high priority growth areas.

As of 2014, there were a total of 1,621 applicants on DHHL’s Kauaʻi waitlist. The 2008 DHHL Lessee Survey (prepared by SMS Research) found prevalent issues on homestead lands: overcrowding, aging infrastructure and homes, and the inability of homesteaders to finance expansion and repairs. The high costs of construction on Kauaʻi also make even simple homes out of reach for many DHHL beneficiaries.

A. PERMITTING AND CODE CHANGES

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.

B. PLANS AND STUDIES

1. Integrate the recommendations of DHHL plans into community planning.

C. PROJECTS AND PROGRAMS

1. Partner with DHHL on infrastructure projects that will support development of both County and DHHL priority growth areas.

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.

D. PARTNERSHIP NEEDS

1. Respect and support the mission of DHHL to prioritize planning for their beneficiaries.

26 DHHL Applicant Waiting List, 2014. The 2008 DHHL Lessee Survey (prepared by SMS Research)
6. ELDERLY HOUSING AND ASSISTED LIVING FACILITIES

On Kaua‘i, kūpuna (the Hawaiian word for elders or grandparents) are honored for their life experience and wisdom. Kaua‘i has a relatively high median age and a higher percentage of older adults than the State as a whole. Many older residents are retired or semi-retired, and have more limited income streams than working adults. Adequate and affordable housing is a significant component in overall quality of life for elderly people. Of particular importance is the supply of affordable rental housing for seniors.

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

6.1 Ready ing for “The Silver Tsunami”

A significant demographic shift is occurring on Kaua‘i. Kaua‘i County already has the highest proportion of older adults compared to its total population of any County in Hawai‘i. The proportion of Kaua‘i residents over 65 years is projected to rise from 10 percent in 2010 to 30 percent in 2035, which will effectively double the number of older adult households on Kaua‘i. The impacts of an aging population include increased demand for healthcare and social services. It also places a strain on the workforce – especially if the workforce growth is stagnant.

6.2 Supporting Kūpuna-Friendly Communities

One of the State’s goals for Hawai‘i’s aging population is to, “Enable older adults to remain in their own homes with a high quality of life for as long as possible through the provision of home and community based services, including supports for family caregivers.” This goal, also known as “Aging in Place,” is best served by having senior housing near social and medical services, shopping, and basic services. Unfortunately, development patterns and zoning laws are sometimes barriers to kūpuna-friendly communities. Most homes are segregated from commercial areas and require automobile trips to shopping and medical services. Many neighborhoods do not have safe connections for walking with supportive devices, such as a cane or wheelchair. There are many neighborhood parks that do not have accessible outdoor gathering spaces for kūpuna to meet and gather in a shady place.

CLOSE TO ONE THIRD OF KAUA‘I’S POPULATION WILL BE 65 AND OVER IN 2035

Zoning and development standards must be updated so new communities are designed to allow kūpuna to age in place. We need to increase alternatives for older adults to “downsize” in the communities in which they live, reside in multigenerational households, and have options to move to high-quality assisted living facilities.

A. PERMITTING AND CODE CHANGES

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 multigenerational housing that accommodates family home care situations.
   c. Revising development standards to facilitate approval of assisted living units and continuing care communities.

2. Integrate universal design standards into Kaua‘i’s building code.

B. PROJECTS AND PROGRAMS

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.

C. PARTNERSHIP NEEDS

1. Provide and anticipate increasing services to the elderly and their caregivers, including access to transit, nutrition services, fitness programs, and personal care.

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27 Hawai‘i State Plan on Aging, 2011
28 Hawai‘i State Plan on Aging, 2011
7. THE HOUSELESS POPULATION

By providing a range of housing types, including affordable rentals, Kaua‘i can help families and individuals reduce the time spent being houseless.

Objective: To reduce Kaua‘i’s population of those houseless and at risk for houselessness.

7.1 Addressing the Increasing Number of Houseless People

The Homeless Utilization Report (2014) identified 378 houseless individuals on Kaua‘i. Of this total, 300 were unsheltered, and 78 had temporary shelter. Kaua‘i participates in the State of Hawai‘i Department of Human Services and Homeless Programs Office Continuum of Care program. State agencies are primarily responsible for outreach to houseless people and have a range of services including emergency/transitional shelters, permanent supportive housing, rapid re-rehousing, homeless prevention, and a Housing First Program.

7.2 Providing Homes for the Houseless

The housing needs of disadvantaged groups are documented in the State of Hawai‘i 2015-2020 Consolidated Plan. This plan includes data from the Partners in Care Information Center, Point-in-Time Count Reports, review and consultation of various plans, public input, and surveys conducted. Kaua‘i County has identified the need for a range of housing types for persons with disabilities, substance abuse, and HIV/AIDS. These include affordable rental and permanent housing, as well as transitional and group home facilities with medical and other support services. The General Plan supports focusing State resources on securing shelter for houseless families with children, youth, people with disabilities, women, and veterans.

A. PERMITTING AND CODE CHANGES

1. Allow managed micro-housing developments or camp sites for the houseless.

2. Allow development of Single Resident Occupancy unit projects.

B. PLANS AND STUDIES

1. Support the implementation and update of the Kaua‘i Houseless Solutions Summit Plan.

C. PROJECTS AND PROGRAMS

1. In addressing homelessness, adopt and implement the Housing First approach to reduce and ultimately eliminate homelessness.

D. PARTNERSHIP NEEDS

1. Support the development and expansion of shelters to increase temporary housing for the houseless and other at-risk populations.

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 wrap-around services and makes available transitional and permanent housing for all houseless persons who desire such housing.

3. Identify partnership opportunities with landowners and community organizations to accommodate sheltering and transitional housing needs for houseless populations and people with disabilities.

4. Develop a coordinated, integrated system of services that facilitates entry, offers wraparound services, and supports system exit when appropriate.

5. Provide transportation to enable the houseless to access services (offer rides, bus vouchers, pay as you go card, or other options).

6. Support rehabilitation programs for the houseless.

7. Prioritize resources for houseless families with children, youth, women, veterans, and people with disabilities.
8. IMPACT OF RESORT USES ON HOUSING INVENTORY

The spread of resort uses, especially transient vacation rentals (TVRs), into residential areas outside of visitor destination areas (VDAs) significantly altered many established communities—especially in places like Hā’ena and Hanalei where the resident population declined when homes were converted to TVRs.

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

8.1 Improving Enforcement of Non-Conforming Resort Uses

Large concentrations of non-conforming TVRs negatively impact residential neighborhoods. The displacement of low- to moderate-income households changed the social character of traditional neighborhoods. Once they were close-knit places, where neighbors knew each other. Today, the transitory occupancy of these neighborhoods are more vulnerable to crime, noise, and illegal parking. Hā’ena, Hanalei, ‘Anini, and the Ho’ona Street Neighborhood in Po’ipū are especially affected by large concentrations of non-conforming TVR.

Starting in 2008, the County addressed the proliferation of TVRs through a series of zoning amendments and stepped-up enforcement. TVRs are no longer allowed outside of the VDA, except for the approximately 400 units that are “grandfathered” via a non-conforming use certificate that requires annual recertification. Despite this effective “cap” on non-VDA TVRs, there are still outstanding concerns regarding residential character, public safety, and tax equity.

8.2 Ensuring Tax Equity for Resort Uses

All TVRs should pay transient accommodation, real property, and general excise taxes at a rate consistent with other resort uses. This is to ensure fairness in accounting for visitor-related impacts and contributing to State and County revenue.

**A. PERMITTING AND CODE CHANGES**

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-conforming 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.

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.
Kauaʻi is at a crossroads for its future transportation. Traffic congestion is one of the community’s most frequently expressed concerns, and it impacts nearly everyone on Kauaʻi. The island’s topography, overall constrained financial resources, repair and maintenance backlog of existing roads and bridges, and General Plan goals of sustainability, resiliency, and health all underscore the need to achieve more efficiency and effectiveness with Kauaʻi’s existing transportation system and to spend Kauaʻi’s limited transportation funds wisely, and seek additional funding from Federal, State, and private partners.

A Balanced System

The term “balanced system” recognizes the importance of safely accommodating all roadway users, the need to make strategic investments, and that transportation and land use are linked, each with implications for the other.

In 2013, the County Council adopted the Multimodal Land Transportation Plan (MLTP) which outlines steps the County of Kauaʻi will take to achieve a balanced multimodal transportation system through the planning horizon year of 2035. The MLTP reviews existing conditions and trends and proposes programs and scenarios for roadway networks, bicycle facilities, pedestrian facilities, and transit. It also discusses how land use relates to transportation. In order to address congestion, manage growth, reinforce compact land use patterns, and address sustainability goals, the MLTP was used as a framework for transportation policies in this General Plan. The MLTP proposed significant mode shift targets by 2035, primarily a reduction in Single Occupant Vehicle (SOV) travel and increases in transit, walking, and biking modes (Figure 3-6). While reduced, SOV trips are still projected to be the largest share of total trips.

Implementation of the MLTP will result in far-reaching outcomes that support many of the goals of this plan. These include reduced energy consumption, reduced
household transportation costs, increased levels of physical activity, and improved transportation choice, especially for those who cannot drive. Accomplishing these targets will require strategic implementation of specific projects and actions, as well as a “cultural shift” in personal transportation choices. A shift in personal transportation choices occurring over time is supported by nationwide trends, including the following:

- Decline or delay in personal car ownership by millennials.
- Willingness by millennials to use transit and other modes of transportation.
- Prevalence of new transportation services, such as Uber and Lyft.
- New “apps” that link private and public transit services.
- Desire of both millennials and baby-boomers to live in walkable communities close to work and shopping.
- Increase in telecommuting and office sharing.
- Increase in the “shared economy,” including ride-share, car-share, and bike-share services.
- Increased recognition of the link between transportation choices and climate change.
- Increased awareness of the relationship between health and transportation.

While not all national trends may be currently prevalent on Kaua‘i, it is anticipated that both public and private transportation services linked to technological advances will affect Kaua‘i’s transportation system over the General Plan’s timeframe.

As the jurisdiction responsible for Kaua‘i’s belt highways and major roads leading to the airport and Nāwiliwili Harbor, the HDOT is a key partner in Kaua‘i’s land transportation network. Thinking of our transportation network as an integrated system will require continued collaboration between the County and the State in planning across jurisdictions and across modes.

The transportation actions discussed in this section reflect the importance of partnership and the need to consider our land transportation system as an integrated network. The actions are organized by the following six programs:

A. General
B. County Roads
C. Transit
D. Pedestrian
E. Bicycle
F. Parking Management

Figure 3-6 Multimodal Land Transportation Plan 2035 Goals
1. GENERAL

Solutions for the future sustainability and reliability of Kauaʻi’s transportation network lie in providing a balanced system with multiple modes, including freight, cars, transit, walking, and biking.

**Objective:** To safely and efficiently move people and goods about Kauaʻi 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.**

1.1 Managing congestion requires a multi-pronged approach

Traffic congestion, particularly on our belt highways, is a primary concern of our residents. Historically, efforts to address congestion have focused solely on adding capacity for motor vehicles through widening existing roads and building new roads. These types of projects are costly, can be environmentally sensitive, and often take years or even decades to complete, if they are ever undertaken at all. The State’s Federal Aid Highways 2035 Transportation Plan for the District of Kauaʻi identified $3.2 billion in proposed roadway projects, with anticipated funding of $600 million over 20 years. This approach to addressing congestion is simply not sustainable. A new approach is needed that focuses on managing congestion through a combination of smaller, quicker roadway projects, shifts some trips away from SOVs to other modes (transit, walking, and biking), and reduces trip demand by focusing housing near jobs, schools, services, and parks.

At the same time, the backlog of existing roads and bridges in need of maintenance and repair has grown. The longer it takes to address road maintenance, the more costly it becomes as roads move from needing a simple resurfacing to a more extensive reconstruction.

With two agencies responsible for our roadway system (HDOT for our belt highways, and the County of Kauaʻi Department of Public Works for our County roads), close collaboration is needed to assure we are all working toward the same end goal. In addition to coordination between these two agencies, venues are needed for public dialogue, education, enhancing partnerships, and brainstorming of creative ideas for funding and implementation of our transportation system.

The Built Environment Task Force of Get Fit Kauaʻi is an ideal venue for this continued discussion.

Given the reality of limited funding, strategic investment choices will need to be made. These choices can be based on a series of principles that are articulated in the General Plan, and include the following:

- Prioritize the repair and maintenance of existing roads over construction of new roads.
- When new roads are planned and constructed, focus on enhancing roadway network and connectivity, and improving resilience.
- When feasible, to minimize additional costs, consider and incorporate roadway improvements for all modes at the time of roadway resurfacing.
- Where feasible, as a means to reduce cost and shorten timelines for implementation, consider “least cost planning” and “practical design” for corridor planning. As an example, focus on spot improvements and intersection modifications to manage congestion prior to considering corridor-long multi-lane widening projects.
- Consider the safety of all users in planning and design.
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 Oloheuna Road.
   c. Operational improvements, such as signalization and left turn restrictions on Kūhiō Highway.
   d. Extension of right turn lane on Haleiilo 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”
into transportation planning and projects with a focus on congestion management for Kūhiō Highway and Kaumuali‘i Highway. Select a pilot project to test the process and outcomes.

3. Restructure the Transportation Coordinating Committee as a working group with representatives from Kaua‘i County Long Range Planning, the County’s Transportation Planner, Public Works Engineering, Capital Improvement Program Manager, Transportation Agency, and HDOT.

4. Identify and actively seek non-County revenue sources (Federal, State, and private) to supplement County funding of the transportation network.

5. Enhance community partnerships for roadway maintenance (including landscaping) and education of all roadway users.

6. Continue to support the Built Environment Task Force of Get Fit Kaua‘i as a primary venue for public discussion of funding and implementing our land transportation system.

7. Regularly evaluate and update Council-determined land transportation user fees, such as bus fares, registration, and fuel and vehicle weight tax rates.

2. COUNTY ROADS

County roads and local streets will continue to be the primary way that people and goods move around the island, but they cannot accommodate unlimited growth. Maintaining roads so that they safely and efficiently handle vehicles, buses, and other modes of transportation is essential to a future with less time spent in traffic and fewer vehicle trips. County roads are under the jurisdiction of the County of Kaua‘i. They do not include roads and highways that are under the jurisdiction of the Hawai‘i Department of Transportation. This section applies only to roads under the jurisdiction of the County.

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

2.1 Preserving our Island’s Character and Advancing Opportunity

Along with addressing congestion, other concerns of our community include preserving Kaua‘i’s character, promoting economic development, and providing access for everyone to education, jobs, and services, regardless of age or physical ability.

Our County roads system plays a big role in addressing these concerns. When the only way to get around is by car, large segments of our population are left out, due to age, physical ability, or socio-economic conditions. Providing housing near jobs, education, and services, with a safe and convenient transportation network that accommodates transit, walking, and biking, allows everyone to be connected. Retrofit of existing County roads can also be a catalyst...
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.
3. TRANSIT PROGRAM

Transit is a key component of Kauaʻi’s transportation strategy to manage congestion, maintain our island’s character, reduce our environmental footprint, reduce the cost of living, and provide opportunity for everyone.

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

### 3.1 Expanding Transit Ridership

The Kauaʻi Bus is the County’s provider of transit services. With each service improvement (extending hours of service and providing weekend service), ridership has increased substantially. Based on survey responses and analysis of ridership patterns, there is latent demand for transit service that is not being met due to current service limitations.

Two areas with the greatest potential to expand transit ridership are:

1. To expand service frequency and improve routing for commuters, and
2. To provide viable transportation alternatives for visitors other than a weekly car rental.

The first requires modifications to The Kauaʻi Bus mainline and peak hour service.

The second requires a new model for how visitors experience the island. Currently, about 89 percent of visitors rent a car during their visit. This adds to our island’s roadway congestion, and causes severe parking impacts at destinations. In order to change this model, several factors are needed, including:

- Affordable and reliable shuttles between the airport and resort areas,
- Frequent shuttles within resort areas,
- Enhanced bicycle and pedestrian infrastructure within resort areas, including opportunities for bike rental or bike share, and
- Opportunity for short-term car rentals on site at resorts.

These and other recommendations are found in the *Kauaʻi Short-Range Transit Plan* (approved by the County Council October 2017). Improved transit service cannot be accomplished if transit funding is irregular. A dedicated funding source is needed to sustain service expansion. This will require partnerships and support from residents, large and mid-size employers, commercial enterprises, and others that will benefit from an improved transit system.

At the same time as service expansion, efficiencies are needed to offset costs. This may include provision of some transit services by private enterprise, contracting of some services, elimination or consolidation of routes with low ridership, and efforts to transfer paratransit riders to less costly fixed route service.

### 3.2 Encouraging Transit-Ready Development

New development that is “transit ready” has sufficient density and walkability to encourage use of the bus system. Such projects, especially when constructed near transit hubs, can help increase bus ridership and improve the efficacy of the bus system. In recent years, the State has placed an emphasis on transit-oriented development. As a result, there is an opportunity to explore workforce and affordable housing development on state-owned parcels adjacent to bus stops.
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.

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.
4. PEDESTRIAN PROGRAM

Walking is ideal for short trips within town, or to and from transit stops. Expanding walking as a viable mode of transportation meets many of our goals, including health, sustainability, creating thriving commercial centers, reducing transportation cost, and equity.

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

4.1 Making Walking Safe and Attractive

In plantation days, walking was much more prevalent. Work, the dispensary, shops, schools, and recreation were all within walking distance of homes. In many of our plantation towns, the “bones” of these walkable communities are still intact.

Today, in order to expand walking, people need to feel that it is safe and inviting. In addition, for new communities, land use must be planned so that homes, parks, schools, jobs, and services are within walking distance. This is an example of how land use and transportation are linked.

In many places, a key contributor to congestion at peak hours is pick-up and drop-off at schools. A significant portion of elementary school students live within walking distance, yet many parents feel it is unsafe for their children to walk to school. Kauaʻi’s Safe Routes to School program, a partnership between the County, the Department of Education, and Get Fit Kauaʻi, strives to reduce barriers to walking to school through education, enforcement, encouragement, and investment in infrastructure. A similar program could be developed to establish “safe routes to parks” in neighborhoods.

With limited funding, investments in pedestrian infrastructure need to be strategic. Priorities include safe routes to schools and parks, and improvements to support vibrant, walkable town centers. Identifying and providing solutions for locations with a history of safety concerns, such as locations of crashes involving pedestrians, is another critical element.

Design of pedestrian improvements needs to take into account community preferences and surrounding character ("context-sensitive design"). For example, in low-speed, low-volume areas, it may be perfectly safe for cars, bikes, and pedestrians to all share the road. In other areas, such as town centers, a higher level of pedestrian infrastructure is needed for the safety of all users.

Pedestrians in Kīlauea, North Shore District
A. PLANS AND STUDIES

1. Identify high-priority pedestrian safety projects based on crash data.

B. PARTNERSHIP NEEDS

2. Complete priority pedestrian projects as identified in Community Plans and other studies.
3. Work with HDOT to identify and implement appropriate pedestrian crossings on State Highways.
4. Develop a Safe Routes to Parks program to identify priority pedestrian improvements within neighborhoods to parks.

5. BICYCLE PROGRAM

Bicycling is a viable mode of transportation for short to medium trips within and between towns. Both bicycling and walking, also considered “active transportation,” promote health, sustainability, and equity, and have the potential to reduce the cost of living.

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

5.1 A Complete Bicycle Network

The likelihood of people bicycling for transportation can be divided into four categories:29

1. Strong and Fearless
2. Enthused and Confident
3. Interested but Concerned
4. No Way No How

Strong and fearless riders are comfortable riding their bikes with cars in nearly all conditions. Based on research in other places, this group comprises less than one percent of the population. Enthused and confident riders are regular commute cyclists who are willing to share the road with motorists but prefer to ride in separate bike lanes or in adequate shoulders. Generally, enthused and confident riders are approximately seven percent of the population. Interested but concerned cyclists have some experience riding bikes and would like to ride more, but feel riding conditions are unsafe. Interested but concerned cyclists generally comprise 60 percent of the population. Local surveys indicate a large portion of our population falls into the interested but concerned category—they would like to ride their bikes more for transportation, but feel that current conditions are unsafe. No way no how, approximately 30 percent of the population, are simply not interested in riding a bike for transportation, no matter the conditions.

In order to expand cycling as a viable means of transportation, conditions need to address the safety issues of the “interested but concerned” group: if the road is shared with cars, volumes and speeds need to be low; on higher volume streets, separate bike lanes are needed; in high-volume high-speed corridors, separate bike facilities, such as shared use paths, are needed. Intersection treatments also need to be safe for cyclists. Most importantly, a continuous network is needed that allows cyclists to feel safe getting from Point A to Point B. Adding bike lanes on a single street does not create a network and will not substantially increase cycling until those bike lanes are connected to other bike facilities.

While planning is done at the network level, implementation is typically done incrementally. Community Plans are seen as the ideal scale and community process to establish bicycle networks in all of our districts. For existing road retrofits, as much as possible, implementation should occur in conjunction with other roadway projects, such as resurfacing and reconstruction, to reduce costs.

Another key factor is bicycle education. Both cyclists and motorists need to understand their rights and responsibilities of safely sharing the road.

29 City of Portland, Four Types of Transportation Cyclists
A. PERMITTING AND CODE CHANGES

1. Incorporate bicycle parking requirements into the Comprehensive Zoning Ordinance.

B. PLANS AND STUDIES

1. Establish an islandwide bikeways plan with priorities for implementation through the community planning process.

C. PROJECTS AND PROGRAMS

1. Complete planning, engineering, and construction for the West Side Path from Waimea to Kekaha and from Hanapēpē to Salt Pond.
2. Complete the Ke Ala Hele Makalae path from Anahola to Līhuʻe.
3. Complete planning and first phase construction of a North Shore Path in areas supported by the community.
4. Complete at least one segment of a shared use path identified in the South Kauaʻi Community Plan and the Līhuʻe Community Plan.
5. Complete priority bikeway projects as identified in Community Plans.

D. PARTNERSHIP NEEDS

1. Work with HDOT to have adequate and safe bicycle facilities on all State Highways, including bridges.
2. Leverage Federal funding to complete bicycle and pedestrian access improvements on Kīlauea Road to Kīlauea Point National Wildlife Refuge.
3. Prepare a bikeshare feasibility study and implement a bikeshare program.
4. Continue to support bicycle safety and education programs in collaboration with community partners.
6. PARKING MANAGEMENT

Parking is a key component of both land use and transportation. Creating vibrant, walkable towns requires new ways of thinking about parking. At beaches, trails, and other scenic destinations, parking is a key consideration to providing access while protecting our island’s character and environment.

Objective: To implement parking strategies that support community needs.

6.1 Managing Parking Wisely

In 2014, the County received technical assistance from Smart Growth America to conduct a Parking Audit Workshop for Līhuʻe Town. The workshop provided our community with new ways to think about parking supply and demand, and the relationship of parking to transportation and land use. These concepts apply not only to Līhuʻe, but to all areas of our island.

Traditional zoning requires each building or parcel to provide adequate parking on site. This leads to large expanses of land dedicated to parking, and generally creates commercial areas that are not conducive to walking. With increased density and a safe pedestrian environment, parking can be provided off-site. Parking districts that consolidate parking in key locations to serve multiple properties, and shared parking between sites, are strategies that are needed to encourage infill development. Another important consideration for our towns and resort areas is to promote parking management strategies that reduce parking demand. These strategies may include timed parking, paid parking, and employer incentives such as transportation benefits that incentivize ride-sharing, walking, biking, or taking transit to work.

At beaches, trails, and other scenic destinations, parking is an important component of access, yet in some areas, such as Kēʻe Beach, scenic and cultural resources are compromised by too many cars. In some areas, formalized or dedicated parking is needed. In other areas, parking demand should be reduced through alternative modes of access, such as shuttles.

A. PLANS AND STUDIES

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 Poʻipū.

2. In partnership with the State, develop and implement a parking management plan for the Līhuʻe Civic Center.

B. PARTNERSHIP NEEDS

1. Establish staff resources and funding for Countywide parking enforcement.

2. Work with State agencies to address the parking impact at beaches and other State-owned parks and scenic areas such as Kēʻe Beach.

3. Work with employers and resort areas to establish parking management strategies that incentivize mode shift.

4. Consider the establishment of parking districts in town centers.
SECTOR: IV. CRITICAL INFRASTRUCTURE

Infrastructure to provide water and dispose of wastewater and solid waste is critical to supporting growth on Kaua‘i, yet current systems are stressed and not keeping pace with demand. If Kaua‘i is to grow sustainably it must meet the infrastructure needs of today and make smart investments in planning, maintenance, and facilities to meet future needs. We must also ensure that our airports and harbors are well maintained and equipped to withstand unexpected events.

Meeting Current Infrastructure Needs

We depend upon our public and private systems for water, wastewater treatment, and solid waste disposal to sustain our daily activities in a way that protects our public health and natural environment. Yet, Kaua‘i’s landfill is near capacity, and the island is heavily reliant on individual septic systems and cesspools. These conditions have potentially severe consequences for public health and environmental quality, and both could require costly fixes. Kaua‘i is like many rural areas in that it has a small tax base and limited resources to fund infrastructure improvements. Strategic infrastructure investments must support these systems in ways that are environmentally and economically responsible and equitable in their outcomes.

Two General Plan studies document existing infrastructure conditions and estimate future need:

- The General Plan Update Kaua‘i Infrastructure Analysis (2015) describes existing infrastructure systems on Kaua‘i.
- Assessment of the Adequacy of Kaua‘i Infrastructure for Current and Future Needs (2015) estimates infrastructure needs for the island and by planning district to 2035.

These studies identified projected deficits of water and wastewater capacity in some districts, indicating
a need for more capacity to accommodate the 2035 population (see Figure 3-7). Other key findings are summarized in the sub-sections on Water, Wastewater, and Solid Waste. Maps showing key infrastructure systems can be found in Section 5.5.

This Sector also includes Airports and Harbors, which are critical facilities that support the transport of people and goods to and from Kaua‘i.

**Improving How Infrastructure Supports New Growth**

Typically, the burden of paying for the infrastructure to service new development falls on the developer. In turn, these costs are carried over to the buyer. In order to alleviate the housing crisis by supporting growth in the desired areas, government will need to help provide this infrastructure. The County should use its ability to invest in infrastructure as a tool to encourage growth where it is desired. However, for this to occur, infrastructure improvements and land use planning will need to be more closely coordinated. We need to look to partnerships to provide the funding needed for new infrastructure required by growth. Examples include the creation of special districts and innovative public-private partnerships.

**Aligning Facility Plans with the General Plan**

As a high-level policy document, the General Plan is not a facility plan or master plan. Infrastructure systems run by the County or State are guided by specific plans that provide direction, needs assessment, and capital expenditures for entire systems and individual facilities. Typically, these plans are highly technical and conform to regulatory requirements. However, the update of these specific plans should be guided by the General Plan and align with policies and actions. Moreover, the County has limited to no jurisdiction and less involvement in the update of facility plans for privately run systems, such as in Princeville. Given the need to focus and prioritize infrastructure improvements and explore public-private partnerships, Community Plans are an important opportunity to develop district-level guidance on the development and improvement of regional infrastructure.

**1. DOMESTIC WATER**

Kaua‘i is endowed with ample water supply in our aquifers, but water distribution is limited by a system that requires expansion to meet projected demands through 2035.

**Objective: 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.**

**1.1 Reconciling Water Supply and Infrastructure**

Kaua‘i’s aquifers have sufficient sustainable yields to accommodate future growth. The State Commission on Water Resource Management (CWRM) has not imposed any Ground Water Management Areas on Kaua‘i, which would be required if there were dangers of exceeding sustainable yields in any of our aquifers. The CWRM is expected to issue an updated Water Resource Protection Plan that will have new sustainable yield estimates based on a more cautious approach than previous estimates.
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 Līhuʻe, 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, Kōkeʻe 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 transmission/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.

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 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.
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.
2. WASTEWATER, SEPTIC SYSTEMS, AND CESSPOOLS

Sustainable growth means providing safe and sanitary wastewater disposal solutions for growing areas and converting communities off of cesspools that create environmental pollution and potential health hazards.

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

2.1 Maintaining and Expanding Regional Wastewater Treatment

Kaua‘i’s wastewater treatment and disposal is addressed through a combination of County and private systems. Treated effluent is either disposed of via injection well and ocean outfall or is recycled as R-1 or R-2 water for irrigation. The County’s wastewater treatment plants are located at Waimea, ‘Ele‘ele, Līhu‘e, and Wailua, and they have a combined design capacity of 5.5 million gallons per day (mgd). The Infrastructure Maps at the end of this section and in Chapter 5 show the locations of the plants.

All four plants were built before 1980 and have had capacity and system upgrades. The Waimea and Līhu‘e plants produce R-1 water (oxidized, filtered, and disinfected) while the Wailua plant produces R-2 water (oxidized and disinfected). Both forms of recycled water are suitable for irrigation and some other nondrinking uses, but the primary use is for irrigation of County parks, State Department of Education (DOE) property, and golf courses.

In addition to County systems, there are over 35 privately owned wastewater treatment plants serving various developments on Kaua‘i. The largest private systems are in Puihi, the Kaua‘i Beach Resort, Po‘ipu (HOH Utilities), Princeville (Princeville Utilities), and at the Pacific Missile Range Facility. These five systems have a combined design capacity of 3.42 mgd. The Princeville and Po‘ipu systems produce R-1 and/or R-2 water that is reused by nearby private golf courses.

The other private systems are package treatment plants serving small beach resorts, and sludge from them is trucked to the County treatment plants in ‘Ele‘ele and Līhu‘e.

While total wastewater treatment capacity was sufficient to address the levels of wastewater generated in 2015, projected growth indicates the need to expand wastewater treatment facilities by a little over 2.5 mgd to accommodate islandwide generation in 2035. The greatest projected needs are on the South and East sides of the island. Only the Līhu‘e wastewater treatment plant is projected to have significant excess capacity. New regional wastewater solutions will be needed to accommodate planned growth in South Kaua‘i and Kīlauea.

Water recycling is a sustainable approach to wastewater management. It decreases the diversion of water from sensitive systems such as the aquifer or streams and also decreases discharge into the ocean. When adequately treated, recycled water can be used for a variety of water needs such as agriculture and landscaping.

2.2 Addressing Cesspool Conversion

A large number of homes and businesses are not connected to a regional sewer system and must use a cesspool or septic system. These Individual Wastewater Systems (IWS) are regulated by the State Department of Health and had an estimated capacity of 4.06 mgd in 2015. The DOH estimated there were 13,688 cesspools and 5,300 septic and aerobic units on Kaua‘i in 2016.

**HAWAI‘I COUNTY HAS MORE CESPOOLS THAN KAUA‘I, BUT KAUA‘I HAS THE HIGHEST DENSITY OF IWS AT 32 UNITS PER SQUARE MILE.**

The State no longer allows construction of cesspools. Large capacity cesspools were banned by the Environmental Protection Agency (EPA) in 2005. DOH offers incentives for septic system conversion through Act 120, a State tax credit of up to $10,000 per qualified cesspool. However, this is only for properties within 200 feet of streams, ocean, or SWAP zone (Source Water Assessment and Protection Program) near wells. The tax credit program is set to expire in 2020 unless the State legislature extends its horizon. At this time the DOH uses the County building permitting process to determine if a property needs to upgrade a cesspool to septic system, depending on the location of the property and/or the extent of the project.
2.3 Anticipating Emerging Water Quality Concerns

The Wailua plant discharges up to 1.5 million gallons of treated effluent per day through a permitted ocean outfall that begins approximately 670 feet offshore of Lydgate Beach and 30 feet below the ocean surface. The County is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit, issued by the State Department of Health (DOH). As part of the compliance measures for the permit, the County must strive to meet updated water quality standards.

A wide-ranging concern is coastal water quality near high concentrations of cesspools and underground injection wells. DOH is exploring the environmental impact of Kaua‘i’s large number of cesspools and injection wells, with a special focus on South Kaua‘i, Nāwiliwili, and Wailua.
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.


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.
3. SOLID WASTE DISPOSAL AND RECYCLING

With a landfill nearing capacity and a fragile island ecosystem, all people must do their part to recycle, reduce waste generation, and properly dispose of hazardous and green waste. The County should continue to explore and embrace programs and strategies that reduce our waste footprint.

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

3.1 Managing the Solid Waste Stream through Increased Diversion

There are significant challenges to managing solid waste disposal on a small island with a growing residential and visitor population. The Department of Public Works (DPW) provides islandwide service for collecting and disposing of solid waste generated by residents. This includes a limited number of commercial customers, including Transient Vacation Rentals. The majority of businesses requiring dumpster service are collected by private refuse hauling companies. The DPW currently does not have curbside recycling or curbside green waste collection programs. All residential recycling is voluntary, and residents must transport material to various centers located throughout the island.

In 2015, total islandwide waste generation was approximately 150,000 tons (roughly estimated at 11.6 pounds per person a day). An estimated 44 percent of total waste is diverted from the landfill through recycling and other diversion efforts. The diversion rate has increased steadily over the past ten years; however, it cannot be assumed the diversion rate will continue to climb. Reaching the County’s goal of 70 percent diversion by 2023 will require a new materials recycling facility (MRF), curbside recycling, recycling mandates for businesses, and curbside collection of green waste.

THE COUNTY HAS A GOAL OF 70% DIVERSION BY 2023

In July 2016, Kaua’i became the first County in the State to introduce a variable rate refuse collection fee for residential customers. This “Pay as You Throw” system charges for service in relation to the volume of the refuse cart requested by customers and provides an economic incentive to reduce trash and increase recycling and waste diversion behaviors.

Green waste recycling is among the most cost-effective programs for reducing landfill demand since its byproducts can be marketed and it comprises a substantial portion of solid waste generated on Kaua’i. In FY 2015, 31,450 tons of green waste was diverted at County transfer stations, Kekaha landfill, and through commercial efforts.

This undiverted amount of green waste was estimated to be over 6,000 tons in 2010, based on a waste composition analysis conducted for the County’s Integrated Solid Waste Management Plan (2009). In addition, green waste accounted for two-thirds of the tonnage in the County’s diverted waste stream and over 30 percent of the tonnage for private sector waste diversion programs. In order to maximize the potential of green waste diversion from the landfill, the County would need to initiate curbside recycling for green waste. There are currently five green waste recycling locations, listed in the table below.

