

## 2.0 FUTURE LAND USE

The Future Land Use Map spatially represents the County's growth policy and communicates the desired development pattern to residents, landowners, businesses, and government agencies. The map will guide future boundary amendment actions at the State level and amendments to zoning districts and development standards at the County level.

### 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 Lihu'e as Kaua'i's primary urban center within an urban edge boundary.
8. To increase resiliency by limiting development in areas impacted by future sea level rise.

#### Policy Alignment:



## Directing How Kauaʻi 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 Lihū'e and South Kauaʻi 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 Kauaʻi, 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 Hawaiʻi. An island, or moku, was divided into several moku, the largest units within each island. Kauaʻi has five moku and Niʻihau represents a sixth. Moku were divided into ahupuaʻa, land sections that extended from the mountains to the sea. The size of the ahupuaʻa 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. Kauaʻi embraces the concepts of moku and ahupuaʻa and seeks to perpetuate the names, symbols, and knowledge associated with them through education and signage.

Kauaʻi's towns were originally sited at harbors and



Commercial area in Nāwiliwili, Lihū'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 Kaua'i's rural identity.

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

### **Protecting Kaua'i's Rural Character**

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

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

The *Land Use Buildout Analysis* (2015) indicates that if existing development trends continue, significant residential growth would occur on the agricultural and open zoning districts, and be comprised of predominantly single-family homes on large lots. Moreover, this growth would be focused on the North Shore and East Kaua'i planning districts, as it has over the past 15 years. Such development

would exacerbate sprawl onto agricultural land, stress limited rural infrastructure, and increase traffic – ultimately undermining Kaua'i's sense of rural character.

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

### **Supporting Compact Development and Growth Allocations**

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

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

## 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:

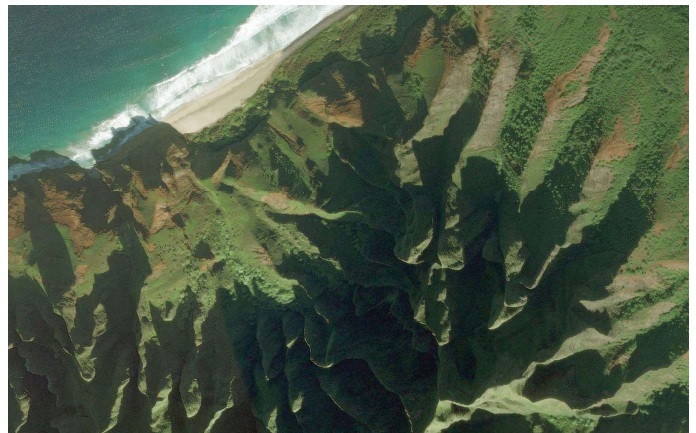
### 1. Natural

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.



Kalalau Beach (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

### 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



Kalāheo (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

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.<sup>10</sup> However, single-family dwellings are permitted on lots existing before June 4, 1976.<sup>11</sup> 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.



Wailua Homesteads (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

#### *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.



Kōloa Town (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

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.



Kilauea Town (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

## 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.



Hanapēpē (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

## 7. Urban Center

The Urban Center designation has largely been replaced by Neighborhood Center and Neighborhood General. Urban Center is only applied in the Līhu'e District, which is expected to absorb approximately half of the island's future growth to 2035. Līhu'e 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 Līhu'e 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 Līhu'e, this included Port Allen and an area adjacent to Kapa'a Middle School. The Urban Center designation is replaced with Neighborhood Center and Industrial in Port Allen, and Neighborhood Center and Neighborhood General in Kapa'a. The policy addressing Wailua-Kapa'a Traffic and managing growth north of the Wailua Bridge influenced the decision to remove the swath of Urban Center from the area adjacent to Kapa'a Middle School.



Līhu'e (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

## 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 Nukoli'i 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.



Po'ipū (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

**Table 2-1 Changes to Resort Areas**

District	Action
<p><b>Waimea-Kekaha</b> Kīkāoia Land Company holdings east of Waimea Plantation Cottages</p>	<p>60 acres of Resort Designation changed to “Provisional” Resort, to allow for a detailed community process to determine the appropriateness, scale, and extent of future resort development in Waimea-Kekaha.</p>
<p><b>Līhu‘e</b> Non-entitled resort lands in Nukoli‘i, south of Kaua‘i Beach Resort</p>	<p>30 acres of Resort was designated Agriculture.</p>

## 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 Līhu‘e 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.



Port Allen (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

## 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.



Pacific Missile Range Facility (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)



## 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.



Kaua'i Community College (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

## 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.



Princeville (© 2018 Eagle View Technologies, Inc. and Pictometry International Corp.)

**Table 2-2 Major Designation Changes by Planning District**

District	Action
<b>Waimea-Kekaha</b>	<ul style="list-style-type: none"> <li>Two areas west of Waimea changed from Residential Community to Agriculture.</li> <li>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.</li> </ul>
<b>Hanapēpē-‘Ele‘ele</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Agriculture designation changed to “Provisional” to allow for a community planning process.</li> <li>75 acres for planned Lima Ola affordable housing development changed from Agriculture to Residential Community.</li> <li>New Neighborhood Center and Neighborhood General added to Port Allen.</li> <li>Approximately 19 acres in Makaweli on existing mill site from agriculture to industrial.</li> </ul>
<b>South Kaua‘i</b>	<ul style="list-style-type: none"> <li>Neighborhood Center and General designation applied to Kōloa, Kalāheo, and Po‘ipū Roundabout Area.</li> <li>Small Town designation at Numila and Lāwa‘i Cannery</li> <li>Large Town designation at Po‘ipū Mixed Use Gateway.</li> <li>Residential Community removed from 60 acres above Weliweli Tract.</li> </ul>
<b>Līhu‘e</b>	<ul style="list-style-type: none"> <li>Neighborhood Center applied to Līhu‘e Town Core, Puhi Mauka, Isenberg Mauka, Hanamā‘ulu Town, and area in Hanamā‘ulu fronting Highway adjacent to Triangle (west of bluff) formerly owned by EWM Realty International.</li> <li>Portion of Nukoli‘i redesignated from Resort to Agriculture.</li> <li>Addition of the Urban Edge Boundary.</li> <li>New University Zone applied to Kaua‘i Community College and the surrounding schools.</li> <li>Residential Community removed from areas along Kīpū Road.</li> <li>New Residential Community added on mauka side of DHHL Wailua Lands (for consistency with DHHL’s <i>Kaua‘i Island Plan 2004</i>).</li> <li>New Neighborhood Center added on the mauka and makai side of DHHL Wailua Lands (for consistency with DHHL’s <i>Kaua‘i Island Plan 2004</i>).</li> </ul>
<b>East Kaua‘i</b>	<ul style="list-style-type: none"> <li>Neighborhood Center/General applied to previous Urban Center in Kapa‘a Town and added to a portion of Olohena Road near Kapa‘a Town.</li> <li>Neighborhood General applied to previous Urban Center designation around Kapa‘a Middle School.</li> <li>Portion of area behind Coco Palms in the Flood Zone changed from Resort to Natural.</li> <li>New Neighborhood Center at Kapahi, Anahola Post Office, and Anahola Town Center (to match DHHL’s Anahola Town Center Plan).</li> </ul>
<b>North Shore</b>	<ul style="list-style-type: none"> <li>Neighborhood Center and General designation applied to Hanalei and Kīlauea.</li> <li>Kīlauea town center expanded to accommodate growth.</li> <li>Residential Community at Princeville Airport changed to Transportation.</li> <li>Residential Community mauka of Princeville Airport removed and changed to Agriculture.</li> <li>Resort designation makai of highway removed and changed to Agriculture.</li> </ul>

## 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

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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

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

## 2.4 COMMUNITY PLANNING

### Process Overview

The Future Land Use Map was updated to ensure consistency with the policy direction. Changes account for new information on development plans and proposals, as well as public input on the desired form, character, and degree of change for communities. Table 2-3 describes the process and resources that informed the update.

### Community Visioning Workshops

District-specific input shaped the update and development of the Future Land Use Map. Intensive workshops engaged communities in determining how each place sees itself today, how it envisions changing, and what characteristics and values are important to preserve.

The General Plan covers six planning districts on the Island of Kauaʻi: North Shore, East Kauaʻi, Līhuʻe, South Kauaʻi, Hanapēpē-ʻEleʻele, and Waimea-Kekaha (Figure 2-2). The Island of Niʻihau is also part of Kauaʻi County, but is not covered by the General Plan due to its predominantly private ownership and management.

It was important to conduct this exercise in areas without recently adopted community plans like South Kauaʻi and Līhuʻe. The workshops included bus and walking tours of eleven communities: Hanapēpē, ʻEleʻele, Port Allen, Waimea, Kekaha, Hanalei, Kīlauea, Princeville, Wailua, Kapaʻa, and Anahola. Workshop results included assigning place types to each major community, determining the desired degree of change to 2035, identifying key values, developing a preliminary vision and priorities to inform policy, and identifying town centers and other land uses. The input played a key role in updating the Future Land Use Map and was tested at community open house meetings.

Figure 2-1 shows how the workshops and baseline technical studies informed the development of the preliminary district visions, priorities, and Future Land Use Map changes presented in this section, and how these will inform future community planning efforts.

### Place Types

Place Types are a design tool used to guide and evaluate future growth in terms of form, scale, and function in the built environment. Places are characterized by a core area or center, along with its pedestrian shed, typically a quarter-mile radius around the center where spaces for living, working, shopping, learning, and recreation are within a five-minute walk of one another. The community's determination of place types through the workshops and previous community planning work was used to update the previous General Plan's Town Center boundaries, including the location and extent of the Neighborhood Center and Neighborhood General designations.

Kauaʻi's place types are mapped in Figure 2-2 and described below:

- **Rural Crossroads.** Located at the intersection of two or more roads, a crossroad provides a small amount of locally-serving retail and other services in a rural or less urban context; crossroads transition quickly into rural or less-urban intensities and activities, and/or into the natural environment. Examples of rural crossroads include Kapaia in Līhuʻe District and ʻŌmaʻo in South Kauaʻi District.
- **Village.** Located in less urbanized areas, small villages exist at the edge of the rural and urban condition. A village has a main street with surrounding residential areas; this, however, transitions quickly into agricultural uses and/or into the natural environment. Examples of small villages include Hanalei on the North Shore and Lāwaʻi in South Kauaʻi. They are typically scaled to about the size of one neighborhood.
- **Small Town.** Located in more urbanized areas, small towns are essentially large villages that are made up of clusters of 2-3 neighborhoods that can support a mixed-use environment. The mixed-use environment can be located at the intersection of multiple neighborhoods or along a corridor between multiple neighborhoods. Historic examples of small towns include Kōloa Town in South Kauaʻi and Waimea Town in Waimea-Kekaha. They are typically scaled to about the size of 2-3 neighborhoods.

