

## Appendix V4B: Community Building

He nahā ipu auane‘i o pa‘a i ka hupau humu.

*It isn't a break in a gourd container that can be easily mended by sewing the parts together.*

‘Ōlelo No‘eau #831

### Introduction

#### Purpose

This appendix summarizes the background information that informs the consideration of alternative strategies in the CDP Chapter IV2: “Strengthen Community.”

Importantly, **this appendix is NOT the Ka‘ū CDP** – it does not establish policy or identify plans of action. Instead, for issues that directly impact the quality of community life in Ka‘ū, like land use, infrastructure, services, design, and redevelopment, this appendix does three basic things:

- Outlines *existing policy*, especially County policy established in the General Plan
- Summarizes related, *past planning initiatives*
- Introduces *alternative strategies* available to achieve Ka‘ū’s community objectives.

In other words, this appendix sets the context for identifying preferred CDP strategies. Existing policy provides the framework in which the CDP is operating, related plans identify complementary initiatives, and alternative strategies introduce the “tool box” from which the best tools for Ka‘ū can be selected.

#### Overview

The focus of this appendix is on developed areas in Ka‘ū, including Pāhala, Punalu‘u, Nā‘ālehu, Wai‘ōhinu, the Discovery Harbour area, and Ocean View, and the regulations, infrastructure, and strategies that impact their future.

This appendix complements Appendices V4A and V4C, which focus on natural and cultural resource management and local economic development, respectively. In those appendices, issues related to but distinct from strengthening Ka‘ū’s villages, towns, and subdivisions are discussed in greater detail, including historic preservation, coastal development, access and trails, commercial development, tourism, and community-based, collaborative action.

The first two sections of this appendix outline the “core” strategies available to build community. The first section, “**Overview of Alternative Strategies,**” introduces many of the basic strategies available for strengthening communities, including land use regulation, capital improvements, affordable housing, retaining design character, and redevelopment tools used by local municipalities, state government, and communities.

The second section, “**Regional Infrastructure, Facilities, and Services,**” introduces Ka‘ū’s resources and challenges, current policy, previous planning, and alternative strategies related to infrastructure, facilities, and services. It begins with a summary Ka‘ū’s related values, priorities, and objectives and then focuses on specific areas of community interest, including housing, transportation, water, solid waste, emergency services, health care, social services, education, libraries, and parks and recreation.

1 The last four sections focus on specific villages, towns, and subdivisions in Ka‘ū. The third section,  
2 **“Preserving Village & Town Character,”** addresses Pāhala, Nā‘ālehu, and Wai‘ōhinu, which are similar in  
3 character. It summarizes Ka‘ū’s related values, priorities, and objectives; the benefits of traditional  
4 village development; each village’s assets and challenges; existing County policy; and previous planning.

5 The fourth section, **“Punalu‘u,”** begins with a summary of Ka‘ū’s values, priorities, vision, and objectives  
6 related to Punalu‘u and of an overview of Punalu‘u’s assets and challenges. Next, it summarizes the  
7 area’s land use designations by parcel as well as related General Plan policies and courses of action.  
8 Then the appendix chronicles the history of planning and development at Punalu‘u, including initiatives  
9 by private developers; the County, State, and Federal government; the ali‘i trusts; and local community  
10 groups.

11 Based on all of that analysis, a consensus community vision for Punalu‘u is then offered along with the  
12 variables for the Ka‘ū community to consider when deliberating about options for Punalu‘u’s future.  
13 Finally, five alternative future scenarios for Punalu‘u are introduced, including a description, similar  
14 examples from other communities, a summary of challenges and opportunities, and potential impacts  
15 for each scenario. This appendix concludes with a tabular summary of the “order of magnitude” impacts  
16 of each of the five alternative scenarios.