<table>
<thead>
<tr>
<th>Green Waste Recycling Locations</th>
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<tbody>
<tr>
<td>Hanalei Transfer Station</td>
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<tr>
<td>Kapa’a Transfer Station</td>
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<tr>
<td>Lihu’e Transfer Station</td>
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<tr>
<td>Hanapēpē Transfer Station</td>
</tr>
<tr>
<td>Kekaha Landfill</td>
</tr>
</tbody>
</table>

The County offers a variety of residential recycling opportunities for various recyclables from appliances
to household hazardous waste. Items are accepted free of charge at various locations throughout the island. The County also offers free backyard composting bins for residents to manage food and yard waste. These programs are coupled with strong education and outreach efforts.

Disposal of commercially generated cardboard, metal, and green waste is restricted at the landfill. This has been very effective to ensure that large generators do not dispose of recyclable items. The County is looking to reinforce this existing legislation by mandating that local businesses have recycling programs in place for materials that are easily recyclable.

The Hawai‘i Deposit Beverage Container (DBC) law was implemented in 2005 and covers water and other beverages packaged in aluminum, bi-metal, glass, and certain plastics. This provides an economic incentive to recycle and has significantly increased the diversion of these containers. The current recycling rate is 68 percent.

Food waste is another opportunity to divert waste from landfills, especially since food waste emits high levels of greenhouse gas in landfills. The County’s “Food: Too Good to Waste” public awareness campaign provides tools and tips for residents and businesses to save money by reducing food waste. The County will explore other remedies to solid waste disposal through new technologies and new methods.

3.2 Developing a New Landfill

DPW manages the County’s only landfill at Kekaha, where all municipal solid waste from residents and businesses is disposed. The landfill has a limited lifespan with less than 700,000 cubic yards of capacity remaining. The estimated remaining lifespan of the landfill is approximately 4.9 years.

This requires increasing waste diversion and capacity at the Kekaha Landfill, while expediting the development of a new landfill site. Decisive action is needed, as the required environmental studies, land acquisition, and program implementation for a new landfill site will be a lengthy process.

In addition to increased recycling, a new landfill will be needed to address solid waste disposal. The current Kekaha landfill site is the only permitted municipal solid waste site on the island and can continue to accept waste only up through 2020 without approvals to expand it. If existing proposals to expand are approved, the Kekaha landfill will likely reach capacity by 2028. It is extremely important to note that estimates of remaining time before the Kekaha landfill is full are based on typical conditions for solid waste generation. These can change dramatically after a major storm or other natural disaster. For context, Hurricane Iniki in 1992 produced more solid waste in a 24-hour period than five years of the typical rate of solid waste generation on Kaua‘i.

The County has proposed to create a combined new landfill and materials recycling facility on a 270-acre site owned by the State in Ma‘alo, near Līhu‘e. The proposed Resource Recovery Park provides the possibility of more preferable locations for long-term management of some of Kaua‘i’s solid waste disposal and recycling programs that are not already operational.

Long-term management of Kaua‘i’s solid waste streams will require diligent efforts by the community, businesses, and government. Coordinated programs are needed to “reduce, reuse, and recycle” in ways that are effective and convenient. Programs that reduce waste from building materials, packaging, or other major waste generators can be particularly effective since they target larger volume businesses that can adjust their systems, often with cost savings as a byproduct. Targets, such as the County’s 70 percent diversion rate goal by 2023, help focus efforts and bring attention to programs and strategies that work best.
A. PERMITTING AND CODE CHANGES

1. Reduce construction and demolition debris disposal in landfills by requiring recycling, particularly for large contractors and construction projects.

B. PLANS AND STUDIES

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.
2. Plan and prepare for emergency debris management and disposal due to future major storms and tsunamis.

C. PROJECTS AND PROGRAMS

1. Site and construct a new landfill.
2. Establish an automated weekly, curbside collection system for residentially generated green waste and recyclables.
3. Reduce solid waste volume through source reduction through new technology and programs that reuse building materials, minimize packing materials, and other measures. Focus attention on large volume purchasers and developers.
4. Divert at least 70 percent of solid waste through increased source reduction, recycling, biodiversion, and landfill diversion methods.
5. Maximize effective life of existing and future landfill capacity.
6. Increase the convenience of recycling centers for users.
7. Provide commercial volume-based collection with enhanced recycling programs, including incentives for businesses to adopt zero-waste collection programs.

4. AIRPORTS AND HARBORS

Ocean and air travel are what keep Kaua‘i connected to the world. We rely on our airports and harbors to bring people and essential goods to and from the island. Their reliability and longevity are critical to maintaining Kaua‘i’s economy.

**Objective:** To support the modernization and user-friendliness of Kaua‘i’s airports and harbors.

4.1 Modernizing Airports to Serve Current and Future Needs

Kaua‘i’s main airport in Līhu‘e is managed by the HDOT Airports Division. In addition, the HDOT operates the Port Allen airport, a general aviation airport. HDOT is undertaking a statewide Airports Modernization Program. In Līhu‘e, improvements include upgrades to the ticket lobby, construction of a consolidated car rental facility, and an expansion of the parking area and airport loop road. The State of Hawai‘i Office of Planning recently completed a Technical Assistance Memorandum (TAM) to guide planning of land uses within five miles of airports to ensure land uses that are compatible with airport operations, including aircraft landing and takeoff. While improvements to airports are justified to serve existing and projected demand, there is concern that increasing the capacity of Līhu‘e Airport would support and encourage increased visitor traffic. Such improvements should be balanced with the objectives of managing tourism impacts and keeping visitor arrivals at reasonable levels.

4.2 Accommodating Demand for Commercial Harbor Facilities

Kaua‘i’s two commercial harbors at Nāwiliwili Harbor and Port Allen are also owned and operated by the State through the HDOT’s Harbors Division. Nāwiliwili Harbor serves as the primary commercial harbor for Kaua‘i with facilities for handling both overseas

31 Hawai‘i Airports Modernization Program, 2008
32 TAM-2016-1, August 1, 2016
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 Kauaʻi Commercial Harbors 2025 Master Plan (CHMP) was updated in 2001 and contains recommendations for both harbors through the year 2025. Kauaʻi 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 Kauaʻi. 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. In 2017, 21 cruise ship companies anchored at Nāwiliwili Harbor with Pride of America accounting for the majority of the trips to Kauaʻi. With the exception of Pride of America, a Hawaiʻi Cruise line, most cruise ships that come to Kauaʻi 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 Hawaiʻi 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 Kauaʻi. 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 Līhuʻe 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-ʻEleʻele Community Plan.
5. Support HDOT – Harbors Division to implement and update the Kauaʻi Commercial Harbors 2025 Master Plan.

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34 HDOT – Harbors Division, Passenger and Cruise Schedules: https://hidot.hawaii.gov/harbors/files/2013/01/DOC001.pdf
The public realm belongs to all and must be planned and designed in consideration of all users’ needs from keiki to kūpuna. Shared spaces, also known as “civic space,” are the areas used for everyday community activities such as shopping, recreation, and socializing. Kaua‘i’s most important shared spaces are its town centers, streets, beaches, and parks.

Policies and actions for shared spaces are aimed at making town centers, parks, paths, and other common areas more inviting, safe, functional, and vibrant. They should be places where people can relax, interact, and enjoy the things that make Kaua‘i special. Shared spaces also provide a connection to place. When the community is involved in the design and activation of shared spaces, they become points of pride and hallmarks of uniqueness.

From bus stops, public art, park design, and landscaping, there are a multitude of ways that Kaua‘i’s communities can put their imprint on shared spaces.

This section includes actions for Town Centers, County Parks, Linear Parks and Trails, Passive Parks, and State Parks.
1. TOWN CENTERS

Kaua‘i’s small towns are the pride of the island, with historic charm and unique character. Town centers are hubs for activity, commerce, and interaction. In spite of the technological progress made in the digital and automobile age, some of our town centers have declined and independent businesses have closed. Presently, we have the opportunity to revitalize these town centers by encouraging a mix of businesses and housing, along with attractive design and safe sidewalks.

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

1.1 Helping Town Centers be Vibrant Shared Spaces

Kaua‘i’s town centers are the primary milieus for daily civic, business, and commercial activities. Both existing and future town centers are designated “Neighborhood Center” on the Future Land Use Map. In Līhu‘e, some town center areas are designated “Urban Center.” Residents place a high value on their historic towns and efforts to revitalize business and generate economic activity are ongoing in Waimea, Hanapēpē, Kōloa, Līhu‘e, and Kapa‘a. The General Plan supports focused development within towns, also known as infill development. More intense and efficient use of existing urban space will protect open space and rural character. Infill development requires improvements to the infrastructure capacity and physical environment of town centers. This means that in addition to being compact and walkable, town centers must have environmentally and aesthetically attractive features such as street trees, green spaces, convenient and safe pedestrian access, and appealing building facades or public art. At the same time, redevelopment must be balanced with protection of a town’s historic character. The preservation of historic plantation architecture creates sense of place, allowing residents and visitors to feel connected to the town’s past.

1.2 Supporting Public Art

Public art is art that is placed and integrated into the public realm for everyone to enjoy. It includes a variety of forms such as murals, sculptures, and statues. Art can also be reflected in the design of bus shelters, park facilities, and crosswalks. Public art enhances sense of place and can educate people about Kaua‘i’s history and heritage. Some examples of public art includes the whale mural by Wyland in Waipouli and the installation at the roundabout at Umi and Hardy Streets. Since 1967, the State has had an “Art in State Buildings” law where one percent of the construction costs of new public buildings is designated for art work.

A. PERMITTING AND CODE CHANGES

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.
2. PLANS AND STUDIES

1. Acknowledge the important role of town squares and other civic space in town centers and seek to improve usability of such venues.

2. Establish or update urban design standards through Community Plans.

3. Identify public art opportunities and funding in community and facility planning.

C. PROJECTS AND PROGRAMS

1. Implement economic revitalization projects in town centers, such as the Līhuʻe Town Core TIGER grant project.

2. Construct centralized parking lots in towns that experience parking management issues.

3. Improve criteria for species selection and maintenance of street trees and landscaping.

4. Identify opportunities for public art installation in projects, such as roundabouts, parks, and streetscape improvements.

D. PARTNERSHIP NEEDS

1. Foster civic engagement in town centers through placemaking activities.

2. Conduct community events that bring people together.

3. Activate and revitalize public spaces with artwork, programs, and performances.

4. Use underutilized public space as venues for creative expression.

2. PARKS

Our County park system is an invaluable public asset – essential to both Kauaʻi’s economy and sense of community. Parks should provide abundant opportunities for residents and visitors to experience the island’s renowned beaches and coastlines, and also strengthen community fabric through shared space and amenities for play, exercise, socializing, and enjoying nature.

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

2.1 Maintaining Our Existing Park System

Kauaʻi’s park system comprises 85 properties varying in size and use, from beach parks to neighborhood centers. Special parks include the 18-hole public Wailua Golf Course, and cultural preserves at Ka Ulu o Paoa, Ka Ulu o Laka, and Kāneiolouma. County parks are managed by the Department of Parks and Recreation, which was created by Charter in 2006. Recently, the Department began systemic facility upgrades, ADA accessibility improvements, and launched a cultural stewardship agreement to restore Kāneiolouma. Since 2000, the park system expanded to include Ke Ala Hele Makalae – the East Kauaʻi Shared Use Path – and Black Pot Park expansion. The location of parks is shown on the Public Facilities and Land Use Maps in Chapter 5.
The range of parks include:

- Regional Parks (serve entire County and have specialized recreation facilities).
- District Parks (serve several neighborhoods with structured recreation activities).
- Beach Parks (support wide range of marine recreation activities).
- Neighborhood Parks (playground and open space for surrounding local community).
- Special Use Areas (golf courses and other unique facilities).
- Passive Parks.
- Linear Parks (addressed in Linear Park subsection).

Given the extensive use of Kauaʻi's parks by residents and visitors, park maintenance is a visible and important governmental function. Park management is challenging when dealing with a large number of properties spread around a jurisdiction and with limited financial resources and personnel. A survey conducted as part of the County’s Parks and Recreation Master Plan (2013) found that improving the maintenance of existing parks ranked as the most important issue. Overall, County parks are heavily used and require more maintenance and upgrades than they currently receive.

While the regional and district parks attract the greatest numbers of users and are easier to maintain from a resource allocation perspective, the County should maintain all of its parks to serve the diversity of users on the island. Budgeting the available resources proves to be an ongoing challenge and illustrates the need to diversify sources of financial and in-kind support. Currently, the Public Access, Open Space, Natural Resources Preservation Fund (commonly known as the the Open Space Fund) receives 0.5 percent of real property taxes and can be used to acquire park land.35 Other sources of funding, including facility use fees and State and Federal grant programs for land acquisition, are utilized for facility planning, rehabilitation and construction, and trail restoration. Additional support is possible through partnerships with the private sector and community through efforts like Adopt-a-Park programs, recreation partnerships, and volunteer clean-up and improvement programs.

2.2 Supporting Communities through a Range of Parks

Most parks provide landscaped refuges with space for keiki to play or for adults to sit and enjoy the outdoors. However, substantial park acreage is underutilized and could support a variety of park types and recreational uses. An active neighborhood park strengthens and connects communities by providing civic space. This type of shared space supports infill development and new growth. Although Kauaʻi has many neighborhood and passive parks, most do not provide the full range of facilities desired by residents.

A range of park sizes and types in proximity to neighborhoods supports healthy activities and builds community cohesion. Park land can be used for broad or specialized uses, from community gardens, dog parks, skate parks, and larger multi-use park complexes. The usability of neighborhood parks can be improved by adding playgrounds, walking paths, seating, and pavilions. Facilities for children and the aging population must be considered in park design. Community Plans can identify areas appropriate for park uses in each district. A Civic Space designation with associated standards can be applied to areas intended for parks.

Park creation and improvement is an ideal area to explore public and private partnerships. Creative funding sources and maintenance solutions can be identified with the help of community partners. Community involvement allows parks to be better
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.
5. Promote social interaction through facility improvements, such as pavilions, shade trees, and seating.

6. Expand indoor recreation spaces at selected parks.

7. Ensure safety and cleanliness at Kaua‘i’s beach parks. Use Crime Prevention Through Environmental Design (CPTED) when planning improvements.

8. Address illegal camping in parks.

9. Provide accessibility features at popular facilities such as beach parks.

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.

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.

**D. PARTNERSHIP NEEDS**

1. Expand the County’s park stewardship agreement program.

2. Explore alternative sources of funding for priority park improvements, such as crowdfunding and community initiatives or collaborations.

3. Implement programs for beach and dune restoration, especially at beach parks experiencing erosion such as Po‘ipū Beach Park.

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.

**3. LINEAR PARKS AND TRAILS**

Pedestrian and biking paths and trails are special public recreational assets. They offer a scenic and safe refuge from traffic and development, allowing residents and visitors to experience Kaua‘i’s natural environment. Trails are identified in the Heritage Resource Maps in Chapter 5.

**Objective: To expand and improve access to Kaua‘i’s shared use paths and trails.**

**3.1 Extending Kaua‘i’s Shared Use Path Network**

Shared use paths, often located within a linear park, are separated from roads and provide a safe environment for pedestrians and cyclists of all ages. Benefits of shared use paths include lessening dependence on fossil fuels, improving community health, increasing public access, and providing economic development opportunities. Since the last General Plan, the County has constructed over eight miles of shared use path along the Kapa‘a-Wailua Coast, also known as Ka Ala Hele Makalae. In addition to allowing residents and visitors to enjoy an uninterrupted traverse of the coastline or open space, shared use paths increase travel choice by providing important non-vehicular connections between towns or nodes of activity. Based on the success of Ka Ala Hele Makalae, other paths have been planned for the North Shore, South Kaua‘i, and Waimea-Kekaha.

**3.2 Increasing Recreational Opportunities through Trails**

Kaua‘i’s people have a long tradition of using trails for subsistence activities in the mountains and along the coast. Today, trails are an invaluable resource providing access not only to recreation, but to experience cultural history, hunting game animals, managing natural resources, and suppressing wildfires. The majority of Kaua‘i’s public and signed trails are maintained through the State – either State Parks or the Nā Ala Hele Program. The Nā Ala Hele Program also regulates activities, plans future trails,
and conducts maintenance activities. The Kaua‘i Nā Ala Hele Advisory Council provides a venue for public input on program implementation.

**A. PERMITTING AND CODE CHANGES**

1. Provide safe and convenient access to beaches and inland resources through the park system.

2. Identify and design new shared use paths to provide safe corridors for pedestrians and cyclists.

3. Encourage the development of accessways to the path, when development is adjacent to or near a shared use path.

4. Increase opportunities for public access to mountainous and forested areas in a way that is ecologically sustainable.

**B. PROJECTS AND PROGRAMS**

1. Complete Ka Ala Hele Makalae from Anahola to Līhu‘e.

2. Construct the Waimea-Kekaha Shared Use Path.

3. Construct the North Shore Shared Use Path.

4. Construct a South Kaua‘i Shared Use Path.

**C. PARTNERSHIP NEEDS**

1. Explore expansion of the Nā Ala Hele trail system, especially in Planning Districts without formal trails.

### 4. STATE PARKS

Kaua‘i’s more than 14,000 acres of State parks include the world-renowned Nā Pali Coast and Waimea Canyon. Several parks are Hawai‘i’s most visited with over 500,000 recreational visits a year. In addition to being major visitor destinations, State parks improve residents’ quality of life by providing access to trails, hunting areas, coastlines, and beaches. At the same time, the lack of upkeep and maintenance of State parks is a persistent issue, reducing the quality of the park experience for resident and visitor alike.

#### Objective: To improve the resident and visitor experience at Kaua‘i’s State Parks.

#### 4.1 Improving the Experience of Visitors and Residents at State Parks

The State manages nine parks on Kaua‘i, including larger parks at Kōke‘e and Waimea Canyon, and the world-famous Nā Pali Coast Wilderness Park (see Table 3-2). The County is an important partner in helping to ensure the best possible management and improvement of State Parks for the residents and visitors who use them. The degree of park-related problems is illustrated by a recent visitor survey. Approximately 85 percent of visitors were very satisfied with Kaua‘i’s beaches, whereas only 61 - 69 percent of them were very satisfied with the island’s parks.

#### 4.2 Adequately Funding State Park Improvements

In addition to traffic and parking issues, Hāena State Park, Kōke‘e State Park, and Waimea Canyon State Park are underfunded relative to the demands placed on them. For example, limited parking at Hā‘ena State Park has led to illegal parking and frustration.
for visitors and residents seeking to visit the many attractions nearby. An unmanaged parking situation has contributed to high rates of theft and vandalism at the parking lot.

State Parks has completed or is in the process of developing master plans for major parks, such as Hā'ena, Waimea, and Kōke'e. In order to implement solutions and improve park facilities per the master plans, funds will have to be provided.

### A. PARTNERSHIP NEEDS

1. Implement the Waimea Canyon, Kōke’e, and Hā’ena State Park Master Plans.

2. Complete master planning for Russian Fort, Polihale, and Wailua River State Parks.

3. Support adequate funding and staffing for capital improvements, including maintenance and enforcement for public parks, trails, and recreation areas.

4. Improve and coordinate infrastructure and transportation to reduce visitor impacts.

<table>
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<th>Park Name</th>
<th>Planning District</th>
<th>Master Plan Status</th>
</tr>
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<td>Approved in 2013.</td>
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<td>Waimea-Kekaha</td>
<td>Master plan not updated.</td>
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<td>Waimea State Recreational Pier</td>
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<td>Master plan not updated.</td>
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<td>Russian Fort Elizabeth Historical State Park</td>
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<td>Ahukini State Recreational Pier</td>
<td>Līhuʻe/East Kauaʻi</td>
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<td>North Shore</td>
<td>Draft plan released in 2015.</td>
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<tr>
<td>Nā Pali Coast State Park</td>
<td>North Shore/Waimea-Kekaha</td>
<td>Master plan not updated.</td>
</tr>
</tbody>
</table>
SECTOR: VI. ECONOMY

Kaua‘i strives to be a place where the economy is resilient, small businesses thrive, and all people have opportunities to access the education and training that lead to gainful employment. We must collaborate and find creative ways to leverage our assets so existing and new industries can grow.

Increasing Economic Opportunity for All

Over the long term, average annual job growth is projected at 1.12 percent, equating to 34,900 civilian wage and salary jobs by 2035. The number of self-employed persons is also projected to increase at a rate higher than the rest of the State. In terms of industrial growth, tourism comprises 30 percent of all employment and will likely remain Kaua‘i’s leading industry.\textsuperscript{37} Kaua‘i’s other anchor industries include healthcare (11 percent), education (8 percent), construction (6 percent), and government (6 percent).

Despite the projected job growth, economic opportunity on Kaua‘i is offset by the high cost of living. The average family of four must earn ten percent more than the rest of the State, and more than 160 percent of the State minimum wage to meet their basic needs.\textsuperscript{38} On top of this, Kaua‘i’s median household income is typically far less than the State average.\textsuperscript{39} As a result, many residents work multiple jobs, supplement income with home grown food or cottage businesses, and commute long distances to work from the neighborhoods that have affordable housing.

\textsuperscript{37} Kaua‘i Economic Summary Report, Collaborative Economics 2015

\textsuperscript{38} Self-Sufficiency Standard: Estimates for Hawai‘i 2014, DBEDT 2015

\textsuperscript{39} State of Hawai‘i Databook 2014, DBEDT 2015
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 ‘ōhana

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.
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, Kapā’a, Kapahi, Anahola, Kilauea, 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.
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.
1. TOURISM

The visitor industry is the mainstay of Kaua’i’s economy. It accounts for a third of the County’s total economic output and generates more than a quarter of the jobs. It contributes substantially to County tax revenue. The policy of the General Plan is to uphold Kaua’i as a unique visitor destination by focusing on revitalization and limiting new resort designations. This shifts the focus from expansion of the visitor industry to implementing a model of high value, low impact tourism that puts protection of the qualities and values that visitors come to experience as a high priority.

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

1.1 Managing Average Daily Visitor Count and Visitor Impacts

Every year, over 1.1 million visitors are drawn to Kaua’i’s beautiful environment and rich array of cultural and outdoor activities. Research shows that most visitors are attracted to the island’s peaceful and unhurried setting. These preferences align well with residents’ desire to preserve Kaua’i’s natural beauty and small town character.

In 2016, Kaua’i’s Average Daily Visitor Count (ADVC) was 24,797, which is more than one-third of the 2016 resident population. As much as visitors support Kaua’i’s economy, they also stress infrastructure and increase the demand for public services. For this reason, recent growth in visitor arrivals has been a concern for many residents. Over the long term, growth in Kaua’i’s ADVC has averaged 2.0% per year. However, since 2010, the ADVC has grown at an annual growth rate of 4.0% per year. (2010 ADVC: 19,548 (Figure 3-9); 2016 ADVC: 24,797 (Table 3-3)). If growth were to continue at that rate by 2035, the ADVC would increase by 112% to 52,600. However, that Kaua’i’s ADVC is highly variable year-to-year and is sensitive to global economic conditions, political conflict, and growth in other tourism markets. Recent projections by the State and industry experts estimate that ADVC will be more than 32,700 by 2030. Hawai’i’s visitor arrivals growth is also constrained by airport infrastructure and the availability and utilization of gates at Daniel K. Inouye International Airport (HNL) and the Līhu’e Airport (LIH). The Hawai’i Airports Modernization Program shows the creation of the new mauka concourse in Honolulu to accommodate gate demand during peak hours and the new larger capacity planes. However, the concourse would mainly address the future growth expected from the Asia markets such as Japan, which have not been Kaua’i’s target markets. The Modernization Program does not include increasing gates at the Līhu’e Airport.

Without these supply constraints the Kaua’i visitor arrivals and daily census forecast would follow the U.S. GDP growth rate since Kaua’i’s source has been the United States and the key variables of U.S. visitors arrivals has been personal income and GDP. The Organization for Economic Co-operation and Development (OECD) GDP forecast for U.S. GDP
ranges from +2.8% growth in 2018 to +2.0% growth in 2035. Following along that measure for a high limit boundary the average daily visitor census would reach 39,480 visitors per day in 2035.

As mentioned earlier, the 2010-2016 average daily visitor census growth rate reflects the current strong West Coast economies. Furthermore, recent damage to tourism infrastructure in competitive destinations may spur a short-lived boost in visitors. However, the visitor industry in Hawai‘i is historically very cyclical and supply side effects will soon correct the market demands.

Many feel that the current level of tourism growth on Kaua‘i is excessive and as a result creates negative social and environmental impacts. For example, the Kaua‘i Tourism Strategic Plan (2015) explained that when ADVC exceeds 25,000 there is a notable decline in both the visitor experience and residential quality of life. The traffic congestion along the highway in Wailua-Kapa‘a is an oft-cited example. Many feel Kaua‘i has hit its “carrying capacity” with regard to certain infrastructure systems, particularly the most heavily utilized parks and road networks. Acknowledgement of a tourism carrying capacity is occurring at the State level as well; the State of Hawai‘i Climate Adaptation Initiative (Act 183) calls for analysis of a maximum annual visitor carrying capacity for the State and Counties. Popular destinations such as Hā‘ena State Park are actively looking for ways to address overcrowding and other impacts.

In order to deal with tourism impacts, government and the resort industry will need to collaborate and engage in tourism management. One important step is to actively monitor and assess visitor impacts on infrastructure and facilities. By quantifying impacts, the County and State can better plan to control the impacts of excessive tourism. Tourism management includes a range of methods, from increasing the supply of recreational opportunities and facilities, reducing public use of certain resources, and changing visitor behavior through education and signage.

1.2 Managing Visitor Unit Inventory Expansion

Resort and hotel properties account for 20 percent of the total revenue from Real Property, and vacation rentals account for an additional 21 percent. Over 40 percent of the County's Real Property tax revenue comes from visitor accommodations.

However, dealing with excessive tourism also means managing the supply of visitor units. According to the 2016 Visitor Plant Inventory, Kaua‘i has 8,444 visitor units, which includes hotel units, timeshares, apartment-hotels, and individual vacation units (see Figure 3-10). This is an increase of 1,285 units from 40 County of Kauai Real Property Data, 2016
the 2000 Visitor Plant Inventory of 7,159. The majority of Kaua‘i’s visitor accommodation fall in the deluxe to luxury price range. Less than three percent of Kaua‘i’s accommodation are considered budget ( campsites are not considered to be units).

The number of total visitor units on Kaua‘i dipped following the passage of three ordinances (864, 876, and 904) that increased regulation on transient vacation rentals or units (TVRs or TVUs) outside of designated Visitor Destination Areas (VDA). The ordinances established a non-conforming use grandfathering process for the operation of TVRs outside of the VDA. Under the current law, TVRs are not allowed outside of the VDA unless they have an active Non-Conforming Use Certificate.

Kaua‘i’s visitor inventory could expand by 3,000 units, considering the amount of “pipeline” projects that have received their final discretionary permit. Given that each unit supports an average of two or three visitors, construction of these units would expand ADVC by several thousand. Although the County’s projections do not foresee a drastic expansion of the visitor population over the long term, many are concerned about the impact of such an increase on Kaua‘i’s already burdened infrastructure.

Possibly compounding the potential problem are hundreds of acres of resort-designated land without entitlements, which have the potential to further expand the inventory. There was strong support to eliminate this potential in order to first absorb and manage impact from existing “pipeline” projects. There is a need to manage tourism growth and the associated impacts through legally available means, including regulating resort uses outside the
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, Lihu‘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.
Figure 3-11 Kaua’i Visitor Destination Areas

Figure 3-12 Waimea-Kekaha Visitor Destination Areas

Figure 3-13 South Kaua’i Visitor Destination Areas
Figure 3-14 Līhu’e Visitor Destination Areas

Figure 3-15 East Kaua’i Visitor Destination Areas

Figure 3-16 North Shore Visitor Destination Areas
3. Support projects to encourage visitor transportation mode shift from single occupancy vehicles to other modes.

D. PARTNERSHIP NEEDS

1. Provide visitors with a unique, positive, culturally-rich, and safe experience on Kaua‘i. Encourage cultural sensitivity and cultural exchange.

2. Develop alternative transportation options for visitors, including shuttles and car sharing, to reduce visitor impact on our roads, highways, and scenic places.

3. Establish a County tax on rental cars to fund alternative transportation options for visitors.

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.

5. Develop and promote community programs that reinforce the unique sense of place of communities, such as those with historical and cultural significance.

6. Encourage more use of Native Hawaiian place names and increase understanding of the meanings.

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.

8. Attract new employees, especially local residents, to the visitor industry to ensure an available, well-qualified workforce.

9. Train the visitor workforce in understanding Kaua‘i’s local culture.

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.

11. Increase use of renewable fuel sources and support carbon offset programs and incentives for passengers traveling to and from Kaua‘i.

2. AGRICULTURE

Agriculture is an important element in Kaua‘i’s identity as a rural place, and it represents our greatest opportunity for economic diversification and food self-sufficiency. We can increase the productivity and profitability of all forms of agriculture by nurturing small-scale farms, promoting crop diversity, and strengthening partnerships. For this to occur, major challenges will have to be surmounted – from the upkeep of aging agricultural infrastructure to halting the tide of residential sprawl.

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

2.1 Perpetuating Kaua‘i’s Long Tradition of Agriculture

Agriculture is the history and lifeline of the Hawaiian Islands. Mālama ‘āina, caring for the land, is ingrained in the fabric and language of the Native Hawaiian culture. Maka‘ainānā means “the common people” and is translated as “those who watch that which feeds” (“that which feeds” being the land). To be occupied with the growing of food and materials for one’s ‘ohana is to be occupied with ensuring the health of the land, water, and natural systems. In i ka wā kahiko (meaning “in old times/long ago/in the age of antiquity”), a variety of lo‘i terraces, dry-land agriculture, fish ponds, and salt pans supported a large population. Some of Kaua‘i’s modern agricultural infrastructure is inherited from the ancient Hawaiians, such as taro fields and ditch systems. Traditional agricultural products such as taro, coconut, and breadfruit are still in demand and are synonymous with both healthy living and regional identity.

In 1835, the Old Kōloa Sugar Mill became Hawai‘i’s first commercially-viable sugar mill. This heralded the era of plantation agriculture where sugar and pineapple cultivation dominated the landscape. Land
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 Līhuʻe 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 Līhuʻe Plantation; however, there remain some tracts between Hanamāʻulu 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 Kilauea. 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

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42 Statewide Agricultural Land Use Baseline Study, 2015
43 Important Agricultural Lands Study, 2015
houses of the State legislature. Owners of these lands qualify for both State and County incentives, but those incentives have not been determined. The County’s IAL Study mapped potential candidate lands and set a goal for the County to lead designation of at least 21,158 acres.44 Some major landowners have voluntarily designated their lands, a total of 16,263 acres.45

County regulations limit density and subdivision on agriculture lands. Additional controls are needed to discourage development such as “gentlemen estates” – large lot agricultural subdivisions catering to a high-end market. Such development patterns are largely opposed by the community. When this type of development does occur, residences and farm dwellings should be clustered to preserve the agricultural land and open space quality, while reducing costs of infrastructure and service provision.

2.3 Improving Agricultural Water Infrastructure

The ditches and irrigation systems – vestiges of the plantation era – must be protected and restored. Without viable irrigation systems, the potential for intensive agriculture is jeopardized or lost. Irrigation reservoirs and ditches also retain and channel storm water away from settled areas. The State plans for and manages water infrastructure on State land through the State Agricultural Water Use and Development Plan. Private landowners maintain their own infrastructure, focusing on areas that are intensively farmed. Community partnerships such as the East Kaua’i Water Users Cooperative can also be instrumental in keeping irrigation systems functioning to serve agricultural operations. The condition of ditches outside those areas is variable and assumed to be deteriorating.

An emerging issue is the permitting of water diversion from streams to feed agricultural ditch systems. Many diversions have operated for a long time under a revocable State permit. However, the State now requires that such diversions obtain a water lease. The water lease application process requires environmental

44 Important Agricultural Lands Study, 2015
45 Important Agricultural Lands Study, 2015
and cultural studies, including analysis of inflow stream standards. This may result in stricter diversion limits, which will impact agricultural operations if stream flow decreases.

**2.4 Supporting Farmers and Access to Healthy Local Food**

On Kaua‘i, there is an increasing demand for locally-grown, healthy food as evidenced in the rise of farmers markets and community garden initiatives. Throughout the public process, people expressed a desire for Kaua‘i to “grow its own food” and decrease its dependence on imported food. Locally-grown food reduces the greenhouse gas emissions associated with “food miles traveled” and encourages resiliency and personal independence by reducing one’s reliance on imported products.

A strong agricultural sector will strengthen Kaua‘i’s self-sufficiency by increasing food and resource production for both local consumption and export. While opinions differ on what type of agriculture is suitable for Kaua‘i, many agree that increased agricultural production will aid food self-sufficiency and economic diversification goals. Additionally, working farms support the cultural heritage and rural identity of Kaua‘i. Food hubs are another tool used to support locally grown food. They help aggregate, distribute, and market products from local farmers. The County can support the development of food hubs, such as the Kīlauea Community Agricultural Center, or similar projects that connect people to arable land, and then farmers to buyers.

**2.5 Expanding Aquaculture**

Aquaculture has existed on Kaua‘i since the ancient Hawaiians harvested seafood from coastal fish ponds. Today Kaua‘i has limited commercial aquaculture activity, including a farm producing over 400 metric tons of shrimp per year. There is opportunity for this industry to expand and capitalize on the increased global demand for seafood and decline in access to ocean stock. Due to its potential to help diversify agriculture and the economy, the Hawai‘i 2050 Sustainability Plan includes a goal to expand the
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.
10. Include community gardens as a permitted use in residential areas.

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.

**B. PLANS AND STUDIES**

1. Consider the relationship and proximity of other land uses to agricultural land in planning efforts. Define “rural” and include its relationship to agriculture.

2. Update and implement the *Agricultural Water Use and Development Plan*.

3. Improve upon or develop a system for local and export marketing of food and primary resources.

4. Create an agriculture database of key information and indicators that would enable the monitoring of agricultural progress and growth.

5. Increase access to healthy food in underserved neighborhoods and build more equitable food systems, from cultivation to disposal.

6. Update and implement the *Kaua‘i Agriculture Strategic Plan*.

**C. PROJECTS AND PROGRAMS**

1. Provide economic development programs to promote and support agriculture.

2. Reestablish an Agricultural Specialist position with the Office of Economic Development.

3. Support the Sunshine Markets and other means of marketing Kaua‘i agricultural and food products to residents, businesses, and visitors.

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.

5. Increase incentives to lease land to small farmers through revisions to the agricultural property tax regime.

6. Improve water infrastructure for irrigation in priority areas, such as IAL.

7. Develop community food hubs, commercial kitchens, and other initiatives that provide places for community members to grow and prepare their own food.

8. Allow the use of SNAP benefits at farmers markets.

9. Reduce water rates for landowners of agricultural lands in active production.

10. Establish a County-wide composting program.

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Hanalei taro fields, North Shore District
D. PARTNERSHIP NEEDS

1. Expand commercial agriculture, attract new agricultural support and value-added industries, and promote locally-grown commodity sales.