**Table 2-3 Actions & Resources Consulted for Land Use Map Updates**

Action	Resources Consulted
<b>Consulted population allocations and buildout projections contained in the General Plan technical studies</b>	<i>Land Use Buildout Analysis</i> (2015) <i>Socioeconomic Analysis &amp; Forecasts</i> (SMS Research, 2016)
<b>Confirmed or updated information on entitled lands and landowner plans</b>	County permit records Landowner interviews
<b>Incorporated information from South Kaua'i and Līhu'e Community Plans regarding areas of change and land use designations</b>	<i>Līhu'e Community Plan</i> (2015) <i>South Kaua'i Community Plan</i> (2015)
<b>Applied placetypes and right-sized Neighborhood Centers in Waimea-Kekaha, Hanapēpē-'Ele'ele, East Kaua'i, and North Shore</b>	General Plan Community Visioning Workshops (November 2015 and April 2016)
<b>Applied/overlaid information on hazard areas and infrastructure to existing developed areas and future growth areas</b>	<i>General Plan Infrastructure Study</i> (R.M. Towill, 2015) <i>Infrastructure Assessment for the General Plan Update</i> (SSFM International, 2016) <i>Kaua'i Climate Change and Coastal Hazards Assessment</i> (2014) NOAA Sea Level Rise (SLR) Viewer State and County GIS Hazard Layers
<b>Updated and applied General Plan land use designations for areas outside Neighborhood Center and General areas</b>	<i>Līhu'e Community Plan</i> (2015) <i>South Kaua'i Community Plan</i> (2015) General Plan Community Visioning Workshops (November 2015 and April 2016)
<b>Updated and applied General Plan land use designations for areas outside Neighborhood Center and General areas</b>	<i>Kaua'i General Plan</i> (Kaua'i County, 2000)

- **Large Town.** Located in urbanized areas, large towns are made up of clusters of neighborhoods or villages that support a larger, more complex mixed-use environment. Buildings within towns are often attached and may be up to four stories tall. Large towns are important centers, and are typically made up of four or more neighborhoods. Līhu'e and Kapa'a are examples of large town place types on Kaua'i.
- **Plantation Camp.** A fifth place type, the Plantation Camp, is a historic remnant of a former plantation housing camp that is not associated with a present-day center and is located in a rural area. This type is a cluster of

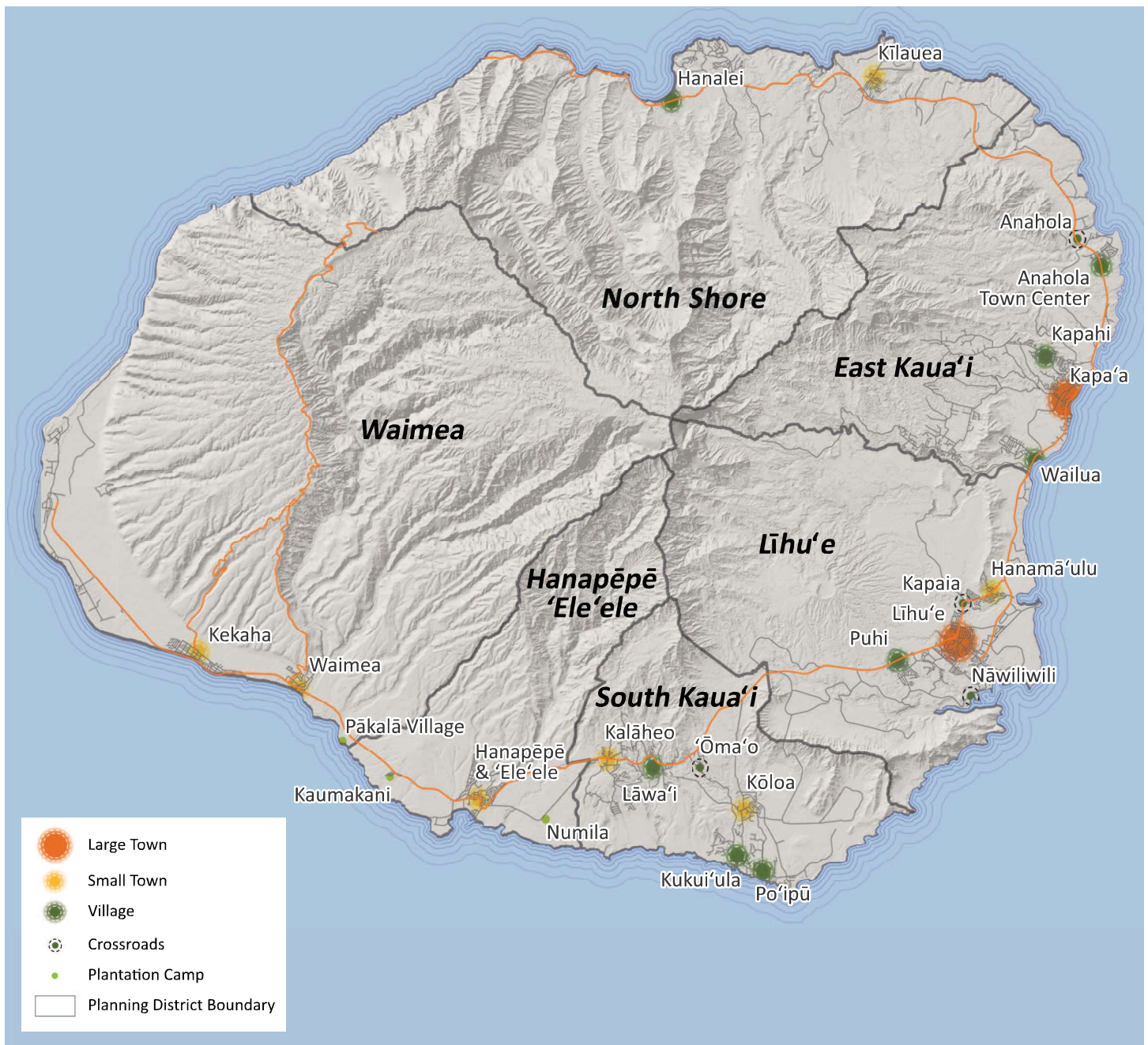
**Figure 2-1 Approach to Updating the Land Use Map**



houses with little or no retail or service uses. While other place types promote pedestrian-oriented development, the single-use nature of this place type results in an environment that is primarily auto-oriented, and would not be considered future areas of potential

growth. Examples of plantation camps include Pākalā Village, and Kaumakani on the West Side. The Plantation Camp coloring on the land use maps (Chapter 5) is intended as a descriptive place-type and is not a land use designation with specific land use policies.

**Figure 2-2 Planning Districts and Place Types**



## 2.4.1 WAIMEA-KEKAHA

Waimea is the civic center of the West Side, home to the high school and other community facilities as well as to a variety of restaurants and retail stores. It is the gateway to Waimea Canyon and Kōke'e State Parks, attracting many visitors as well as residents. Much of Waimea and Kekaha lie within flood zones and tsunami inundation areas, which is a consideration in determining patterns of future land use and development.

### Preliminary Vision & Priorities for Waimea-Kekaha

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.

#### Waimea

Waimea is suited for incremental change to continue improving on its ability to serve both resident and tourist needs. The community's existing historic center is active and attractive, but residents see opportunities for it to continue to improve as a vibrant walkable destination. The central square is highly valued, and residents would like to explore ways to expand the space, recalling that the park had been larger historically but cut away over time with streets and parking. Lucy Wright Park is another important community destination located just a block from the central square that could benefit from improved facilities and parking.

Waimea Canyon Park, adjacent to the Waimea Canyon Middle School, is the community's regional park that is currently used for sports events and tournaments on the West Side. In 2013, the community envisioned the future expansion of the park through the *Waimea Sports Complex Master Plan*. In the plan, the community called for an additional 65 acres to create a multi-use sports venue that would better serve residents and generate economic activity for West Side businesses through hosting statewide and national sports tournaments.

Two distinct centers have developed along Kaumuali'i Highway - one node at Waimea Road serving mostly locals, and another around Makeke Road catering more to tourists - and residents expressed interest in exploring opportunities for connecting these nodes for pedestrians. At the west end, the former mill site makai from the West Kaua'i Tech & Visitors Center is a key opportunity site to establish pedestrian-oriented, civic, and retail space for both visitors and residents.

Residents enjoy the town's landscaped sidewalks and

## WAIMEA-KEKAHA

### Place Type:

*Kekaha: Small Town*

*Waimea: Small Town*

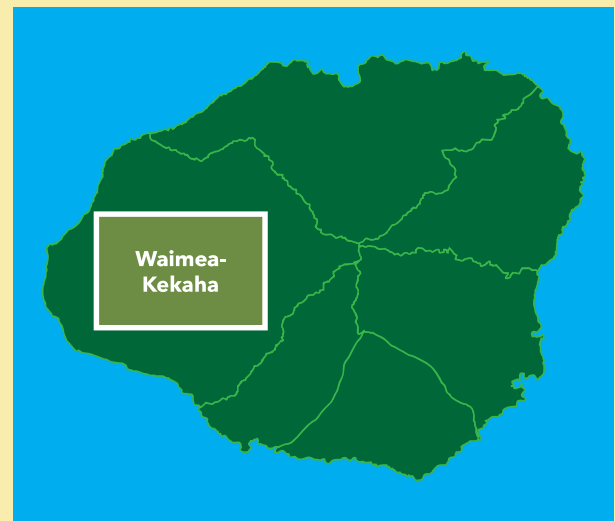
### Character/Key Values:

- Community-Minded
- Country Living
- Historic/Timeless
- Peaceful/Relaxed/Quiet/Isolated
- Family/'Ohana/Home

### Degree of Change:

*Waimea: Incremental*

*Kekaha: Incremental*



Waimea Theatre

desire that future pedestrian facilities match the rural character. Providing multimodal transportation options will help alleviate parking demand in the town center. This includes increasing safe pedestrian crossings, especially near the high school, and calming highway intersections with difficult left turns. New mixed-use infill compatible with the existing scale is welcome. In the surrounding neighborhood, a variety of small-scale housing is desirable, especially to offer options to “age in place.”