17 The fifth section, **“Ocean View,”** begins with a summary of Ka‘ū’s values, priorities, and objectives  
18 related to the Ocean View subdivisions and a brief overview of the area’s history. It then introduces  
19 Ocean View’s assets and challenges related to land use, development, and infrastructure. Next, the  
20 appendix lists General Plan policies and courses of action related to Ocean View and summarizes past  
21 planning for the area. Finally, tools and alternative strategies are introduced that supplement those at  
22 the beginning of the appendix and address challenges specific to communities like Ocean View.

23 The final section, **“Discovery Harbour Area,”** begins with a summary of Ka‘ū’s values, priorities, and  
24 objectives related to the subdivisions in the Discovery Harbour area, including the Mark Twain and  
25 Green Sands subdivisions. It then introduces the area’s assets and challenges related to land use,  
26 development, and infrastructure. The appendix concludes with General Plan policies and courses of  
27 action related to the Discovery Harbour area and a summary of past planning for the area.

28 **Notes on this May 2013 Draft**

29 This draft is a work-in-progress. It is largely complete, but some information is still pending, and it is  
30 expected that the document will be updated as conditions change and new information becomes  
31 available. Known gaps in information are typically highlighted in yellow.

32 Many resource materials are referenced in this appendix, including past plans, studies, and reports.  
33 Most are available for download in the “About Ka‘ū” or “Planning Resources” sections at  
34 [www.kaucdp.info](http://www.kaucdp.info).

35 Note also that some of the formatting is required to keep the document compliant with the American  
36 with Disabilities Act (ADA). For example, complete hyperlinks have to be inserted so that reading  
37 machines for the visually-impaired can correctly interpret Internet addresses.

38 **Feedback Wanted**

39 Because this an incomplete draft, and because we know that there are plans and strategies that can  
40 inform the CDP that may not be included, *constructive feedback is welcome and encouraged*. We ask  
41 that you use the feedback form available in the “Draft Ka‘ū CDP Documents” folder at [www.kaucdp.info](http://www.kaucdp.info).  
42 You may also mail or email comments to the Planning Department.

1 **CDP Outline**

2 Currently, the CDP is structured as follows. The intent is to keep the body of the CDP as concise and  
 3 accessible as possible, leaving supporting material and analysis in the appendix. Chapters I, II, and III will  
 4 be concise summaries. Though more detail will be provided in the chapters in section IV, “The Plan,”  
 5 they will also be as concise as possible.

6 Materials in Chapters V1, V2, V3, and V4 of the appendix set the context for and provide the detailed  
 7 analysis behind the body of the CDP. Therefore, they are the first to be completed.

8 This appendix is highlighted in **green**. It will inform the CDP strategy chapter highlighted in **blue**.

9 **I. Executive Summary**

10 **II. Ka’ū Today – brief summary of Values, Assets, Challenges**

11 **III. Ka’ū Tomorrow – brief summary of Vision, Objectives, Strategies**

12 **IV. The Plan – Strategies: Policies, advocacy, and Actions**

- 13 1. Conserve Natural and Cultural Resources
- 14 2. **Preserve and Strengthen Community**
- 15 3. Build a Resilient Local Economy
- 16 4. Build Community Capacity

17 **V. Appendix**

- 18 1. CDP Purpose and Scope
- 19 2. Planning Process
- 20 3. Community Profile
- 21 4. Background Analysis
  - 22 A. Natural and Cultural Resource Management Analysis
  - 23 B. **Community Building Analysis**
  - 24 C. Local Economy Analysis
- 25 5. Implementation Methods and Tools
  - 26 A. Action Matrix
  - 27 B. Finance Plan
  - 28 C. Monitoring Plan
- 29 6. Glossary

31 **CDP Drafts**

32 The first draft of the CDP, the “Preferred CDP,” will include Appendices V1-4, the body of the CDP in  
 33 Chapters I-IV, and the working draft of Appendix V6, “Glossary.”