2. Increase small-scale diversified farming, including, but not limited to, fruits and vegetables, building materials, medicinal plants, aquaculture, apiaries, flowers, and livestock.

3. Expand aquaculture and livestock farming.

4. Improve water access and infrastructure for agricultural purposes.

5. Support regional agricultural parks and centers.


7. Prepare youth for future careers in diversified agriculture and aquaculture, with additional emphasis on business skills.

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.

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.

10. Clarify the reclassification incentive provided through designation of Important Agricultural Lands (IAL).

11. Support education and cooperation relating to protection of native birds and protecting the right to farm.

3. SMALL BUSINESSES AND PROMISING ECONOMIC SECTORS

Kaua‘i is rich in entrepreneurial talent and skills that should be nurtured, cultivated, and celebrated. We depend on the success of our small businesses, which make up the vast majority of our establishments. The ability to work from home and establish cottage industries is in keeping with our values of preserving our rural communities and lifestyles. With a focus on promising economic sectors, we can encourage economic growth that is in keeping with the General Plan’s vision, goals, and policies.

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

3.1 Nurturing Entrepreneurs and Small Business

Kaua‘i’s entrepreneurial talent can be cultivated through improved access to networking, mentorship, equipment, training, and resources. Incubators and accelerators can serve this function, providing professional development services as well as shared equipment and resources. Co-working spaces create a supportive entrepreneurial community and encourage innovation and collaboration between multiple types of businesses. Access to capital and affordable office and commercial space can help small businesses scale up once they are ready to strike out on their own.

Small businesses are the basis of Kaua‘i’s economy. Over half of Kaua‘i’s businesses have four or fewer employees, and 70 percent of people work at businesses with less than 100 employees. Nurturing small businesses, particularly in the target industry clusters identified in the CEDS, will help ensure a robust and resilient economy.

46 HRS 205 Part III Important Agricultural Lands
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 Facility (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.
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.
SECTOR: VII. HERITAGE RESOURCES

From ancient heiau to Buddhist missions, heritage resources symbolize Kaua‘i’s history, showcase our diversity, and perpetuate a unique sense of place. By protecting these resources, Kaua‘i will continue to honor its history, value its Native Hawaiian heritage, and celebrate its diverse languages and cultural traditions.

Throughout Kaua‘i there is an abundance of archaeological, cultural, historic, and scenic resources. Together these resources document Kaua‘i’s storied past, cultivate a unique sense of place, and educate new generations about their history. The Heritage Resources map highlights important historic sites, including those listed on the National Register and the Hawai‘i Register of Historic Places. In addition, the map shows historic cultivation areas, priority public access points, and ahupua‘a and moku boundaries. In recognition that environmentally significant places are part of our heritage, the map also includes streams, waterbodies, coral reefs, and critical habitat.

As time goes on, our heritage resources will require more consistent and comprehensive attention to ensure their survival. Innovative ways to both protect and reuse historic resources should be utilized all while identifying new resources worthy of preservation.

This section addresses Historic Buildings and Structures and Places; Wahi Pana, Cultural Sites, and Cultural Resources; and Landmarks and Scenic Resources.
1. HISTORIC BUILDINGS, STRUCTURES, AND PLACES

Historic buildings and structures are critical to preserving Kaua‘i’s unique history, town character, and sense of place. It is our kuleana to ensure that each community’s treasured structures are preserved and celebrated.

**Objective: To preserve and enhance historic buildings, structures, and places.**

1.1 Recognizing and Designating Historic Buildings and Structures

Kaua‘i has approximately 60 buildings and complexes listed on the National Register of Historic Places and/or the Hawai‘i Register of Historic Places. From the U.S. Post Office on Rice Street to Russian Fort in Waimea, these structures are visual reminders of Kaua‘i’s past. Some roads and bridges, including pedestrian bridges and overpasses, also have unique features that are historically significant and contribute to a sense of place. Famous examples include the one-lane steel truss bridge at Hanalei River and Route 560—a narrow ten mile road between Princeville and Hā‘ena.

Designation requires review prior to demolition or renovation, and makes properties eligible for financial assistance such as grants and tax incentives. The lead agency for all aspects of historic preservation is DLNR’s Historic Preservation Division (SHPD). SHPD maintains an inventory of known historic sites and conducts surveys to identify and document new sites. Significant sites are placed on the Hawai‘i Register of Historic Places where they may then be nominated to the National Register of Historic Places.

On the local level, the Kaua‘i Historic Preservation Review Commission (KHPRC) works with landowners to recommend properties for designation. The Commission was established in 1987 to protect and promote the County’s historic resources, and maintain a County-wide inventory of historic resources. The Commission also administers the Local Certified Government program, which provides Federal assistance for historic preservation. Reviews of County permits and projects involving historic sites, structures, and districts are typically coordinated with KHPRC and SHPD.

1.2 Supporting Preservation through Standards and Incentives

In addition to the KHPRC, the County supports preservation through development standards, as well as partnerships and targeted financial assistance. Property tax assessments and the Open Space Fund are existing County mechanisms that can also incentivize preservation.

Compliance with modern building and zoning codes is often a challenge when renovating historic properties. Sensible alternatives to strict code requirements can make the difference between leaving a historic property to further deteriorate or be demolished, and allowing it to be restored and thrive with a new purpose. The historic nature of town cores can also be protected and promulgated through district-wide architectural and design standards. These ensure new development is in keeping with a town’s historic character and that redevelopment occurs in a historically sensitive manner.

A. PERMITTING AND CODE CHANGES

1. Broaden the types of uses allowed in historic structures.

2. Support the reuse and renovation of historic structures through building code amendments.

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.

B. PLANS AND STUDIES

1. Update and maintain the inventory and management plan for historic resources.
C. PROJECTS AND PROGRAMS

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.

2. Educate and encourage property owners to nominate structures and sites to the State and National Register of Historic Places.

3. Provide a real property tax exemption for historic properties, including commercial properties.

4. Explore utilizing the Open Space Fund for historic preservation purposes.

D. PARTNERSHIP NEEDS

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.

2. Establish a low-interest revolving loan fund for rehabilitation of historic properties.

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.

2. WAHI PANA, CULTURAL SITES, AND RESOURCES

Wahi Pana and the resources that support cultural practices are the foundation of Kaua‘i’s identity. Culturally significant places and sites, once destroyed, cannot be replaced. These places and the stories behind them provide vital insight to how the ancient Hawaiians lived in harmony with the land and managed the use of natural resources in a sustainable manner.

Objective: To recognize and protect the resources and places important to Kaua‘i’s history and people.

2.1 Identifying and Preserving Wahi Pana and Archeological Resources

Throughout Kaua‘i there are numerous archaeological sites that document ancient Hawaiian habitation and culture. A traditional cultural property is defined as an area or place associated with the practices and beliefs of a living community. On Kaua‘i these include heiau, burial sites, fishponds, taro fields, and places where multiple archaeological and historic features are located. Kaua‘i has 30 archaeological sites listed on the National Register of Historic Places or the Hawai‘i Register of Historic Places. Large scale archeological...
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 Oloheha 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-stewardred lo‘i of Waipā and Kē‘e 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 ʻohana or an individual as their responsibility without right of ownership.” When land was privatized in 1850, less than one percent of all lands in Hawai‘i were awarded to Hawaiian maka‘ainana 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 ʻiwi. 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 Puku‘i & Elbert 1975
Figure 3-18 Kaua’i Nui Kuapapa, Moku o Kaua’i
A. PERMITTING AND CODE CHANGES

1. Preserve, restore, and maintain customary access to important archaeological and cultural sites.

2. Create natural, landscaped buffers between archaeological sites and adjacent uses.

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.

4. Require developers to provide archaeological and cultural assessments prior to clearing or development of land in areas of historical significance.

5. Promote, encourage, and require the correct use of traditional place names.

6. Establish archaeological districts where high concentrations of sites exist.

7. Encourage restoration, management, and practitioner access for significant cultural sites on private land, as allowed by law.

8. Encourage the restoration, management, and use of Kaua‘i’s fishponds and lo‘i kalo.

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.

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.

B. PLANS AND STUDIES

1. Inventory and acknowledge the importance of archaeological sites and wahi pana during community planning processes.

2. Create an inventory of kuleana lands and describe their vulnerability to sale and development.

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.

C. PROJECTS AND PROGRAMS

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.

2. Establish historical trails, markers, and events that draw attention to the history of Kaua’i.

3. Through stewardship agreements, ensure proper management and interpretation of significant cultural resources and sites.

4. Achieve permanent preservation of highly significant cultural landscapes where multiple heritage and ecological values are located.

D. PARTNERSHIP NEEDS

1. Work with the State Historic Preservation Division and KHPRC to educate landowners about the historic preservation review process.

2. Promote County and community partnerships to preserve and raise awareness about traditional cultural places.

3. Increase community awareness and stewardship of Kaua’i’s historic and cultural resources.

4. Enhance the Hawaiian sense of place by promoting understanding of moku and ahupua’a land divisions. Recognize and preserve the unique natural and cultural characteristics of each moku and ahupua’a.

5. Seek to create community managed subsistence areas, also known as kipuka, in every ahupua’a, in the tradition of kipuka at Kē’ē and Waipā.

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.

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.

8. Implement tax breaks and support programs to prevent foreclosures on kuleana lands caused by failure to pay taxes.
3. LANDMARKS AND SCENIC RESOURCES

Certain views and landmarks define Kaua‘i’s sense of place for residents and visitors alike. The majestic peaks of Wai‘ale‘ale and Kawaikini, the dramatic ruggedness of Waimea Canyon, and the lushness of the Alaka‘i Swamp are examples of land formations that are inspiring and uplifting to experience. Preserving views of scenic landscapes is vital to sustaining Kaua‘i’s uniqueness and identity.

Objective: To preserve important landmarks and protect scenic resources.

3.1 Preserving Scenic Views and Landforms

Landforms and ocean views define our sense of space, particularly for the communities near them. For example, Nihokū (Crater Hill) is an important coastal landform near Kīlauea Town, while Hā‘upu Ridge frames the Līhuʻe District and divides it from the South Kaua‘i District. Landforms such as Kālepa Ridge and Kilohana Crater have similar framing qualities and help define and characterize nearby communities as distinct settlement areas.

Many landforms serve as landmarks and are prominent in Native Hawaiian history and ‘ōlelo. Awareness of them is fundamental to understanding and appreciating Kaua‘i’s history. Preserving mountain and ocean views does not simply entail preventing them from being totally obscured, but also means not disrupting their integrity and "intactness" with structures or other features that detract from their beauty and continuity. Preservation of landmarks, scenic resources, and heritage places is perhaps the most important aspect of maintaining the historic essence of Kaua‘i over time, regardless of population growth, development, and other changes that will occur.

The County’s ability to preserve landmarks and scenic resources depends primarily on its zoning policies and abilities to acquire land for conservation. Since public funds to acquire land are limited, future preservation of landmarks, scenic resources, and heritage places must rely first and foremost on zoning and permitting regulations.

3.2 Maintaining the Integrity of Scenic Routes

Scenic views along roadways are abundant on Kaua‘i. Kaua‘i already has one Federally recognized scenic byway, which runs through Kōloa in South Kaua‘i. Scenic byways do not just have scenic qualities, but are also recognized for their intrinsic archeological, cultural, historic, natural, and recreational features. Community Plans for each District provide an opportunity to identify specific roadways and features worthy of recognition and protection.

3.3 Protecting Exceptional Trees

Exceptional trees and groves of trees are another resource important to preserving Kaua‘i’s rural character, intrinsic beauty, history, and culture. The County’s Arborist Committee has designated 23 trees as “exceptional trees” on Kaua‘i. The State’s Exceptional Tree Act (Act 105) protects designated trees from improper trimming and unnecessary removal. Private property owners are provided a tax credit to offset the costs associated with tree maintenance.

A. PERMITTING AND CODE CHANGES

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.

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.

B. PLANS AND STUDIES

1. Identify key landmarks, exceptional trees, and scenic resources through Community Plans.

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.
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.
SECTOR: VIII. ENERGY SUSTAINABILITY & CLIMATE CHANGE MITIGATION

Energy is a critical part of progressing the goals of resilience and sustainability. So long as the majority of our energy sources are imported, Kauaʻi will contribute to fossil fuel-related emissions and remain vulnerable to global fluctuations in price and supply. Kauaʻi must continue to set an example of energy sustainability and global citizenship through emissions reduction and renewable energy targets.

Progressing Toward Energy Independence and a Carbon-Neutral Future

Kauaʻi has become a leader in energy conservation and renewable energy projects. In 2016, our ratepayer-owned electric utility, the Kauaʻi Island Utility Cooperative (KIUC), generated approximately 40 percent of its energy from renewable sources. KIUC aims to increase this percentage to 70 percent by 2030 through a mix of new biomass, solar, and hydroelectric projects. In 2017, Tesla partnered with KIUC to construct a solar farm on Kauaʻi; outfitted with Tesla Powerpacks, this facility will reduce fossil fuel consumption by approximately 1.6 million gallons per year. This will bring Kauaʻi closer to the ambitious target of 100 percent local energy sustainability set by both the State and the Kauaʻi Energy Sustainability Plan (2010). The General Plan also sets a target for reduction of all greenhouse gas emissions so Kauaʻi can do its part to mitigate climate change.

The objectives and actions for Energy Sustainability are intended to support the efforts of KIUC and renewable energy providers in reaching the goal of energy independence, and to provide enough flexibility so that strategies can adjust based on the
best available information. Climate change mitigation efforts to increase energy conservation and reduce greenhouse gas emissions are also supported.

**Energy Efficiency and Conservation**

Energy conservation and efficiency measures are equally as important as renewable generation in moving Kaua‘i toward a clean energy transformation. Innovations in several areas will help to reduce our energy load:

1. **Building Efficiency**: Buildings can become 40-70 percent more efficient with implementation of supportive codes and standards between now and 2050. This applies to existing and new buildings. The County can lead by example by investing in Leadership in Energy and Environmental Design (LEED) certified buildings, helping the local building industry to catch up with the rest of the Country in making LEED a standard practice.

2. **Energy Storage**: Bulk storage of electricity is needed to allow the utility to shift energy from periods of high production to periods of high demand. At the time of this plan, two approaches to bulk storage are under development by KIUC. They are (a) utility scale chemical batteries, and (b) pumped storage hydro. The industry is rapidly evolving, and other approaches, such as distributed storage or integration of electric vehicles, may become commercially viable in the near future.

3. **Responsive Electric Loads**: Electric utilities have traditionally provided electricity to customers whenever there is demand. In a 100 percent clean energy grid, customer demand itself will become a tool to manage the integration of variable sources of clean energy. Both price signals (time of use pricing) and demand response control at the equipment/system level will aid utilities in managing the grid.

The County has significant roles and opportunities to increase energy conservation and efficiency through code requirements, planning, incentives, and education to encourage behavioral changes by individuals and businesses.

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**1. ENERGY SUSTAINABILITY**

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

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**1.1 Conserving Energy and Becoming Sustainable**

Kaua‘i’s energy profile has evolved significantly in recent years. A combination of solar, hydro, and biomass generation projects accounted for only 13 percent of KIUC’s energy sales in 2014, but rose to over 36 percent in 2015. Renewable resources can meet an average of 77 percent of Kaua‘i’s energy demand during peak solar hours, spiking to as much as 90 percent.

KIUC has adopted an ambitious goal for renewable resources to generate at least 70 percent of Kaua‘i’s energy by 2030, surpassing the State’s goal of 40 percent. Future progress on renewables will allow Kaua‘i to become more energy self-reliant in a manner that is more environmentally sound and economically sustainable than reliance upon fossil fuels.

Renewable energy projects that integrate additional benefits besides power production are also valuable. Solar arrays that are integrated with agricultural production are one example, as are water management projects that incorporate hydropower production. Landfill sites present opportunities for methane gas production, which can be stored and used for buses on Kaua‘i.

Increasing Kaua‘i’s renewable energy production capacity also represents a potentially significant contribution towards reducing the island’s greenhouse gas emissions to help mitigate climate change.

While much of renewable energy production depends on KIUC and private sector initiatives, the County can assist with the transition to renewable energy through

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48 Roadmap to Zero Emissions, Architecture 2030

49 Kaua‘i Utility Reaches 90% Renewable Energy Utilization, 2016

50 KIUC Strategic Plan 2017
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.
2. REDUCTION OF GREENHOUSE GAS EMISSIONS

As a leader in renewable energy, Kaua‘i is transitioning from the use of fossil fuels for power generation. But we should not stop there. Doing our part to reduce carbon emissions from buildings, transportation, and other sources is our kuleana as global citizens.

Objective: To expand strategies and mechanisms to reduce greenhouse gas emissions on Kaua‘i.

2.1 Acknowledging the Paramount Challenge of Climate Change

Since the 2000 General Plan, the impacts of climate change have become more apparent. They include coastal erosion, coral bleaching, higher temperatures, more frequent wildfires, reduced trade winds, increased frequency of tropical storms, and other impacts. The severity of these impacts over time will depend in large part upon the success of the global effort to reduce greenhouse gas emissions. On one extreme is business as usual, where global average temperatures could increase more than four degrees Celsius by the year 2100, bringing much greater severity of all the aforementioned impacts and an unstable climate for centuries into the future. On the other extreme, an aggressive global effort to reduce greenhouse gas emissions could prevent average temperatures from increasing more than two degrees Celsius relative to pre-industrial levels, and could help to stabilize the climate.

Other sections of this document address the specific concerns that arise when planning for sea level rise and related impacts of climate change. This section outlines Kaua‘i’s commitment to be part of the solution to mitigating one of the factors that causes and exacerbates climate change; that is, reducing and ultimately eliminating our emissions, primarily from the burning of fossil fuels.

2.2 Setting an Example and Goal for Emissions Reductions

Policy makers at local and State levels have identified the need to reduce our dependence on fossil fuels for numerous reasons. In 1998, the State of Hawai‘i completed a climate change action plan, which states: “Hawai‘i can and should play a role in reducing its greenhouse gas emissions that contribute to climate change.” In 2007, Act 234 was signed into law, and required the State to reduce greenhouse gas emissions to 1990 levels by 2020. This milestone has already been achieved well ahead of schedule. However, much greater levels of emissions reductions are now in order.

In 2014, the State adopted the Hawai‘i Climate Change Adaptation Initiative (Act 83) to address the impacts of climate change on the State’s economy, environment, and way of life. It established an Interagency Climate Adaptation Committee to develop a Sea Level Rise Vulnerability and Adaptation Report and Statewide Climate Adaptation Plan.

In 2015, 195 countries signed on to the Paris Climate Agreement, which set a goal of limiting global temperature rise to within two degrees Celsius. To achieve this, the Agreement calls for rapid emissions reductions and full decarbonization by the second half of the century. Though the United States has signaled that they will pull out of the agreement, Hawai‘i is a member of the United States Climate Alliance which is a coalition of states committed to upholding the Paris Climate Agreement by “achieving the U.S. goal of reducing emissions 26-28 percent from 2005 levels” by 2025. In support of achieving these goals, SB 559 was signed into law in 2017 which “requires the State to expand strategies and mechanisms to reduce greenhouse gas emissions statewide in alignment with the principles and goals adopted in the Paris Agreement.”

As discussed in previous sections, Kaua‘i is already making progress in the renewable energy sector. In the ground transportation sector, Kaua‘i County has laid the foundation for similar gains. The County has retooled its roadway planning and is beginning to build and rebuild streets with increased attention to pedestrians, bicyclists, and transit. The local bus service has also continued to grow over the past decade and will be an essential component of a low-carbon ground transportation system.

The behavior and actions of individuals are critical to making these shifts happen. Like most U.S. residents,
people on Kaua‘i emit more than double the per capita world average greenhouse gas emissions per year. It is everyone’s kuleana to look at ways they can reduce their personal carbon footprint, in keeping with the spirit of Kaua‘i Kākou.

In alignment with SB 559 and Hawai‘i’s pledge to the United States Climate Alliance, the General Plan’s policy is to reduce islandwide greenhouse gas emissions by at least 26-28 percent from 2005 levels by 2025, and 80 percent by 2050. Because those targets are lower than those deemed necessary by the Intergovernmental Panel on Climate Change and the Paris Climate Agreement to keep temperature change below 2 degrees Celsius, the County should aim for the higher benchmark of 40 percent reductions by 2030. Statewide emissions for the year 2007 are shown in Figure 3-19.

Achieving an 80 percent reduction in carbon dioxide (CO$_2$) emissions will require a wholesale transformation of our electricity and transportation systems, and will have far-reaching implications for other sectors such as tourism, agriculture, and consumption of imported goods. These systems have evolved over a century of increasing access to and growth in the use of fossil fuels. By achieving this level of emissions reductions, we will do our part to prevent global average temperatures from increasing.

### 2.3 Addressing Air Travel and Transportation

While we have progressed with renewable energy production for electricity, we must address and find ways to reduce or offset the fossil fuel consumption of the transportation sector. Due to the rapid adoption of renewable energy by KIUC, 2015 marked the first year on Kaua‘i where greenhouse gas emissions from ground transportation were higher than from electricity production. In order to support the General Plan’s greenhouse gas reduction policy, Kaua‘i must reduce ground transportation emissions by 100% by 2045, with county vehicles reaching that goal by 2035. Using 2045 as a goal aligns the transportation sector with the electricity sector, which is currently mandated by HRS Section 269-92 to reach 100% renewable energy by 2045. Technological breakthroughs in electric vehicles and alternative fuels support emissions reductions, but until those technologies take hold and become affordable, reductions to

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**Figure 3-19 Composition of Hawai‘i GHG Emissions**

(Excluding Sinks, Including Aviation), 2007 (MMTCO$_2$Eq)
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...
Kaua’i’s commitment to sustainability will resonate with the values of modern travelers.

We must analyze our island energy facilities and infrastructure to identify practices and system upgrades that work toward reducing fossil fuel consumption. This will involve researching and integrating new technologies, as well as finding ways to increase efficiency or use less fuel. For example, in ground transportation, Kaua’i can make headway through broader adoption of electric vehicles. It will also be essential to reduce vehicle miles traveled through mode shift. We also need to work toward land use patterns that create higher density communities that are less auto-dependent over the long term. The General Plan actions for Climate Change Mitigation support these goals.

A. PERMITTING AND CODE CHANGES

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.

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.

3. Accelerate the transition to alternative, carbon-free 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.

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.

5. Support continued reductions in emissions from local energy production.

B. PLANS AND STUDIES

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.

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.

3. Conduct a greenhouse gas emissions inventory for the County.

C. PROJECTS AND PROGRAMS

1. Establish capture and containment of methane at all landfills and County waste facilities.

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.

3. Support the expansion of electric vehicle charging station infrastructure at County facilities.

D. PARTNERSHIP NEEDS

1. Share best practices regarding climate planning, including support for system-wide carbon fees or taxes at the state or national level.

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.

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.

4. Support the expansion of electric vehicle charging station infrastructure at strategically accessible locations along the main highway and other major thoroughfares.

190 KAU'A'I COUNTY GENERAL PLAN
SECTOR: IX. PUBLIC SAFETY & HAZARDS RESILIENCY

Educating our people and practicing public safety and preparedness for hazards is part of what it means to live on Kaua‘i. The better prepared each of us are to do our part, the safer and more resilient we will be as a whole.

Planning for Hazards and Resilience

As an island susceptible to a host of natural hazards, Kaua‘i is committed to becoming a disaster-resilient community. In June of 2015, Mayor Bernard Carvalho signed an executive order “To Sustain Kaua‘i as a Disaster Resilient Community.” The General Plan broadens “resilience” to include economic resilience, community health, and the many other factors that influence how well a community can withstand and recover from disasters. This sector focuses on public safety and hazards resiliency. Maps showing hazard areas around the island and critical public facilities are included in Chapter 5.

Hazard mitigation refers to actions and measures taken before an emergency occurs and includes any activity to reduce the impacts from a disaster. It reduces the damages and costs of response and recovery, allowing communities to more quickly bounce back. Assessing risks is a key component in identifying the actions that can be taken to mitigate negative impacts.

Supporting and protecting the facilities and systems needed for recovery is a key part of the equation. Harbors and airports need to be maintained so that they can withstand severe events. Roads, power plants, and critical infrastructure located in high
hazard areas should be relocated to less vulnerable areas. If relocation is not possible, then they should be hardened. Buildings must follow the most recent codes and wind loading requirements. Emergency warning systems and communications systems need to be kept in good working order. Small businesses, as the backbone of Kauaʻi’s economy, should have continuity plans and assistance so they can bounce back quickly following disasters.

1. POLICE, FIRE, OCEAN SAFETY, AND EMERGENCY SERVICES

Our first responders are critical to maintaining health and safety on our island. As the population grows, we need to do our part to ensure that police, fire, and emergency services are supported and that our resident and visitor populations are educated about ocean safety and fire prevention.

Objective: To ensure adequate coverage of public safety and emergency services as Kauaʻi grows.

1.1 Ensuring the Safety of the Resident and Visitor Population

Kauaʻi’s police, fire, and emergency services departments provide a wide range of security and emergency response duties for residents and visitors. Kauaʻi’s three police stations are located in Hanalei, Waimea, and Līhuʻe, with a force of 161 police positions. Kauaʻi had a ratio of 1.79 officers for every 1,000 persons in 2015 (including residents and visitors), but the size of the police force has not expanded in over 25 years. In order to achieve the national average for police presence, Kauaʻi would need to add 109 officers by 2035 to service the projected residential and visitor population.51

Kauaʻi’s Fire Department responds to multiple types of hazards, including structural and outdoor fires, ocean and backcountry rescues, aircraft accidents, and hazardous materials emergencies. The Department also conducts fire inspections and investigations, and handles fire code review and enforcement. There is at least one station in each planning district capable of addressing all basic fire and medical calls. Kauaʻi had 135 firefighters in 2015, which translates to two firefighters per 1,000 persons. This ratio is favorable compared to the national average of approximately 1.76 firefighters per 1,000 persons. This level of expansion would require adding two or three new fire stations, most likely in Kīlauea, Kōloa, and Līhuʻe. A related infrastructure issue is that certain bridges are undersized to handle larger emergency response vehicles.

The Fire Department’s hazardous materials (hazmat) operations were previously focused on environmental accidents in industrial centers and on transportation corridors. With the increased national focus on terrorism since 2001, current hazmat responsibilities must also address chemical, biological, radiological, nuclear, and environmental hazards from foreign or domestic terrorism. The needed skills sets and testing equipment to address these responsibilities have required significant additional training.

1.2 Promoting Ocean Safety

As a community with substantial marine recreational activity, the Fire Department’s role in ocean safety is extremely important for residents and visitors. Kauaʻi’s shorelines are popular and attractive for swimming, surfing, and other water sports. They are also notoriously dangerous, particularly for weaker and inexperienced swimmers. The Fire Department is responsible for the Ocean Safety Bureau, which includes ten lifeguard towers, three jet-ski operations around the island, and 45 Water Safety Officers. Education and community awareness programs also support improved water safety.

A. PERMITTING AND CODE CHANGES

1. Maintain effective levels of public safety services to protect the growing population.

2. Upgrade and enhance facilities to address existing vulnerabilities and support necessary growth in emergency response personnel.

51 Adequacy of Future Infrastructure Analysis, 2016
B. PROJECTS AND PROGRAMS

1. Upgrade bridges in key areas to ensure emergency vehicles can service all residents and visitors.

2. Construct new fire stations to accommodate anticipated growth in the firefighting force.

3. Strive to attain a police force, firefighting force, and water safety officer force whose coverage meets or exceeds national standards.

4. Support continuous training for all emergency response officers.

5. Encrypt County radio communications systems.

C. PARTNERSHIP NEEDS

1. Support the State and County’s coordinated response system to wildfires.

2. Implement and update the Kaua‘i Community Wildfire Protection Plan.

3. Strengthen hazard monitoring systems, such as stream flow and river gauges.

4. Participate in quarterly disaster response training and exercises.

2. HAZARDS RESILIENCY

There is probably no greater challenge to a community’s resilience than a natural disaster, like Hurricane ‘Iniki which struck Kaua‘i in 1992. Hurricane ‘Iniki affected all community members, regardless of their age or economic status. Strengthening resilience to these types of events will require the community and County government to function as one ‘ohana. Hazards resiliency is built on coordination amongst the community, all levels of government, and the private sector to mitigate against, prepare for, respond to, and recover from natural disasters, acts of terrorism, and other threats and hazards.

Objective: To ensure that Kaua‘i is resilient to natural disasters and other emergencies.

2.1 Responding to Natural Disasters and Emergencies

Kaua‘i’s most common natural hazards include flooding, wildfires, storm surges, tsunamis, and hurricanes. The Hazard Map identifies vulnerable areas including extreme tsunami and tsunami evacuation zones, wildfire risk areas, and flood zones. Dams, critical facilities, and emergency shelters are also shown.

The Kaua‘i Emergency Management Agency (KEMA), Police Department, Fire Department, State DLNR, and Army National Guard have extensive responsibilities in the event of natural disasters. It is important that first responders have effective communications systems, high levels of training, and emergency supplies that are well protected.

KEMA coordinates the County response to all hazardous weather events and operates a network of evacuation shelters in partnership with the Department of Education and the American Red Cross. KEMA works with Federal agencies such as
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/
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.
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.
6. Improve data gathering and accounting for risk and vulnerability assessments for wind, droughts, and wildfires.

7. In assessing telecommunications vulnerabilities and planning pre-disaster preparedness measures, consult with the Utility Disaster Preparedness and Response Group for advice and recommendations.

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.

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.

10. Reduce “flash fuels” such as dry vegetation in high use areas and encourage vegetation clearing and clean-up programs.

11. Assess the need for specialized accommodations at shelter facilities to improve accessibility for special needs groups and pet owners.

12. Ensure the capacities of shelters, infrastructure, and critical facilities can accommodate the population exposed to catastrophic events.

Figure 3-20 Impacts of Climate Change on Kaua’i

Source: Pacific Islands Regional Climate Assessment
according to recent census numbers, projected growth models, and projected hazard scenarios.


3. GLOBAL WARMING AND CLIMATE CHANGE ADAPTATION

Climate change and its associated symptoms will have wide-ranging impacts on Kaua‘i’s environment, economy, and way of life. Understanding and incorporating the best available information on climate change is critical to planning effectively and taking proactive measures to adapt to climate-related changes.

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

3.1 Anticipating Climate Change Impacts

There is substantial documentation of global warming trends over previous decades, but predicting the exact rate and timing of future warming and associated sea level rise is difficult. Based on the best available science, we should plan for three (3) feet of sea level rise by the latter half of the century. It is important to note that this estimate may be conservative, as some studies project upwards of six (6) feet of sea level rise by 2100. The greatest uncertainty surrounding the projections is the rate and magnitude of ice sheet loss primarily from Greenland and West Antarctica. Further, the rate and magnitude of sea level rise is dependent on worldwide efforts to reduce greenhouse gas emissions. Given the range of uncertainty, a scenario-based planning approach that utilizes a range of SLR projections and uses a risk tolerance metric when choosing a SLR planning target for a project. For example, new infrastructure with a long anticipated life would represent very low risk tolerance while shorter-term, low-cost infrastructure that is adaptable and/or moveable could tolerate a greater risk.

Coastal areas are expected to experience the greatest amount of change, which in turn will impact the roughly 20 percent of Kaua‘i residents who live near the shoreline. There are many pieces of critical infrastructure along the coast and in low-lying areas, including roads and bridges, harbors, wastewater and storm water systems, potable water systems, and energy facilities. Climate change could impact several other aspects of Kaua‘i’s environment, economy, and daily life, such as agricultural production, tourism and recreation, and wetlands or other important natural habitats.

Climate change is also prompting the movement of people away from vulnerable coastal areas, and in some cases, whole islands. The State of Hawai‘i has already received some of the world’s first climate immigrants from low-lying Pacific nations such as the Marshall Islands and Micronesia.

Climate change can also impact food security, as evidenced by the widespread and severe droughts in California over the past several years. With approximately 90 percent of our food being produced outside of Hawai‘i, this is an important issue for Kaua‘i. Kaua‘i residents will be facing these challenges for decades and even centuries into the future.

Water supply may also be impacted by climate change, especially if Hawai‘i’s rainfall patterns are disrupted or if salt water intrudes into any low-lying water wells. Kaua‘i’s arid environments, such as the West Kaua‘i plateau, may become drier and may impact agriculture as well. Ocean acidification will also impact marine environments — such as coral reefs — thus having a great impact on Kaua‘i’s fisheries. Figure 3-20 depicts the various impacts that climate change could have on Kaua‘i’s natural and built environment.

3.2 Planning for Adaptation

The Kaua‘i Climate Change and Coastal Hazards Assessment (2014) was prepared as a technical study for the General Plan. It discusses the likely coastal hazard impacts of climate change and suggests measures for adaptation, resiliency, and mitigation. The Kaua‘i Multi-Hazard Mitigation and Resilience Plan (2015) also examines natural hazards with an emphasis on an integrated and collaborative approach to risk reduction and building community resiliency.

52 As Pacific Islands Flood, A Climate-Driven Exodus Grows, Scientific American, 2013
Initial mapping of sea level rise (SLR) inundation in selected areas of Kaua‘i was done utilizing data from the NOAA Digital Coast Sea Level Rise Viewer. The areas modeled include 1 foot, 3 foot, and 6 foot SLR scenarios for shorelines in Waimea, Hanapēpē, Poʻipū, Nāwiliwili, Wailua, Kapa‘a, Anahola, Hanalei, and Hā‘ena. Appendix D includes SLR maps of these areas. They illustrate the types of impacts that might occur, and act as a screening tool to identify vulnerable areas that may require further study, or where dense development should be avoided. The maps only depict still water flooding and do not show erosion or wave inundation impacts. They serve as an interim planning and assessment tool until new hazard maps are released by University of Hawai‘i researchers. This data, combined with FEMA flood maps, was used to evaluate and refine the General Plan Land Use Maps in Chapter 5.

Responding to climate change will require a comprehensive approach with actions that cut across many sectors. Since the rate and extent of climate change is uncertain, an “adaptive management” approach is best suited to deal with the inherent uncertainties. Also needed is a framework to address the impacts of climate change. Adaptive management is dependent on the constant and thorough monitoring of climate change variables, building and revising different scenarios, and developing flexible response mechanisms and actions. One recent County action was to revise the shoreline setback ordinance by an additional 20 feet to account for sea level rise and associated impacts. The shoreline setback ordinance should be revisited over time as new sea level rise information and projections become available.