To continue to support visitor activity, the community sees value in improving its various tourist facilities, such as public bathrooms and access to the tourist center. A walking route connecting various historic sites could enhance the visitor experience and build upon the community’s rich historic heritage.

### **Kekaha**

Kekaha residents envision incremental change to build on their proud agricultural identity. This would mean having new businesses in town, while maintaining the relaxed country-living atmosphere that is unique to the West Side. Clustering new commercial and community activity along Kekaha Road near existing businesses, especially near the Kōke’e Road intersection, can better enable residents’ multimodal transportation options.

Agrotourism or value-added agriculture businesses are seen as a major economic opportunity that can preserve the community’s agricultural heritage. The vacant mill sites, under common ownership, could offer a transformative change for the community, if re-developed to be part of a new agribusiness and agrotourism center that could include value-adding light-industrial and processing businesses, markets and small local vendors for visitors, and housing. Any new infill should maintain the small-scale character of the community. More modest projects could improve pedestrian mobility throughout town, such as building sidewalks on important connector streets such as Elpaio Road. Kekaha Road is recognized as an important secondary, parallel route to the highway, particularly for pedestrians and bicyclists, and residents also desire to encourage slow speeds on local streets. Better multimodal connectivity to Waimea is a priority, and residents favor a separated path to enable easier bicycle access to Waimea’s town center.

Kekaha’s strong community base of residents are eager to explore grassroots-driven changes for revitalization, rather than waiting solely on private development.

## **Land Use Map Changes for Waimea-Kekaha**

The Waimea-Kekaha Land Use Map is shown on Figure 5-2. Updates to Land Use Designations since the 2000 General Plan version are described below.

### **Neighborhood Centers and Walksheds**

In Kekaha, the Neighborhood Center designation was applied to amend the Town Center designation of the 2000 General Plan, reducing the size to reflect a more reasonably walkable scale for the center. This was achieved by removing residential neighborhoods from the boundary to more accurately reflect areas where mixed-use activity would be appropriate. The Neighborhood Center boundary was delineated by Amakihi Road to the west; to the eastern edge of the mill site to the east, to allow potential mixed-use repurposing of the mill area; and to the back side of Kehaka Road properties on the makai edge. Existing agricultural lands delineate the mauka edge of the Neighborhood Center. Neighborhood General replaced developable land use designations within a ¼ mile radius from the Neighborhood Center.

In Waimea, the 2000 General Plan’s Town Center boundary was reduced to a more walkable, ¼- to ½-mile scale for the Neighborhood Center designation. To the west, large single-use institutional properties such as the middle school and hospital were removed from the center, with the new boundary set at Huakai Road; the technology and visitors’ centers were included to prioritize pedestrian connectivity up to this location from the walkable nodes further east along the highway. The new mauka boundary is set at Tsuchiya Road and includes the first block on the mauka side of Kaumuali’i Highway. The eastern boundary is maintained at the river. The makai boundary is pulled back to Kahakai Road and La’au Road, to discourage redevelopment directly along the coast given concerns of future coastal flooding. Neighborhood General replaced developable land use designations within a ¼ mile radius from the Neighborhood Center.

### **Other Land Use Changes**

Two areas west of Waimea were designated as Residential Community in the 2000 General Plan. These are not connected to the existing community and therefore have been designated as Agriculture to be more consistent with the community’s vision of focusing revitalization and development around the Neighborhood Center.

The area adjacent to the Waimea Plantation Cottages was designated Resort in the 2000 General Plan. No





Waimea Sugar Mill

movement to entitle the property occurred since the previous General Plan. The Future Land Use Map converts this area to “Provisional Resort.” This will allow a more intensive community process to determine if resort potential should be removed or retained to support economic growth on the West Side.

#### ***Natural Hazards and Climate Change Resilience in Waimea/Kekaha***

The communities of Waimea and Kekaha are vulnerable to natural hazards, including marine and terrestrial flooding, wave inundation, erosion, and 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 Kaua'i Climate Change and Coastal Hazards Assessment conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs for Waimea-Kekaha (Needs Assessment) using “bathtub” still water flood modeling from the National Oceanic and Atmospheric Administration (NOAA) sea level rise viewer. The inundation maps for the 1-foot, 3-foot, and 6-foot 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 low-lying areas adjacent to the Waimea River, low-lying agricultural lands, beach-front properties, and Kikīaola Small Boat Harbor. Such an assessment should incorporate planning information depicting wave inundation and erosion impacts from SLR, which is currently being developed by researchers at University of Hawai'i and others for the State SLR adaptation report.

The Needs Assessment also noted that the County may adopt requirements for flood hazard mitigation/adaptation that account for SLR hazards and are above and beyond the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) flood zones and the base floor elevations (BFEs), and limit or prohibit re-zoning of flood-prone agricultural lands. Actions for Public Safety and Hazards Resiliency point to the need to update the County flood program.

Lastly, the Needs Assessment suggested that a sediment management plan be developed at Kikīaola Small Boat Harbor, which is acting to trap sand against the east breakwall and exposing properties to the west to increased erosion and wave inundation. Such an action would require partnership with relevant State, Federal, and private property owners due to the multiple jurisdictions involved.

## Guidance for Community Planning for Waimea-Kekaha

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

*I. GOAL: Build on Kekaha's proud agricultural identity while maintaining the relaxed, country living atmosphere.*

### A. REVITALIZE THE NEIGHBORHOOD CENTER OF KEKAHA AS A HUB FOR ECONOMIC DEVELOPMENT AND COMMUNITY ACTIVITY.

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1. Cluster new commercial and community activity within the Neighborhood Center along Kekaha Road near existing businesses.
2. Support community-driven revitalization efforts and programs.

### B. IMPROVE PEDESTRIAN MOBILITY AND MULTIMODAL CONNECTIVITY.

---

1. Better accommodate bicyclists and pedestrians along Kekaha Road by slowing traffic.
2. Construct sidewalks along important connector streets such as 'Elepaio Road.
3. Improve multimodal connectivity to Waimea with a separated shared use path to enable easier bicycle access to Waimea's town center.
4. Enable a "park once and walk" environment in the town center by integrating parking and transit facilities nearby.

### C. CREATE TOURISM OPPORTUNITIES THAT CELEBRATE AND BUILD UPON KEKAHA'S AGRICULTURAL IDENTITY.

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1. Support programs that encourage agro-tourism and value-added agriculture businesses.
2. Explore the redevelopment of the Kekaha Mill site as an agrotourism and agrobusiness center that could include light-industrial and processing facilities, as well as markets, visitor facilities, and housing.

*II. GOAL: Ensure that Waimea-Kekaha is resilient to climate change and coastal hazards.*

1. In advance of or in conjunction with the Community Plan update, conduct detailed hazard, risk, and vulnerability assessment for coastal hazards with climate change and sea level rise for Waimea-Kekaha when updated sea level rise, erosion rates, and wave inundation planning information is available. Assessment should include low-lying areas adjacent to the Waimea River, low-lying agricultural lands, beach-front properties, Kekaha Landfill, and Kikīaola Small Boat Harbor. It should also 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. Prohibit land use intensification in flood-prone agricultural areas.
3. Partner with relevant State, Federal, and private property owners to develop a sediment management plan for Kikīaola Small Boat Harbor.

*III. GOAL: Continue to improve upon Waimea's ability to serve both residents' and visitors' needs.*

### A. CONTINUE TO IMPROVE UPON WAIMEA'S HISTORIC CENTER AS A VIBRANT AND WALKABLE DESTINATION.

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1. Explore ways to expand the central square and make it more pedestrian oriented.
2. Establish pedestrian-oriented civic and retail space at the former mill site at the west end of town.
3. Improve tourist amenities and access to the visitor information center.
4. Provide a variety of small-scale housing near the neighborhood center that is appropriate to the community character and accommodates "aging in place."
5. Improve facilities and parking at Lucy Wright Park.
6. Create a walking route to connect the various historic sites in town and install signage to celebrate Waimea's historic heritage.

7. Explore ways to fund and implement the *Waimea Sports Complex Master Plan (2013)*.

## **B. IMPROVE MULTIMODAL TRANSPORTATION OPTIONS TO HELP ALLEVIATE PARKING PRESSURES IN THE NEIGHBORHOOD CENTER.**

1. Improve pedestrian connectivity between the two nodes of activity along Kaumuali'i Highway at Waimea Road and Makeke Road.
2. Increase safe pedestrian crossings of Kaumuali'i Highway, especially near the high school.
3. Install traffic calming measures at highway intersections.
4. Provide parking facilities near transfer points to major tourist destinations such as Kōke'e and Waimea Canyon. Explore shuttle options to those destinations.

5. Enable a "park once and walk" environment in the town center by integrating parking and transit facilities nearby.

## **C. ADDRESS DECREASING WATER LEVELS IN THE WAIMEA RIVER AND SUPPORT EQUITY IN WATER MANAGEMENT.**

1. Address community concerns regarding decreasing water levels in the Waimea River through a non-adversarial process involving major stakeholders.



Waimea Hawaiian Church

## 2.4.2 HANAPĒPĒ-‘ELE‘ELE

Hanapēpē-‘Ele‘ele is the gateway to the West Side. As Kaumuali‘i Highway turns south and descends from the uplands of Kalāheo, views of the ocean open up together with views of the Hanapēpē River. The district includes Port Allen, one of the island’s main industrial hubs, with a harbor, power plant, and solar farm. Hanapēpē is also a priority development area for DHHL, who owns land west of the existing town. Their plans include development of approximately 250 house lots in Phases I and II, then developing 234 house lots in a later phase.

### Preliminary Vision & Priorities for Hanapēpē-‘Ele‘ele

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.

#### Hanapēpē

Hanapēpē is an appropriate location for incremental change. Residents value maintaining the character and “soul” of the historic town, a thriving center for artists, craftspeople, small farmers, and small businesses. There may be opportunities to increase pedestrian and non-motorized connectivities across the neighborhoods.