34 The second draft of the CDP, the “Draft CDP,” will include revisions based on community and Steering  
 35 Committee review and add the implementation tools in Appendices V5A and B. The third draft, the  
 36 “Final CDP,” will add the monitoring and evaluation tools in Appendix V5C.

37 As the CDP comes together, it is likely that additional sections or chapters will be added.

38 See Appendix V2 and the “CDP Input” section at [www.kaucdp.info](http://www.kaucdp.info) for more details about the planning  
 39 process and the evolution of the CDP.

40 **Navigating the Document**

- 1 This appendix is not designed to be read from start to finish. Consider reading this introductory section
- 2 and then using the tables of contents, figures, and tables to find material of greatest interest.
- 3 Internal hyperlinks have been inserted to simplify navigation within the document.
- 4 The appendix also has “Bookmarks,” which can be seen by opening the Bookmark navigation pane in
- 5 Adobe Acrobat Reader: View/ Navigation Panels/ Bookmarks.
- 6 After following an internal link, it is easy to return to the previous point in the document by using either
- 7 the Bookmark navigation pane or the “Previous View” button, which can be added to the “Page
- 8 Navigation” toolbar in Acrobat Reader.

9 **Tables of Contents, Figures, and Tables**

10 **Table of Contents**

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22 **Planning Context**

23 **Ka’ū’s Community Building Values, Vision, and Objectives**

24 **Ka’ū’s Community Building Values and Vision**

25 The people of Ka’ū cherish the strong sense of place and “country” feel of their communities. They

26 choose not to live “in town” (i.e., either Kona or Hilo), preferring the openness of the space, the

27 connections to the land, and the intimacy of community that come with rural life. Importantly, rural life

28 in Hawai’i is unique – grounded in rich Hawaiian traditions yet mixed with Asian, European, and

29 American influences from successive waves of immigration. Rural life in Ka’ū is unique in Hawai’i, having

30 largely escaped encroachment by development and large numbers of visitors.

31 Extensive community input into core values strongly reflected these elements of Ka’ū’s community

32 character (see Appendix V2). The Ka’ū CDP Steering Committee summarized these core values as

33 follows:

1     ▪ **‘Āina or Natural Resources:** natural beauty, beaches, open space, coastline, land, access, ocean,  
2     outdoor recreation

3     ▪ **‘Ohana:** people, community, family, schools, safety, aloha, diversity, church

4     ▪ **Country or Rural Lifestyle:** quiet, lifestyle, country, small, isolation, little traffic, culture, uncrowded,  
5     history, freedom, pace.

6     Like many rural communities, Ka‘ū also has its challenges and associated aspirations. Residents perceive  
7     that their communities do not always get their fair share of public investment, and the local economy  
8     and many families have struggled since the sugar plantation closed in 1996. As a result, community  
9     priorities emphasize (see Appendix V2):

10    ▪ **Local Economy:** jobs, retail, services, dining, entertainment, housing, tourism, local business

11    ▪ **Recreation:** facilities, youth recreation, parks, programs

12    ▪ **Education:** more schools, improved schools, adult/vocational/higher education

13    ▪ **Health Care:** hospital, other medical facilities, services

14    ▪ **Public Services:** water, roads, mass transit, public safety, solid waste/recycling.

15    Building on those values and priorities, the community’s Values and Vision Statement succinctly  
16    captures community sentiment (see Appendix V2):

17           The Ka‘ū CDP should ***honor Ka‘ū’s unique rural lifestyle, its connection between people***  
18           ***and place, and its distinctive Hawaiian cultural heritage.*** It must plan for the future in  
19           ways that ***increase economic opportunities*** through a diverse, resilient, and sustainable  
20           economy, protect and provide reasonable access to ***natural and recreational***  
21           ***resources...and park facilities and programs,*** and ***strengthen families, communities,***  
22           ***and the diversity of local cultures.***