Effectively dealing with climate change will require cooperation and participation by all Kaua‘i residents, businesses, institutions, and government. Because the General Plan influences the earliest stages of the development process, it provides an important opportunity to prevent and mitigate the impacts of potential future disasters associated with climate change.

A. PERMITTING AND CODE CHANGES

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 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.

2. Regularly review and refine relevant policies, rules, and regulations based on the most currently available climate and hazard science and projections.

3. Identify lands/areas that may serve as buffers from coastal hazards and restrict development within them.

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.

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.

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.

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.
The General Plan’s goals include Kaua‘i being a place with healthy and resilient people, and to be an equitable place with opportunity for all. These goals mutually reinforce and are essential to the overall 2035 Vision.

Quality of life is impacted by the built environment. Environmental factors include the affordability of housing; the ability to walk or bicycle to key destinations; the safety of streets, parks, and schools; access to health care and public services; the availability of healthy foods and quality education; and access to recreational areas that support active lifestyles. When improving the built environment it is vital that the wellbeing and health of vulnerable populations, such as our keiki and kūpuna, are considered.

This section addresses Social Equity, Access to Quality Education and Training, Community Health, and Access to Recreational and Subsistence Activities. These issues touch all of society across different communities, generations, and ethnicities. They are crosscutting by nature, and have far-reaching impacts on our lives. The proposed actions are focused on increasing community resilience and bettering health outcomes through improving the natural, built, and social environment.

Bon Dance in Puhi, Līhu‘e District
Figure 3-21 Social Equity Map

- Planning District Boundary
- Major Roads
- Roads
- Priority Equity Area

<table>
<thead>
<tr>
<th>Impoverished Population %</th>
<th>Minority Race %</th>
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<tbody>
<tr>
<td>2.6% - 5%</td>
<td>&lt; 35%</td>
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<tr>
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<td>35.1% - 50%</td>
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<tr>
<td>15.01% - 20%</td>
<td>65.1% - 80%</td>
</tr>
<tr>
<td>20.01% - 23.8%</td>
<td>80.1% - 100%</td>
</tr>
</tbody>
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1 in = 4 miles
1. SOCIAL EQUITY

Social equity is critical in promoting healthy and diverse communities on Kaua‘i. We can achieve this by expanding access to economic opportunity, quality education, affordable housing, and health services, and ensuring that no racial or income group is unfairly disadvantaged.

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

1.1 Celebrating Kaua‘i’s Diversity by Addressing Equity Issues

Recognizing, celebrating, and serving all forms of diversity contributes to a sustainable society. Kaua‘i has an extremely diverse population by national standards with 67 percent of the population identified as a minority race. Demographic shifts are also occurring, with changes in household composition and increases in the percentage of the population aged 65 and older. As a multiracial community, Kaua‘i values its diversity and recognizes the need to embrace all cultures. However, there are still inequities in health, economic status, and access to housing, education, jobs, and services. Moreover, some of these inequities are concentrated in specific communities.

Given these inequities, the County should ensure equitable access to housing, transportation, parks, and facilities. By increasing investment and focusing improvements in disadvantaged communities, overall community wellbeing and health will improve. This also means expanding choices and services to those with limited options. In addition to infrastructure investment and services, the County should look for ways to increase community engagement in disadvantaged communities and with groups not well represented in planning processes.

1.2 Caring for Our Most Vulnerable

The General Plan prioritizes the needs of those that are the most vulnerable and marginalized through identifying priority equity areas around the island (Figure 3-21). The map shows the priority equity areas, and the Census Designated Places with high percentages of minority households and households experiencing poverty.

- Līhuʻe-Puhi-Hanamāʻulu (Līhuʻe District)
- Anahola (East Kauaʻi District)
- Kōloa (South Kauaʻi District)
- Hanapēpē-ʻEleʻele (Hanapēpē-ʻEleʻele District)
- Kaumakani (Waimea-Kekaha District)

1.3 Strengthening Community Networks

Strong community networks are essential for healthy and resilient communities. This means individuals, organizations, and businesses that know and take care of one another in the spirit of kākou. It means a healthy ecosystem of non-profit and community-based organizations that can strengthen and enhance government efforts to address social issues through partnerships. It also means healthy individuals and families that can meet their basic needs so that they can care for one another and their greater community.

Conditions such as poverty, lack of education, crime, houselessness, discrimination, and violence erode our community relationships. Sprawling growth that moves people and businesses away from town centers weakens rural communities. Weaker social networks and less cohesive neighborhoods are associated with higher rates of violent crime and health issues including depression, smoking, and alcohol and drug abuse.

Vibrant, cohesive neighborhoods provide people with opportunities to gather, meet, and converse in public places. This includes venues for art and culture, ample public spaces, pedestrian-oriented streets, and community events that bring people together and inspire civic pride. Strategies to support this are included in the sector actions for Housing, Shared Spaces, Transportation, and Heritage Resources.

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53 U.S. Census Bureau, 2010
1.4 Protecting Native Hawaiian Rights

There is a statewide movement to restore Native Hawaiian rights and lands, to obtain reparations for past and ongoing use of trust lands, and to attain a sovereign Native Hawaiian government. It is important to set forth Native Hawaiian rights and to define the role of the County government in this movement. Under the State Constitution and the County Charter, the County of Kaua‘i is empowered to promote the health, safety, and welfare of all inhabitants without discrimination as to ethnic origin. As part of carrying out its responsibilities under the Constitution and the Charter, the County recognizes the rights of Native Hawaiians and laws concerning lands and waters that have been established through the State Constitution, State and Federal laws, and State and Federal court decisions. No County ordinance or rule shall modify or diminish these rights:

- Native Hawaiian water rights provided under the State Water Code, Hawai‘i Revised Statutes (HRS) Chapter 174C.
- Kuleana lands, water rights, and access rights provided under the Kuleana Act of 1850, as recognized in current statutes, rules, and court decisions. For example, the County must allow construction of a house on kuleana land, regardless of County zoning.
- Konohiki and hoa ‘āina fishing rights provided under the 1839 Law of Kamemeha, as modified by subsequent legislative acts and court decisions.
- Traditional and customary rights of Native Hawaiians, such as for access and gathering, provided under the State Constitution and HRS, and as interpreted by the courts.
- Burial rights provided under the Hawai‘i Historic Preservation Act and the Federal Native American Graves Repatriation Act.
A. PERMITTING AND CODE CHANGES

1. Limit the proliferation of predatory lending establishments through licensing and zoning powers.

2. Expand and preserve affordability in neighborhood centers around the island through zoning, incentives, and development.

3. Provide affordable housing in proximity to community resources and services.

4. Mitigate impact to Native Hawaiian traditional and customary practices and the resources they rely on through district boundary amendments and zoning amendments.

B. PLANS AND STUDIES

1. Complete a study to establish ratios for different categories of housing for workforce (less than 140 percent of median income), elderly, and disabled.

C. PROJECTS AND PROGRAMS

1. Develop funding sources to expand, improve, and maintain high-quality transportation, water, parks, broadband, and other infrastructure in underserved neighborhoods.

2. Leverage infrastructure investments to bring jobs and housing opportunities to underserved communities.

3. Increase access and affordability of public transit for youth and other transit-dependent populations.

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.

5. Establish health and opportunity criteria for prioritizing County programs and policies.

6. Establish community standards for wages and
benefits, ensure fair scheduling, and support worker organizing.

7. Ensure fair hiring, equal pay, and equitable promotion opportunities within the County workforce.

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.

9. Target economic development efforts to encourage high-opportunity industries that have potential for growth and to create jobs for people with less than a four-year degree.

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.

D. PARTNERSHIP NEEDS

1. Ensure low-income students receive quality public education through strategies including comprehensive, place-based cradle-to-career initiatives.

2. Support reform to school disciplinary policies to keep youth in school and on track to graduate.

3. Partner with Kaua‘i Community College for workforce development and training programs and apprenticeships.

4. Foster racially and economically integrated neighborhoods.

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.

2. ACCESS TO QUALITY EDUCATION AND TRAINING

The policy to nurture our keiki demands a strong, comprehensive, and quality education system. A positive educational experience encourages children to become lifelong learners who contribute to their communities and the world. Ultimately, education must provide our children, teens, college students, and adults with the knowledge and skills needed to obtain a well-paying job on Kaua‘i.

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

2.1 Increasing Access to Early Education and Care

Accessible daycare and preschool is a significant community need. In 2015, there were 27 licensed preschools and 36 licensed family child care homes on Kaua‘i. The combined capacity of these facilities is 1,100 children, which contrasts with Kaua‘i’s population of approximately 4,400 children under five years old. Most preschools and child care homes have a long waitlist. Exacerbating the demand for preschool is a change in State law that raised the age limit for Kindergarten.

2.2 Providing Quality Education and Facilities from K-12

The Kaua‘i District’s 14 public schools are administered by the State Department of Education (DOE), which controls budgeting, administration, standards, and curricula. The State DOE began a strategic planning process in 2012. The 2017-2020 Strategic Plan for the State DOE is focused on making students ready for college, career, and community life. School performance is measured through reports, which consider test results, attendance, safety, and many
### Table 3-4 Hawaiian Immersion Charter Schools

<table>
<thead>
<tr>
<th>Name</th>
<th>Grades</th>
<th>Type</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ke Kula o Niʻihau</td>
<td>K-12</td>
<td>Public Charter</td>
<td>Emphasis on perpetuating the language and culture of Niʻihau.</td>
<td>Kekaha</td>
</tr>
<tr>
<td>Kula Aupuni Niʻihau a Kahelelani Aloha (KANAKA)</td>
<td>K-12</td>
<td>Public Charter</td>
<td>Emphasis on acquisition of English and functional skills while sustaining Niʻihau language for native speakers.</td>
<td>Kekaha</td>
</tr>
<tr>
<td>‘Aha Pūnana Leo o Kauaʻi</td>
<td>Pre-K</td>
<td>Private</td>
<td>Immerses 3-4 year-olds in Hawaiian language and provides curriculum through a cultural- and ‘ohana-oriented context.</td>
<td>Puhi</td>
</tr>
<tr>
<td>Kawaikini New Century Public Charter School (NCPCS)</td>
<td>K-12</td>
<td>Public Charter</td>
<td>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.”</td>
<td>Puhi</td>
</tr>
<tr>
<td>Kanuikapono</td>
<td>K-12</td>
<td>Public Charter</td>
<td>Provides programs designed to improve the educational achievements of youth and families through Hawaiian culture and nature-based programs.</td>
<td>Anahola</td>
</tr>
</tbody>
</table>

Others. Between 2000 and 2015, Kauaʻi 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, Kauaʻi 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. Kauaʻi’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 Kauaʻi’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 Kauaʻi-specific learning opportunities.
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.

‘Aʻohe 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 Līhuʻe, 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 Līhuʻe, 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.
A. PERMITTING AND CODE CHANGES

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.

2. Have developers pay their share of all costs needed to provide adequate school facilities for the children anticipated to live in their development.

3. Support the use, expansion, and development of family childcare homes, preschools, parent/child kindergarten readiness programs, and charter schools.

B. PROJECTS AND PROGRAMS

1. Prioritize pedestrian, bicycle, and road safety improvements around and adjacent to schools.

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 Līhuʻe and Kapaʻa.

C. PARTNERSHIP NEEDS

1. Treat schools as community resources for learning about specialized environmental, cultural, and historic subjects pertinent to Kauaʻi.

2. Support community use of schools during non-school hours, such as recreational centers, meeting facilities, and emergency shelters.

3. Design school facilities to facilitate community use during non-school hours.

4. Retrofit existing facilities and design and construct new schools to serve as hurricane shelters.

5. Support the Keiki to Career Kauaʻi programs and activities.

6. Continue and expand the Safe Routes to School program to encourage healthy, safe, and active living.

7. Support increased enrollment at Kauaʻi Community College and the development of supportive housing, transportation, and facilities for students, staff, and faculty at the Puhi campus.

8. Support both public and private educational programs that emphasize the Hawaiian language and Native Hawaiian culture, science, and practices.

3. COMMUNITY HEALTH

Community health is improved when the built environment supports active lifestyles and when people have access to the resources and information they need to make healthy choices and manage their health.

Objective: To improve community health through a “Health in all Policies” approach.

3.1 Improving Community Health through Planning and Collaboration

A healthy and resilient people is one of the General Plan’s overarching goals. While Hawaiʻi typically ranks high in national health surveys, Kauaʻi faces serious public health issues. For example, the rates of obesity, teen births, suicide, and motor vehicle crashes are either increasing or above the State average. Moreover, these impacts are inequitably distributed across Kauaʻi’s diverse racial and ethnic groups. On Kauaʻi, the lead public health agency is the Kauaʻi District Health Office of the State Department of Health. Its role includes chronic disease management and control, communicable disease control, developmental disabilities, environmental health, and family health services.

However, on Kauaʻi and throughout the world, traditional concepts of public health have evolved to bring new partners to the table. Given the importance of the physical environment and social determinants on health, a new approach called “Health In All Policies” (HIAP) seeks to integrate health and equity considerations into policy and systems. For example, a growing body of scientific evidence has correlated the design of the built environment with public health outcomes. It is now a best practice in planning to support land use and community design strategies that encourage physical activity and reduce automobile dependency. On Kauaʻi, the State’s

54 Gallup-Healthways, 2017
55 Kauaʻi Community Health Needs Assessment, 2013
56 CDC Task Force on Community Preventative Services, 2004
Physical Activity and Nutrition Plan (2009) has brought planners, public health professionals, and community members together to develop active living strategies through Get Fit Kaua‘i – the Healthy Eating, Active Living (HEAL) Community Coalition of Kaua‘i County.

The work of promoting active community design has been reinforced through the Kaua‘i Community Health Improvement Initiative (KCHII) (2013), which established a health improvement framework for Kaua‘i. The KCHII utilizes the ahupua’a model to recognize that the “upstream” and “midstream” influences of health include socioeconomic conditions, health care, and the built environment. The five priority themes include community design and planning, housing, health and wellness, medical care, and education and lifelong learning. These themes informed the objectives and actions of the Housing, Shared Spaces, and Opportunity and Health for All sectors.

3.2 Improving Access to Health Care and Preventative Services

Access to health care means ensuring all of Kaua‘i’s residents, even in rural areas, have convenient access to health clinics, acute care, and emergency services. Kaua‘i is currently served by three hospitals: Wilcox Medical Center in Līhu‘e, Samuel Mahelona Memorial Hospital in Kapa‘a, and the Kaua‘i Veterans Memorial Hospital in Waimea. All three facilities provide 24-hour emergency care. The facilities at Wilcox are privately run, while the Hawai‘i Health Systems Corporation manages the other facilities. The North Shore will be served by an urgent care clinic that is currently under construction.

Preventative care is another facet of overall wellness. Many chronic diseases can be prevented through upstream interventions including screening, early detection, and management of diseases such as breast cancer, cervical cancer, diabetes, elevated cholesterol, hypertension, colorectal cancer, and HIV. Access to reproductive health services is another need given the higher than average teen pregnancy rate and a high unintended pregnancy rate among the general population.
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. 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. 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.

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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.

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57 2015-2020 Kaua’i Drug Response Plan
58 Climate Change and Health Working Group Report, 2015
D. PARTNERSHIP NEEDS

1. Implement and update the State Physical Activity and Nutrition Plan.

2. Support pilot programs for community gardens and nutrition education programs.

3. Provide anti-tobacco education in schools.

4. Increase access to programs that provide reproductive health and family planning education and services.

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.

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.

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.

8. Anticipate and plan for the health impacts of climate change.

9. Increase access to mental health services and the availability of mental health providers.

10. Support the Malama I Na Pua health and wellness program for Native Hawaiian youth.

4. ACCESS TO RECREATION AND SUBSISTENCE ACTIVITIES

Some of Kaua‘i’s most unique and treasured areas are either located on or accessed through privately owned property. Access to these areas for both recreational and cultural purposes, including subsistence activities, is important to the community. At the same time, access should be balanced with education and stewardship. The State and County regulatory system protects and creates public access through the subdivision, shoreline setback, and SMA laws. However, many feel access is greatly restricted and declining in certain areas through limited parking, lack of signage, no maintenance, and inconsistent enforcement – the effects of which are compounded by increased resident and visitor use. There is also concern regarding restricted vehicular and pedestrian access to the shoreline and other places locked by privately owned land, such as waterfalls.

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

4.1 Improving Access to the Shoreline

By law, the shoreline is accessible and held in trust for the benefit of the public. State law protects lateral shoreline access, which is also referred to as a public beach transit corridor that exists seaward of the shoreline. Shoreline vegetation, when unmaintained or manipulated by private landowners, can restrict lateral access. Access concerns are also compounded by beach narrowing from erosion, whose rates are anticipated to increase as sea level rise occurs. Additionally, another concern was the lack of signed public accessways to the shoreline (versus access along the shoreline) and inadequate parking at popular access points. In some cases, public access
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.
C. PROJECTS AND PROGRAMS

1. Acquire priority projects identified by the Open Space Commission.

2. Pursue easements, acquisitions, and landowner agreements to expand trails, access, open space, protection of coastal lands, and wilderness areas.

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.

D. PARTNERSHIP NEEDS

1. Inventory and improve hunting access to Forest Reserves and government trails.

2. Seek funding for trail acquisition, development, and maintenance through the Nā Ala Hele Program and the Hawai‘i Tourism Authority.

3. Focus trail acquisition in areas with a low number of public trails compared to the population, including South Kaua‘i, Lihu‘e, Anahola, and Hanapēpē-Ele‘ele.

4. Improve public access to landlocked State land that is managed by DOFAW. Increase recreational opportunities in these areas.

5. Use surfing reserves to protect access to surf breaks, improve parking for surfers at key surf destinations, and provide appropriate signage.

6. Increase opportunities for access to subsistence hunting, fishing, and gathering.

7. Manage lateral shoreline access concerns, including vegetation that encroaches on the beach transit corridor.

8. Develop more ATV, motorcycle, and mountain bicycling facilities so such activity is focused in areas not vulnerable to environmental damage.

9. Develop a public shooting range.

10. Promote access with kuleana through stewardship agreements, work days, jobs, and other means, to engage community members in caretaking.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Draft Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To accommodate and support Kauaʻi’s projected population growth and housing needs.</td>
<td>Conformance with population allocations</td>
</tr>
<tr>
<td>2. To meet future housing needs through “missing middle” housing types that are affordable by design.</td>
<td>Building type of new residential units</td>
</tr>
<tr>
<td>3. To protect rural character by ensuring new growth designed to be compact and focused around existing town cores.</td>
<td>Consistency with the Future Land Use Map</td>
</tr>
<tr>
<td>4. To manage land use and development in a manner that respects the unique character of a place.</td>
<td>Development under Special Planning Areas</td>
</tr>
<tr>
<td>5. To locate residential growth in and near jobs centers.</td>
<td>Housing units within 1/2 mile of major jobs centers Reduction in average commute time</td>
</tr>
<tr>
<td>6. To increase overall community health through design that supports safe and accessible parks, streets, and other shared spaces.</td>
<td>Non-commute mode share</td>
</tr>
<tr>
<td>7. To encourage the development of Līhuʻe as Kauaʻi’s primary urban center within an urban edge boundary.</td>
<td>Development within Urban Edge Boundary</td>
</tr>
<tr>
<td>8. To increase resiliency by limiting new development in areas impacted by future sea level rise.</td>
<td>Development in flood zone/sea level rise impacted areas</td>
</tr>
<tr>
<td>9. To conserve the upper watershed and restore native habitat and forested areas.</td>
<td>Acres of Native Watershed under high level protection*</td>
</tr>
<tr>
<td>10. To protect, restore, and enhance freshwater resources to support aquatic, environmental, and cultural resources.</td>
<td>Increase in fresh water capacity by 100 mgd*</td>
</tr>
<tr>
<td>11. To preserve and protect sandy beaches and public access to the shoreline.</td>
<td>Health of reefs</td>
</tr>
<tr>
<td>12. To protect the flora and fauna unique to Kauaʻi and Hawaiʻi and to mitigate the impact of invasive species.</td>
<td>Manage Federally listed threatened and endangered species*</td>
</tr>
<tr>
<td>13. To increase housing opportunities for low- to moderate-income households.</td>
<td>New affordable housing units</td>
</tr>
<tr>
<td>14. To support mixed use, higher density, and walkable development in existing towns.</td>
<td>New Housing Units in Neighborhood General and Neighborhood Center</td>
</tr>
<tr>
<td>15. To develop compact, walkable communities consistent with the Future Land Use Map.</td>
<td>Entitled projects consistent with Future Land Use Map</td>
</tr>
<tr>
<td>16. To expand housing opportunities for workers on farms.</td>
<td>New farm worker housing units</td>
</tr>
<tr>
<td>17. To support the Department of Hawaiian Home Lands in their mission to provide housing to their beneficiaries.</td>
<td>New lots awarded in DHHL communities</td>
</tr>
<tr>
<td>Objective</td>
<td>Draft Measures</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>18. To accommodate the needs of an aging population through age-friendly community design and assisted living facilities.</td>
<td>New elderly housing units or assisted living facilities</td>
</tr>
<tr>
<td>19. To reduce Kaua‘i’s population of those who are houseless and at risk for houselessness.</td>
<td>Houseless population</td>
</tr>
<tr>
<td>20. To reduce the impact of resort uses on communities outside the Visitor Destination Area.</td>
<td>Attrition of nonconforming use</td>
</tr>
<tr>
<td>21. To safely and efficiently move people and goods with a choice of transportation options.</td>
<td>Mode shift in overall trips</td>
</tr>
<tr>
<td>22. To provide a safe and accessible County road network that supports the Future Land Use Map.</td>
<td>New roads or retrofits designed to be context sensitive</td>
</tr>
<tr>
<td></td>
<td>Crashes with fatalities</td>
</tr>
<tr>
<td>23. To enhance the viability of transit as a transportation choice for residents and visitors.</td>
<td>Transit ridership</td>
</tr>
<tr>
<td>24. To create connected and safe bicycle networks that accommodate all riders.</td>
<td>Miles of bicycle facilities</td>
</tr>
<tr>
<td></td>
<td>Bicycle crashes</td>
</tr>
<tr>
<td>25. To provide connected and safe pedestrian facilities in communities.</td>
<td>Miles of pedestrian facilities</td>
</tr>
<tr>
<td></td>
<td>Crashes involving pedestrians</td>
</tr>
<tr>
<td>26. To implement efficient parking strategies that support community needs.</td>
<td>Parking audits or strategies implemented</td>
</tr>
<tr>
<td>27. To ensure water infrastructure is planned to accommodate domestic needs and protect the public trust.</td>
<td>Water improvements in Urban Center, Neighborhood General, and Neighborhood Center designations</td>
</tr>
<tr>
<td>28. To mitigate the impact to Kaua‘i’s fresh and ocean waters from wastewater.</td>
<td>Number of cesspools</td>
</tr>
<tr>
<td>29. To provide environmentally-sound waste disposal and collection services.</td>
<td>Tons recycled*</td>
</tr>
<tr>
<td>30. To support the modernization and user-friendliness of Kaua‘i’s airports and harbors.</td>
<td>Capital expenditures for Kaua‘i’s airports and harbors</td>
</tr>
<tr>
<td>31. To develop town centers as attractive places to work, live, and play.</td>
<td>Zoning and use permit applications in the Neighborhood Center designation</td>
</tr>
<tr>
<td>32. To provide a variety of quality and accessible parks and recreational facilities.</td>
<td>Percentage of households within walking distance of park with facilities</td>
</tr>
<tr>
<td>33. To expand and improve access to Kaua‘i’s shared-use paths and trails.</td>
<td>Miles of shared use paths and trails</td>
</tr>
<tr>
<td>Objective</td>
<td>Draft Measures</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>34. To improve the resident and visitor experience at Kauaʻi’s State Parks.</td>
<td>Capital expenditures for State Parks</td>
</tr>
<tr>
<td>35. To focus new resort development in areas designated for visitor use.</td>
<td>Visitor Unit Inventory</td>
</tr>
<tr>
<td>36. To ensure the long-term viability and productivity of agricultural lands.</td>
<td>Agricultural employment</td>
</tr>
<tr>
<td>37. To promote opportunities for small business and emerging economic sectors to thrive.</td>
<td>Number of small businesses CEDS programs implemented</td>
</tr>
<tr>
<td>38. To preserve and enhance historic buildings, structures, and places.</td>
<td>Places recognized on Federal or national registry</td>
</tr>
<tr>
<td>39. To recognize and protect the resources and places important to Kauaʻi’s history and people.</td>
<td>Stewardship agreements</td>
</tr>
<tr>
<td>40. To preserve important landmarks and protect scenic resources.</td>
<td>Number of scenic resources identified through community plans</td>
</tr>
<tr>
<td>41. To increase energy self-sufficiency and maintain a reliable, resilient, and cost-efficient energy system.</td>
<td>Increase in renewable energy*</td>
</tr>
<tr>
<td>42. To acknowledge the human contribution to global warming and reduce Kauaʻi’s greenhouse gas emissions.</td>
<td>Decrease in emissions*</td>
</tr>
<tr>
<td>43. To ensure adequate coverage of public safety and emergency services as Kauaʻi grows.</td>
<td>Deaths due to drowning and other hazards</td>
</tr>
<tr>
<td>44. To ensure that Kauaʻi is prepared for natural disasters and other emergencies.</td>
<td>Number of residents trained under the Community Emergency Response Team Program</td>
</tr>
<tr>
<td>45. To prepare for the impacts of climate change on the natural and built environments.</td>
<td>Percentage of areas impacted by sea level rise that is undeveloped</td>
</tr>
<tr>
<td>46. To recognize and address inequities in health and well-being among Kauaʻi’s diverse ethnic, racial, and income groups.</td>
<td>Decrease in inequity between racial groups</td>
</tr>
<tr>
<td>47. To support educational programs that foster cultural knowledge, employability, and civic participation of local residents.</td>
<td>Kauaʻi Community College enrollment</td>
</tr>
<tr>
<td>48. To encourage healthy lifestyles and accessible health care.</td>
<td>Obesity rate</td>
</tr>
<tr>
<td>49. To actively protect and increase access to the places where recreational and subsistence activity occurs.</td>
<td>Identified and signed accessways</td>
</tr>
</tbody>
</table>
5.1 OVERVIEW

The General Plan policy maps are spatial representations of existing and envisioned land uses, resources, and facilities across the island. The maps show the locations of existing resources, constraints, and development. They also identify areas that may be appropriate for future development. The maps were developed to be consistent with General Plan policies. They are intended to be utilized and cross-referenced against one another when considering future land use proposals or policies.

There are six sets of policy maps:
- Future Land Use (Section 5.2)
- Heritage Resources (Section 5.3)
- Hazards (Section 5.4)
- Infrastructure (Section 5.5)
- Public Facilities (Section 5.6)
- Transportation (Section 5.7)

Each set of policy maps includes a set of seven maps: an island-wide map and a large scale map for each of the six planning districts. Transportation is an exception with two maps: one showing transit and another showing roadways and paths. The role and function of each map is described at the beginning of the sections.
5.2 FUTURE LAND USE MAPS
The General Plan Land Use Maps include an island map at 1 inch = 4 miles scale and six district maps at 1 inch = 1, 2, or 3 miles scale. These maps are intended to document desired land use patterns, to distinguish areas appropriate for future development, and to identify those areas which are to be preserved.

Purpose of the Land Use Maps:
- To identify existing developed areas and lands appropriate for future development.
- To identify areas that should be retained in a natural or undeveloped state.
- To identify areas designated as “Natural” and zoned in order to protect steep slopes and streams from erosion and from development.
- To guide preparation of Community Plans to prepare or revise 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.
- To be consulted when projects are undertaken with State or County lands or funds.
- To serve as a guide in the review of subdivision and land use permit applications. General Plan Land Use Maps alone may not be used to prohibit a land use that is allowed by the Comprehensive Zoning Ordinance or by permit.

Aerial view of Wailua, East Kaua’i District
Figure 5-6 East Kaua’i Land Use Map

- Planning District Boundary
- Major Roads
- Roads
- Streams
- USGS 40 ft. Contours
- Reservoirs
- Natural
- Agricultural
- Parks and Recreation
- Homestead
- Residential Community
- Neighborhood Center
- Neighborhood General
- Resort
- Industrial
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.
5.4 HAZARD MAPS

Hazard Maps have been included in this General Plan to support the goals and policies relating to increasing resilience. The maps identify areas across the island that may be vulnerable to natural hazards including flooding, wildfires, and tsunamis. They also identify the locations of critical facilities. The Hazard Maps, like the Heritage Resource Maps, are intended to be used as a planning tool to guide responsible decision-making about future land use and capital investments. The Hazard Maps should be periodically reviewed and updated as additional data becomes available. The Extreme Tsunami Evacuation Zone was added to the maps to show how such an event might affect the island; however, its intended use is specifically for hazard evacuation planning. As such, it was not used to inform changes to the Land Use Maps. Maps depicting potential 1-foot, 3-foot, and 6-foot sea level rise scenarios for select locations on the island are included in Appendix D.

The Hazard Maps show:

- Dams
- Emergency Shelters
- Critical Facilities
- Major Roads
- Tsunami Evacuation Zones
- Extreme Tsunami Evacuation Zone
- Streams
- Wildfire Risk Rating
- Flood Zones

Purposes of the Hazard Maps

The purposes of the Hazard Maps are as follows:

- The Hazard Maps depict areas known to be vulnerable to natural hazards including flooding, wildfires, and tsunamis. These risk areas have been mapped using existing data sources and depict general locations that are intended to be representational, not precise.
- The Hazard Map shall be used as a planning tool to identify existing developed areas that may need further analysis or protection. They can also help guide land use decisions that situate future development and critical facilities in safer areas.
- The Hazard Maps should be referenced in preparing Community Plans.
- 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.
- Projects undertaken with State or County lands or funds should be planned outside of known hazard areas.
- The Hazard Maps shall serve as a guide in the review of subdivision and land use permit applications, but may not be used to prohibit a land use that is allowed by the Comprehensive Zoning Ordinance or by permit.
Figure 5-20 East Kaua’i Hazard Map

Critical Facilities
- Airports
- Civic Centers
- Harbors
- Schools
- Correctional Center
- Electric Facilities
- Hospitals
- Landfill
- Wastewater Treatment Plants

- Dams
- Emergency Shelters
- Streams
- Major Roads
- Roads
- Tsunami Evacuation Zone
- Extreme Tsunami Evacuation Zone

Wildfire Risk Rating
- High
- Medium
- Low

Emergency Shelters

High Risk Flood Zone
Moderate Risk Flood Zone
5.5 INFRASTRUCTURE MAPS

The Infrastructure Maps are a new addition to this General Plan. The maps identify the locations of existing infrastructure systems for water, wastewater, electrical power generation, and solid waste. These maps are intended to be used as a resource to guide responsible decision-making about future land use and infrastructure investments. The Infrastructure Maps should be periodically reviewed and updated as additional data becomes available.

The Infrastructure Maps include the following information:

- Solid Waste Management Facilities
- Private Water System Service Areas
- County Water System Service Areas
- Wastewater Treatment Plant
- Sewer Pump Stations
- County Wastewater System Service Areas
- Private Wastewater Service Areas
- Power Plants
- State Land Use District Urban Designated Lands
- Planning District Boundary
- Major Roads
- Roads

Purposes of the Infrastructure Maps

The purposes of the Infrastructure Maps are as follows:

- To depict existing systems for water, wastewater, electrical power generation, and solid waste. Facilities and service areas have been mapped using existing data sources and depict general locations that are intended to be representational, not precise.
- To be used as a planning tool in conjunction with other policy maps to help identify and prioritize infrastructure needs in existing and future growth areas.
- To be referenced in 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.
- To serve as a guide in the review of subdivision and land use permit applications and to aid in determining infrastructure needs, but may not be used to prohibit a land use that is allowed by the Comprehensive Zoning Ordinance or by permit.
Figure 5-27 East Kaua’i Infrastructure Map

Solid Waste Management Facilities
- Drop-off Recycling Center
- Refuse Transfer Station
- Green Waste Diversion Site
- Deposit Beverage Container Redemption Center

Water Facilities
- Private Water System Service Area
- County Water System Service Area

Wastewater Facilities
- Wastewater Treatment Plant
- Sewer Pump Stations
- Sewerlines
- County Wastewater System Service Area

Electric Facilities
- Power Plants

- State Land Use District
- Urban Designated Lands
- Planning District Boundary
- Major Roads
- Roads

1 in = 2 miles
5.6 PUBLIC FACILITIES MAPS

The General Plan Public Facilities Maps are a new addition to this General Plan. The maps identify the locations of existing public facilities on Kaua‘i. These maps are intended to be used as a reference in planning public facilities and services to support future land uses and development. The Public Facilities Maps should be periodically reviewed and updated as additional data becomes available. The Public Facilities Maps are a general reference, and may not be used to determine whether adequate facilities or services exist to support or deny a proposed land use.

The purposes of the Public Facilities Maps are as follows:

- To depict the locations of existing public facilities. These facilities have been mapped using existing data sources and depict general locations that are intended to be representational, not precise.
- To be used as a planning tool in identifying existing areas that may need additional facilities, services, or mitigation plans for protection or relocation. They can also help ensure that future development is supported by adequate facilities.
- To be referenced in preparing Community Plans and Functional Plans.

The Public Facilities Maps include the following information:

- Neighborhood Centers
- Post Offices
- Schools
- Police Stations
- Harbors
- Hospitals
- Civic Centers
- Correctional Center
- Airports
- Fire Stations
- Parks
- Planning District Boundaries
- Major Roads
- Extreme Tsunami Evacuation Zones
5.7 TRANSPORTATION MAPS

There are two General Plan Transportation Maps. One shows existing and planned improvements for roadway capacity, the roadway network, and shared use paths. The second depicts proposed improvements to the transit system. Community-scale improvements such as sidewalks and bike lanes are intended to be refined in Community and Functional Plans. Keys to these maps are provided in Table 5-1 and Table 5-2, respectively. The Transportation Maps should be periodically reviewed and updated as additional data becomes available. The Transportation Maps are a general reference, and may not be used to determine whether adequate facilities or services exist to support or deny a proposed land use.