Incremental infill across the town may help to fill in “missing teeth” in the historic downtown, provide affordable housing options in a variety of forms consistent with the existing town character, and revitalize the western portion of Hanapēpē Road.

New infill in the town center would also sensitively provide for public and semi-public space that supports activities such as markets and special community events, and preserves important community character such as “mom-and-pop” shops. The State owns a significant amount of land along Hanapēpē Road and has no plans for improvement. A revitalization plan for the area could be developed in cooperation with appropriate State and County agencies. Major connectivity opportunities are envisioned at the highway, along the river, and connecting to and along the coast. Safe crossings are a priority, especially for children traveling along Kona Road and Kaumuali‘i Highway.

Improved multimodal access to the shore is important, especially between Hanapēpē Heights, Hanapēpē Town, and Salt Pond Park. A shoreline trail connecting Salt Pond Park to Port Allen is a

## HANAPĒPĒ-‘ELE‘ELE

### Place Type:

*Small Town*

### Character/Key Values:

- Peaceful/Laidback/Sunny
- Country/Rural/Small Towns
- Welcoming
- Community/‘Ohana/Closely-Knit
- Local Style/Culture/Grounded

### Degree of Change:

*Incremental*



*Hanapēpē Town*

popular idea both as an alternate route and valuable recreational amenity for residents.

Finally, improved riverside access could offer another attractive alternate pedestrian route through town and encourage recreational use of the river, maintaining the historic swinging bridge as an important destination for both visitors and residents.

The salt pans on Pū'olo Point are an ancient cultural site that still functions today. The recognized stewards of this valued cultural resource are the salt makers, who continue to cultivate pa'akai (sea salt) and manage this resource. The nearby Burns Field Airport (originally known as the Auxiliary Flying Field at Port Allen Military Reservations) is used by commercial operators, and during emergencies by the National Guard and the County Fire Department. The continued cooperation of the airstrip is a concern for residents, salt-makers, and others who question the vulnerability of the airfield to coastal inundation. In addition to the presence of the airstrip, vehicle use on the beach and other activities may negatively impact the integrity of salt-making resources.

### **'Ele'ele**

'Ele'ele is also suited for incremental change. There is the opportunity for Port Allen and 'Ele'ele Shopping Center to connect to new residential neighborhoods (including the Lima Ola workforce housing project) as they develop over time. The Port and shopping center are recognized as a valuable node. There is an opportunity to consolidate parking and transit facilities for recreational users. If 'Ele'ele shopping center redevelops and expands, this can provide a key development and open space opportunity for the

Port's current parking lot. Connectivity to this node is critical. It could be improved through better highway crossings and an alternate pedestrian/bicycle route paralleling the highway as new residential neighborhoods are added along 'Ele'ele's eastern edge.

As Hanapēpē and 'Ele'ele evolve, public open space can be ocean and river views, access to coastal areas, and a possible regional open space network. Hanapēpē, 'Ele'ele, and Port Allen can evolve individually, but the desire is that connectivity would increase among them.

### **Land Use Map Changes for Hanapēpē-'Ele'ele**

The Hanapēpē-'Ele'ele Land Use Map is shown on Figure 5-3. Updates to Land Use Designations since the 2000 General Plan version are described below.

#### *Neighborhood Centers and Walksheds*

The Hanapēpē Neighborhood Center designation matches the Town Center designation of the 2000 General Plan with one exception: west of Pū'olo/Hanapēpē Park Road the boundary is extended to incorporate all points of the Hanapēpē Road/Kaumuali'i Highway intersection. A Neighborhood Center designation was also applied to the core parcels facing Waialo Road in Port Allen, differentiating the potential for mixed-use, pedestrian-oriented development along Waialo Road and the industrial and residential properties to the east and west, respectively.



Port Allen Harbor

The Residential Community located to the west of the existing Hanapēpē Heights area and owned by DHHL was downsized to reflect current DHHL plans.

#### **Other Land Use Changes**

Seventy-five acres for the planned Lima Ola affordable housing development changed from Agriculture to Residential Community. Additional Neighborhood General was provided to connect Lima Ola to the Neighborhood General located in Port Allen.

#### **Natural Hazards and Climate Change Resilience in Hanapēpē-'Ele'ele**

The Hanapēpē-'Ele'ele district, including Port Allen, is vulnerable to natural hazards, including marine and terrestrial flooding, wave inundation, erosion, and storms and tsunamis. All of these hazards are expected to be exacerbated by climate change and sea level rise, threatening residential, commercial, cultural, and agricultural activities. This calls for a need to employ resiliency strategies in community siting, design, and relocation.

The *Kaua'i Climate Change and Coastal Hazards Assessment* conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs for Hanapēpē using "bathtub" still water flood modeling from the National Oceanic and Atmospheric Administration (NOAA) sea level rise viewer (Needs Assessment). 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 the Hanapēpē River, Port Allen facilities, and Salt Pond. Such an assessment should incorporate planning information depicting wave inundation and erosion impacts from SLR, which is currently being developed by researchers at University of Hawai'i and others for the State sea level rise adaptation report.

Members of the Hanapēpē-'Ele'ele community are participating in a process to formulate a community-based emergency disaster response plan as part of the State's Hawai'i Hazards Awareness and Resilience Program (HHARP).

## **Guidance for Community Planning for Hanapēpē-'Ele'ele**

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

*I. GOAL: Ensure that Hanapēpē-'Ele'ele is resilient to Climate Change and coastal hazards.*

1. In advance of or in conjunction with the Community Plan, conduct detailed hazard, risk, and vulnerability assessment for Hanapēpē when updated sea level rise, erosion rates, and wave inundation planning information is available. Assessment should include the Hanapēpē River area, Port Allen Harbor, and Salt Pond. It 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. Adaptation strategies and approaches should include actions that are based on the ancestral knowledge of Kanaka Maoli (i.e., practice of kilo).

*II. GOAL: Maintain the character of Hanapēpē as a historic town and a thriving center for residents, artists, craftspeople, farmers, and small businesses.*

### **A. REVITALIZE THE HISTORIC CENTER OF HANAPĒPĒ TO SHOWCASE AND ACCOMMODATE ARTISTS, SMALL BUSINESSES, SERVICES, AND ACTIVITIES.**

1. Cluster new commercial and community activity within the Neighborhood Center along Hanapēpē Road near existing businesses.
2. Encourage incremental infill in vacant spaces within the historic town center.
3. Provide for public and semi-public space to support activities such as markets, festivals, and community events.
4. Provide affordable housing options in a variety of forms consistent with the existing town character.

5. Revitalize the western portion of Hanapēpē Road.
6. Preserve the character of “mom and pop” small shops.
7. Explore the development of a revitalization plan for Hanapēpē Town in collaboration with appropriate state and county agencies.
8. Explore the development of a cultural center to support local traditions, practices, and organizations.

## **B. MAINTAIN TRAFFIC FLOW AND INCREASE PEDESTRIAN MOBILITY AND MULTIMODAL CONNECTIVITY.**

1. Maintain smooth throughflow of traffic on Kaumuali'i Hwy.
2. Improve riverside access to encourage appropriate recreational use of the river while protecting the estuary.
3. Maintain the historic swinging bridge as an important pedestrian link and visitor attraction.
4. Provide safe pedestrian crossings, especially from Hanapēpē Heights to the town center, and the Neighborhood Center Park and Stadium.
5. Improve pedestrian and bicycle access to the shore, sports facilities, and Port Allen from residential neighborhoods.
6. Explore the creation of a shoreline trail connecting Salt Pond Park to Port Allen.
7. Enable a “park once and walk” environment in the town center by integrating parking and transit facilities near the town center.
8. Reconstruct/replace the 1911 bridge for safety, Americans with Disabilities Act (ADA) access, and a variety of public uses.

### *III. GOAL: Improve Critical Infrastructure*

1. Provide sewerline connections to unserved homes in Hanapēpē Heights and to Salt Pond.
2. Improve the stormwater management system including the expansion of storm drains to better control the collection of runoff.

### *IV. GOAL: Expand and Enhance Open Spaces and Recreational Facilities*

1. Expand Salt Pond Beach Park to accommodate growing community needs and visitors.
2. Maintain sweeping views along the highways.
3. Explore creation of pocket parks and public scenic vantage points overlooking the harbor, shoreline, and Hanapēpē Valley.
4. Establish a wide swath of publicly accessible open space and recreational lands along the coastline from Port Allen to Numila.

### *V. GOAL: Enhance the Identities and Roles of 'Ele'ele and Port Allen*

1. Enhance and continue to maintain the relationships and interconnectedness between 'Ele'ele, Port Allen, and Hanapēpē.

### 2.4.3 SOUTH KAUA'I

The South Kaua'i District is bounded by Wahiawā Gulch to the west, and on the east by Hā'upu mountain ridge, Knudsen Gap, and Mount Kahili. The Planning District includes the towns of Po'ipū, Kukui'ula, Kōloa, 'Ōma'o, Lāwa'i, and Kalāheo, and encompasses an area of approximately 31,300 acres (49 square miles).

The *South Kaua'i Community Plan (SKCP)* was adopted in 2015. It sets forth a Vision, Policies, and Land Use Map for the District. Policies included in the SKCP are comprehensive and address a range of topics. In addition, this section explains changes to the Land Use Map for South Kaua'i District that were made in order to ensure consistency with the conventions used in the Future Land Use Map.

#### Vision and Community Descriptions for South Kaua'i

The Vision for South Kaua'i in 2035 is shown below.

*South Kaua'i is comprised of distinct rural communities, each embracing its own rich cultural, natural, and historic heritage, but well-connected through safe and efficient transportation networks. Balanced, responsible development enhances existing communities, preserving the local rural lifestyle that embodies South Kaua'i and is cherished by residents and visitors alike.*

*South Kaua'i Community Plan (SKCP) (2015)*

#### Kōloa

The site of the State's first sugar plantation, Kōloa is a compact, thriving village. It rests in the mid-land plains between the mauka villages along Kaumuali'i Highway and the makai tourism-focused villages and resorts. Its compact commercial main street strikes a balance between serving local residents and tourists. Kōloa can be categorized as a Small Town due to the intensity and size of the commercial core, and the prominence of the area within the region. The neighborhood center extends several blocks along Kōloa Road between Po'ipū Road and Waikomo Road.