### 23    **Ka‘ū’s Community Building Assets and Challenges**

24    Key insights from Ka‘ū’s Community Profile reinforce the community’s values and vision related to  
25    building community (see Appendix V3):

#### 26    Assets

27    ▪ Historic settlements, ranch lands, mauka forests,  
28    and shorelines that exemplify rural character and  
29    lifestyle

30    ▪ Tradition of recreational and cultural access to  
31    natural resources

32    ▪ Agricultural tradition

33    ▪ Access to healthy local food from the ocean,  
34    mauka forests, and agricultural lands

35    ▪ ‘Ohana traditions that encourage extended-  
36    family support for schools, churches, and



- 1 community organizations
- 2
  - Elementary, Intermediate, and High Schools in Nāʻālehu and Pāhala
- 3
  - Kaʻū Hospital and Rural Health Clinic in Pāhala provides clinical, emergency, and long term care; Bay
  - 4 Clinic is expanding its medical clinic in Nāʻālehu
- 5
  - Ocean View Family Health Clinic has a nurse practitioner
- 6
  - County Park Facilities: Kahuku Park, Waiʻōhinu Park, Nāʻālehu Park & Community Center,
  - 7 Whittington Beach Park, Pāhala Park & Community Center, Pāhala swimming pool
- 8
  - Both the County
  - 9 and the Boys and
  - 10 Girls Club offer after
  - 11 school programs in
  - 12 Pāhala, Nāʻālehu,
  - 13 and Ocean View.
- 14
  - A recreation and
  - 15 resource
  - 16 management plan is
  - 17 being implemented
  - 18 for the Honuʻapo area



19 Challenges

- 20
  - The bulk of Kaʻū’s build-out potential is in the subdivisions of Ocean View, Discovery Harbour, Green
  - 21 Sands, and Mark Twain, where there are ~12,000 vacant lots
- 22
  - These subdivisions mostly lack infrastructure and entitlements to create viable town/village centers
- 23
  - Kaʻū’s sole resort node at Punaluʻu is under-developed
- 24
  - Potential for existing and new developments to build out in ways that undermine Kaʻū’s unique
  - 25 character and rural lifestyle
- 26
  - Agricultural lands vulnerable to inappropriate development
- 27
  - Public health threats from vog and natural hazards (lava inundation, tsunamis, earthquakes, and
  - 28 hurricanes)
- 29
  - Undefined strategies for rural road networks; water, sewer, and energy infrastructure; and schools,
  - 30 clinics, and public facilities to accommodate healthy growth and a sustainable local economy
- 31
  - Long commutes for school children from Ocean View
- 32
  - Limited opportunities for adult, vocational, and higher education
- 33
  - Undefined strategies for funding and locating new parks and other public facilities, especially for
  - 34 youth.

35 **Kaʻū’s Community Building Objectives**

1 Based on community values, vision, and challenges, the Steering Committee adopted clear objectives for  
2 preserving and strengthening community character (see Appendix V2):

- 3     ▪ Protect, restore, and enhance Ka'ū's unique cultural assets, including archeological and historic sites  
4       and historic buildings.
- 5     ▪ Establish and enforce standards for development and construction that reflect community values of  
6       architectural beauty and distinctiveness.
- 7     ▪ Encourage future settlement patterns that are safe, sustainable, and connected. They should  
8       protect people and community facilities from natural hazards, and they should honor the best of  
9       Ka'ū's historic precedents: concentrating new commercial and residential development in compact,  
10      walkable, mixed-use town/village centers, allowing rural development in the rural lands, and limiting  
11      development on shorelines.
- 12    ▪ Identify viable sites for critical community infrastructure, including water, emergency services and  
13      educational facilities to serve both youth and adults.
- 14    ▪ Establish a rural transportation network, including roadway alternatives to Highway 11, a regional  
15      trail system, and an interconnected transit system.