The following source documents were consulted to identify anticipated transportation improvements to 2035:

- *Kaua‘i Transit Feasibility Study (2016):* KTFS
- *Kapa’a Transportation Solutions (2015):* KTS
- *Bike Plan Hawai‘i (2003):* BPH
- *South Kaua‘i Community Plan (2015):* SKCP
- *Līhu‘e Community Plan (2015):* LCP
- *Kīlauea Town Plan (2005):* KTP
- *West Side Path Alternatives (2012):* WSPA
- *North Shore Path Alternatives (2012):* NSPA
- *Kaua‘i State Transportation Improvements Program (FY 2015-2018):* KSTIP

The map includes the following information, with associated sources indicated:

- Existing Roads
- Future Roads: KTS, SKCP, LCP, KTP, STIP
- Shared Use Paths (Existing and Future): County of Kaua‘i (existing), SKCP, LCP, WSPA,
- NSPA, STIP
- Planning District Boundary: Hawai‘i DBEDT (1983)
- Major Roads: Hawai‘i Department of Transportation (2009)

Figure 5-37 is taken from the *Kaua‘i Transit Feasibility Study (2017).*

Purpose of the Transportation Maps

The purposes of the Transportation Maps are as follows:

- To depict the locations of major anticipated improvements to Kaua‘i’s transportation network during the planning horizon of the General Plan. Anticipated improvements have been mapped based on available planning documents. Locations of anticipated improvements are intended to be representational, not precise.
- To be used as a planning tool in identifying areas that may need additional facilities or services. They can also help ensure that future development is supported by adequate multimodal facilities.
- To be referenced in preparing Community Plans and Functional Plans.
Table 5-1 Kaua’i Island Transportation Roadway Map Key

<table>
<thead>
<tr>
<th>IMPROVEMENTS TO EXISTING ROADS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kīlauea Road Multimodal Access Improvements to Kīlauea Lighthouse National Wildlife Refuge</td>
</tr>
<tr>
<td>2. Multimodal capacity improvements to Kawaihau Road</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>4. Operational improvements such as signalization and left turn restrictions on Kūhiō Highway from Kapa’a Town to Kuamo’o Road</td>
</tr>
<tr>
<td>5. Add one lane on Kūhiō Highway from southern end of Kapa’a Bypass Road to Kuamo’o Road</td>
</tr>
<tr>
<td>6. Extension of right turn lane on Haleilio Road at Kūhiō Highway</td>
</tr>
<tr>
<td>7. Add one lane on Kūhiō Highway from Kuamo’o Road to Kapule Highway</td>
</tr>
<tr>
<td>8. Implementation of Līhuʻe TIGER Grant Project Improvements</td>
</tr>
<tr>
<td>9. Congestion Management project on Kaumuali’i Highway from Anonui Street to Maluhia Road</td>
</tr>
<tr>
<td>10. Multimodal capacity improvements to Po’ipū Road</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEW ROADS</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. (a) New Kīlauea Entry Road; and (b) Kīlauea Entry Road Expansion</td>
</tr>
<tr>
<td>12. Connections between Kapa’a Bypass Road and Neighborhoods</td>
</tr>
<tr>
<td>13. Connection between Kūhiō Highway and Kapa’a Bypass Road</td>
</tr>
<tr>
<td>14. Connection between Kuamo’o Road and Ma’alo Road</td>
</tr>
<tr>
<td>15. Līhuʻe Mauka Route</td>
</tr>
<tr>
<td>16. Northerly Leg of the Western Access Road</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHARED USE PATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. North Shore Path (alignment location and phases to be determined)</td>
</tr>
<tr>
<td>18. Completion of Ke Ala Hele Makalae from Ahihi Point to Anahola</td>
</tr>
<tr>
<td>19. Completion of Ke Ala Hele Makalae to Līhuʻe</td>
</tr>
<tr>
<td>20. South Shore Path (see South Kaua’i Community Plan)</td>
</tr>
<tr>
<td>21. West Side Path (Phase 1 Hanapēpē Town to Salt Pond and Waimea to Kekaha. Future phases and alignments to be determined)</td>
</tr>
</tbody>
</table>

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.
Figure 5-36 Kaua‘i Island-Wide Transportation Map
Showing Roadway Capacity, Networks, Shared Use Paths, and Scenic Corridors

- Planning District Boundary
- Major Roads
- Roads
- Existing Shared Use Path
- Future Shared Use Path
- Improvements to Existing Roads
- Future Roads

1 in = 4 miles
Table 5-2 Priority Transit Capacity Projects

**REGIONAL TRANSIT SHUTTLES**
1. Implement Regional Transit Shuttles
   - North Shore Shuttle (Kilauea Lighthouse to Kēʻe Beach)
   - East Side Shuttle (Lydgate Park to Keālia Beach)
   - Reconfigure Wailua and Kapahi Shuttles
   - Reconfigure Lihue Shuttles
   - Poʻipū-Kōloa Shuttle
   - Hanapēpē to Kōloa Shuttle

**TRANSIT MAINLINES**
1. Reconfigure and expand service frequency for transit mainlines

Projects are not listed in order of priority.

**Figure 5-37 Kaua‘i Island Transit Map**

APPENDIX C – GROWTH TRENDS AND PROJECTIONS

Introduction

This Appendix summarizes the Socioeconomic Analysis and Forecasts (2014) technical report that was prepared for this General Plan and provides the basis for growth projections in population, housing, employment, and other demographic and socioeconomic characteristics. A Technical Advisory Committee comprised of community members and agencies was assembled to review and provide input on this and other technical reports for the General Plan. The following Sections provide an overview of the findings.

Another key technical report prepared to inform the General Plan’s growth projections was the Land Use Buildout Analysis (2015). Using the population and housing projections contained in the socioeconomic study, the land use buildout study inventoried existing land use designations and determined whether additional designated lands would be needed to accommodate projected residential, commercial, industrial, resort, and other land uses.

How the 2000 General Plan Handled Growth Projections

Projections for growth contained in the 2000 Kaua‘i General Plan were derived from two technical studies: one that examined future trends based on projections of existing data from the State Department of Business, Economic Development, and Tourism (DBEDT), and a second that presented alternative, value-driven growth projections reflecting a significantly lower growth rate. The alternative projections used the visitor population as “the most important factor in estimating Kaua‘i’s future economy and population.” The projections in these two studies were presented in the 2000 General Plan as “high” and “low” growth projections for resident population, average daily visitor census, total population, and jobs. The projections were not intended to serve as targets or limits to growth, but as tools for forecasting land supply and infrastructure needs.

Figure 1. Actual vs. Projected Population Growth (1998-2010)
Population Trends and Projections
Trends Since the 2000 General Plan

As shown in the figure below, the actual rate of population growth since the last count in 2010 has closely followed the “high” growth projection rate in the 2000 General Plan. The “high” projection was based on a linear projection of population data from DBEDT.

Sources of Growth

The graph in Figure 2 shows sources of population change on Kaua‘i between 2000 and 2012. Over the past 15 years, the population growth due to natural increase (rate of births to deaths) has greatly exceeded the contribution of migration.

County-Wide Projections

The County population forecast was developed as a linear projection from the last recorded population data released by the State Department of Business, Economic Development, and Tourism (State of Hawai‘i Data Book, 2013). Historical data was taken from the State of Hawai‘i Data Book published annually by the Department of Business, Economic Development, and Tourism (State of Hawai‘i Data Book, 2013).

Table 1 and Figure 3 show the population forecast for the County of Kaua‘i through 2035. The line in Figure 3 tracks the population, while the bars indicate the annual population growth rate. The model assumed a moderate growth rate of 1.10% per year between 2010 and 2035.

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The total population for the County of Kaua‘i is projected to increase from 67,091 in 2013 to 88,013 in 2035. That represents a total growth of 31.2% between 2010 and 2035, or about 1.10% per year.

SMS Research Kaua‘i 2035 General Plan: Socioeconomic Analysis and Forecasts (2014)

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*Bars for 2000-2010 and 2010-2012 show average change per year.

Intl. means International.
Dom. means Domestic.
Table 1. Kaua‘i County Population (1990-2035)

<table>
<thead>
<tr>
<th>Year</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kaua‘i</td>
<td>51,676</td>
<td>58,463</td>
<td>67,091</td>
<td>74,693</td>
<td>83,328</td>
<td>88,013</td>
</tr>
<tr>
<td>Average Annual Growth Rate</td>
<td>1.24%</td>
<td>1.39%</td>
<td>1.08%</td>
<td>1.10%</td>
<td>1.10%</td>
<td>1.10%</td>
</tr>
</tbody>
</table>

Figure 3. Kaua‘i County Population (1990-2035)
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)

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

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 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
Figure 4. Population by Planning District (1990-2035)

Figure 5. Actual vs. Projected Job Growth (1990-2011)
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 Hawaii 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.
average household size to arrive at the number of households.

**County-Wide Projections**

Table 4 and Figure 7 show the household forecast for the County of Kaua‘i through the year 2035. The forecast is based on an assumption that the ratio of persons to households will modestly increase from 2.89 in 2010 to 2.90 in 2035. The line in Figure 7 tracks the household counts and the bars indicate the annual growth rate.

The total number of households in the County of Kaua‘i is projected to increase from 23,984 in 2013 to 30,349 in 2035. That represents a total growth of 31.2 percent between 2010 and 2035, or about 1.07 percent per year.

**Projections by Planning District**

Table 5 and Figure 8 show the forecast number of households by planning district. As with population, the Līhu‘e Planning District is planned for the largest increase in total households. Līhu‘e is identified by the General Plan policy as a growth center, and is expected to increase its number of households by 48 percent during the next 25 years. This equates to an average annual increase of 1.7 percent. South

**Table 4. Kaua‘i County Households (1990-2035)**

<table>
<thead>
<tr>
<th>Year</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kaua‘i Households</td>
<td>16,253</td>
<td>20,370</td>
<td>23,240</td>
<td>25,902</td>
<td>28,788</td>
<td>30,349</td>
</tr>
<tr>
<td>Average Annual Growth Rate</td>
<td>0.66%</td>
<td>0.18%</td>
<td>1.06%</td>
<td>1.10%</td>
<td>1.06%</td>
<td></td>
</tr>
</tbody>
</table>
Kaua’i (1.2 percent) is the only other district expected to exceed the County’s average annual growth rate of 0.8 percent for households between now and 2035. The remaining districts are anticipated to have average annual growth rates of 0.7 percent or less.

Visitor Arrivals

Visitor arrivals are defined as the total number of individuals arriving from domestic and international points of departure by air and sea during a calendar year. Their number includes men, women, and children visiting from all ten of Hawai‘i’s major market areas (MMAs). Total visitor arrivals include both day-trippers and overnight or longer visitors. By convention, visitors staying for more than 365 days are considered temporary residents.

Historical data was taken from Hawai‘i Tourism Authority, Annual Visitor Research Reports, 2000 to 2011 and the DBEDT Data Book historical database for years before 2000. DBEDT also has a long-range forecast for visitor arrivals at the State and County levels.

Trends Since the 2000 General Plan

Historically, visitor arrivals have been volatile on Kaua‘i. Hurricane ‘Iniki devastated the tourism infrastructure on Kaua‘i, causing a deep rift in 1993 and a lengthy recovery period. At the next peak in 1999, Kaua‘i had regained less than 90 percent of its former visitor count. After another drop following September 11, 2001, the count grew to its second peak in 2007, then fell sharply again in 2008-2009 and has been climbing out at a slower pace than the post-Iniki recovery.

The 2000 Kaua‘i General Plan included low and high estimates for projected visitor growth, defined in Figure 9, actual ADVC growth has been variable, but as of 2010 was below the low General Plan estimate. Draft projections by the State Department of Business, Economic Development and Tourism (State of Hawai‘i Data Book, 2013) predict that ADVC growth will closely track the 2000 General Plan’s low estimate at least until 2020.
Table 5. Households by Planning District (1990-2035)

<table>
<thead>
<tr>
<th>Year</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kaua‘i</td>
<td>16,253</td>
<td>20,370</td>
<td>23,240</td>
<td>25,902</td>
<td>28,788</td>
<td>30,349</td>
</tr>
<tr>
<td>Līhu‘e</td>
<td>3,542</td>
<td>4,187</td>
<td>4,983</td>
<td>6,051</td>
<td>7,281</td>
<td>7,923</td>
</tr>
<tr>
<td>South Kaua‘i</td>
<td>3,208</td>
<td>3,862</td>
<td>4,250</td>
<td>4,946</td>
<td>5,699</td>
<td>6,096</td>
</tr>
<tr>
<td>Hanapēpē-‘Ele’ele</td>
<td>1,035</td>
<td>1,491</td>
<td>1,987</td>
<td>2,084</td>
<td>2,207</td>
<td>2,279</td>
</tr>
<tr>
<td>Waimea-Kekaha</td>
<td>1,460</td>
<td>1,893</td>
<td>1,962</td>
<td>2,165</td>
<td>2,253</td>
<td>2,306</td>
</tr>
<tr>
<td>North Shore</td>
<td>2,070</td>
<td>2,552</td>
<td>2,881</td>
<td>2,998</td>
<td>3,123</td>
<td>3,201</td>
</tr>
<tr>
<td>East Kaua‘i</td>
<td>4,937</td>
<td>6,385</td>
<td>7,177</td>
<td>7,658</td>
<td>8,224</td>
<td>8,545</td>
</tr>
</tbody>
</table>

**County-Wide Projections**

Table 6 and Figure 10 show total visitor arrivals by air for the County of Kaua‘i through the year 2035. The line in Figure 10 tracks visitor numbers and the bars indicate the average annual rates of change.

Figure 11 represents visitors to Kaua‘i as the Average Daily Visitor Census (ADVC). This is an alternate way to assess the volume of visitors to the County.

The projections show an overall growth rate of about one percent per year between 2010 and 2035, with a very slight decrease across that period. Based upon historical data, some volatility can be expected year to year in the form of a disrupting event once every five to ten years.56

The average length of stay (LOS) for a visitor party in Kaua‘i was 7.51 days in 2011. Visitor LOS on Kaua‘i was at its lowest point in 1990 at 6.14. The LOS rose to 6.8 in 2004 and then fell to 6.24 in 2007. Length of stay has increased steadily for Kaua‘i visitors since 2007.

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56 Kaua‘i General Plan Update: Visitor Updates, SMS Research, October 2017
Visitor Projections by Planning District

Līhuʻe has both the airport and the harbor, so all visitor “arrivals” technically occur there. Visitor accommodation units as reported in the Hawaiʻi Tourism Authority’s (HTA) Visitor Plant Inventory were used to estimate each District’s share of visitors. Table 7 and Figure 12 show the results of that method. South Kauaʻi has the highest number of visitor units and thus the largest share of visitors. East Kauaʻi and the North Shore closely track one another in current and projected visitor volumes. Līhuʻe District’s visitor population is lower, with fewer visitor accommodations, and very few visitors stay in Waimea-Kekaha. None were assigned to the Hanapēpē-ʻEleʻele District.

Figure 9. Actual vs. Projected Visitor Growth (1990-2010)

Table 6. Kauaʻi County Visitor Arrivals (1990-2035)

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kauaʻi Visitor Arrivals (x1,000)</td>
<td>1,229</td>
<td>1,075</td>
<td>955</td>
<td>1,302</td>
<td>1,418</td>
<td>1,480</td>
</tr>
<tr>
<td>Average Annual Growth Rate</td>
<td>-1.25%</td>
<td>-1.11%</td>
<td>3.64%</td>
<td>0.89%</td>
<td>0.87%</td>
<td></td>
</tr>
</tbody>
</table>
Figure 10. Visitor Arrivals to Kaua‘i County (1990-2035)

Figure 11. Average Daily Visitor Census in Kaua‘i County (1990-2035)
Table 7. Kaua’i County Visitor Arrivals by District (1998-2035)

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Kaua’i</td>
<td>1,078</td>
<td>1,075</td>
<td>955</td>
<td>1,302</td>
<td>1,418</td>
<td>1,480</td>
</tr>
<tr>
<td>Lihu’e</td>
<td>186</td>
<td>182</td>
<td>166</td>
<td>199</td>
<td>214</td>
<td>222</td>
</tr>
<tr>
<td>South Kaua’i</td>
<td>353</td>
<td>355</td>
<td>349</td>
<td>487</td>
<td>527</td>
<td>548</td>
</tr>
<tr>
<td>Hanapēpē-’Ele’ele</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Waimea-Kekaha</td>
<td>12</td>
<td>15</td>
<td>12</td>
<td>21</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>North Shore</td>
<td>204</td>
<td>236</td>
<td>221</td>
<td>332</td>
<td>348</td>
<td>357</td>
</tr>
<tr>
<td>East Kaua’i</td>
<td>324</td>
<td>287</td>
<td>207</td>
<td>310</td>
<td>330</td>
<td>341</td>
</tr>
</tbody>
</table>

Figure 12. Visitor Arrivals by Planning District (1998-2035)
APPENDIX D - SEA LEVEL RISE MAPS
Sea level around the Island of Kauai is currently rising at an average rate of 1.53 mm/yr and is projected to continue at an accelerated rate both globally and locally. The purpose of this data is to provide a preliminary look at sea level rise and coastal flooding impacts. It is intended to be used as a screening level tool to inform management decisions and long-range planning. The data depicted in this map can assist local planning authorities in better understanding the potential impacts of rising sea levels and developing appropriate adaptation strategies. The data does not consider future changes in coastal geomorphology and natural processes such as erosion, subsidence, or future construction. The data does not accurately depict vulnerability to future coastal hazards such as hurricanes and tsunamis. The data does not specify timing of inundation depths and is not appropriate for conducting detailed spatial analysis.

Disclaimer: The data presented in this map illustrate the scale of potential flooding, not the exact location, and do not account for erosion, subsidence, or future construction. Water levels are shown as they would appear during the highest high tides (excluding wind-driven tides). The data should be used only as a screening level tool for management decisions. The data and maps in this tool are provided "as is" without warranty to their performance, merchantable state, or fitness for any particular purpose. The entire risk associated with the results and performance of these data is assumed by the user. The data should be used strictly as a planning reference and not for navigation, permitting, or other legal purposes.

Data Source: National Oceanic and Atmospheric Administration (NOAA), Ocean Services, Coastal Services Center (November 2013) http://csc.noaa.gov/slr/beta/viewer/
KAUA‘I CLIMATE CHANGE
AND COASTAL HAZARDS ASSESSMENT

3 Foot Potential Sea Level Rise Scenario
HU‘ENA, KAUA‘I

MAP DESCRIPTION
This map assesses the potential for inundation due to future sea level rise. Levels represent inundation at high tide. Areas that are hydrologically connected are shown in shades of blue (darker blue = greater depth). Low-lying areas, displayed in green, are hydrologically “unconnected” areas that may flood. They are determined solely by how well the elevation data captures the area’s hydraulics. A more detailed analysis of these areas is required to determine the susceptibility to flooding.

Sea level around the Island of Kauai is currently rising at an average rate of 1.53mm/yr and is projected to continue at an accelerated rate both globally and locally. The purpose of this data is to provide a preliminary look at sea level rise and coastal flooding impacts. It is intended to be used as a screening tool to inform management decisions and long-range planning. The data depicted in this map can assist local planning authorities in better understanding the potential impacts of rising sea levels and developing appropriate adaptation strategies. The data does not consider future changes in coastal geomorphology and natural processes such as erosion, subsidence, or future construction. The data does not accurately depict vulnerability to future coastal hazards such as hurricanes and tsunamis. The data does not specify timing of inundation depths and is not appropriate for conducting detailed spatial analysis.

Disclaimer:
The data presented in this map illustrate the scale of potential flooding, not the exact location, and do not account for erosion, subsidence, or future construction. Water levels are shown as they would appear during the highest high tides (excluding wind-driven tides). The data should be used only as a screening tool for management decisions. The data and maps in this tool are provided “as is” without warranty to their performance, merchantable state, or fitness for any particular purpose. The entire risk associated with the results and performance of these data is assumed by the user. The data should be used strictly as a planning reference and not for navigation, permitting, or other legal purposes.

Data Source:
National Oceanic and Atmospheric Administration (NOAA), Ocean Services, Coastal Services Center (November 2013) http://csc.noaa.gov/slr/beta/viewer/
Blue areas denote the potential for inundation due to future sea level rise. Levels represent inundation at high tide. Areas that are hydrologically connected are shown in shades of blue (darker blue = greater depth). Low-lying areas, displayed in green, are hydrologically “unconnected” areas that may flood. They are determined solely by how well the elevation data captures the area’s hydraulics. A more detailed analysis of these areas is required to determine the susceptibility to flooding.

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Data Source: National Oceanic and Atmospheric Administration (NOAA), Ocean Services, Coastal Services Center (November 2013) http://csc.noaa.gov/slr/beta/viewer/
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.
## Entitled Residential Projects by District

<table>
<thead>
<tr>
<th>District</th>
<th>Project Name</th>
<th>Housing Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Kaua‘i</strong></td>
<td>P’ilani Mai He Kai (DHHL Anahola)</td>
<td>49%</td>
</tr>
<tr>
<td></td>
<td>Kulana</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kapa’a Highlands, Phase 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>1,122</strong></td>
</tr>
<tr>
<td><strong>‘Ele’ele</strong></td>
<td>A&amp;B ‘Ele’ele Residential</td>
<td>201</td>
</tr>
<tr>
<td></td>
<td>Lima Ola (Affordable)</td>
<td>450</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>651</strong></td>
</tr>
<tr>
<td><strong>Līhu‘e</strong></td>
<td>DHHL Wailua, Phase 1</td>
<td>188</td>
</tr>
<tr>
<td></td>
<td>Kohea Loa - D.R. Horton</td>
<td>444</td>
</tr>
<tr>
<td></td>
<td>Pikake Subdivision</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Grove Farm Wailani Residential</td>
<td>1,450</td>
</tr>
<tr>
<td></td>
<td>Koamalu</td>
<td>220</td>
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<tr>
<td></td>
<td>Waiola Phase I</td>
<td>47</td>
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<td></td>
<td>Waiola Phase II</td>
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<tr>
<td></td>
<td>Waiola Phase II</td>
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<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>2,644</strong></td>
</tr>
<tr>
<td><strong>North Shore</strong></td>
<td>Kolopua (Princeville Affordable)</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>1,040</strong></td>
</tr>
<tr>
<td><strong>South Kaua‘i</strong></td>
<td>Brydeswood Ranch (A&amp;B)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Kōloa Creekside</td>
<td>72</td>
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<tr>
<td></td>
<td>Kukui‘ula Employee Housing</td>
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<td></td>
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<tr>
<td><strong>Waimea</strong></td>
<td>Kekaha lots</td>
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<td>Kikiaola Mauka</td>
<td>270</td>
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<td>Kikiaola - Field 14</td>
<td>56</td>
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<td><strong>TOTAL</strong></td>
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## Entitled Commercial Projects by District

<table>
<thead>
<tr>
<th>District</th>
<th>Project Name</th>
<th>Commercial Square Footage</th>
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<tbody>
<tr>
<td>Kōloa</td>
<td>Kōloa Rum Company Store and Café</td>
<td>9,000</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>9,000</strong></td>
</tr>
<tr>
<td>Lihu’E</td>
<td>Hokulei Village</td>
<td>222,000</td>
</tr>
<tr>
<td></td>
<td>Grove Farm Wailani Commercial</td>
<td>1,132,299</td>
</tr>
<tr>
<td></td>
<td>Weinberg Foundation Renovation</td>
<td>24,250</td>
</tr>
<tr>
<td></td>
<td>Kukui Grove Commercial Buildout</td>
<td>96,000</td>
</tr>
<tr>
<td></td>
<td>Weinberg Foundation/Ahukini</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
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<td>North Shore</td>
<td>Kīlauea Crossings</td>
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<td></td>
<td>Kīlauea Town Center</td>
<td>46,800</td>
</tr>
<tr>
<td></td>
<td>Hanalei Halelea Office</td>
<td>2,000</td>
</tr>
<tr>
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<td><strong>TOTAL</strong></td>
<td><strong>54,870</strong></td>
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<tr>
<td>South Kaua’i</td>
<td>Village at Kōloa Town</td>
<td>96,000</td>
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<tr>
<td></td>
<td>Kukui’ula ABC Store</td>
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<tr>
<td></td>
<td>Kōloa Marketplace</td>
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<td>Old Glass Warehouse</td>
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<td></td>
<td><strong>ISLAND TOTAL</strong></td>
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East Kauaʻi District

- Planning District Boundary
- Major Roads
- Roads

Entitled Lands
- Commercial
- Housing

Mixed Use
- Resort

1 in = 2 miles

0 1 2 4 miles
### Residential

<table>
<thead>
<tr>
<th>Map #</th>
<th>Project Name</th>
<th>Housing Units</th>
<th>GP Land Use Designation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kūlana</td>
<td>172</td>
<td>Agriculture</td>
<td>Permitted as Agricultural Development</td>
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<tr>
<td>2</td>
<td>Kapa’a Highlands Phase II</td>
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<td>Pi’ilani Mai He Kai (DHHL Anahola)</td>
<td>181</td>
<td>Urban Center, Agriculture, Open</td>
<td>Phase II Began 2012</td>
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<td><strong>TOTAL</strong></td>
<td><strong>1,122</strong></td>
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### Resort

<table>
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<tbody>
<tr>
<td>4</td>
<td>Coconut Plantation</td>
<td>192</td>
<td>Resort</td>
<td>Submitted annual status report (2/8/11)</td>
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<tr>
<td>5</td>
<td>Coco Palms</td>
<td>350</td>
<td>Resort</td>
<td>Approved March 2015</td>
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<td>6</td>
<td>Coconut Beach Resort</td>
<td>335</td>
<td>Resort</td>
<td>Construction to start 2015</td>
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<td></td>
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### Residential

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<td>Koamalu</td>
<td>220</td>
<td>Urban Center</td>
<td>Submitted Annual Status Report</td>
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<td>3</td>
<td>Grove Farm Wailani Residential</td>
<td>1,450</td>
<td>Urban Center</td>
<td>Negotiating infrastructure and access issues</td>
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<tr>
<td>4</td>
<td>Kohea Loa – D.R. Horton</td>
<td>444</td>
<td>Urban Center</td>
<td>Submitted 2013 Status Report</td>
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<td>Agriculture</td>
<td>No plan for development within GP timeframe</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>2,498</strong></td>
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### Resort

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<thead>
<tr>
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<tbody>
<tr>
<td>9</td>
<td>Kaua‘i Lagoons</td>
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<td><strong>700</strong></td>
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### Commercial

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<th>GP Land Use Designation</th>
<th>Status</th>
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<tbody>
<tr>
<td>3</td>
<td>Grove Farm Wailani Commercial</td>
<td>1,132,299</td>
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<td>Unknown</td>
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<tr>
<td>6</td>
<td>Hokulei Village</td>
<td>220,000</td>
<td>Urban Center</td>
<td>Under Construction</td>
</tr>
<tr>
<td>7</td>
<td>Weinberg Foundation Renovation</td>
<td>24,350</td>
<td>Urban Center</td>
<td>Phase I complete</td>
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<td>8</td>
<td>Weinberg Foundation/Ahukini</td>
<td>20,000</td>
<td>Urban Center</td>
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### Residential

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<th>GP Land Use Designation</th>
<th>Status</th>
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<tbody>
<tr>
<td>1</td>
<td>Lima Ola (affordable)</td>
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<td>Agriculture, Open</td>
<td>Master Plan Complete, requires GP/SLU Amendment</td>
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<td>A&amp;B ‘Ele’ele Residential</td>
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<td>Urban Center</td>
<td>Unknown</td>
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<td><strong>TOTAL</strong></td>
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### Residential

<table>
<thead>
<tr>
<th>Map #</th>
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<th>GP Land Use Designation</th>
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<tbody>
<tr>
<td>1</td>
<td>Kīkīaola Mauka</td>
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<td>2</td>
<td>Kīkīaola Field 14</td>
<td>56</td>
<td>Open, Residential</td>
<td>Not Constructed</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>326</strong></td>
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### Resort

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<th>Housing Units</th>
<th>GP Land Use Designation</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>Kapalawai Resort, LLC</td>
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### Residential

<table>
<thead>
<tr>
<th>Map #</th>
<th>Project Name</th>
<th>Housing Units</th>
<th>GP Land Use Designation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brydeswood Ranch (A&amp;B)</td>
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<td>Open, Agriculture</td>
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</tr>
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<td>2</td>
<td>Kōloa Creekside</td>
<td>72</td>
<td>Residential</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3</td>
<td>Kukui’ula Employee Housing</td>
<td>100</td>
<td>Residential, Open</td>
<td>Land deeded to County</td>
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<tr>
<td>4</td>
<td>Kukui’ula</td>
<td>750</td>
<td>Residential, Resort</td>
<td>Final subdivision map approval for parcels M1,M4,Y</td>
</tr>
<tr>
<td>5</td>
<td>The Village at Kōloa Town</td>
<td>34</td>
<td>Residential</td>
<td>Unknown</td>
</tr>
<tr>
<td>6</td>
<td>Kōloa Camp - Waihononu</td>
<td>50</td>
<td>Residential</td>
<td>Underway</td>
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<tr>
<td>7</td>
<td>CIRI (CLDC) Subdivision</td>
<td>10</td>
<td>Resort</td>
<td>Planning commission approved 8/26/14</td>
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<tr>
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### Resort

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<tbody>
<tr>
<td>12</td>
<td>Po’ipū Beach Estates</td>
<td>110</td>
<td>Resort</td>
<td>Several lots are built out</td>
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<tr>
<td>13</td>
<td>Village at Po’ipū</td>
<td>51</td>
<td>Resort</td>
<td>Moving forward</td>
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<td>14</td>
<td>Pilimai at Po’ipū</td>
<td>191</td>
<td>Resort</td>
<td>Under construction</td>
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<tr>
<td>15</td>
<td>Kiahuna Po’ipū Golf Resort</td>
<td>282</td>
<td>Resort</td>
<td>未知</td>
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<tr>
<td>4</td>
<td>Kukui’ula</td>
<td>750</td>
<td>Residential, Resort</td>
<td>Final subdivision map approval for parcels M1,M4,Y</td>
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<tr>
<td>16</td>
<td>Palms at Po’ipū</td>
<td>56</td>
<td>Resort</td>
<td>Unknown</td>
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<tr>
<td>17</td>
<td>Sheraton Kaua’i Expansion</td>
<td>173</td>
<td>Resort</td>
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<td><strong>TOTAL</strong></td>
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### Commercial

<table>
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<th>Map #</th>
<th>Project Name</th>
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<th>GP Land Use Designation</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>Village at Kōloa Town</td>
<td>96,000</td>
<td>Residential</td>
<td>Unknown</td>
</tr>
<tr>
<td>8</td>
<td>Kōloa Rum Company Store and Cafe</td>
<td>9,000</td>
<td>Residential, Agriculture, Open</td>
<td>Approved Planning Commission (Nov. 2014)</td>
</tr>
<tr>
<td>9</td>
<td>Kukui’ula ABC Store</td>
<td>21,000</td>
<td>Residential, Open</td>
<td>Approved Planning Commission (Nov. 2014)</td>
</tr>
<tr>
<td>10</td>
<td>Kōloa Marketplace</td>
<td>76,000</td>
<td>Residential</td>
<td>Unknown</td>
</tr>
<tr>
<td>11</td>
<td>Old Glass Warehouse</td>
<td>7,200</td>
<td>Residential</td>
<td>Approved Planning Commission (Nov. 2014)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td><strong>209,200</strong></td>
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### Residential

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<th>Status</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Kolopua (Princeville Affordable)</td>
<td>44</td>
<td>Resort</td>
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<td>TOTAL</td>
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<td>44</td>
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### Commercial

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<th>Sq. ft.</th>
<th>GP Land Use Designation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Kilauea Crossings</td>
<td>6,070</td>
<td>Residential</td>
<td>Unknown</td>
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<td>3</td>
<td>Kilauea Town Center</td>
<td>46,800</td>
<td>Residential</td>
<td>Commercial Shopping Center</td>
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<td>4</td>
<td>Hanalei Halelea Office</td>
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<td>Residential</td>
<td>Approved by Commission 2013</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>54,870</td>
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</tbody>
</table>
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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.

<table>
<thead>
<tr>
<th>LABEL FULL NAME</th>
<th>SS</th>
<th>HO</th>
<th>LT</th>
<th>CI</th>
<th>ES</th>
<th>HR</th>
<th>OH</th>
<th>LU</th>
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</thead>
<tbody>
<tr>
<td>WA The Watershed</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>WA A Wao Nahele - The Upper Watershed</td>
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<tr>
<td>WA B Kahawai - Middle Watershed, Drainage, and Freshwater Resources</td>
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<td>WA C Kahakai - Coastal Areas and Shorelines</td>
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<td>WA D Threatened and Endangered Species</td>
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<td>HO B Infill Housing</td>
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<td>HO D Agriculture Worker Housing</td>
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<tr>
<td>HO F Elderly Housing and Assisted Living Facilities</td>
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<td>HO H Impact of Resort Uses on Housing Inventory</td>
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<td>CI B Wastewater, Septic Systems, and Cesspools</td>
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<td>PSA Police, Fire, Ocean Safety, Emergency Services</td>
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<td>PSC Global Warming and Climate Change Adaptation</td>
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<td>OH C Community Health</td>
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<td>OH D Access to Recreation and Subsistence Activities</td>
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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 Kauaʻi and Hawaiʻi 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 Kauaʻi’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 Kauaʻi 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 Kauaʻi’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 Kauaʻi’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 Kauaʻi’s shared-use paths and trails.
26: To improve the resident and visitor experience at Kauaʻi’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.
Heritage Resources
30: To preserve and enhance historic buildings, structures and places.
31: To recognize and protect the resources and places important to Kauaʻi’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 Kauaʻi.