The SKCP's Vision statement for Kōloa in 2035 is as follows:

*Kōloa will be a thriving commercial and residential community that maintains its rural feel and historic*

### SOUTH KAUA'I

#### Place Type:

*Kōloa: Small Town*

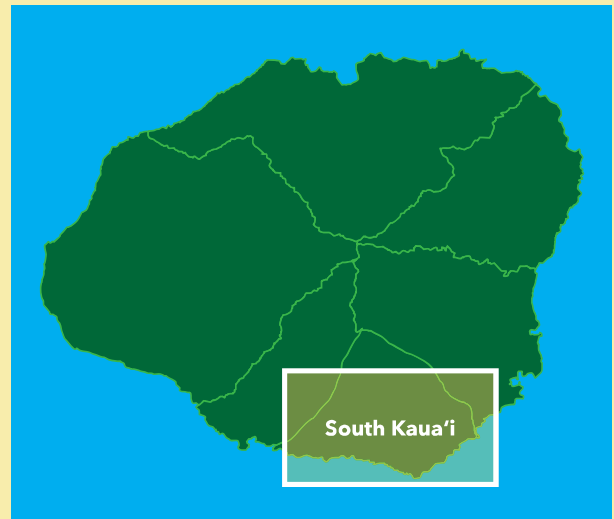
*Kalāheo: Small Town*

*Po'ipū: Village*

*Kukui'ula: Village*

*Lāwa'i: Village*

*'Ōma'o: Crossroads*



*"old town" charm by preserving, enhancing, and protecting its vast cultural treasures.*

Kōloa's history is preserved through the plantation/western architecture in the town core, its historic churches, and other historic buildings. In the town core, renovations and new buildings follow the style of "Old Kōloa Town." Shaded by building canopies and large trees, pedestrian walkways connect "pockets" of public parking at each end of town. The town provides Kōloa and Po'ipū residents with vital services such as grocery stores, the Post Office, and the Neighborhood Center. Both visitors and residents are also attracted to Kōloa because of its unique shops, restaurants, and taverns. Outside of town, the former Kōloa Sugar Mill is in active use as a light industrial center and a food processing and packing facility. Coffee, papaya, and other export crops are being grown on former sugar lands.





Sueoka Market in Kōloa Town



Brennecke's Beach

## Po'ipū

Po'ipū is a collection of makai developments and the historic epicenter for resorts and tourist activity on the southern shore of Kaua'i. It has large expanses of sandy beaches, including the popular Po'ipū Beach Park, and is highly developed with a nearly unbroken maze of resorts and tourist lodgings between Po'ipū Road and the shore. Po'ipū is classified as a Village place type.

The SKCP's Vision statement for Po'ipū in 2035 is as follows:

*Po'ipū will be a world-class, sustainable resort destination serving residents and visitors alike, developed responsibly, with clean, healthy beaches and ocean environments, welcoming parks and preserved heritage resources, all well-connected and accessible to everyone.*

Po'ipū is a beach resort that accommodates both a residential community and the island's largest Visitor Destination Area. Supported by the growing community of Kukui'ula to the west and by historic Kōloa Town to the north, Po'ipū is home to about 40 percent of Kaua'i's resort accommodations and is a major center of employment. Po'ipū is known for its many outdoor recreation opportunities afforded by its beaches, surf breaks, diving spots, golf courses, and tennis facilities. Bicycle tours use old agricultural roads belonging to Grove Farm and McBryde.

*I 'ike 'oe ia Kaua'i a puni a 'ike 'ole ia Kaua'i-iki, a'ole no 'oe i 'ike ia Kaua'i*

*If you have seen all of the places of Kaua'i and have not seen Little Kaua'i, you have not seen the whole of Kaua'i.*

*(Kaua'i-iki, little Kaua'i, is a stone that stood in a taro patch at Wahiawa, Kaua'i. When it was threatened with destruction by the building of a road, it was rescued by Walter McBryde and taken to Mai'aloa and later to Kukui-o-Lono park, where it stands today).*

Walkers, joggers, and bicyclists enjoy the continuous pedestrian/bicycle pathway that runs along the shoreline from the Spouting Horn to Māhā'ulepū.

## Kalāheo

Kalāheo is the largest mauka village in the South Kaua'i District. It is bisected by Kaumuali'i Highway and made up of neighborhoods weaving around hilly terrain to both the north and south. Kalāheo can be categorized as a Small Village due to its size and intensity of retail and civic uses. Existing commercial uses are concentrated along the highway and include a bakery, pharmacy, service uses, and food establishments serving primarily residents.

The SKCP's Vision statement for Kalāheo in 2035 is as follows:

*Kalāheo will remain as a residential community enhanced by a neighborhood-scaled commercial center and supported by small local businesses.*

In Kalāheo, numerous homes dot the hillsides mauka of town and around Kukuiolono Park. The population of Kalāheo is growing, as homestead and agricultural subdivisions created in the 1970s and '80s are built out with homes. In the town center, business properties are gradually being renovated with building designs supporting the paniolo theme. Public parking lots help to relieve traffic congestion and sidewalks encourage people to walk around town. Businesses have expanded mauka and makai of Kaumuali'i Highway along the larger intersections. An active business



Kalāheo Town

association promotes the paniolo town theme and sponsors an annual town celebration. On the western edge of town, near Brydeswood, a shopping center with a large grocery store helps to provide for the needs of a growing population.

### **Lāwa'i and 'Ōma'o**

Lāwa'i is a small mauka neighborhood straddling a winding section of Kaumuali'i Highway. It has two distinct "crossroad"-size commercial nodes—along Kōloa Road at Lauoho Road, near the old cannery, and on the highway at Aulima Road where the post office and market are located. Though physically encompassing a large area, Lāwa'i's neighborhood pattern is highly defined and limited by reservoirs and hilly topography. Lāwa'i can be categorized as a Village due to the limited retail and civic uses found at the core and the surrounding residential areas and hills.

'Ōma'o is classified as a Crossroads place type. It consists of a small series of mauka neighborhoods that reach southward from Kaumuali'i Highway. It has no defined commercial node but is rather a largely residential neighborhood, limited in connectivity, size, and future growth by topography and reservoirs. 'Ōma'o is a small residential community with a small central park.

The SKCP's Vision statement for Lāwa'i and 'Ōma'o in 2035 is as follows:

*Lāwa'i will remain a rural crossroads with a limited commercial area centered on the Post Office and Old Cannery. 'Ōma'o will maintain its value as a small rural residential community.*

Lāwa'i and 'Ōma'o are valued as rural crossroads and small rural residential communities. The small commercial area around the old Lāwa'i Cannery is developed with shops and services that serve the nearby residential neighborhoods, as well as people traveling along Kaumuali'i Highway or Kōloa Road. Edges around the existing communities are maintained, preventing sprawl. A scenic roadway corridor along Kōloa Road maintains separation between Kōloa and Lāwa'i.

### **Kukui'ula**

Kukui'ula is a growing area with many important assets: Spouting Horn, Kukui'ula Small Boat Harbor, the National Tropical Botanical Garden, and a beautiful coastline. This community is the focus of much new development, with a new high-end shopping center and entitlements for large subdivisions set around

golf courses. A Vision statement was not developed for Kukui'ula in the SKCP.

## **Land Use Map Changes for South Kaua'i**

The South Kaua'i Land Use Map is shown on Figure 5-4. Updates to Land Use Designations since the 2000 General Plan version are described below.

### **Neighborhood Centers and Form-Based Code Transects**

In order to accommodate the growth projected for South Kaua'i, the SKCP delineated six Special Planning Areas (SPAs). These represent specific areas where compact, walkable communities are desired in both new and existing neighborhood centers and nodes. South Kaua'i uses a Form-Based Code Framework and has regulating plans for three of these SPAs (Kōloa Town, Kalāheo Town, and the Po'ipū Roundabout). It uses Neighborhood Center and General Designations, as well as a Neighborhood Edge designation for areas within a 1/2-mile radius (ten minute walk) from the Neighborhood Centers. The SPAs are required to follow the design and land use standards detailed in the South Kaua'i Form-Based Code regardless of the underlying zoning.

The other three areas (Lāwa'i Cannery, Numila, and Po'ipū Gateway) will undergo a special master planning process to develop regulating plans and transects when development is proposed. On the Future Land Use Map they are labeled either as a Large Town or a Small Town. The Po'ipū Gateway Mixed-Use Village is classified as a Large Town and Lāwa'i Cannery and Numila are classified as Small Towns. These place types are general placeholders for the future SPAs until their Regulating Plans with transect zones are determined. They also will be required to use the transect zones defined in the South Kaua'i form-based code.

SPAs are a County zoning designation that is a higher level of detail than appropriate for the General Plan Land Use Map. Areas for infill and future development in South Kaua'i are shown on the General Plan Land Use Map as Neighborhood Centers and General, or as future place types based on the characteristics of their envisioned build form and relationship to other communities.

### **Other Land Use Changes**

The SKCP supported expansion of the Visitor Destination Area (VDA) along Lāwa'i Road due to the concentration of non-conforming TVRs makai of the highway. This recommendation was not extended to the existing neighborhood of Ho'one Road.

Due to the General Plan's policy to not expand the VDA, the Lāwa'i Road VDA recommendation has been removed and the neighborhood will remain a residential community.

To be consistent with the community's desire to focus revitalization and development around the town core, sixty (60) acres of State land located above Weliweli Tract was changed from Residential Community to Agriculture.

The SKCP identified the boundaries of a potential growth area to be vetted through the Hanapēpē-'Ele'ele Community Plan process. It includes the area surrounding Numila, which is desired by the landowner to be a master planned community supporting the growth of 'Ele'ele and Port Allen. Because of the boundary shift between planning districts, it falls within the South Kaua'i planning district. On the South Kaua'i Community Plan Land Use Map, it is designated Agriculture and shown as a placeholder to be defined as part of the future Hanapēpē-'Ele'ele Community Plan update. No projected residential growth for South Kaua'i was allocated to the area.

In this plan, the Planning District boundary between South Kaua'i and Hanapēpē-'Ele'ele is shifted from Wahiawa Gulch to Kalāheo Gulch. Due to this change, the potential growth area is now included within the Hanapēpē-'Ele'ele Planning District.