Public Safety & Hazards Resiliency
35: To ensure adequate coverage of public safety and emergency services as Kauaʻi grows.
36: To ensure that Kauaʻi 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 Kauaʻi’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 Kauaʻi’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 Līhuʻe as Kauaʻi’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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<tr>
<td>1</td>
<td>WA 1.A.1</td>
<td>Review State DLNR Forest Reserve Plans when development is adjacent to Forest Reserves.</td>
<td>Planning</td>
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<td>2</td>
<td>WA 1.A.2</td>
<td>Require best management practices for resource management.</td>
<td>Planning</td>
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</table>
| 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 |
<p>| 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 |</p>
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| 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            |
<p>| 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            |</p>
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| 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 Kauaʻi’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 |
<p>| 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 |</p>
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<td>19</td>
<td>WA 3.A.6</td>
<td>Include the following guidelines for coastal development in the CZO:</td>
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<td>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.</td>
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<td>b. Provide an open, vegetated visual buffer between the shoreline and buildings.</td>
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<td>c. Protect community accessways laterally along the coast in the buffer zone mauka of the shoreline.</td>
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<td>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.</td>
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<td>20</td>
<td>WA 3.A.7</td>
<td>Update the Shore District in relation to the SMA regulations.</td>
<td>Planning</td>
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<td>21</td>
<td>WA 3.A.8</td>
<td>Continually incorporate new information on climate change into shoreline policies and regulations.</td>
<td>Planning</td>
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<td>22</td>
<td>WA 4.A.1</td>
<td>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.</td>
<td>Planning</td>
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<td>23</td>
<td>WA 4.A.2</td>
<td>Require the use of noninvasive plant species for landscaping of newly developed areas, public lands, and roadways.</td>
<td>Planning</td>
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<td>24</td>
<td>WA 4.A.3</td>
<td>Require future development to address potential impacts on threatened or endangered flora and fauna:</td>
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<td>a. Evaluate potential loss of habitat.</td>
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<td>b. Identify all endangered and threatened species present.</td>
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<td>c. List minimization efforts.</td>
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<td>d. If mitigation is needed, join an established Habitat Conservation Plan or develop one.</td>
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<td>25</td>
<td>WA 4.A.4</td>
<td>Encourage new development to implement voluntary actions to encourage a net gain in protection efforts of our threatened and endangered species.</td>
<td>Planning</td>
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<td>26</td>
<td>WA 4.A.5</td>
<td>Minimize risks to threatened and endangered species in construction and development activity.</td>
<td>Planning</td>
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<td>27</td>
<td>HO 1.A.1</td>
<td>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 &quot;win-win&quot; manner.</td>
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<td>28</td>
<td>HO 1.A.2</td>
<td>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.</td>
<td>Housing</td>
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<td>29</td>
<td>HO 1.A.3</td>
<td>Support economically integrated communities by requiring affordable housing mandates to be met on site.</td>
<td>Housing</td>
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<td>30</td>
<td>HO 1.A.4</td>
<td>Amend Ordinance 860, Workforce Housing, to incentivize the creation of affordable housing development.</td>
<td>Mayor’s Office / County Council</td>
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<td>31</td>
<td>HO 1.A.5</td>
<td>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).</td>
<td>Housing</td>
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<td>32</td>
<td>HO 1.A.6</td>
<td>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.</td>
<td>Housing</td>
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<td>33</td>
<td>HO 1.A.7</td>
<td>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.</td>
<td>Housing</td>
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<td>34</td>
<td>HO 2.A.1</td>
<td>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.</td>
<td>Planning</td>
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<td>35</td>
<td>HO 2.A.2</td>
<td>Facilitate the development of small-footprint homes or “tiny homes” on small lots.</td>
<td>Planning</td>
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<td>36</td>
<td>HO 2.A.3</td>
<td>Update zoning in and around town centers to facilitate mixed use and infill development, such as units above commercial space.</td>
<td>Planning</td>
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<td>37</td>
<td>HO 2.A.4</td>
<td>Streamline permit approvals for infill development and housing rehabilitation by removing barriers, such as administrative delays.</td>
<td>Planning</td>
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<td>38</td>
<td>HO 2.A.5</td>
<td>Incentivize infill development by reducing or eliminating tipping fees, wastewater and water facility charges, permit review fees, and park and environmental assessment fees.</td>
<td>Planning</td>
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<td>39</td>
<td>HO 2.A.6</td>
<td>Update the building code to reduce construction costs and facilitate cost-saving materials and technology while maintaining health and safety.</td>
<td>Planning</td>
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<td>40</td>
<td>HO 2.A.7</td>
<td>Reevaluate the definition of “kitchen” to provide flexibility for multi generational housing.</td>
<td>Planning</td>
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<td>41</td>
<td>HO 2.A.8</td>
<td>Increase lot coverage allowances to provide for more ADUs within the residential district.</td>
<td>Planning</td>
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<tr>
<td>42</td>
<td>HO 3.A.1</td>
<td>Locate new communities only in areas designated for growth in the Land Use Map.</td>
<td>Planning</td>
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<td>43</td>
<td>HO 3.A.2</td>
<td>Avoid sprawl development patterns and inefficient infrastructure and service delivery by maximizing density in new communities.</td>
<td>Planning</td>
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<td>44</td>
<td>HO 3.A.3</td>
<td>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.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>45</td>
<td>HO 3.A.4</td>
<td>Increase opportunities for moderate- and low-income households to become homeowners by providing a range of housing types.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>46</td>
<td>HO 3.A.5</td>
<td>Build housing in proximity to jobs, parks, community resources, and services.</td>
<td>Housing / Planning</td>
<td>7</td>
</tr>
<tr>
<td>47</td>
<td>HO 3.A.6</td>
<td>Ensure subdivisions are designed to support housing type diversity, maximize density, provide safe pedestrian/bicycle connections, and slow speed on roads.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>48</td>
<td>HO 3.A.7</td>
<td>Take a proactive role in supporting zoning amendments and redistricting consistent with the General Plan and updated Community Plans.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>49</td>
<td>HO 3.A.8</td>
<td>Allow higher density to increase profitability for developers, resulting in a cheaper housing per unit cost.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>50</td>
<td>HO 3.A.9</td>
<td>New communities should incorporate green infrastructure into their design and be water and energy efficient.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>51</td>
<td>HO 3.A.10</td>
<td>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.</td>
<td>Planning</td>
<td>7</td>
</tr>
<tr>
<td>52</td>
<td>HO 3.A.11</td>
<td>Prohibit future subdivision and development from restricting construction of ADUs in their deed and covenants.</td>
<td>Planning</td>
<td>7</td>
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<tr>
<td>53</td>
<td>HO 4.A.1</td>
<td>Support the development of a limited amount of housing on agricultural land for farm workers and their families by:</td>
<td>Housing / Economic Development</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Improving the existing process to obtain Farm Worker Housing Permits and remove barriers to participation.</td>
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<tr>
<td></td>
<td></td>
<td>b. Providing outreach on the Farm Worker Housing Law to increase participation.</td>
<td></td>
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</tr>
<tr>
<td>54</td>
<td>HO 5.A.1</td>
<td>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.</td>
<td>Planning / Housing</td>
<td>9</td>
</tr>
<tr>
<td>55</td>
<td>HO 6.A.1</td>
<td>Provide additional housing and assisted living facilities for Kaua‘i’s increasing elderly population by:</td>
<td>Planning</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Increasing the supply of housing that is affordable, accessible to services, and promotes aging-in-place.</td>
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<td></td>
<td>b. Allow multi-generational housing that accommodates family home care situations.</td>
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<td></td>
<td></td>
<td>c. Revising development standards to facilitate approval of assisted living units and continuing care communities.</td>
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<tr>
<td>56</td>
<td>HO 6.A.2</td>
<td>Integrate universal design standards into Kaua‘i’s building code.</td>
<td>Planning</td>
<td>10</td>
</tr>
<tr>
<td>57</td>
<td>HO 7.A.1</td>
<td>Allow managed micro-housing developments or camp sites for the houseless.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>58</td>
<td>HO 7.A.2</td>
<td>Allow development of Single Resident Occupancy unit projects.</td>
<td>Housing</td>
<td>11</td>
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<tr>
<td>59</td>
<td>HO</td>
<td>Reduce the impact and number of transient vacation rentals and similar uses, such as Bed &amp; Breakfasts, in the communities outside the VDA by:</td>
<td>Planning</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>8.A.1</td>
<td>a. Continuing aggressive enforcement against illegal TVRs.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>b. Supporting attrition and amortization of non-confirming TVRs, especially in high hazard areas.</td>
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<td></td>
<td></td>
<td>c. Monitoring and enforcing laws against new types of transient rentals facilitated by sharing economy websites, such as Airbnb and VRBO.</td>
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<td></td>
<td></td>
<td>d. Creatively exploring ways to use the tax code for enhanced compliance of non-conforming TVRs.</td>
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<tr>
<td>60</td>
<td>HO</td>
<td>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.</td>
<td>Planning / County Council</td>
<td>12</td>
</tr>
<tr>
<td>61</td>
<td>LT 1.A.1</td>
<td>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.</td>
<td>Planning / Transportation</td>
<td>13</td>
</tr>
<tr>
<td>62</td>
<td>LT 1.A.2</td>
<td>Require that transportation impact analysis reports and other traffic studies analyze a project’s potential to encourage mode shift.</td>
<td>Planning / Transportation</td>
<td>13</td>
</tr>
<tr>
<td>63</td>
<td>LT 2.A.1</td>
<td>Complete new street design standards to address all users.</td>
<td>Public Works</td>
<td>14</td>
</tr>
<tr>
<td>64</td>
<td>LT 2.A.2</td>
<td>Amend the zoning and subdivision codes to support multimodal transportation options and safety for all users.</td>
<td>Planning / County Council</td>
<td>14</td>
</tr>
<tr>
<td>65</td>
<td>LT 2.A.3</td>
<td>Develop a traffic calming toolkit and update the County Traffic Code to allow for traffic calming features.</td>
<td>Public Works</td>
<td>14</td>
</tr>
<tr>
<td>66</td>
<td>LT 2.A.4</td>
<td>Designate, sign, and enforce truck routes.</td>
<td>Public Works / Police</td>
<td>14</td>
</tr>
<tr>
<td>67</td>
<td>LT 2.A.5</td>
<td>Update the school zone ordinance and signage.</td>
<td>Planning</td>
<td>14</td>
</tr>
<tr>
<td>68</td>
<td>LT 3.A.1</td>
<td>Provide density bonuses for workforce housing near transit.</td>
<td>Planning</td>
<td>15</td>
</tr>
<tr>
<td>69</td>
<td>LT 4.A.1</td>
<td>Identify high-priority pedestrian safety projects based on crash data.</td>
<td>Planning / Public Works</td>
<td>16</td>
</tr>
<tr>
<td>70</td>
<td>LT 5.A.1</td>
<td>Incorporate bicycle parking requirements into the Comprehensive Zoning Ordinance.</td>
<td>Planning</td>
<td>17</td>
</tr>
<tr>
<td>71</td>
<td>CI 1.A.1</td>
<td>Prioritize increasing domestic water supply, storage, and distribution systems to meet projected needs while encouraging conservation.</td>
<td>Water</td>
<td>19</td>
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<tr>
<td>72</td>
<td>CI 1.A.2</td>
<td>Prioritize water infrastructure improvements in infill development areas.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>73</td>
<td>CI 1.A.3</td>
<td>Encourage alternatives for non-potable water usage, such as rainwater catchment and greywater recycling.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>74</td>
<td>CI 1.A.4</td>
<td>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.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>75</td>
<td>CI 1.A.5</td>
<td>Conduct an audit of the County’s dependency on surface water regarding future development, based on legal availability and water regulations.</td>
<td>Planning</td>
<td>19</td>
</tr>
<tr>
<td>76</td>
<td>CI 2.A.1</td>
<td>Require large-scale developers to contribute funds toward improved recycled water production and distribution, or to construct their own wastewater reclamation facility.</td>
<td>Planning / County Council</td>
<td>20</td>
</tr>
<tr>
<td>77</td>
<td>CI 2.A.2</td>
<td>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.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>78</td>
<td>CI 2.A.3</td>
<td>Improve the quality of effluent discharged into injection wells, especially those in the Special Management Areas.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>79</td>
<td>CI 2.A.4</td>
<td>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.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>80</td>
<td>CI 3.A.1</td>
<td>Reduce construction and demolition debris disposal in landfills by requiring recycling, particularly for large contractors and construction projects.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>81</td>
<td>CI 4.A.1</td>
<td>At airports, accommodate shuttles that transport visitors to resort destinations.</td>
<td>State DOT</td>
<td>22</td>
</tr>
<tr>
<td>82</td>
<td>CI 4.A.2</td>
<td>Do not expand the Princeville Airport, except for use as a parking hub and gateway for visitors to the North Shore.</td>
<td>Planning</td>
<td>22</td>
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<tr>
<td>83</td>
<td>SS 1.A.1</td>
<td>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.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>84</td>
<td>SS 2.A.1</td>
<td>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.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>85</td>
<td>SS 2.A.2</td>
<td>Provide a range of civic space and functional parks in large residential projects and in new communities.</td>
<td>Planning</td>
<td>24</td>
</tr>
<tr>
<td>86</td>
<td>SS 2.A.3</td>
<td>Streamline permitting of public facilities to efficiently coordinate the development and expansion of parks.</td>
<td>Planning</td>
<td>24</td>
</tr>
<tr>
<td>87</td>
<td>SS 2.A.4</td>
<td>Allow in-lieu funding expenditure on facility capital improvements through the Park Dedication Ordinance.</td>
<td>Parks &amp; Recreation / County Council</td>
<td>24</td>
</tr>
<tr>
<td>88</td>
<td>SS 3.A.1</td>
<td>Provide safe and convenient access to beaches and inland resources through the park system.</td>
<td>Parks &amp; Recreation</td>
<td>25</td>
</tr>
<tr>
<td>89</td>
<td>SS 3.A.2</td>
<td>Identify and design new shared use paths to provide safe corridors for pedestrians and cyclists.</td>
<td>Public Works</td>
<td>25</td>
</tr>
<tr>
<td>90</td>
<td>SS 3.A.3</td>
<td>Encourage the development of access ways to the path, when development is adjacent to or near a shared use path.</td>
<td>Planning</td>
<td>25</td>
</tr>
<tr>
<td>91</td>
<td>SS 3.A.4</td>
<td>Increase opportunities for public access to mountainous and forested areas in a way that is ecologically sustainable.</td>
<td>DLNR</td>
<td>25</td>
</tr>
<tr>
<td>#</td>
<td>EC 1.A.1</td>
<td>Revitalize—rather than expand—the existing Visitor Destination Areas in Po‘ipū, Līhuʻe, Wailua, and Princeville.</td>
<td>Planning</td>
<td>27</td>
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<tr>
<td>93</td>
<td>EC 1.A.2</td>
<td>Focus visitor uses, services, facilities, and accommodation in the Visitor Destination Area.</td>
<td>Planning / Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>94</td>
<td>EC 1.A.3</td>
<td>Do not expand existing Visitor Destination Area boundaries beyond resort-designated areas.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>95</td>
<td>EC 1.A.4</td>
<td>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.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>96</td>
<td>EC 1.A.5</td>
<td>Require short-duration expiration dates should development not be constructed as permitted.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>97</td>
<td>EC 1.A.6</td>
<td>Where appropriate, negotiate with entitled resort projects to reduce unit count if discretionary permits are sought again.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>98</td>
<td>EC 1.A.7</td>
<td>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.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>99</td>
<td>EC 2.A.1</td>
<td>Ensure agriculture-designated lands are used for agriculture and related activities, including aquaculture, commercial forestry, and animal husbandry.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>100</td>
<td>EC 2.A.2</td>
<td>Use urban growth boundaries or other land preservation easements to limit conversion of agriculture-designated lands to non-agricultural uses.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>101</td>
<td>EC 2.A.3</td>
<td>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.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>102</td>
<td>EC 2.A.4</td>
<td>Provide criteria to allow clustering of allowable density for landowners of Important Agricultural Land (IAL).</td>
<td>Planning</td>
<td>28</td>
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<tr>
<td>103</td>
<td>EC 2.A.5</td>
<td>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.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>104</td>
<td>EC 2.A.6</td>
<td>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.”</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>105</td>
<td>EC 2.A.7</td>
<td>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.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>106</td>
<td>EC 2.A.8</td>
<td>Revise the agricultural property tax regime, including but not limited to the Agricultural Dedication program, to increase incentives to lease land for productive farms.</td>
<td>Economic Development / Finance</td>
<td>28</td>
</tr>
<tr>
<td>107</td>
<td>EC 2.A.9</td>
<td>Clarify rules and authority related to permitting of agricultural structures and uses on IAL.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>108</td>
<td>EC 2.A.10</td>
<td>Include community gardens as a permitted use in residential areas.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>109</td>
<td>EC 2.A.11</td>
<td>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.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>110</td>
<td>EC 3.A.1</td>
<td>Lessen zoning restrictions for home-based businesses.</td>
<td>Planning</td>
<td>29</td>
</tr>
<tr>
<td>111</td>
<td>EC 3.A.2</td>
<td>Reduce the costs and regulatory hurdles associated with starting a business.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>112</td>
<td>EC 3.A.3</td>
<td>Increase inventory of industrial zoned lands.</td>
<td>Planning</td>
<td>29</td>
</tr>
<tr>
<td>113</td>
<td>HR 1.A.1</td>
<td>Broaden the types of uses allowed in historic structures.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>114</td>
<td>HR 1.A.2</td>
<td>Support the reuse and renovation of historic structures through building code amendments.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>115</td>
<td>HR 1.A.3</td>
<td>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.</td>
<td>Planning</td>
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<tr>
<td>116</td>
<td>HR 2.A.1</td>
<td>Preserve, restore, and maintain customary access to important archaeological and cultural sites.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>117</td>
<td>HR 2.A.2</td>
<td>Create natural, landscaped buffers between archaeological sites and adjacent uses.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>118</td>
<td>HR 2.A.3</td>
<td>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.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>119</td>
<td>HR 2.A.4</td>
<td>Require developers to provide archaeological and cultural assessments prior to clearing or development of land in areas of historical significance.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>120</td>
<td>HR 2.A.5</td>
<td>Promote, encourage, and require the correct use of traditional place names.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>121</td>
<td>HR 2.A.6</td>
<td>Establish archaeological districts where high concentrations of sites exist.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>122</td>
<td>HR 2.A.7</td>
<td>Encourage restoration, management, and practitioner access for significant cultural sites on private land, as allowed by law.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>123</td>
<td>HR 2.A.8</td>
<td>Encourage the restoration, management, and use of Kaua‘i’s fishponds and lo‘i kalo.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>124</td>
<td>HR 2.A.9</td>
<td>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.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>125</td>
<td>HR 2.A.10</td>
<td>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.</td>
<td>Planning</td>
<td>31</td>
</tr>
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<tr>
<td>126</td>
<td>HR</td>
<td>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.</td>
<td>Planning</td>
<td>32</td>
</tr>
<tr>
<td>127</td>
<td>HR</td>
<td>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.</td>
<td>Planning</td>
<td>32</td>
</tr>
<tr>
<td>128</td>
<td>ES</td>
<td>Promote increased energy conservation and renewable energy production.</td>
<td>Mayor’s Office</td>
<td>33</td>
</tr>
<tr>
<td>129</td>
<td>ES</td>
<td>Optimize the mix of energy crops that can provide fuel for power production on Kaua‘i.</td>
<td>Mayor’s Office</td>
<td>33</td>
</tr>
<tr>
<td>130</td>
<td>ES</td>
<td>Streamline and expedite planning and permitting processes involving renewable energy facilities.</td>
<td>Planning</td>
<td>33</td>
</tr>
<tr>
<td>131</td>
<td>ES</td>
<td>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.</td>
<td>Public Works</td>
<td>33</td>
</tr>
<tr>
<td>132</td>
<td>ES</td>
<td>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.</td>
<td>Planning</td>
<td>33</td>
</tr>
<tr>
<td>133</td>
<td>ES</td>
<td>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.</td>
<td>Planning</td>
<td>34</td>
</tr>
<tr>
<td>134</td>
<td>ES</td>
<td>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.</td>
<td>Planning</td>
<td>34</td>
</tr>
<tr>
<td>135</td>
<td>ES</td>
<td>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.</td>
<td>Transportation/Economic Development</td>
<td>34</td>
</tr>
<tr>
<td>136</td>
<td>ES</td>
<td>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.</td>
<td>Planning</td>
<td>34</td>
</tr>
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<tr>
<td>137</td>
<td>ES 2.A.5</td>
<td>Support continued reductions in emissions from local energy production.</td>
<td>Mayor's Office</td>
<td>34</td>
</tr>
<tr>
<td>138</td>
<td>PS 1.A.1</td>
<td>Maintain effective levels of public safety services to protect the growing population.</td>
<td>Mayor's Office / County Council</td>
<td>35</td>
</tr>
<tr>
<td>139</td>
<td>PS 1.A.2</td>
<td>Upgrade and enhance facilities to address existing vulnerabilities and support necessary growth in emergency response personnel.</td>
<td>Emergency Management</td>
<td>35</td>
</tr>
<tr>
<td>140</td>
<td>PS 2.A.1</td>
<td>Minimize coastal development in areas of high risk of erosion, flooding, tsunami inundation, and sea level rise.</td>
<td>Planning</td>
<td>36</td>
</tr>
<tr>
<td>141</td>
<td>PS 2.A.2</td>
<td>Provide for adequate emergency shelters and communication systems in all planning districts.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>142</td>
<td>PS 2.A.3</td>
<td>Periodically review building codes and permitting standards for alignment with disaster risk reduction (DRR) efforts.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>143</td>
<td>PS 2.A.4</td>
<td>Designate areas to serve as public shelters when designing and constructing new public buildings.</td>
<td>Planning</td>
<td>36</td>
</tr>
<tr>
<td>144</td>
<td>PS 2.A.5</td>
<td>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.</td>
<td>Planning</td>
<td>36</td>
</tr>
<tr>
<td>145</td>
<td>PS 3.A.1</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>146</td>
<td>PS 3.A.2</td>
<td>Regularly review and refine relevant policies, rules, and regulations based on the most currently available climate and hazard science and projections.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>147</td>
<td>PS 3.A.3</td>
<td>Identify lands/areas that may serve as buffers from coastal hazards and restrict development within them.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>148</td>
<td>PS 3.A.4</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>149</td>
<td>PS 3.A.5</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
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| 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           |
<p>| 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           |</p>
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<tbody>
<tr>
<td>158</td>
<td>OH 2.A.1</td>
<td>For large residential projects and in new communities, ensure the development of adequate school facilities, either at existing schools or at new school sites.</td>
<td>Planning</td>
<td>39</td>
</tr>
<tr>
<td>159</td>
<td>OH 2.A.2</td>
<td>Have developers pay their share of all costs needed to provide adequate school facilities for the children anticipated to live in their development.</td>
<td>Planning</td>
<td>39</td>
</tr>
<tr>
<td>160</td>
<td>OH 2.A.3</td>
<td>Support the use, expansion, and development of family childcare homes, preschools, parent/child kindergarten readiness programs, and charter schools.</td>
<td>Planning</td>
<td>39</td>
</tr>
<tr>
<td>161</td>
<td>OH 3.A.1</td>
<td>Provide access to frequent and convenient public transit near major job centers and health care facilities.</td>
<td>Transportation</td>
<td>40</td>
</tr>
<tr>
<td>162</td>
<td>OH 3.A.2</td>
<td>Ensure community design supports healthy and active lifestyles.</td>
<td>Planning</td>
<td>40</td>
</tr>
<tr>
<td>163</td>
<td>OH 3.A.3</td>
<td>Consider zoning options that limit new fast-food restaurants close to schools, daycare centers, or parks.</td>
<td>Planning</td>
<td>40</td>
</tr>
<tr>
<td>164</td>
<td>OH 3.A.4</td>
<td>Support the built environment and land use recommendations provided by the Native Hawaiian Health Task Force and similar community health initiatives.</td>
<td>Planning</td>
<td>40</td>
</tr>
<tr>
<td>165</td>
<td>OH 4.A.1</td>
<td>Require a minimum accessway width of 10 feet and locate accessways at convenient intervals.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>166</td>
<td>OH 4.A.2</td>
<td>Protect and preserve mauka and makai access for traditional Hawaiian cultural practices.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>167</td>
<td>OH 4.A.3</td>
<td>Require identification and mitigation of potential impacts of subsistence activities and resources when reviewing development permits.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>168</td>
<td>LU A.1</td>
<td>Implement a zoning program to comprehensively redistrict and rezone lands consistent with the Future Land Use Map and updated Community Plan and map designations.</td>
<td>Planning</td>
<td>42</td>
</tr>
<tr>
<td>169</td>
<td>LU A.2</td>
<td>Build upon place types in future Community Plans and update zoning and development standards to be place-based.</td>
<td>Planning</td>
<td>42</td>
</tr>
<tr>
<td>170</td>
<td>LU A.3</td>
<td>Support State Land Use Boundary Amendment Petitions for new Urban District consistent with the Future Land Use Map.</td>
<td>Planning</td>
<td>42</td>
</tr>
<tr>
<td>171</td>
<td>LU A.4</td>
<td>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.</td>
<td>Planning</td>
<td>42</td>
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## 2. PLANS AND STUDIES

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<tbody>
<tr>
<td>1</td>
<td>WA 1.B.1</td>
<td>Utilize the Forest Reserve and Natural Area Reserve Plans in community planning processes and share information regarding forest management activities with the public.</td>
<td>Planning</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>WA 1.B.2</td>
<td>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.</td>
<td>Planning</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>WA 2.B.1</td>
<td>In Community Plans, include protection actions for streams and inland water bodies to prevent degradation of water quality and address non-point source pollution.</td>
<td>Planning</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>WA 2.B.2</td>
<td>Establish a drainage system database to better understand the drainage network on Kaua‘i and to assist with water quantity and quality impacts.</td>
<td>Public Works</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>WA 2.B.3</td>
<td>Periodically review the County’s flood control measures and plans using updated information and forecasts on climate change.</td>
<td>Planning / Public Works</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>WA 2.B.4</td>
<td>Develop drainage master plans for flood-prone areas such as Hanalei, Nāwiliwili, Kapa‘a, Wailua, Po‘ipū, and Kekaha.</td>
<td>Planning / Public Works</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>WA 3.B.1</td>
<td>Restore lost and unrecorded beach accesses by identifying, recording, and demarcating accessways for public use.</td>
<td>Planning</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>WA 3.B.2</td>
<td>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.</td>
<td>Planning</td>
<td>3</td>
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<tr>
<td>9</td>
<td>WA 3.B.3</td>
<td>Recognize scientific uncertainty by using scenario planning and adaptive management techniques that adjust policies and rules based on monitoring efforts.</td>
<td>Planning</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>WA 3.B.4</td>
<td>Analyze options and criteria for relocation of development outside of hazardous areas along the coast and incorporate findings into a long-term relocation plan.</td>
<td>Planning</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>WA 3.B.5</td>
<td>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.</td>
<td>Planning</td>
<td>3</td>
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<tr>
<td>12</td>
<td>HO</td>
<td>Find ways to insulate affordable housing units from the market, whether rentals or for ownership, to preserve the affordability of units.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>HO</td>
<td>Review existing affordable housing requirements in plans and zoning amendments to assess impediments to affordable housing creation.</td>
<td>Planning</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>HO</td>
<td>Assess the County’s affordable housing needs and priorities through the five-year Consolidated Plan and one-year Action Plans.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>HO</td>
<td>Establish a ratio for the housing needs for workforce, elderly, and disabled households, and amend existing laws and plans as needed.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>HO</td>
<td>Prevent displacement of vulnerable renters through rent stabilization policies and tax incentives for long-term rentals.</td>
<td>Housing/Finance</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>HO</td>
<td>Integrate the recommendations of DHHL plans into community planning.</td>
<td>Planning</td>
<td>9</td>
</tr>
<tr>
<td>18</td>
<td>HO</td>
<td>Support the implementation and update of the Kaua’i Houseless Solutions Summit Plan.</td>
<td>Mayor’s Office</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>LT</td>
<td>In all Community Plans, incorporate planning of roadway, transit, bike and pedestrian facilities, and transportation needs to support economic revitalization.</td>
<td>Planning</td>
<td>13</td>
</tr>
<tr>
<td>20</td>
<td>LT</td>
<td>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.</td>
<td>Planning</td>
<td>13</td>
</tr>
<tr>
<td>21</td>
<td>LT</td>
<td>In all Community Plans, develop a regional traffic circulation plan that includes all modes of transportation.</td>
<td>Planning</td>
<td>13</td>
</tr>
<tr>
<td>22</td>
<td>LT</td>
<td>Implement the Short-Range Transit Plan.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>23</td>
<td>LT</td>
<td>Complete a Mid-Range (4-7 year) Transit Plan for longer-term transit planning.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>LT</td>
<td>Address the feasibility and practicality of accommodating luggage, surfboards, and other large objects on County and private buses.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>LT</td>
<td>Identify high-priority pedestrian safety projects based on crash data.</td>
<td>Transportation</td>
<td>16</td>
</tr>
<tr>
<td>26</td>
<td>LT</td>
<td>Establish an islandwide bikeways plan with priorities for implementation through the community planning process.</td>
<td>Planning / Public Works</td>
<td>17</td>
</tr>
<tr>
<td>27</td>
<td>LT</td>
<td>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.</td>
<td>Planning</td>
<td>18</td>
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<tr>
<td>28</td>
<td>LT 6.A.2</td>
<td>In partnership with the State, develop and implement a Parking Management Plan for the Līhu'e Civic Center.</td>
<td>Planning</td>
<td>18</td>
</tr>
<tr>
<td>29</td>
<td>CI 1.B.1</td>
<td>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.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>30</td>
<td>CI 1.B.2</td>
<td>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.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>31</td>
<td>CI 1.B.3</td>
<td>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.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>32</td>
<td>CI 1.B.4</td>
<td>Reconcile water service areas with County planning districts to integrate facilities with Community Plans.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>33</td>
<td>CI 2.B.1</td>
<td>Develop and update wastewater facility plans to guide decisions regarding the allocation of treatment capacity, the expansion of wastewater systems, and system improvement priorities.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>34</td>
<td>CI 2.B.2</td>
<td>Coordinate public and private planning, development, operation, and management of wastewater treatment and disposal systems.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>35</td>
<td>CI 3.B.1</td>
<td>Update and implement the <em>Solid Waste Integrated Management Plan</em> to set policies for solid waste programs, facility planning, capital improvements, operations, user fees, and financing facilities and operations.</td>
<td>Public Works</td>
<td>21</td>
</tr>
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<td>36</td>
<td>CI 3.B.2</td>
<td>Plan and prepare for emergency debris management and disposal due to future major storms and tsunamis.</td>
<td>Public Works</td>
<td>21</td>
</tr>
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<td>37</td>
<td>SS 1.B.1</td>
<td>Acknowledge the important role of town squares and other civic space in town centers and seek to improve usability of such venues.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>38</td>
<td>SS 1.B.2</td>
<td>Establish or update urban design standards through Community Plans.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>39</td>
<td>SS 1.B.3</td>
<td>Identify public art opportunities and funding in community and facility planning.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>40</td>
<td>SS 2.B.1</td>
<td>Plan for safe routes to parks, especially in areas with high concentration of youth.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
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<tr>
<td>41</td>
<td>SS 2.B.2</td>
<td>Utilize vacant or underused County-owned land for community purposes.</td>
<td>Mayor’s Office</td>
<td>24</td>
</tr>
<tr>
<td>42</td>
<td>SS 2.B.3</td>
<td>Update and implement the Kaua‘i Parks &amp; Recreation Master Plan (2013).</td>
<td>Planning</td>
<td>24</td>
</tr>
<tr>
<td>43</td>
<td>EC 1.B.1</td>
<td>Implement and update the Kaua‘i Tourism Strategic Plan.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>44</td>
<td>EC 1.B.2</td>
<td>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.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>45</td>
<td>EC 1.B.3</td>
<td>Create a comprehensive incentive and disincentive plan to address visitor numbers and impacts in specific areas.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>46</td>
<td>EC 2.B.1</td>
<td>Consider the relationship and proximity of other land uses to agricultural land in planning efforts. Define “rural” and include its relationship to agriculture.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>47</td>
<td>EC 2.B.2</td>
<td>Update and implement the Agricultural Water Use and Development Plan.</td>
<td>Water</td>
<td>28</td>
</tr>
<tr>
<td>48</td>
<td>EC 2.B.3</td>
<td>Improve upon or develop a system for local and export marketing of food and primary resources.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>49</td>
<td>EC 2.B.4</td>
<td>Create an agriculture database of key information and indicators that would enable the monitoring of agricultural progress and growth.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>50</td>
<td>EC 2.B.5</td>
<td>Increase access to healthy food in underserved neighborhoods and build more equitable food systems, from cultivation to disposal.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>51</td>
<td>EC 2.B.6</td>
<td>Update and implement the Kaua‘i Agriculture Strategic Plan.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>52</td>
<td>EC 3.B.1</td>
<td>Implement and update the Comprehensive Economic Development Strategy (CEDS).</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>53</td>
<td>EC 3.B.2</td>
<td>Develop business improvement districts and Main Street programs to fund revitalization efforts.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>54</td>
<td>HR 1.B.1</td>
<td>Update and maintain the inventory and management plan for historic resources.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>55</td>
<td>HR 2.B.1</td>
<td>Inventory and acknowledge the importance of archaeological sites and wahi pana during community planning processes.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>56</td>
<td>HR 2.B.2</td>
<td>Create an inventory of kuleana lands and describe their vulnerability to sale and development.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>57</td>
<td>HR 2.B.3</td>
<td>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.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>58</td>
<td>HR 3.B.1</td>
<td>Identify key landmarks, exceptional trees, and scenic resources through Community Plans.</td>
<td>Planning</td>
<td>32</td>
</tr>
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<tr>
<td>59</td>
<td>HR 3.B.2</td>
<td>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.</td>
<td>Planning</td>
<td>32</td>
</tr>
<tr>
<td>60</td>
<td>HR 3.B.3</td>
<td>Support creation and implementation of corridor plans for historic and scenic roadways.</td>
<td>Planning</td>
<td>32</td>
</tr>
<tr>
<td>61</td>
<td>ES 1.B.1</td>
<td>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.</td>
<td>University of Hawai‘i / Economic Development</td>
<td>33</td>
</tr>
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<td>62</td>
<td>ES 2.B.1</td>
<td>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.</td>
<td>Mayor’s Office</td>
<td>34</td>
</tr>
<tr>
<td>63</td>
<td>ES 2.B.2</td>
<td>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.</td>
<td>Public Works</td>
<td>34</td>
</tr>
<tr>
<td>64</td>
<td>ES 2.B.3</td>
<td>Conduct a greenhouse gas emissions inventory for the County.</td>
<td>Economic Development</td>
<td>34</td>
</tr>
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<td>65</td>
<td>PS 2.B.1</td>
<td>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.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>66</td>
<td>PS 2.B.2</td>
<td>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.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>67</td>
<td>PS 2.B.3</td>
<td>Work with the State Office of Conservation and Coastal Lands (OCCL) to update the Coastal Erosion Mitigation Plan for Kaua‘i.</td>
<td>State DLNR</td>
<td>36</td>
</tr>
<tr>
<td>68</td>
<td>PS 2.B.4</td>
<td>Identify and index communities that have existing disaster resilience plans. Provide support to current and ongoing community hazard risk reduction, mitigation, and planning efforts.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>69</td>
<td>PS 2.B.5</td>
<td>Periodically review and update the Multi-Hazard Mitigation and Resilience Plan.</td>
<td>Emergency Management</td>
<td>36</td>
</tr>
<tr>
<td>70</td>
<td>PS 3.B.1</td>
<td>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.</td>
<td>Planning/ Emergency Management</td>
<td>37</td>
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<td>71</td>
<td>PS 3.B.2</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>72</td>
<td>PS 3.B.3</td>
<td>Encourage strategic retreat and relocation to safer areas based on the results of the assessments above.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>73</td>
<td>PS 3.B.4</td>
<td>Use results of hazard, risk, and vulnerability assessments to inform adaptation strategies to be incorporated into Community Plans or other planning processes.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>74</td>
<td>PS 3.B.5</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>75</td>
<td>PS 3.B.6</td>
<td>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.</td>
<td>Planning</td>
<td>37</td>
</tr>
<tr>
<td>76</td>
<td>OH 1.B.1</td>
<td>Complete a study to establish ratios for different categories of housing for workforce (less than 140 percent of median income), elderly, and disabled.</td>
<td>Housing</td>
<td>38</td>
</tr>
<tr>
<td>77</td>
<td>OH 3.B.1</td>
<td>Include community health concerns in community planning.</td>
<td>Planning</td>
<td>40</td>
</tr>
<tr>
<td>78</td>
<td>OH 3.B.2</td>
<td>Implement and update the Kau‘a‘i Community Drug Response Plan.</td>
<td>Mayor’s Office</td>
<td>40</td>
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<tr>
<td>79</td>
<td>OH 3.B.3</td>
<td>Implement and update the Kau‘a‘i Plan on Aging.</td>
<td>Elderly Affairs</td>
<td>40</td>
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<tr>
<td>80</td>
<td>OH 3.B.4</td>
<td>Implement and update the Kau‘a‘i Community Health Improvement Initiative.</td>
<td>Planning</td>
<td>40</td>
</tr>
<tr>
<td>81</td>
<td>OH 4.B.1</td>
<td>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.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>82</td>
<td>OH 4.B.2</td>
<td>Create regional networks of public trails. Partner with private landowners for missing connections via managed access.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>83</td>
<td>OH 4.B.3</td>
<td>Explore solutions for protecting access to recreational opportunities, including fishing, hunting, surfing, hiking, and other activities in community planning.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>84</td>
<td>LU B.1</td>
<td>Use the community planning process to update and refine the Future Land Use Maps as needed.</td>
<td>Planning</td>
<td>42</td>
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### 3. PROJECTS AND PROGRAMS

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<tr>
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<tr>
<td>1</td>
<td>WA 1.C.1</td>
<td>Support projects that conserve and protect our remaining endemic forests and landscapes in the upper watershed.</td>
<td>Planning</td>
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<tr>
<td>2</td>
<td>WA 1.C.2</td>
<td>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.</td>
<td>Planning</td>
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<tr>
<td>3</td>
<td>WA 1.C.3</td>
<td>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.</td>
<td>Mayor’s Office</td>
<td>1</td>
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<tr>
<td>4</td>
<td>WA 1.C.4</td>
<td>Utilize best practice watershed management plans, such as the Hanalei Watershed Management Plan, as examples for other communities to employ.</td>
<td>Planning</td>
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</tr>
<tr>
<td>5</td>
<td>WA 2.C.1</td>
<td>Utilize green infrastructure concepts and best management practices in County projects.</td>
<td>Public Works</td>
<td>2</td>
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<tr>
<td>6</td>
<td>WA 2.C.2</td>
<td>Mark stormwater drains as “going to the ocean.”</td>
<td>Public Works</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>WA 2.C.3</td>
<td>Complete the update of the Kaua‘i County Water Use and Development Plan.</td>
<td>Planning</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>WA 3.C.1</td>
<td>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.</td>
<td>Mayor’s Office / County Council</td>
<td>3</td>
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<tr>
<td>9</td>
<td>WA 3.C.2</td>
<td>Acknowledge, support, and participate in government, university, and private efforts to better understand and predict climate change impacts on coastal areas.</td>
<td>Planning</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>WA 4.B.1</td>
<td>Increase wildlife and habitat protection knowledge and expertise within the County government.</td>
<td>Planning</td>
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</tr>
<tr>
<td>11</td>
<td>WA 4.B.2</td>
<td>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.</td>
<td>Public Words</td>
<td>4</td>
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<tr>
<td>12</td>
<td>WA 4.B.3</td>
<td>Adopt a comprehensive animal control ordinance to reduce or eliminate populations of feral, abandoned, and stray cats.</td>
<td>County Council</td>
<td>4</td>
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<tr>
<td>13</td>
<td>WA 4.B.4</td>
<td>Develop a list of native plant species suitable for landscaping.</td>
<td>Public Works</td>
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<tr>
<td>14</td>
<td>HO 1.C.1</td>
<td>Complete the Lima Ola affordable housing project.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>HO 1.C.2</td>
<td>Seek and acquire land in or near town centers with access to transit, public water, and sewers for future affordable housing development.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>HO 1.C.3</td>
<td>Create dedicated sources of funding and continue to use the Housing Revolving Fund to finance affordable housing projects.</td>
<td>Housing / County Council</td>
<td>5</td>
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<tr>
<td>17</td>
<td>HO 1.C.4</td>
<td>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.</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>HO 1.C.5</td>
<td>Support the housing needs of low income households through the Federal Housing Assistance Payments Program (Section 8).</td>
<td>Housing</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>HO 1.C.6</td>
<td>Support a flexible planning process and robust monitoring system to allow timely changes in strategy and resource allocation for the housing program.</td>
<td>Housing</td>
<td>5</td>
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<tr>
<td>20</td>
<td>HO 1.C.7</td>
<td>Develop a quasi-public housing development or redevelopment agency to support affordable housing projects, particularly infill housing development projects within town centers.</td>
<td>Housing</td>
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<td>21</td>
<td>HO 1.C.8</td>
<td>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.</td>
<td>Mayor’s Office</td>
<td>5</td>
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<tr>
<td>22</td>
<td>HO 1.C.9</td>
<td>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.</td>
<td>Housing</td>
<td>5</td>
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<td>23</td>
<td>HO 1.C.10</td>
<td>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.”</td>
<td>Housing</td>
<td>5</td>
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<tr>
<td>24</td>
<td>HO 2.C.1</td>
<td>Improve infrastructure and facility improvements in town centers to support a mixed use environment and increased density.</td>
<td>Planning</td>
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<tr>
<td>25</td>
<td>HO 2.C.2</td>
<td>Hold educational sessions for landowners in Special Planning Areas to inform them of new development standards and potential infill development opportunities.</td>
<td>Planning</td>
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<tr>
<td>26</td>
<td>HO 5.B.1</td>
<td>Partner with DHHL on infrastructure projects that will support development of both County and DHHL priority growth areas.</td>
<td>Water/Public Works</td>
<td>9</td>
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<tr>
<td>27</td>
<td>HO 5.B.2</td>
<td>Partner with DHHL to relocate the Wailua Wastewater Treatment Plant out of the tsunami zone and to support future residential development on DHHL land.</td>
<td>Public Works</td>
<td>9</td>
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<td>28</td>
<td>HO 7.C.1</td>
<td>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.</td>
<td>Housing</td>
<td>11</td>
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<tr>
<td>29</td>
<td>HO 7.C.2</td>
<td>In addressing homelessness, adopt and implement the Housing First approach to reduce and ultimately eliminate homelessness.</td>
<td>Housing</td>
<td>11</td>
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<tr>
<td>30</td>
<td>LT 1.C.1</td>
<td>Establish transportation priorities using a performance-based evaluation process, which considers the following criteria:</td>
<td>Planning/Public Works</td>
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<td></td>
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<td>a. Safety;</td>
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<td>b. System preservation;</td>
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<td>c. Economic development/community access;</td>
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<td>d. Support of growth areas as designated in the General Plan and Community Plans;</td>
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<td></td>
<td>e. Congestion management; and</td>
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<td></td>
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<td>f. Environmental and cultural impacts.</td>
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| 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            |
<p>| 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            |</p>
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<td>39</td>
<td>LT 3.C.2</td>
<td>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.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>40</td>
<td>LT 3.C.3</td>
<td>Focus initial phases of service expansion in areas of highest ridership potential.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>41</td>
<td>LT 3.C.4</td>
<td>Improve bus route and schedule information.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>42</td>
<td>LT 3.C.5</td>
<td>Complete bus shelters and amenities at 50 priority bus stops.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>43</td>
<td>LT 3.C.6</td>
<td>Identify priorities for ADA-compliant pedestrian access to bus stops. Develop a construction schedule and funding plan for priority projects.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>44</td>
<td>LT 3.C.7</td>
<td>Provide adequate and efficient bus storage and maintenance facilities.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>45</td>
<td>LT 3.C.8</td>
<td>Identify locations for park and rides, especially in coordination with a North Shore shuttle.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>46</td>
<td>LT 3.C.9</td>
<td>Convert bus fleet to sustainable fuels.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>47</td>
<td>LT 3.C.11</td>
<td>Update maintenance facilities to continue maintenance of the bus fleet.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>48</td>
<td>LT 5.C.1</td>
<td>Complete planning, engineering, and construction for the West Side Path from Waimea to Kekaha and from Hanapēpē to Salt Pond.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>49</td>
<td>LT 5.C.2</td>
<td>Complete the Ke Ala Hele Makalae path from Anahola to Lihue.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>50</td>
<td>LT 5.C.3</td>
<td>Complete planning and first phase construction of a North Shore Path in areas supported by the community.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>51</td>
<td>LT 5.C.4</td>
<td>Complete at least one segment of a shared use path identified in the South Kaua'i Community Plan and the Lihue Community Plan.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>52</td>
<td>LT 5.C.5</td>
<td>Complete priority bikeway projects as identified in Community Plans.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>53</td>
<td>CI 2.C.1</td>
<td>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.</td>
<td>Planning</td>
<td>20</td>
</tr>
<tr>
<td>54</td>
<td>CI 2.C.2</td>
<td>Provide adequate trunk sewer and collection main capacities to serve existing and future urban development.</td>
<td>Public Works</td>
<td>20</td>
</tr>
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<td>55</td>
<td>CI 2.C.3</td>
<td>Plan for and implement regional wastewater treatment solutions for South Kaua‘i and Kīlauea.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>56</td>
<td>CI 2.C.4</td>
<td>Monitor the disposition and potential effect of cesspool seepage and injection wells on the groundwater and nearshore water quality.</td>
<td>State DOH</td>
<td>20</td>
</tr>
<tr>
<td>57</td>
<td>CI 2.C.5</td>
<td>Support water reuse projects and increase the use of recycled water.</td>
<td>Public Works</td>
<td>20</td>
</tr>
<tr>
<td>58</td>
<td>CI 2.C.6</td>
<td>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.</td>
<td>Public Works/Parks &amp; Recreation</td>
<td>20</td>
</tr>
<tr>
<td>59</td>
<td>CI 2.C.7</td>
<td>Improve wastewater infrastructure through grant and loan programs, such as the USDA Rural Development Program.</td>
<td>Water</td>
<td>20</td>
</tr>
<tr>
<td>60</td>
<td>CI 3.C.1</td>
<td>Site and construct a new landfill.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>61</td>
<td>CI 3.C.2</td>
<td>Establish an automated weekly, curbside collection system for residentially generated green waste and recyclables.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>62</td>
<td>CI 3.C.3</td>
<td>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.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>63</td>
<td>CI 3.C.4</td>
<td>Divert at least 70 percent of solid waste through increased source reduction, recycling, biodiversion, and landfill diversion methods.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>64</td>
<td>CI 3.C.5</td>
<td>Maximize effective life of existing and future landfill capacity.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>65</td>
<td>CI 3.C.6</td>
<td>Increase the convenience of recycling centers for users.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>66</td>
<td>CI 3.C.7</td>
<td>Provide commercial volume-based collection with enhanced recycling programs, including incentives for businesses to adopt zero-waste collection programs.</td>
<td>Public Works</td>
<td>21</td>
</tr>
<tr>
<td>67</td>
<td>SS 1.C.1</td>
<td>Implement economic revitalization projects in town centers, such as the Līhuʻe Town Core TIGER grant project.</td>
<td>Public Works</td>
<td>23</td>
</tr>
<tr>
<td>68</td>
<td>SS 1.C.2</td>
<td>Construct centralized parking lots in towns with parking management issues.</td>
<td>Public Works</td>
<td>23</td>
</tr>
<tr>
<td>69</td>
<td>SS 1.C.3</td>
<td>Improve criteria for species selection and maintenance of street trees and landscaping.</td>
<td>Planning</td>
<td>23</td>
</tr>
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<tr>
<td>70</td>
<td>SS 1.C.4</td>
<td>Identify opportunities for public art installation in projects, such as roundabouts, parks, and streetscape improvements.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>71</td>
<td>SS 2.C.1</td>
<td>Support priority projects in the Kaua‘i Parks &amp; Recreation Master Plan.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>72</td>
<td>SS 2.C.2</td>
<td>Prioritize park improvements and provide safe routes to parks, especially in low-income neighborhoods with high concentrations of youth.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>73</td>
<td>SS 2.C.3</td>
<td>Implement a playground development and rehabilitation program to provide high quality play environments, especially in underserved communities.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>74</td>
<td>SS 2.C.4</td>
<td>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.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>75</td>
<td>SS 2.C.5</td>
<td>Promote social interaction through facility improvements, such as pavilions, shade trees, and seating.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>76</td>
<td>SS 2.C.6</td>
<td>Expand indoor recreation spaces at selected parks.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>77</td>
<td>SS 2.C.7</td>
<td>Ensure safety and cleanliness at Kaua‘i’s beach parks. Use Crime Prevention Through Environmental Design (CPTED) when planning improvements.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>78</td>
<td>SS 2.C.8</td>
<td>Address illegal camping in parks.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>79</td>
<td>SS 2.C.9</td>
<td>Provide accessibility features at popular facilities such as beach parks.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>80</td>
<td>SS 2.C.10</td>
<td>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.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>81</td>
<td>SS 2.C.11</td>
<td>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.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>82</td>
<td>SS 3.B.1</td>
<td>Complete Ka Ala Hele Makalae from Anahola to Līhu‘e.</td>
<td>Public Works</td>
<td>25</td>
</tr>
<tr>
<td>83</td>
<td>SS 3.B.2</td>
<td>Construct the Waimea-Kekaha Shared Use Path.</td>
<td>Public Works</td>
<td>25</td>
</tr>
<tr>
<td>84</td>
<td>SS 3.B.3</td>
<td>Construct the North Shore Share Use Path.</td>
<td>Public Works</td>
<td>25</td>
</tr>
<tr>
<td>85</td>
<td>SS 3.B.4</td>
<td>Construct a South Kaua‘i Shared Use Path.</td>
<td>Public Works</td>
<td>25</td>
</tr>
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<td>Objective</td>
<td>Description</td>
<td>Lead Agency</td>
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<tr>
<td>86</td>
<td>EC 1.C.1</td>
<td>Public Works</td>
<td>Improve route and destination signage to alleviate congestion associated with difficulties in finding desired locations.</td>
<td>Public Works</td>
</tr>
<tr>
<td>87</td>
<td>EC 1.C.2</td>
<td>Public Works</td>
<td>Improve waste disposal, collection, and management at popular destinations and provide more recycling options.</td>
<td>Public Works</td>
</tr>
<tr>
<td>88</td>
<td>EC 1.C.3</td>
<td>Transportation/Economic Development</td>
<td>Support projects to encourage visitor transportation mode shift from single occupancy vehicles to other modes.</td>
<td>Transportation/Economic Development</td>
</tr>
<tr>
<td>89</td>
<td>EC 2.C.1</td>
<td>Economic Development</td>
<td>Provide economic development programs to promote and support agriculture.</td>
<td>Economic Development</td>
</tr>
<tr>
<td>90</td>
<td>EC 2.C.2</td>
<td>Economic Development</td>
<td>Reestablish an Agricultural Specialist position with the Office of Economic Development.</td>
<td>Economic Development</td>
</tr>
<tr>
<td>91</td>
<td>EC 2.C.3</td>
<td>Economic Development</td>
<td>Support the Sunshine Markets and other means of marketing Kaua‘i agricultural and food products to residents, businesses, and visitors.</td>
<td>Economic Development</td>
</tr>
<tr>
<td>92</td>
<td>EC 2.C.4</td>
<td>Planning</td>
<td>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.</td>
<td>Planning</td>
</tr>
<tr>
<td>93</td>
<td>EC 2.C.5</td>
<td>Finance</td>
<td>Increase incentives to lease land to small farmers through revisions to the agricultural property tax regime.</td>
<td>Finance</td>
</tr>
<tr>
<td>94</td>
<td>EC 2.C.6</td>
<td>Water</td>
<td>Improve water infrastructure for irrigation in priority areas, such as IAL.</td>
<td>Water</td>
</tr>
<tr>
<td>95</td>
<td>EC 2.C.7</td>
<td>Planning</td>
<td>Develop community food hubs, commercial kitchens, and other initiatives that provide places for community members to grow and prepare their own food.</td>
<td>Planning</td>
</tr>
<tr>
<td>96</td>
<td>EC 2.C.8</td>
<td>Economic Development</td>
<td>Allow the use of SNAP benefits at farmers markets.</td>
<td>Economic Development</td>
</tr>
<tr>
<td>97</td>
<td>EC 2.C.9</td>
<td>Water</td>
<td>Reduce water rates for landowners of agricultural lands in active production.</td>
<td>Water</td>
</tr>
<tr>
<td>98</td>
<td>EC 2.C.10</td>
<td>Public Works</td>
<td>Establish a County-wide composting program.</td>
<td>Public Works</td>
</tr>
<tr>
<td>99</td>
<td>EC 3.C.1</td>
<td>Economic Development</td>
<td>Invest in shared facilities and resources that can be utilized by multiple opportunity clusters, such as creative industries and technical services.</td>
<td>Economic Development</td>
</tr>
<tr>
<td>100</td>
<td>EC 3.C.2</td>
<td>Planning</td>
<td>Provide infrastructure that increases the competitiveness of businesses on Kaua‘i and allows them to thrive in all parts of the island.</td>
<td>Planning</td>
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<td>Lead Agency</td>
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<tr>
<td>101</td>
<td>EC 3.C.3</td>
<td>Utilize County facilities and funds to support shared workspaces, makerspaces, and equipment for small businesses to utilize.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>102</td>
<td>EC 3.C.4</td>
<td>Support programs and infrastructure that enables employees to telecommute or work in satellite locations.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>103</td>
<td>EC 3.C.5</td>
<td>Attract technology and energy businesses that complement Kaua‘i’s economic and sustainability goals.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>104</td>
<td>EC 3.C.6</td>
<td>Build capacity for economic development in the target industry clusters identified by CEDS.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>105</td>
<td>HR 1.C.1</td>
<td>Maintain the character of historic structures and bridges by implementing best management practices that adhere to the Secretary of the Interior’s <em>Standards and Guidelines for Archeology and Historic Preservation</em> when rehabilitating and/or renovating historically significant buildings and structures.</td>
<td>Public Works</td>
<td>30</td>
</tr>
<tr>
<td>106</td>
<td>HR 1.C.2</td>
<td>Educate and encourage property owners to nominate structures and sites to the State and National Register of Historic Places.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>107</td>
<td>HR 1.C.3</td>
<td>Provide a real property tax exemption for historic properties, including commercial properties.</td>
<td>Finance/County Council</td>
<td>30</td>
</tr>
<tr>
<td>108</td>
<td>HR 1.C.4</td>
<td>Explore utilizing the Open Space Fund for historic preservation purposes.</td>
<td>Finance</td>
<td>30</td>
</tr>
<tr>
<td>109</td>
<td>HR 2.C.1</td>
<td>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.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>110</td>
<td>HR 2.C.2</td>
<td>Establish historical trails, markers, and events that draw attention to the history of Kaua‘i.</td>
<td>Parks and Recreation/State Parks</td>
<td>31</td>
</tr>
<tr>
<td>111</td>
<td>HR 2.C.3</td>
<td>Through stewardship agreements, ensure proper management and interpretation of significant cultural resources and sites.</td>
<td>Parks and Recreation/State Parks</td>
<td>31</td>
</tr>
<tr>
<td>112</td>
<td>HR 2.C.4</td>
<td>Achieve permanent preservation of highly significant cultural landscapes where multiple heritage and ecological values are located.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>113</td>
<td>HR 3.C.1</td>
<td>Support Kaua‘i Nui Kuapapa and other efforts to spread awareness of Kaua‘i’s original place names.</td>
<td>Mayor’s Office</td>
<td>32</td>
</tr>
<tr>
<td>114</td>
<td>HR 3.C.2</td>
<td>Support implementation of the corridor management plan for the Holo Holo Kōloa Scenic Byway.</td>
<td>Public Works</td>
<td>32</td>
</tr>
<tr>
<td>115</td>
<td>ES 1.C.1</td>
<td>Install more solar energy systems on County facilities.</td>
<td>Economic Development</td>
<td>33</td>
</tr>
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<td>Lead Agency</td>
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<tr>
<td>116</td>
<td>ES 1.C.2</td>
<td>Pursue green energy conservation, including but not limited to: groundskeeping and farming equipment/machinery, and ground transportation, by:</td>
<td>Economic Development</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Installing more, and regularly maintaining and repairing, electric vehicle charging stations.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>b. Introducing residential and commercial incentives to transition to electric groundskeeping and farming equipment/ machinery.</td>
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<tr>
<td></td>
<td></td>
<td>c. County transition from fuel-powered to electric vehicles, machinery, and equipment, where feasible.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>ES 1.C.3</td>
<td>Conduct regular reviews of County operations to identify ways to conserve energy, particularly during nighttime hours.</td>
<td>KUIC</td>
<td>33</td>
</tr>
<tr>
<td>118</td>
<td>ES 2.C.1</td>
<td>Establish capture and containment of methane at all landfills and County waste facilities.</td>
<td>Public Works</td>
<td>34</td>
</tr>
<tr>
<td>119</td>
<td>ES 2.C.2</td>
<td>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.</td>
<td>Public Works</td>
<td>34</td>
</tr>
<tr>
<td>120</td>
<td>ES 2.C.3</td>
<td>Support the expansion of electric vehicle charging station infrastructure at County facilities.</td>
<td>Economic Development</td>
<td>34</td>
</tr>
<tr>
<td>121</td>
<td>PS 1.B.1</td>
<td>Upgrade bridges in key areas to ensure emergency vehicles can service all residents and visitors.</td>
<td>Public Works</td>
<td>35</td>
</tr>
<tr>
<td>122</td>
<td>PS 1.B.2</td>
<td>Construct new fire stations to accommodate anticipated growth in the firefighting force.</td>
<td>Fire</td>
<td>35</td>
</tr>
<tr>
<td>123</td>
<td>PS 1.B.3</td>
<td>Strive to attain a police force, firefighting force, and water safety officer force whose coverage meets or exceeds national standards.</td>
<td>Police/Fire</td>
<td>35</td>
</tr>
<tr>
<td>124</td>
<td>PS 1.B.4</td>
<td>Support continuous training for all emergency response officers.</td>
<td>Emergency Management</td>
<td>35</td>
</tr>
<tr>
<td>125</td>
<td>PS 1.B.5</td>
<td>Encrypt County radio communications systems.</td>
<td>Police/Fire</td>
<td>35</td>
</tr>
<tr>
<td>126</td>
<td>PS 2.C.1</td>
<td>Ensure that the County’s GIS database, including all maps, data, and hazard information, is consistently available to all agencies. Facilitate data sharing thorough participation in the Hawai‘i Geographic Information Coordination Council.</td>
<td>Planning</td>
<td>36</td>
</tr>
<tr>
<td>#</td>
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<tr>
<td>127</td>
<td>PS 2.C.2</td>
<td>Update, maintain, and enhance the use of the County’s GIS database to improve decision-making and ensure consistency in planning, permitting, and construction regulations to reduce disaster risk.</td>
<td>Planning</td>
<td>36</td>
</tr>
<tr>
<td>128</td>
<td>PS 3.C.1</td>
<td>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.</td>
<td>State DLNR</td>
<td>37</td>
</tr>
<tr>
<td>129</td>
<td>OH 1.C.1</td>
<td>Develop funding sources to expand, improve, and maintain high-quality transportation, water, parks, broadband, and other infrastructure in underserved neighborhoods.</td>
<td>Planning</td>
<td>38</td>
</tr>
<tr>
<td>130</td>
<td>OH 1.C.2</td>
<td>Leverage infrastructure investments to bring jobs and housing opportunities to underserved communities.</td>
<td>Economic Development</td>
<td>38</td>
</tr>
<tr>
<td>131</td>
<td>OH 1.C.3</td>
<td>Increase access and affordability of public transit for youth and other transit-dependent populations.</td>
<td>Transportation</td>
<td>38</td>
</tr>
<tr>
<td>132</td>
<td>OH 1.C.4</td>
<td>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.</td>
<td>Planning</td>
<td>38</td>
</tr>
<tr>
<td>133</td>
<td>OH 1.C.5</td>
<td>Establish health and opportunity criteria for prioritizing County programs and policies.</td>
<td>Mayor’s Office</td>
<td>38</td>
</tr>
<tr>
<td>134</td>
<td>OH 1.C.6</td>
<td>Establish community standards for wages and benefits, ensure fair scheduling, and support worker organizing.</td>
<td>Human Resources</td>
<td>38</td>
</tr>
<tr>
<td>135</td>
<td>OH 1.C.7</td>
<td>Ensure fair hiring, equal pay, and equitable promotion opportunities within the County workforce.</td>
<td>Human Resources</td>
<td>38</td>
</tr>
<tr>
<td>136</td>
<td>OH 1.C.8</td>
<td>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.</td>
<td>Human Resources</td>
<td>38</td>
</tr>
<tr>
<td>137</td>
<td>OH 1.C.9</td>
<td>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.</td>
<td>Economic Development</td>
<td>38</td>
</tr>
<tr>
<td>138</td>
<td>OH 1.C.10</td>
<td>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.</td>
<td>Finance</td>
<td>38</td>
</tr>
<tr>
<td>139</td>
<td>OH 2.B.1</td>
<td>Prioritize pedestrian, bicycle, and road safety improvements around and adjacent to schools.</td>
<td>Public Works/ Transportation</td>
<td>39</td>
</tr>
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<tr>
<td>140</td>
<td>OH</td>
<td>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 Līhuʻe and Kapaʻa.</td>
<td>Parks and Recreation</td>
<td>39</td>
</tr>
<tr>
<td>141</td>
<td>OH</td>
<td>Prioritize sidewalk and bus stop improvements for accessibility near major health care facilities and group homes.</td>
<td>Transportation</td>
<td>40</td>
</tr>
<tr>
<td>142</td>
<td>OH</td>
<td>Improve the connectivity of essential services, including emergency response.</td>
<td>Emergency Management</td>
<td>40</td>
</tr>
<tr>
<td>143</td>
<td>OH</td>
<td>Ensure that low-income neighborhoods have high-quality parks, playgrounds, and green spaces.</td>
<td>Parks &amp; Recreation</td>
<td>40</td>
</tr>
<tr>
<td>144</td>
<td>OH</td>
<td>Leverage Federal resources such as community development block grants and neighborhood-focused programs to create opportunity-rich neighborhoods.</td>
<td>Housing/Planning</td>
<td>40</td>
</tr>
<tr>
<td>145</td>
<td>OH</td>
<td>Adopt policies for smoke-free cars with keiki, beaches, parks, and condos.</td>
<td>County Council</td>
<td>40</td>
</tr>
<tr>
<td>146</td>
<td>OH</td>
<td>Acquire priority projects identified by the Open Space Commission.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>147</td>
<td>OH</td>
<td>Pursue easements, acquisitions, and landowner agreements to expand trails, access, open space, protection of coastal lands, and wilderness areas.</td>
<td>Planning</td>
<td>41</td>
</tr>
<tr>
<td>148</td>
<td>OH</td>
<td>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.</td>
<td>Mayor’s Office</td>
<td>41</td>
</tr>
</tbody>
</table>
### 4. PARTNERSHIP NEEDS