#### ***Natural Hazards and Climate Change Resilience in South Kaua'i***

The South Kaua'i district is vulnerable to natural hazards, including marine and terrestrial flooding, wave inundation, erosion, and 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 *Kaua'i Climate Change and Coastal Hazards Assessment* conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs Po'ipū (Needs Assessment) using "bathtub" still water flood modeling from the NOAA sea level rise viewer. The inundation maps for the 1-foot, 3-foot, and 6-foot SLR scenarios can be found in Appendix D. Po'ipū provides one example where the NOAA SLR Viewer data greatly underestimates SLR related hazards because the model does not account for increased coastal erosion and wave induced flooding with increasing sea level rise. This data gap is currently

being addressed by University of Hawai'i and other researchers and the planning information is expected within the next few years. Therefore, it is recommended that a community-scale hazard, risk, and vulnerability assessment be conducted when that data becomes available with particular focus on the beach resources and resort facilities.

#### **The South Kaua'i Community Plan (2015)**

Community planning guidance for the district is contained in the SKCP. The Walkable Mixed-Use Communities section identifies policies to enhance existing communities with pedestrian-friendly development. By locating commercial and retail establishments convenient to residential areas, alternatives to driving, such as transit, walking, and biking, once again become viable. Potential redevelopment is concentrated in the Special Planning Areas described above. The main goal of these policies is to focus growth to compact, defined settlement areas to enhance sense of community, improve conditions for walkable communities, maintain rural character of the place, and preserve open space.

## 2.4.4 LĪHU'E

The Līhu'e Planning District is the "heart" of Kaua'i. Extending north to the Wailua River and south to Hā'upu Ridge, the district serves as the main business, government, and transportation center of the island. The Līhu'e region includes the main communities of Līhu'e, Hanamā'ulu, and Puhi. Sub-areas and neighborhoods include Nāwiliwili, Kapaia, Kīpū, Kālepa, Nūhou, Niūmalu, Kalapakī, and Pū'ali.

The most recent *Līhu'e Community Plan* (LCP) was adopted in 2015. It sets forth a Vision, Policies, and Land Use Map for the District. This General Plan incorporates the LCP Vision, land use map, and policies. Policies included in the Līhu'e Community Plan are comprehensive and address a range of topics. Only those that are specific to the communities in the Līhu'e District are reproduced here. In addition, this section explains changes to the Land Use Map for Līhu'e District that were made in order to ensure consistency with the conventions used in the islandwide Land Use Maps.

### Vision and Community Descriptions for Līhu'e

The Vision for the Līhu'e District is as follows:

*The Līhu'e District shall be a place with walkable, compact communities, each distinct yet connected, and each with its own unique identity and sense of place. Green, open spaces between communities serve as visual and physical buffers and evoke Kaua'i's rural essence. Līhu'e Town serves as a destination and gathering place for the island, with a vibrant Town Core and a desirable mix of uses and attractions for residents and visitors.*

*Līhu'e Community Plan (2015)*

Community descriptions for the communities of Līhu'e, Hanamā'ulu, and Puhi are provided below.

#### Līhu'e Town

Līhu'e Town is the County seat of Kaua'i and the island's major commercial and civic center. It is the only community on Kaua'i that consists of four or more neighborhoods and can be classified as a Large Town place type.

Līhu'e Town is bounded by the Hanamā'ulu and Nāwiliwili Gulches on the north and south and by the shoreline and the Isenberg neighborhood

## LĪHU'E

### Place Type:

*Līhu'e: Large Town*

*Hanamā'ulu: Small Town*

*Puhi: Village*

*Nāwiliwili: Crossroads*

*Kapaia: Crossroads*



along Kūhiō Highway on the east and west. Key commercial centers in Līhu'e town include the Civic Center District, Kūhiō Highway commercial strip, and portions of Rice Street. The town developed along Haleko Road (north of Rice Street) and Rice Street, both of which are designated as historic roads.

The Kūhiō Highway commercial strip has developed alongside the adjacent Isenberg and 'Akahi-'Elua neighborhoods and serve as a hub for those populations. The east side of Kūhiō Highway consists of commercial storefronts with neoclassical and art deco architectural influences. The 'Akahi-'Elua neighborhood between Ahukini Street and Hardy Street has relatively large lots and the residential architecture styles of the homes remaining are of cottage, craftsman, and prairie styles from the 1930s and early 1940s.

Rice Street between Kress and Kalena Street was developed as a retail center secondary to the Kūhiō Highway Commercial District. With continuous

storefronts along both sides of the streets and several historic buildings, Rice Street is often characterized as Līhu'e's "Main Street."

### **Hanamā'ulu**

Hanamā'ulu is a former plantation village and housing subdivision that lies between the Hanamā'ulu Gulch and Kālepa Ridge. Kūhiō Highway bisects the community and links it to Līhu'e Town, Puhi, and Kapa'a. In 1877, Hanamā'ulu Mill became the second mill for Līhu'e Plantation. In the 1950s and 1960s, Līhu'e Plantation opened several subdivisions and offered them for sale to their workers. These subdivisions surround the village center and flank both sides of Kūhiō Highway.

The small village center was a cluster of plantation structures including the Hanamā'ulu Trading Company and post office, both of which were destroyed by fire in 2012 along with several other businesses. Portions of these structures have since been rebuilt. The village center has several small businesses including a gas station, warehouses, a convenience store, park, and elementary school, all within walking distance from its neighborhoods. A recent housing project called Kālepa Village is a workforce housing project that is done in plantation vernacular and is the only multi-family development in the vicinity.

### **Puhi**

Puhi is the newest developed community in the Līhu'e District, and is designated as a Village place



Commercial building with street frontage on Kūhiō Highway in Līhu'e.

type. It is located south and west of Nāwiliwili Gulch and has access to Līhu'e Town along Kaumuali'i Highway. Puhi is home to Kaua'i's major regional shopping center, Kukui Grove Center, as well as a large industrial park and big box retailers including Costco. This makes Puhi a commercial destination and employment center that experiences a large amount of daily commuter traffic from across the island. The area mauka of Kaumuali'i Highway is a decidedly more open landscape, with expanses of green space and agricultural uses. This mauka area is home to the campuses of Island School and Kaua'i Community College, as well as the historic Kilohana Plantation and railroad, a prominent attraction.

The land use character is suburban with predominantly single family residential developments, shopping mall and big box retail, cul-de-sac road systems, and large lot single family homes with golf course frontages. Overall, Puhi provides a diverse mix of uses, residential dwellings, light industrial, retail, and education. With these established uses, Puhi is poised to remain a regional destination into the future, and also to experience residential growth to support employment and educational opportunities there.

### **Land Use Map Changes for Līhu'e**

The Līhu'e Land Use Map is shown on Figure 5-5. Updates to Land Use Designations since the 2000 General Plan version are described below.

#### **Neighborhood Centers & Urban Edge Boundary**

Līhu'e is the only district on Kaua'i to have an Urban Edge Boundary delineation. The boundary was adopted through the *Līhu'e Community Plan* (2015) to limit urban sprawl, defining where higher density development should be contained throughout the district. The Urban Edge Boundary is intended to facilitate preservation of agricultural lands and uses by focusing future growth and development within existing or identified Urban Centers and Neighborhood Centers. Within the Urban Edge Boundary, there are existing and future designated Neighborhood Centers that correspond to Mixed Use Special Planning Areas (SPAs). These SPAs indicate priority "areas of change" for infill and new development to

accommodate projected population growth. Most of these Neighborhood Centers are within a half mile of one another. The Neighborhood General designation is not applied in Līhu'e because most of these half-mile walksheds overlap. Instead, the General Plan Urban Center designation is retained in those developable areas outside of designated Neighborhood Centers.

#### **Neighborhood Center & Residential Community on DHHL Wailua Lands**

To ensure consistency with the Department of Hawaiian Home Lands (DHHL) *Kaua'i Island Plan* (2004), neighborhood center was designated on the mauka and makai side of DHHL's Wailua lands. Residential Community was also added on the mauka side of the highway to reflect DHHL's vision for more beneficiary housing in this area.

#### **Other Land Use Changes**

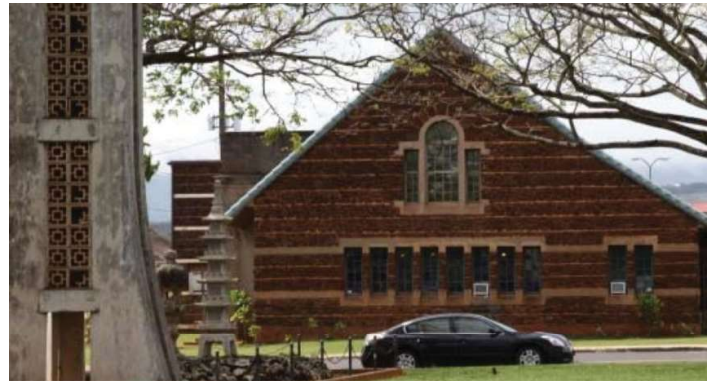
The Residential designation was removed from several areas in Pū'ali, to the southeast of Puhi, as they were not adjacent to an existing Neighborhood Center. A portion of the EWM property near the northern end of the District was designated as Residential.

A new University Zone designation is applied to the Kaua'i Community College area and the surrounding schools to acknowledge the future expansion of facilities, housing, and uses to better serve students, faculty, and staff. To be consistent with the policy to limit resort expansion, a portion of Nukoli'i was changed from Resort to Agriculture.

#### **Natural Hazards and Climate Change Resilience in Līhu'e District**

The Līhu'e district is vulnerable to natural hazards, including marine and terrestrial flooding, wave inundation, erosion, and 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. The coastal areas of Nāwiliwili, Niumalu, and Huleia stream are particularly vulnerable to coastal hazards. This calls for a need to employ resiliency strategies in community siting, design, and relocation.

The Kaua'i Climate Change and Coastal Hazards Assessment conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs for Nāwiliwili (Needs Assessment) utilizing "bathtub" still water flood modeling from the National Oceanic and Atmospheric Administration (NOAA) SLR viewer.



Kaua'i Museum with the County Building lawn and associated monument in the foreground.

The inundation maps for the 1-foot, 3-foot, and 6-foot SLR scenarios can be found in Appendix D. Nāwiliwili is an important industrial and port area with infrastructure that may require protection to maintain essential services. It is recommended that a hazard, risk, and vulnerability assessment for coastal hazards with climate change and SLR be conducted with particular focus around Nāwiliwili Stream, Huleia Stream, Kalapakī Beach, Nāwiliwili Small Boat Harbor, and the Niumalu area. Such an assessment should incorporate planning information depicting wave inundation and erosion impacts from SLR, which is currently being developed by researchers at University of Hawai'i and others for the State SLR adaptation report.