<table>
<thead>
<tr>
<th>#</th>
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<th>Lead Agency</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>WA</td>
<td>Support the management and protection of Kauaʻi’s forest resources and upper watershed areas in the Conservation District.</td>
<td>State DLNR</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>WA</td>
<td>Support the State’s “World Conservation Congress Legacy Commitment: 30 by 30 Watershed Forests Target” to protect 30% (253,000 acres) of Hawaiʻi’s highest priority watershed forests by 2030.</td>
<td>Planning</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>WA</td>
<td>Educate the public and visitors about native species protection, wildfire prevention, the spread of invasive species, and water quality protection.</td>
<td>State DLNR</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>WA</td>
<td>Increase opportunities for public access to forests in a way that is ecologically sustainable.</td>
<td>State DLNR</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>WA</td>
<td>Promote education and enforcement campaigns to curb littering and dumping in forest areas. Provide trash and recycling receptacles near popular trailheads and picnic areas.</td>
<td>State DLNR</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>WA</td>
<td>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.</td>
<td>State DLNR</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>WA</td>
<td>Collaborate with community groups and stakeholders to better manage water resources in a cooperative fashion, avoiding adversarial fights that can divide the community.</td>
<td>State CWRM</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>WA</td>
<td>Encourage collaborative watershed and stream protection through the efforts of non-profit and volunteer environmental groups, such as the Hanalei Watershed Hui and Kauaʻi Watershed Alliance.</td>
<td>State DLNR</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>WA</td>
<td>Develop instream flow standards for Kauaʻi’s perennial streams, with a focus on the existing project to develop standards for Southeast Kaua’i.</td>
<td>State CWRM</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>WA</td>
<td>Maintain stream flows by periodically removing excessive debris and vegetation from stream channels and beds that can impede drainage.</td>
<td>State DLNR</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>WA</td>
<td>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.</td>
<td>State DLN/ State DOH</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>WA</td>
<td>Support the establishment of community-based councils to assist with watershed management issues.</td>
<td>State CWRM</td>
<td>2</td>
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<tr>
<td>13</td>
<td>WA</td>
<td>Seek to prevent stream overflow in low-lying communities by maintaining natural drainageways and preventing the buildup of debris.</td>
<td>State DLNR</td>
<td>2</td>
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<tr>
<td>14</td>
<td>WA</td>
<td>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.</td>
<td>State DLNR</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>WA</td>
<td>Manage local marine resources through community-based strategies, such as the Hā'ena Community-Based Subsistence Fishing Area.</td>
<td>State DLNR</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>WA</td>
<td>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.</td>
<td>Planning / Parks &amp; Recreation</td>
<td>3</td>
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<tr>
<td>17</td>
<td>WA</td>
<td>Encourage citizen groups to take responsibility for water resource monitoring and protection, such as through the expansion of the Makai Watch Program.</td>
<td>State DLNR</td>
<td>3</td>
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<tr>
<td>18</td>
<td>WA</td>
<td>Adopt tax policies favorable to public shoreline access.</td>
<td>Finance</td>
<td>3</td>
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<tr>
<td>19</td>
<td>WA</td>
<td>Dissuade beach driving through enforcement and by educating drivers about the laws, safety, and environmental and cultural impacts of driving on beaches.</td>
<td>State DLNR / State Parks / Parks and Recreation</td>
<td>3</td>
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<tr>
<td>20</td>
<td>WA</td>
<td>Provide preferred tax status and other incentives to help community groups, non-governmental organizations, and government agencies restore native lowland forests.</td>
<td>Finance / County Council</td>
<td>3</td>
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<tr>
<td>21</td>
<td>WA</td>
<td>Provide enforcement and education regarding endangered species regulations.</td>
<td>State DLNR</td>
<td>4</td>
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<tr>
<td>22</td>
<td>WA</td>
<td>Provide interpretive signage within protected areas to educate people about native flora and fauna.</td>
<td>State DLNR</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>WA</td>
<td>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.</td>
<td>Public Works / State DOT</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>WA</td>
<td>Utilize predator-proof fencing and new technology to protect endangered species, such as seabirds, from lights and powerlines.</td>
<td>State DLNR</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>WA</td>
<td>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.</td>
<td>State DLNR</td>
<td>4</td>
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<tr>
<td>26</td>
<td>WA 4.C.6</td>
<td>Protect and restore forest bird corridors, seabird flyways, waterbird habitat, and areas of monk seal loafing.</td>
<td>State DLNR</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>WA 4.C.7</td>
<td>Promote greater protection of Kaua‘i’s native flora and fauna biodiversity by reducing the threats of invasive species:</td>
<td>State DLNR</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Rapidly identify and address invasive species on County lands and coordinate with other public and private landowners to control sources of invasive species.</td>
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<tr>
<td></td>
<td></td>
<td>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.</td>
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<tr>
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<td></td>
<td>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.</td>
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<tr>
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<td></td>
<td>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.</td>
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<td></td>
<td></td>
<td>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.</td>
<td></td>
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<tr>
<td>28</td>
<td>WA 4.C.8</td>
<td>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.</td>
<td>State DLNR</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>WA 4.C.9</td>
<td>Utilize conservation easements and partnerships with land trusts to acquire natural areas and promote mitigation banking.</td>
<td>State DLNR</td>
<td>4</td>
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</table>
| 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           |
<p>| 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           |</p>
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<tbody>
<tr>
<td>38</td>
<td>HO 3.B.2</td>
<td>Enter into public/private partnerships to move forward development in new communities, especially in Līhuʻe, South Kauaʻi, and Kīlauea.</td>
<td>Mayor’s Office / Planning</td>
<td>7</td>
</tr>
<tr>
<td>39</td>
<td>HO 3.B.3</td>
<td>Leverage market-rate development to support long-term affordable housing through inclusionary zoning and other tools.</td>
<td>Housing</td>
<td>7</td>
</tr>
<tr>
<td>40</td>
<td>HO 5.D.1</td>
<td>Respect and support the mission of DHHL to prioritize planning for their beneficiaries.</td>
<td>State DHHL</td>
<td>9</td>
</tr>
<tr>
<td>41</td>
<td>HO 6.C.1</td>
<td>Provide and anticipate increasing services to the elderly and their caregivers, including access to transit, nutrition services, fitness programs, and personal care.</td>
<td>Housing</td>
<td>10</td>
</tr>
<tr>
<td>42</td>
<td>HO 7.D.1</td>
<td>Support the development and expansion of shelters to increase temporary housing for the houseless and other at-risk populations.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>43</td>
<td>HO 7.D.2</td>
<td>The Mayor and the County Housing Agency shall work with the State of Hawaiʻi 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.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>44</td>
<td>HO 7.D.3</td>
<td>Identify partnership opportunities with landowners and community organizations to accommodate sheltering and transitional housing needs for houseless populations and people with disabilities.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>45</td>
<td>HO 7.D.4</td>
<td>Develop a coordinated, integrated system of services that facilitates entry, offers wraparound services, and supports system exit when appropriate.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>46</td>
<td>HO 7.D.5</td>
<td>Provide transportation to enable the houseless to access services (offer rides, bus vouchers, pay as you go card, or other options).</td>
<td>Transportation</td>
<td>11</td>
</tr>
<tr>
<td>47</td>
<td>HO 7.D.6</td>
<td>Support rehabilitation programs for the houseless.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>48</td>
<td>HO 7.D.7</td>
<td>Prioritize resources for houseless families with children, youth, women, veterans, and people with disabilities.</td>
<td>Housing</td>
<td>11</td>
</tr>
<tr>
<td>49</td>
<td>LT 1.D.1</td>
<td>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.</td>
<td>Planning/Public Works</td>
<td>13</td>
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<td>50</td>
<td>LT 1.D.2</td>
<td>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 Kaumuali‘i Highway. Select a pilot project to test the process and outcomes.</td>
<td>Planning/Public Works</td>
<td>13</td>
</tr>
<tr>
<td>51</td>
<td>LT 1.D.3</td>
<td>Restructure the Transportation Coordinating Committee as a working group with representatives from Kaua‘i County Long Range Planning, the County’s Transportation Planner, Public Works Engineering, Capital Improvement Program Manager, Transportation Agency, and HDOT.</td>
<td>Planning/Public Works</td>
<td>13</td>
</tr>
<tr>
<td>52</td>
<td>LT 1.D.4</td>
<td>Identify and actively seek non-County revenue sources (Federal, State, and private) to supplement County funding of the transportation network.</td>
<td>Planning/Public Works/Transportation</td>
<td>13</td>
</tr>
<tr>
<td>53</td>
<td>LT 1.D.5</td>
<td>Enhance community partnerships for roadway maintenance (including landscaping) and education of all roadway users.</td>
<td>Public Works</td>
<td>13</td>
</tr>
<tr>
<td>54</td>
<td>LT 1.D.6</td>
<td>Continue to support the Built Environment Task Force of Get Fit Kaua‘i as a primary venue for public discussion of funding and implementing our land transportation system.</td>
<td>Transportation</td>
<td>13</td>
</tr>
<tr>
<td>55</td>
<td>LT 1.D.7</td>
<td>Regularly evaluate and update Council-determined land transportation user fees, such as bus fares, registration, and fuel and vehicle weight tax rates.</td>
<td>Transportation / County Council</td>
<td>13</td>
</tr>
<tr>
<td>56</td>
<td>LT 2.C.1</td>
<td>Improve systems, communications, and resources so that County projects funded by the State Transportation Improvement Program (STIP) are completed on schedule.</td>
<td>Transportation</td>
<td>14</td>
</tr>
<tr>
<td>57</td>
<td>LT 2.C.2</td>
<td>Secure resources and partnerships for maintenance of County roadways.</td>
<td>Mayor’s Office</td>
<td>14</td>
</tr>
<tr>
<td>58</td>
<td>LT 3.D.1</td>
<td>Expand the bulk bus pass program to generate transit revenue and encourage ridership.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>59</td>
<td>LT 3.D.2</td>
<td>Coordinate with HDOT to incorporate transit stops and pullouts on State Highway projects where needed.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>60</td>
<td>LT 3.D.3</td>
<td>Work with State and Federal agencies and local employers to establish a dedicated funding source for transit.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>61</td>
<td>LT 3.D.4</td>
<td>Partner with HDOT to design bus stops on rural highways.</td>
<td>Transportation</td>
<td>15</td>
</tr>
<tr>
<td>62</td>
<td>LT 3.D.5</td>
<td>Develop a transit-ready development pilot project on State lands pursuant to the State Transit Oriented Development Strategic Plan.</td>
<td>Transportation</td>
<td>15</td>
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<tr>
<td>63</td>
<td>LT 3.D.6</td>
<td>Provide housing adjacent to transit stops, with a special focus on transit hubs.</td>
<td>Planning</td>
<td>15</td>
</tr>
<tr>
<td>64</td>
<td>LT 4.B.1</td>
<td>Continue a robust Safe Routes to School Program with Engineering, Encouragement, Education, Enforcement, and Evaluation.</td>
<td>Public Works</td>
<td>16</td>
</tr>
<tr>
<td>65</td>
<td>LT 4.B.2</td>
<td>Complete priority pedestrian projects as identified in Community Plans and other studies.</td>
<td>Public Works</td>
<td>16</td>
</tr>
<tr>
<td>66</td>
<td>LT 4.B.3</td>
<td>Work with HDOT to identify and implement appropriate pedestrian crossings on State Highways.</td>
<td>Public Works</td>
<td>16</td>
</tr>
<tr>
<td>67</td>
<td>LT 4.B.4</td>
<td>Develop a Safe Routes to Parks program to identify priority pedestrian improvements within neighborhoods to parks.</td>
<td>Public Works</td>
<td>16</td>
</tr>
<tr>
<td>68</td>
<td>LT 5.D.1</td>
<td>Work with HDOT to have adequate and safe bicycle facilities on all State Highways, including bridges.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>69</td>
<td>LT 5.D.2</td>
<td>Leverage Federal funding to complete bicycle and pedestrian access improvements on Kīlauea Road to Kīlauea Point National Wildlife Refuge.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>70</td>
<td>LT 5.D.3</td>
<td>Prepare a bikeshare feasibility study and implement a bikeshare program.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>71</td>
<td>LT 5.D.4</td>
<td>Continue to support bicycle safety and education programs in collaboration with community partners.</td>
<td>Public Works</td>
<td>17</td>
</tr>
<tr>
<td>72</td>
<td>LT 6.B.1</td>
<td>Establish staff resources and funding for Countywide parking enforcement.</td>
<td>Police</td>
<td>18</td>
</tr>
<tr>
<td>73</td>
<td>LT 6.B.2</td>
<td>Work with State agencies to address the parking impact at beaches and other State-owned parks and scenic areas such as Kēʻē Beach.</td>
<td>Planning/Economic Development</td>
<td>18</td>
</tr>
<tr>
<td>74</td>
<td>LT 6.B.3</td>
<td>Work with employers and resort areas to establish parking management strategies that incentivize mode shift.</td>
<td>Transportation</td>
<td>18</td>
</tr>
<tr>
<td>75</td>
<td>LT 6.B.4</td>
<td>Consider the establishment of parking districts in town centers.</td>
<td>Transportation</td>
<td>18</td>
</tr>
<tr>
<td>76</td>
<td>CI 1.C.1</td>
<td>Encourage water conservation at the individual, business, and municipal levels.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>77</td>
<td>CI 1.C.2</td>
<td>Collaborate with community groups on cooperative approaches to water management.</td>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>78</td>
<td>CI 2.D.1</td>
<td>Reduce the number of cesspools through septic conversion or through connection to a new or existing regional wastewater system.</td>
<td>Water</td>
<td>20</td>
</tr>
<tr>
<td>79</td>
<td>CI 2.D.2</td>
<td>Institute best practices for diverting and reusing wastewater.</td>
<td>Water</td>
<td>20</td>
</tr>
<tr>
<td>80</td>
<td>CI 4.B.1</td>
<td>Support DOBOR with master planning and acquiring funding for expansion and maintenance of all small boat harbors.</td>
<td>Parks &amp; Recreation</td>
<td>22</td>
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<td>81</td>
<td>CI 4.B.2</td>
<td>Update the Līhuʻe Airport Master Plan and address capacity issues.</td>
<td>State DOT</td>
<td>22</td>
</tr>
<tr>
<td>82</td>
<td>CI 4.B.3</td>
<td>Collaborate with HDOT Airports Division in the implementation of the TAM.</td>
<td>State DOT</td>
<td>22</td>
</tr>
<tr>
<td>83</td>
<td>CI 4.B.4</td>
<td>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-ʻEleʻele Community Plan.</td>
<td>Planning</td>
<td>22</td>
</tr>
<tr>
<td>84</td>
<td>CI 4.B.5</td>
<td>Support HDOT – Harbors Division to implement and update the Kauaʻi Commercial Harbors 2025 Master Plan.</td>
<td>Planning</td>
<td>22</td>
</tr>
<tr>
<td>85</td>
<td>SS 1.D.1</td>
<td>Foster civic engagement in town centers through placemaking activities.</td>
<td>Planning</td>
<td>23</td>
</tr>
<tr>
<td>86</td>
<td>SS 1.D.2</td>
<td>Conduct community events that bring people together.</td>
<td>ALL</td>
<td>23</td>
</tr>
<tr>
<td>87</td>
<td>SS 1.D.3</td>
<td>Activate and revitalize public spaces with artwork, programs, and performances.</td>
<td>Economic Development</td>
<td>23</td>
</tr>
<tr>
<td>88</td>
<td>SS 1.D.4</td>
<td>Use underutilized public space as venues for creative expression.</td>
<td>Public Works</td>
<td>23</td>
</tr>
<tr>
<td>89</td>
<td>SS 2.D.1</td>
<td>Expand the County's park stewardship agreement program.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>90</td>
<td>SS 2.D.2</td>
<td>Explore alternative sources of funding for priority park improvements, such as crowdfunding and community initiatives or collaborations.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>91</td>
<td>SS 2.D.3</td>
<td>Implement programs for beach and dune restoration, especially at beach parks experiencing erosion such as Poʻipū Beach Park.</td>
<td>Parks &amp; Recreation</td>
<td>24</td>
</tr>
<tr>
<td>92</td>
<td>SS 2.D.4</td>
<td>Encourage expansion of programs and legislation supporting septic systems in place of cesspools located within 200 feet of a shoreline, perennial stream, or wetland.</td>
<td>Public Works</td>
<td>24</td>
</tr>
<tr>
<td>93</td>
<td>SS 3.C.1</td>
<td>Explore expansion of the Nā Ala Hele trail system, especially in Planning Districts without formal trails.</td>
<td>Parks &amp; Recreation</td>
<td>25</td>
</tr>
<tr>
<td>94</td>
<td>SS 4.A.1</td>
<td>Implement the Waimea Canyon, Kōkeʻe, and Hāʻena State Park Master Plans.</td>
<td>State Parks</td>
<td>26</td>
</tr>
<tr>
<td>95</td>
<td>SS 4.A.2</td>
<td>Complete master planning for Russian Fort, Polihale, and Wailua River State Parks.</td>
<td>State Parks</td>
<td>26</td>
</tr>
<tr>
<td>96</td>
<td>SS 4.A.3</td>
<td>Support adequate funding and staffing for capital improvements, including maintenance and enforcement for public parks, trails, and recreation areas.</td>
<td>State Parks</td>
<td>26</td>
</tr>
<tr>
<td>97</td>
<td>SS 4.A.4</td>
<td>Improve and coordinate infrastructure and transportation to reduce visitor impacts.</td>
<td>State Parks</td>
<td>26</td>
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<tr>
<td>98</td>
<td>EC 1.D.1</td>
<td>Provide visitors with a unique, positive, culturally-rich, and safe experience on Kaua‘i. Encourage cultural sensitivity and cultural exchange.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>99</td>
<td>EC 1.D.2</td>
<td>Develop alternative transportation options for visitors, including shuttles and car sharing, to reduce visitor impact on our roads, highways, and scenic places.</td>
<td>Transportation/ Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>100</td>
<td>EC 1.D.3</td>
<td>Establish a County tax on rental cars to fund alternative transportation options for visitors.</td>
<td>Mayor’s Office / County Council</td>
<td>27</td>
</tr>
<tr>
<td>101</td>
<td>EC 1.D.4</td>
<td>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.</td>
<td>Mayor’s Office/ County Council</td>
<td>27</td>
</tr>
<tr>
<td>102</td>
<td>EC 1.D.5</td>
<td>Develop and promote community programs that reinforce the unique sense of place of communities, such as those with historical and cultural significance.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>103</td>
<td>EC 1.D.6</td>
<td>Encourage more use of Native Hawaiian place names and increase understanding of the meanings.</td>
<td>Planning</td>
<td>27</td>
</tr>
<tr>
<td>104</td>
<td>EC 1.D.7</td>
<td>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.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>105</td>
<td>EC 1.D.8</td>
<td>Attract new employees, especially local residents, to the visitor industry to ensure an available, well-qualified workforce.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>106</td>
<td>EC 1.D.9</td>
<td>Train the visitor workforce in understanding Kaua‘i’s local culture.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>107</td>
<td>EC 1.D.10</td>
<td>Encourage the visitor industry, airlines, and the growing cruise line industry, to buy and promote Kaua‘i products and support businesses on Kaua‘i.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>108</td>
<td>EC 1.D.11</td>
<td>Increase use of renewable fuel sources and support carbon offset programs and incentives for passengers traveling to and from Kaua‘i.</td>
<td>Economic Development</td>
<td>27</td>
</tr>
<tr>
<td>109</td>
<td>EC 2.D.1</td>
<td>Expand commercial agriculture, attract new agricultural support- and value-added industries, and promote locally-grown commodity sales.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>110</td>
<td>EC 2.D.2</td>
<td>Increase small-scale diversified farming, including, but not limited to, fruits and vegetables, building materials, medicinal plants, aquaculture, apiaries, flowers, and livestock.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>111</td>
<td>EC 2.D.3</td>
<td>Expand aquaculture and livestock farming.</td>
<td>Economic Development</td>
<td>28</td>
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<tr>
<td>112</td>
<td>EC</td>
<td>Improve water access and infrastructure for agricultural purposes.</td>
<td>Water</td>
<td>28</td>
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<tr>
<td>113</td>
<td>EC</td>
<td>Support regional agricultural parks and centers.</td>
<td>Planning</td>
<td>28</td>
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<tr>
<td>114</td>
<td>EC</td>
<td>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.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>115</td>
<td>EC</td>
<td>Prepare youth for future careers in diversified agriculture and aquaculture, with additional emphasis on business skills.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>116</td>
<td>EC</td>
<td>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.</td>
<td>Economic Development</td>
<td>28</td>
</tr>
<tr>
<td>117</td>
<td>EC</td>
<td>Review legislation impacting agriculture on Kaua‘i. Coordinate position statements with the Kaua‘i Community College, the Farm Bureau, and other agricultural interest groups.</td>
<td>Economic Development</td>
<td>28</td>
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<tr>
<td>118</td>
<td>EC</td>
<td>Clarify the reclassification incentive provided through designation of Important Agricultural Lands (IAL).</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>119</td>
<td>EC</td>
<td>Support education and cooperation relating to protection of native birds and protecting the right to farm.</td>
<td>Planning</td>
<td>28</td>
</tr>
<tr>
<td>120</td>
<td>EC</td>
<td>Build the capacity of all businesses and increase the skills and readiness of Kaua‘i’s students and workforce.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>121</td>
<td>EC</td>
<td>Invest in opportunity industries that can diversify Kaua‘i’s economy and provide living wages.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>122</td>
<td>EC</td>
<td>Promote cross-sector linkages between Kaua‘i’s anchor and opportunity industries to grow the market for local products and services.</td>
<td>Economic Development</td>
<td>29</td>
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<tr>
<td>123</td>
<td>EC</td>
<td>Support initiatives and programs to revitalize town centers and increase demand for local-serving businesses.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>124</td>
<td>EC</td>
<td>Provide business planning assistance, career planning, entrepreneurial training, incubation, and assistance with permitting, licensing, and regulatory issues.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>125</td>
<td>EC</td>
<td>Expand offerings for mentorship, networking, and affordable workspaces.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>126</td>
<td>EC</td>
<td>Support programs and initiatives that encourage manufacturing and support Kaua‘i’s small-scale independent manufacturers.</td>
<td>Economic Development</td>
<td>29</td>
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<tr>
<td>127</td>
<td>EC 3.D.8</td>
<td>Strengthen market linkages between the tourism industry and Kauaʻi made products such as fashion, food, and music.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>129</td>
<td>EC 3.D.10</td>
<td>Increase access to capital for small businesses and start-ups.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>130</td>
<td>EC 3.D.11</td>
<td>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.</td>
<td>Economic Development</td>
<td>29</td>
</tr>
<tr>
<td>131</td>
<td>HR 1.D.1</td>
<td>Support partnerships between the County of Kauaʻi, KHPRC, the public, and various historical and archaeological organizations to preserve important historic buildings and structures that illuminate Kauaʻi’s history.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>132</td>
<td>HR 1.D.2</td>
<td>Establish a low-interest revolving loan fund for rehabilitation of historic properties.</td>
<td>Planning/County Council</td>
<td>30</td>
</tr>
<tr>
<td>133</td>
<td>HR 1.D.3</td>
<td>Develop a County of Kauaʻi 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.</td>
<td>Planning</td>
<td>30</td>
</tr>
<tr>
<td>134</td>
<td>HR 2.D.1</td>
<td>Work with the State Historic Preservation Division and KHPRC to educate landowners about the historic preservation review process.</td>
<td>SHPD</td>
<td>31</td>
</tr>
<tr>
<td>135</td>
<td>HR 2.D.2</td>
<td>Promote County and community partnerships to preserve and raise awareness about traditional cultural places.</td>
<td>Economic Development</td>
<td>31</td>
</tr>
<tr>
<td>136</td>
<td>HR 2.D.3</td>
<td>Increase community awareness and stewardship of Kauaʻi’s historic and cultural resources.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>137</td>
<td>HR 2.D.4</td>
<td>Enhance the Hawaiian sense of place by promoting understanding of moku and ahupua’a land divisions. Recognize and preserve the unique natural and cultural characteristics of each moku and ahupua’a.</td>
<td>Planning</td>
<td>31</td>
</tr>
<tr>
<td>138</td>
<td>HR 2.D.5</td>
<td>Seek to create community managed subsistence areas, also known as kīpuka, in every ahupua’a, in the tradition of kīpuka at Kēʻē and Waipā.</td>
<td>State DLNR</td>
<td>31</td>
</tr>
<tr>
<td>139</td>
<td>HR 2.D.6</td>
<td>Commence a collaborative planning effort to explore options that would make it possible to preserve the irreplaceable natural and cultural resources of Māhāʻulepū and to sustain the special experiences of this place.</td>
<td>Planning</td>
<td>31</td>
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<td>140</td>
<td>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.</td>
<td>Planning</td>
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<tr>
<td>141</td>
<td>Implement tax breaks and support programs to prevent foreclosures on kuleana lands caused by failure to pay taxes.</td>
<td>Finance / County Council</td>
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<td>142</td>
<td>Support the Hawai’i Scenic Byways Program.</td>
<td>Public Works</td>
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<tr>
<td>143</td>
<td>Support the Kaua‘i Open Space Commission in identifying and acquiring priority open space areas.</td>
<td>Planning</td>
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<tr>
<td>144</td>
<td>Support the Kaua‘i Island Utility Cooperative (KIUC) and private initiatives for solar, biomass, hydro, and other clean energy production types.</td>
<td>KIUC</td>
<td></td>
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<tr>
<td>145</td>
<td>Identify sites where new renewable energy facilities might be co-located with other land uses.</td>
<td>KIUC</td>
<td></td>
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<tr>
<td>146</td>
<td>Continue regular monitoring of the amount of Kaua‘i’s energy production that is from fuel produced on the island.</td>
<td>KIUC</td>
<td></td>
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<tr>
<td>147</td>
<td>Support State and Federal efforts to price carbon, such as a carbon tax or fee and dividend programs.</td>
<td>KIUC</td>
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</tr>
<tr>
<td>148</td>
<td>Share best practices regarding climate planning, including support for system-wide carbon fees or taxes at the state or national level.</td>
<td>Mayor’s Office</td>
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<tr>
<td>149</td>
<td>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.</td>
<td>Mayor’s Office</td>
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<tr>
<td>150</td>
<td>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.</td>
<td>Mayor’s Office</td>
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<tr>
<td>151</td>
<td>Support the expansion of electric vehicle charging station infrastructure at strategically accessible locations along the main highway and other major thoroughfares.</td>
<td>Public Works</td>
<td></td>
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<tr>
<td>152</td>
<td>Support the State and County’s coordinated response system to wildfires.</td>
<td>Fire / State DLNR</td>
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<tr>
<td>153</td>
<td>PS 1.C.2</td>
<td>Implement and update the Kaua‘i Community Wildfire Protection Plan.</td>
<td>Fire</td>
<td>35</td>
</tr>
<tr>
<td>154</td>
<td>PS 1.C.3</td>
<td>Strengthen hazard monitoring systems, such as stream flow and river gauges.</td>
<td>Emergency Management</td>
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<td>156</td>
<td>PS 2.D.1</td>
<td>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.</td>
<td>Emergency Management</td>
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<td>PS 2.D.2</td>
<td>Encourage the integration of agricultural planning and coordination into disaster risk management to improve local food security, sustainability, and community resilience to hazards.</td>
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<td>158</td>
<td>PS 2.D.3</td>
<td>Plan for maintenance of critical facilities and infrastructure in the event of a hazard. Identify mitigation opportunities in utility service plans and implementation resources.</td>
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<td>159</td>
<td>PS 2.D.4</td>
<td>Improve public awareness materials distributed by the County through periodic updating with the best available data and maps.</td>
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<td>160</td>
<td>PS 2.D.5</td>
<td>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.</td>
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<td>Improve data gathering and accounting for risk and vulnerability assessments for wind, droughts, and wildfires.</td>
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<td>PS 2.D.7</td>
<td>In assessing telecommunications vulnerabilities and planning pre-disaster preparedness measures, consult with the Utility Disaster Preparedness and Response Group for advice and recommendations.</td>
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<td>163</td>
<td>PS 2.D.8</td>
<td>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.</td>
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<td>164</td>
<td>PS 2.D.9</td>
<td>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.</td>
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<td>165</td>
<td>PS 2.D.10</td>
<td>Reduce “flash fuels” such as dry vegetation in high use areas and encourage vegetation clearing and clean-up programs.</td>
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<td>Assess the need for specialized accommodations at shelter facilities to improve accessibility for special needs groups and pet owners.</td>
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<td>167</td>
<td>PS 2.D.12</td>
<td>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.</td>
<td>Emergency Management</td>
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<td>169</td>
<td>PS 3.D.1</td>
<td>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.</td>
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<td>170</td>
<td>PS 3.D.2</td>
<td>Ensure consistent public access to communications, warning systems, roads, and infrastructure in remote areas in the event of a hazard.</td>
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<td>171</td>
<td>PS 3.D.3</td>
<td>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.</td>
<td>Planning/Finance</td>
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<td>OH 1.D.1</td>
<td>Ensure low-income students receive quality public education through strategies including comprehensive, place-based cradle-to-career initiatives.</td>
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<td>OH 1.D.2</td>
<td>Support reform to school disciplinary policies to keep youth in school and on track to graduate.</td>
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<td>174</td>
<td>OH 1.D.3</td>
<td>Partner with Kaua‘i Community College for workforce development and training programs and apprenticeships.</td>
<td>Kaua‘i Community College</td>
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<td>175</td>
<td>OH 1.D.4</td>
<td>Foster racially and economically integrated neighborhoods.</td>
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<td>176</td>
<td>OH</td>
<td>1.D.5</td>
<td>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.</td>
<td>State CWRM</td>
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<td>2.C.1</td>
<td>Treat schools as community resources for learning about specialized environmental, cultural, and historic subjects pertinent to Kaua‘i.</td>
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<td>178</td>
<td>OH</td>
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<td>Support community use of schools during non-school hours, such as recreational centers, meeting facilities, and emergency shelters.</td>
<td>State DOE</td>
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<td>179</td>
<td>OH</td>
<td>2.C.3</td>
<td>Design school facilities to facilitate community use during non-school hours.</td>
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<td>180</td>
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<td>2.C.4</td>
<td>Retrofit existing facilities and design and construct new schools to serve as hurricane shelters.</td>
<td>State DOE</td>
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<td>181</td>
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<td>2.C.5</td>
<td>Support the Keiki to Career Kaua‘i programs and activities.</td>
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<td>2.C.6</td>
<td>Continue and expand the Safe Routes to School program to encourage healthy, safe, and active living.</td>
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<td>183</td>
<td>OH</td>
<td>2.C.7</td>
<td>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.</td>
<td>Kaua‘i Community College</td>
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<td>184</td>
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<td>2.C.8</td>
<td>Support both public and private educational programs that emphasize the Hawaiian language and Native Hawaiian culture, science, and practices.</td>
<td>State DOE</td>
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<td>185</td>
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<td>3.D.1</td>
<td>Implement and update the State Physical Activity and Nutrition Plan.</td>
<td>State DOH</td>
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<td>Support pilot programs for community gardens and nutrition education programs.</td>
<td>Economic Development</td>
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<td>188</td>
<td>OH</td>
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<td>Increase access to programs that provide reproductive health and family planning education and services.</td>
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<td>189</td>
<td>OH</td>
<td>3.D.5</td>
<td>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.</td>
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<td>190</td>
<td>OH 3.D.6</td>
<td>Support healthy food options in underserved communities by:</td>
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<td></td>
<td></td>
<td>a. Increasing the visibility of healthy food in stores, particularly those that accept Supplemental Nutritional Assistance Program (SNAP) and electronic benefit transfer (EBT) purchases.</td>
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<td></td>
<td></td>
<td>b. Allowing the use of Supplemental Nutrition Assistance Program (SNAP) benefits at farmers markets.</td>
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<td></td>
<td></td>
<td>c. Encouraging fast-food restaurants to offer healthy options and improve labeling.</td>
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<td>d. Increasing access to nutritional counseling.</td>
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<td></td>
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<td>e. Taxing sugar-sweetened beverages.</td>
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<td></td>
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<td>f. Eliminating the General Excise Tax on purchases of fresh fruits and vegetables.</td>
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<td>OH 3.D.7</td>
<td>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.</td>
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<td>192</td>
<td>OH 3.D.8</td>
<td>Anticipate and plan for the health impacts of climate change.</td>
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<td>OH 3.D.9</td>
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<td>Inventory and improve hunting access to Forest Reserves and government trails.</td>
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<td>196</td>
<td>OH 4.D.2</td>
<td>Seek funding for trail acquisition, development, and maintenance through the Nā Ala Hele Program and the Hawai‘i Tourism Authority.</td>
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<td>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.</td>
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<td>OH 4.D.4</td>
<td>Improve public access to landlocked State land that is managed by DOFAW. Increase recreational opportunities in these areas.</td>
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<td>Use surfing reserves to protect access to surf breaks, improve parking for surfers at key surf destinations, and provide appropriate signage.</td>
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<tr>
<td>202</td>
<td>OH 4.D.8</td>
<td>Develop more ATV, motorcycle, and mountain bicycling facilities so such activity is focused in areas not vulnerable to environmental damage.</td>
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<td>203</td>
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<td>Develop a public shooting range.</td>
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<td>204</td>
<td>OH 4.D.10</td>
<td>Promote access with kuleana through stewardship agreements, work days, jobs, and other means, to engage community members in caretaking.</td>
<td>State DLNR</td>
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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 Mishimoto, 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; Esm 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
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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 spatial 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 development plan 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
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 verdant 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 famed 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 geographi
cal 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
tomy. 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 19th century on, the history of the area follows the fami-
iliar contours of the state's social history: the advent of planta-
tion 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 establis-
ed 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 dwindl-
ing prospects for independent sugar cultivation in the area made
small diversified farming more attractive and by 1960, the popula-
tion 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 pine-
apple. 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 alter-
native 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 eco-
nomic 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.
<table>
<thead>
<tr>
<th>KAUAI COUNTY GOALS</th>
<th>KAPAA-WAILUA COMMUNITY OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Living, Housing &amp; Employment</td>
<td>I. Living, Housing &amp; Employment</td>
</tr>
<tr>
<td>a) To create opportunities for a greater diversity of employment....</td>
<td>a) Small stores should be &quot;protected&quot; and enhanced.</td>
</tr>
<tr>
<td>b) To provide a desirable house or living quarters for all residents of all income levels....</td>
<td>b) Multi-family residential units should be strategically located with respect to places of employment, retail and service establishments, and community facilities.</td>
</tr>
<tr>
<td>c) To guide physical growth so that island and visitor communities will develop in social and economic concert with each other....</td>
<td>c) &quot;Heavy&quot; and noxious industrial activities should be located so as to minimize community disturbance.</td>
</tr>
<tr>
<td>d) To create, develop &amp; 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.</td>
<td>d) The community college should include training of skills needed in the economy.</td>
</tr>
</tbody>
</table>
KAUAI COUNTY GOALS / KAPAA-WAILUA COMMUNITY OBJECTIVES

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....

b) To provide for a maximum variety of outdoor recreational activities....

II. Education & Recreation

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) 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

III. Community, Cultural Activities & Beautification

a) To maintain 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....

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....

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.

KAPAA-WAILUA COMMUNITY OBJECTIVES

III. Community, Cultural Activities & Beautification

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) Develop off-street parking facilities.

Develop controls for construction of buildings and signs.
<table>
<thead>
<tr>
<th>KAUAI COUNTY GOALS</th>
<th>KAPAA-WAILUA COMMUNITY OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV. Transportation, Utilities &amp; Services</td>
<td>IV. Transportation, Utilities &amp; Services</td>
</tr>
<tr>
<td>a) To insure that all physical growth is consistent with the overall ecology of the island....</td>
<td>a) Investigate &quot;by-pass&quot; highway alignment or widening of existing highway. Develop relocation program of overhead utility lines.</td>
</tr>
<tr>
<td>b) To promote and protect the health, safety and welfare of all residents...</td>
<td>b) Determine placement and spacing of community &quot;bus stops&quot;. 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.</td>
</tr>
<tr>
<td>c) To promote the improvement and expansion of the island's economy by recognizing and carefully utilizing land and water resources....</td>
<td>c) Encourage a centralized light-industrial area.</td>
</tr>
<tr>
<td>d) To provide workable planning tools to meet the changing needs of the community....</td>
<td>d) Develop a safe and efficient roadway master plan. Develop &quot;landscape&quot; or &quot;beautification&quot; ordinances. Develop landscape plan to control erosion and preserve scenic views.</td>
</tr>
</tbody>
</table>
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 conditions 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

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).

<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>RESIDENT POPULATION</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1960</td>
<td>1970</td>
</tr>
<tr>
<td>Kawaihali (Kapaa-Wailua-Anahola)</td>
<td>6,498</td>
<td>7,393</td>
</tr>
<tr>
<td>Kapaa-Wailua</td>
<td>6,216</td>
<td>6,755</td>
</tr>
<tr>
<td>Waimea</td>
<td>7,057</td>
<td>7,569</td>
</tr>
<tr>
<td>Koloa</td>
<td>7,012</td>
<td>6,851</td>
</tr>
<tr>
<td>Lihue</td>
<td>6,297</td>
<td>6,766</td>
</tr>
<tr>
<td>Hanalei</td>
<td>1,312</td>
<td>1,182</td>
</tr>
<tr>
<td>ALL KAUI</td>
<td>28,176</td>
<td>29,761</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th></th>
<th>Kapaa</th>
<th>Wailua</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3,794</td>
<td>2,961</td>
</tr>
<tr>
<td>Households</td>
<td>1,101</td>
<td>830</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th></th>
<th>KAPAA</th>
<th>WAILUA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18 years</td>
<td>1,375</td>
<td>1,124</td>
</tr>
<tr>
<td>(under 5 years)</td>
<td>(350)</td>
<td>(252)</td>
</tr>
<tr>
<td>18-64 years</td>
<td>1,956</td>
<td>1,587</td>
</tr>
<tr>
<td>65 and over</td>
<td>433</td>
<td>250</td>
</tr>
<tr>
<td>MEDIAN AGE</td>
<td>29.9 years</td>
<td>27.3 years</td>
</tr>
</tbody>
</table>

(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 6-1/2% 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

<table>
<thead>
<tr>
<th>Occupation (1970 Census)</th>
<th>KAPAA</th>
<th>WAILUA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Technical &amp; Kindred Workers</td>
<td>151</td>
<td>203</td>
</tr>
<tr>
<td>Managers &amp; Administrators</td>
<td>99</td>
<td>114</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>94</td>
<td>90</td>
</tr>
<tr>
<td>Clerical &amp; Kindred Workers</td>
<td>168</td>
<td>205</td>
</tr>
<tr>
<td>Craftsmen, Foremen &amp; Kindred Operators</td>
<td>273</td>
<td>228</td>
</tr>
<tr>
<td>Operators of Equipment</td>
<td>130</td>
<td>136</td>
</tr>
<tr>
<td>Service Workers</td>
<td>322</td>
<td>268</td>
</tr>
<tr>
<td>Laborers, except farm</td>
<td>149</td>
<td>111</td>
</tr>
<tr>
<td>Farm Laborers</td>
<td>172</td>
<td>76</td>
</tr>
<tr>
<td>Private Household Workers</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL EMPLOYED 1,462 1,438

*Includes Anahola Village

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### 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 $10,035. 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%

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### 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

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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. Dis-
cussions of the possibility of moving from Kauai within the past
six months occurred 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 10 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 re-
pondents, with 19% indicating a positive response and 23% indicat-
ing they felt increased development is alright if properly carried
out. However, 64% of the students responded positively to the ques-
tion 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 al-
ready 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 development 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: development 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 activities 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 atmospheres predominate in elements of uniqueness that should be retained.
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:

<table>
<thead>
<tr>
<th></th>
<th>April 1, 1960*</th>
<th>April 1, 1970*</th>
<th>July 1, 1973**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kauai County</td>
<td>28,176</td>
<td>30,761</td>
<td>31,385</td>
</tr>
<tr>
<td></td>
<td>+1,585 (+5.6%)</td>
<td>+1,525 (+5.5%)</td>
<td></td>
</tr>
<tr>
<td>Hawaii County</td>
<td>61,332</td>
<td>63,468</td>
<td>70,872</td>
</tr>
<tr>
<td>Maui &amp; Kalawao Counties</td>
<td>42,855</td>
<td>46,156</td>
<td>51,872</td>
</tr>
<tr>
<td></td>
<td>+3,310 (+7.7%)</td>
<td>+5,716 (+12.4%)</td>
<td></td>
</tr>
</tbody>
</table>

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

At mid-year 1973, Kauai's population is estimated at 31,385 or 5.3% 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.

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

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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, Hawai 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 it. 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 viewpoint—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.

III-18
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
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
Waikae 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 Ctes.

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
Leiilo 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 pursuits—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,
picnicking.
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.
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 improve 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 ali'i 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.


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 analyzed 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 conducive 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 Haleiulio 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 Puali 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 Waihua House lots 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 leisurely 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, Waikae 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 remodeled 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 "down-town" 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:

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wood details
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continuous canopy
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open to sidewalk
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2-3 stories
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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 vernacular 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 Kauila 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: Waikae 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 Waikae 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 Wāikae 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.

III-38
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.

III-40
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 is 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 trees 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 consistent with overall design concepts.

3. Variation of this idea is the development of miniparks 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.

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 Olohe 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 flanking the other sides of this quadrangle.

2. The public spaces in the commercial-cultural complex should have either mauna or nakai 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 J 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 (Olohe Road extension) be-
between 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:
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, parcels 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 3 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 sugarcane 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.
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 Poulí 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 House lots, 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 Kéhia 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.

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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 Khi 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 Haleiilo 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.

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<th>TABLE 8-1: PROPOSED WATER IMPROVEMENT PROJECTS IN EAST KAUAI</th>
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EXHIBIT "I-29"