The Needs Assessment also notes that the Federal Emergency Management Agency FEMA FIRM maps indicate most of the shoreline around Kalapakī and Nāwiliwili is outside the 100-year flood plain (Zone X) and this may underestimate the risk since these maps do not incorporate sea level rise. The County may adopt requirements for flood hazard mitigation and adaptation that account for SLR hazards that are above and beyond the FIRM flood zones and base flood elevations (BFEs).

#### **Goals, Policy Objectives, and Actions for Līhu'e**

Community planning guidance for the district is contained in the *LCP* and *Līhu'e Town Core Urban Design Plan* (2010).

## 2.4.5 EAST KAUA'I

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

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

### Preliminary Vision & Priorities for East Kaua'i

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

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

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

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

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

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

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

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

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

*Deferred infrastructure needs have been addressed.*

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

## EAST KAUA'I

### Place Type:

*Wailua: Village*

*Kapahi: Village*

*Kapa'a: Large Town*

*Anahola: Rural Crossroads (near Post Office);*

*Future Village (at Anahola Marketplace)*

### Degree of Change:

*Wailua: Incremental*

*Kapahi: Incremental*

*Kapa'a: Transformational*

*Anahola: Incremental at Anahola Post Office;*

*Transformational at Anahola Marketplace*



### Wailua

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

### Kapahi

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



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 Lihu'e. 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



Kapa'a Town

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.



Mountain views from Anahola

#### *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

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

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

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

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

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

### **Guidance for Community Planning for East Kaua'i**

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

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

1. Allow the buildout of communities based on existing zoning with the exception of areas impacted by future sea level rise and other hazards.

2. In new communities, ensure the majority of units are "missing middle housing" and affordable by design.
3. Design new communities to be walkable, compact, and connected to Kapa'a Town.
4. The build-out phasing of new communities should be coordinated with the implementation of priority projects in the Kapa'a Transportation Solutions Plan.

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

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

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

### **A. PROTECT SCENIC CORRIDORS AND SITES OF CULTURAL SIGNIFICANCE.**

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

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

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

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

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

*V. GOAL: Enhance historic Kapa'a Town.*

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

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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.**

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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.**

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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.**

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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.**

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

## 2.4.6 NORTH SHORE

The North Shore Planning District extends from Moloa'a Bay on the east to Puanaiea Point on the west, which is eight miles west along the Nā Pali Coast from Hā'ena. The North Shore includes the communities of Hā'ena, Wainiha, Hanalei, 'Anini, Kalihiwai, Kīlauea, and Princeville. The main population centers on the North Shore are the communities of Hanalei, Princeville, and Kīlauea.

Residents of these communities value the rural, isolated character of the North Shore and its inherent natural beauty, and the strong sense of community central to each place. While each community differs somewhat in its approach to growth and change, North Shore communities generally express greater concerns regarding the impacts of new development as well as the negative effects of tourism. The North Shore attractions from Kē'ē Beach to the Hanalei Pier are must-see sights for nearly all visitors to Kaua'i. There is a sentiment among local residents that the North Shore is more burdened by tourist impacts than other areas of the island, as popular sites are overrun and residents must compete with tourists for parking.

### Preliminary Vision & Priorities for the North Shore

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.

#### *Hanalei*

A minimal degree of change is anticipated for Hanalei, which is designated as a Village place type. The community's focus is on maintaining its historic character and restoring it where it has been damaged. The pleasant, informal, pedestrian-scaled existing center can be maintained through modest flexibility in site frontages of new infill, allowing buildings to set back at varying intervals to provide civic space or pedestrian amenities like outdoor seating. Despite allowing frontage flexibility, new off-street parking lots are located behind buildings, and existing lots are screened by landscaping, to support a better pedestrian environment at the street.

"Complete streets" that balance pedestrian, bicycle, transit, and private vehicle activity are a goal for residents, with context-sensitive elements that act to calm traffic on the highway, and provide safe

## HANALEI, KĪLAUEA, & PRINCEVILLE

### Place Types:

*Hanalei: Village*

*Kīlauea: Small Town*

*Princeville: Undetermined*

*(Village, or no place type to be applied)*

### Character/Key Values:

- Rural/Isolated
- Resilient/Protective/Healthy
- Natural Beauty/Verdant
- Challenged/Threatened

### Degree of Change:

*Hanalei: Minimal*

*Kīlauea: Incremental*

*Princeville: Incremental*



crossings for pedestrians, but with an emphasis on street designs that are consistent with Hanalei's rural character. On the east side of town, a path or informal sidewalk along Kūhiō Highway is desired to connect existing businesses which otherwise lack a safe, established route. There is also support for a possible parallel, shared use path makai of Kūhiō Highway, which could connect community civic uses between the single row of existing buildings and existing agricultural lands.

Traffic congestion on the highway into town is a

significant issue, and closely related is the primary concern about the current large number of tourists passing through Hanalei and the town's capacity to manage this daily influx of visitors. Exploring transportation alternatives for traveling to and around Hanalei is thus a priority in order to mitigate peak vehicular traffic levels and tourist impacts on the town, but with sensitivity to the goal of improving the means of access to the town, rather than increasing the volume of tourist access. One such consideration is to implement a bike-share program in the town center that would provide opportunities to reduce private vehicular trips. Such a program could be coordinated with regional transit and shuttle options connecting to other park-and-ride locations on the North Shore and even elsewhere on Kaua'i, allowing visitors to easily travel to regional destinations including Kīlauea Lighthouse, Kē'ē Beach, and Hā'ena State Park without using a private vehicle. Trail connections (outlined in the *Kaua'i Path North Shore Path Alternatives Report (2012)*) between Hanalei and Princeville were also discussed as an alternative, recreational option for pedestrians and bicyclists.

Tourist capacity is a continued concern for residents, who wish to see TVRs convert back to housing for locals and the stabilization of Hanalei's population, which has been in decline. In preparing the community for possible hurricanes and tsunamis, clear and abundant signage will be important for the education of this constant visitor population. It is imperative to reduce the number of TVRs in the high risk tsunami zones for the safety of both visitors and residents.

Hanalei's sensitive natural environment and strained single highway access-point into town make the control of the community's future growth important. The previous Town Center boundary, extending farther west than the existing commercial center, has been reduced in size to incorporate only the current mixed-use area at its eastern end. Although the center is not expected to expand, residents would like to see more neighborhood-serving businesses amongst the shops in the center.

### **Princeville**

An incremental degree of change could help Princeville to provide better connectivity and preserve public access to open space, while adopting more compact and connected land use patterns for future development. Residents expressed that public access and connectivity are primary issues for lands both mauka and makai of Kūhiō Highway. Public access to the shoreline has come under threat as vacation residences continue to develop down the coast. The community faces a critical need to preserve and restore public access to beaches, shorelines, and open space as new development progresses. In addition, public pedestrian and bicycle access is important to preserve and improve through Princeville's neighborhoods and properties. As Princeville expands, good street connections are also critical to establish between Phases I and II, in order to improve pedestrian and bicycle circulation and not further exacerbate the busy Kūhiō Highway.

Residents strongly desire more sensitive considerations of land use and development rights for Princeville's surrounding rural and agricultural lands. The community has seen the impacts of a loosely-defined agricultural land use, with large-lot residential subdivisions consuming valuable undeveloped land and eroding the rural character of the North Shore. However, these "gentleman estates" were still preferred to high-density condos. Residents desire that new resorts would be developed at an appropriate, small-footprint scale for the rural surroundings. More thoughtful consideration of appropriate locations for



Hanalei Bay

developable land uses is also a priority; for example, community members expressed widespread sentiment to limit development mauka of the highway, concentrating new residential neighborhoods and institutions (such as a school) close to the cores of existing communities.

Future master planning efforts for Princeville Shopping Center could improve the area's multimodal access and connectivity. This could include better pedestrian crossings between the Center and adjacent areas, including the affordable housing project to the west. Improved pedestrian facilities and context-sensitive elements can calm vehicular traffic along the scenic viewplane portion of Kūhiō Highway, including safer shoulders and pedestrian crossings at the Hanalei Valley Lookout. A regional transit facility can also be incorporated into the expansion of the Princeville Shopping Center, providing a shuttle stop for visitors traveling between North Shore destinations, with an accompanying park-and-ride lot. Mixed-use development can be focused at this node.

### **Kīlauea**

Other than Līhu'e, Kīlauea is the only other town with a micro-regional plan. Community outreach reveals much of the information included in the Kīlauea Town Plan (2006) remains valid and should continue through this planning horizon. Local interest in modest growth and a desire to better accommodate day visitors make Kīlauea an ideal candidate for incremental growth. It is designated as a future Small Town place type. The Town Plan supports additional housing development of approximately 200-240 units on undeveloped land west of the town. The community felt it was important that the majority of any future residential development be affordable. For future growth to occur, a regional wastewater treatment solution will have to be developed. Town expansion will also provide the opportunity for a new park and public school site. A new commercial development, currently under construction, will improve access to neighborhood-serving services. Should town expansion occur, an assessment of commercial space needs should be conducted.

Kīlauea Road already faces significant traffic from tourists traveling to the National Historic site, the Kīlauea Lighthouse. This problem can be addressed with an expansion of the center westward from Keneke Street, with a new road connection from the center to Kūhiō Highway serving as a backbone for new neighborhood

development, consistent with the town plan. Traffic headed both to the center and the lighthouse could use this as a new primary route, relieving traffic on the residential portions of Kīlauea Road. The center's westward expansion could integrate a pool of parking for tourists, coordinated with a new shuttle to the lighthouse and other North Shore destinations, to further manage access and mitigate tourist traffic impacts. Live/work buildings were envisioned as a naturally-fitting building type option for the community, allowing residents to generate capital directly out of the home. Improved pedestrian and bicycle routes further support this evolution of the walkable center. Residents desire more consistent sidewalks, path connections to the agricultural center, and coordinated multimodal trail options between North Shore communities and even between different moku. Improved access and connections to the local beaches from the center is a further priority, as is the addition of industrial lands in Kīlauea to allow for more local production space.

Kīlauea's relationship with Kūhiō Highway is a focus for future change to improve safe access and community visibility. A series of roundabouts is one possible strategy to create attractive gateways, slow vehicle speeds passing Kīlauea, and create safer intersections. Future roundabouts could be implemented at the new westward bypass road to Keneke Street, connecting to the highway across from Kaua'i Mini Golf; at Kolo Road, a current primary entrance to the community; and, at Ho'oku'i Road, near a small assortment of commercial businesses. Any considerations of growth are coupled with existing concerns of water and municipal sewer access. The community has expressed interest in considering progressive solutions to sewage treatment and encouraging more widespread rainwater catchment practices.

As with the rest of the North Shore, Kīlauea residents balance their desires for growth of a neighborhood-serving center with great concern for maintaining the precious local natural environment, especially with significant tourist demand on the region. The community shares a desire to create a coordinated shuttle service for the North Shore to relieve highway traffic demands and could implement a park-and-ride lot either within the new center expansion, or at the Kaua'i Mini Golf property.

## **Land Use Map Changes for the North Shore**

### **Neighborhood Centers and Walksheds**

In Hanalei, the Neighborhood Center size was reduced from the 2000 General Plan Town Center

designation along its western extent. It now ends at the west side of the post office to reflect the current extent of mixed-use activity in Hanalei. The new Neighborhood Center better reflects the community's commitment to limiting future growth and the desire to preserve the historic and cultural landscape along the highway west of the Neighborhood Center.

Kīlauea's 2000 General Plan Town Center boundary is largely maintained in location and scale as the new Neighborhood Center, with small adjustments to the northern and western edges. The existing residential neighborhood makai of the center was removed to establish the northern boundary. The western edge was adjusted to represent a more realistic general location of the center extension based on the likely alignment of a new western bypass road. The depth of the western portion of the Center approximates the land area necessary for reasonable mixed-use development lots with parking.

A Neighborhood Center designation was added in Princeville at the existing Princeville Shopping Center and adjacent parcels between Hanalei Plantation Road and Ka Haku Road. These include the fire station, affordable housing community, and vacant land to the west of the shopping center and the bank building, library, and vacant land on the mauka side of Emmalani Drive to the west. The Neighborhood Center designation acknowledges that while Princeville is a private, master-planned development, the shopping center is mixed use and serves as a community hub that exhibits characteristics of a Neighborhood Center. Given land use patterns makai of the highway and substantial topography changes mauka, there is little opportunity for walksheds to create a large development area, thus, the surrounding land use designations were retained.

#### **Other Land Use Changes**

The former Residential Community designation at Princeville Airport was changed to Transportation. The Residential Community pod located mauka of Princeville Airport was removed and changed to Agriculture. The Resort designation over the plateau makai of the Prince Golf Club was removed due to the community's desire to not expand the existing Princeville Visitor Destination Area boundaries.

#### **Natural Hazards and Climate Change Resilience on the North Shore**

The North Shore 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 communities of Kalihiwai, 'Anini, Hanalei, Wainiha, and Hā'ena are particularly vulnerable to coastal hazards, particularly flooding from high waves, flash flooding, and tsunamis.

The *Kaua'i Climate Change and Coastal Hazards Assessment* conducted a preliminary Sea Level Rise (SLR) Inundation Assessment and Needs for Hanalei, Wainiha, and Hā'ena (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. The maps show a high potential for increased flooding from SLR due to the low lying nature of Hanalei situated between Hanalei and Waioli streams. The maps likely underestimate SLR related hazards, however, because the model does not account for increased coastal erosion and wave induced flooding with increasing sea level rise. This data gap is currently being addressed by University of Hawai'i and other researchers and the planning information is expected within the next few years.

Given the high degree of exposure to flooding, wave inundation, and other coastal hazards along the North Shore, it is recommended that a community-scale hazard, risk, and vulnerability assessment with climate change and SLR be conducted when updated data becomes available with particular focus on residential, commercial, and visitor accommodations, essential infrastructure like roads and bridges, and agricultural areas. Such an assessment should be conducted in advance of or in conjunction with the Community Plan update.

The Needs Assessment recommends that the County may adopt requirements for flood hazard mitigation/adaptation that account for SLR hazards and are above and beyond the FEMA FIRM flood zones and the base floor elevations (BFEs). Actions for Public Safety and Hazards Resiliency point to the need to update the County flood program.

Lastly, the Needs Assessment suggests prohibiting the subdivision of coastal properties to limit exposure to coastal hazards and prohibiting shoreline armoring to conserve beach ecosystems.

While specific Needs Assessments were not



conducted for Kalihiwai and 'Anini, the SLR data is available for examination, and similar actions and recommendations can be drawn for these low-lying communities.

### **Policy Opportunities for the North Shore**

**Integrating Transit:** The integration of consolidated parking and transit facilities was a common discussion thread throughout the North Shore communities. Participants considered ways that pools of public parking and transit stops could be integrated into town centers, establishing “park-once” facilities and providing convenient transfer points for tourists accessing Kīlauea Lighthouse and Hā'ena State Park, with the goal of mitigating the impact of tourist traffic on the Kūhiō Highway and parking facilities at existing visitor destinations.

The following Goals, Policies, and Actions are preliminary, and were derived from input received during the North Shore Community Visioning Workshop held in November 2015. They should be further explored and vetted with community input during Community Planning processes.

### **Guidance for Community Planning for the North Shore**

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

#### *I. GOAL: Ensure that the North Shore is resilient to Climate Change and coastal hazard*

1. Conduct a detailed hazard, risk, and vulnerability assessment for coastal hazards with climate change and SLR in Hanalei and other North Shore communities when updated sea level rise, erosion rates, and wave inundation planning information is available. Assessment should include all developed areas of Hanalei, particularly around the streams and beach front parcels, and include critical infrastructure (e.g., roads and bridges), residential, visitor, and commercial facilities. Additional assessments should be conducted in vulnerable areas of Wainiha, Hā'ena, Kalihiwai, and 'Anini. Assessment 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, protection, and encouraged relocation to safer areas.

#### *II. GOAL: Retain and restore the historic character of Hanalei.*

### **A. ESTABLISH DESIGN GUIDELINES FOR NEW INFILL DEVELOPMENT TO MATCH THE HISTORIC CHARACTER OF THE NEIGHBORHOOD.**

1. Require off-street parking lots to be located behind buildings.
2. Allow modest flexibility in site frontages to accommodate pedestrian uses or gathering spaces.

### **B. ENCOURAGE COMPLETE STREETS THAT BALANCE PEDESTRIAN, BICYCLE, TRANSIT, AND VEHICLE NEEDS WHILE MAINTAINING HANALEI'S RURAL CHARACTER.**

1. Provide a path or informal sidewalk on the east side of town to connect existing businesses along Kūhiō Highway.
2. Consider a shared use path mauka of Kūhiō Highway to provide a parallel route for pedestrians and bicycles.
3. Support a coordinated shuttle service for the North Shore and provide a park-and-ride location and shuttle stop in Hanalei.
4. Install traffic calming features to improve the safety of pedestrian crossings.
5. Explore a bike share program for Hanalei to reduce vehicular trips.

### **C. PROTECT HANALEI'S UNIQUE HERITAGE RESOURCES. PRESERVE THE CHARACTER AND PROTECT THE KALO LO'I OF HANALEI.**

1. Preserve the character and integrity of Hanalei's historic highway and bridges.
2. Protect the kalo lo'i of Hanalei in perpetuity.

### **D. BUILD COMMUNITY RESILIENCE THROUGH EDUCATION AND AWARENESS.**

1. Educate visitors about threats from tsunami and other hazards and measures for preparedness and response.

*III. GOAL: Improve connectivity and preserve public access to open space in Princeville.*

### **A. ADOPT MORE COMPLETE AND CONNECTED LAND USE PATTERNS FOR FUTURE DEVELOPMENT THAT PRESERVES PUBLIC ACCESS TO THE SHORELINE AND OPEN SPACE.**

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1. Require the provision of good roadway and multimodal connections between Princeville Phases I and II.
2. Develop new resorts at an appropriate, small-footprint scale to match the rural surroundings.
3. Limit development mauka of the highway, concentrating new residential and institutional uses closer to existing neighborhoods.
4. Encourage redevelopment of the Princeville Shopping Center to increase multimodal access and connectivity. Incorporate pedestrian crossings to adjacent areas, traffic calming measures fronting the area, and transit facilities.
5. Support a coordinated shuttle service for the North Shore and provide a park-and-ride location and shuttle stop in the Princeville Shopping Center.

*IV. GOAL: Provide for modest growth of Kīlauea Town with improvements to accommodate resident needs.*

### **A. EXPAND THE TOWN CENTER TO PROVIDE FOR RESIDENT NEEDS.**

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1. Ensure there is an adequate neighborhood-serving commercial space.
2. Provide additional housing in the areas designated Neighborhood General and Neighborhood Center. Prioritize the water and wastewater infrastructure improvements needed for this to occur. With public and private partners, build a sewage treatment system to accommodate commercial, industrial, and residential units, and replace aging cesspools and better protect the environment.

3. Create a new road connection from the Town Center to Kūhiō Highway. The road will provide a route for visitor traffic to the lighthouse, serve as a gateway to Kīlauea, and provide a backbone for new residential development.
4. Support community-driven revitalization efforts and programs.
5. Continue to work with the U.S. Fish and Wildlife Service to address the need for traffic reduction in Kīlauea Town and at the Refuge by establishing visitor parking area(s) and a shuttle service.
6. Include buildings that accommodate live/work arrangements in the Town Center.
7. Incorporate industrial-zoned lands into the new Town Center for production-oriented businesses.
8. Obtain land to expand the Kīlauea County ballpark.

### **B. IMPROVE PEDESTRIAN MOBILITY AND MULTIMODAL CONNECTIVITY.**

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1. Improve sidewalk, path, and trail connections between the Town Center, agricultural center, and beaches.
2. Improve safe access and visibility along Kūhiō Highway utilizing roundabouts and other traffic calming measures and gateway features.
3. Support a coordinated shuttle service for the North Shore and provide park-and-ride locations and shuttle stops in Kīlauea Town.
4. Enable a “park once and walk” environment in the town center by integrating parking and transit.



Independence Day at Vidinha Soccer Field, Lihū'e District (Courtesy of Larry Loos, through Creative Commons).

**A place-based zoning framework will allow communities to shape the feel and design of future infill development and housing types.**