16 **Ka'ū Through Planners' Eyes**

17 Each community is unique, and, as is clear in its residents' articulation of values, priorities, and  
18 objectives, Ka'ū includes a number of complex and contradictory qualities. However, characterizing  
19 these qualities helps to identify common challenges and opportunities with the purpose of learning from  
20 successful responses in other places. There are many ways to describe rural communities based on their  
21 economic, geographic, or design characteristics. Though each may fall into more than one category,  
22 here is how Ka'ū rural communities might be classified under categories developed by National  
23 Association of Counties, the National Main Street Center, and the U.S. Forest Service:

24 **Traditional Main Street Communities:** Pāhala, Nā'ālehu, and Wai'ōhinu enjoy a compact street design  
25 as well as historically significant architecture and public spaces. Still, they struggle to compete for  
26 tenants and customers with Kona and Hilo's office parks, strip commercial, and big box stores.

27 **Resource-Dependent Communities:** Historically, Ka'ū's economy has been dependent on natural  
28 resource industries, particularly agriculture, so its fortunes rise and fall with the market  
29 value of that resource. A key challenge facing resource-dependent communities is  
30 diversifying the economy while maintaining the rural quality of life and character.

34 **Gateway Communities:** The entire district  
35 could be considered a gateway community for  
36 Hawai'i Volcanoes National Park. Pāhala and  
37 Punalu'u are in reasonable proximity to the  
38 main entrance to the Park, and Ocean View,  
39 Wai'ōhinu, Nā'ālehu, and the Discovery  
40 Harbour communities are near the Kahuku  
41 branch of the Park. Moreover, all towns,



1 villages, and subdivisions in Ka‘ū are neighbors to Ka‘ū’s other wealth of natural and cultural resources,  
 2 including the shoreline, the mauka forests, Manukā, and historic and architectural features. Gateway  
 3 communities often struggle with balancing the provision of services to visitors with strains on  
 4 infrastructure and the natural environment when growth is unplanned, but successful gateway  
 5 communities are increasingly popular places to live, work, and play.

6 **Second Home and Retirement Communities:** Land ownership in Hawai‘i remains highly valued  
 7 throughout the world, and Ka‘ū is one of the most affordable ownership options. Like gateway  
 8 communities, second home and retirement communities struggle to keep pace with new growth while  
 9 maintaining the quality of life that drew in residents in the first place. In addition, communities with  
 10 large populations of elderly must accommodate their unique housing, transportation, recreation,  
 11 accessibility, and health care needs<sup>1</sup>.

12 **Rural Communities:** While some areas on Hawai‘i Island strain to keep up with growth, Ka‘ū has the  
 13 opposite problem. The need for economic opportunity to accommodate the existing residential  
 14 development is a constant, along with sporadic but intense growth pressure. Typically, communities  
 15 with low populations or a contracting economy face a combination of problems: unemployment and  
 16 poverty, increasing demands for social services with fewer dollars to pay for them, an aging workforce,  
 17 vacant properties, and loss of historic places and structures. Moreover, commutes to distant  
 18 employment centers require a greater percentage of the family budget to be spent on transportation  
 19 and reduce take-home pay and leisure and family time. However, attempts to compete with other  
 20 jurisdictions for large economic development projects, such as resorts, new manufacturing plants, office  
 21 parks, or regional big box retailers, may come at the expense of local businesses and the community ties  
 22 they aim to support.

23 **Alignment with County Policy**

24 The County of Hawai‘i’s General Plan implicitly acknowledges each of those characteristics in Ka‘ū. It is  
 25 also well-aligned with and supportive of Ka‘ū’s community objectives:

26 **Policies**

- 27 ▪ 5.3(r): Discourage intensive development in areas of high volcanic hazard.
- 28 ▪ 9.3
  - 29 ○ (m): Accommodate the housing requirements of special need groups including the elderly,
  - 30 handicapped, homeless and those residents in rural areas.
  - 31 ○ (x): Vacant lands in urban areas and urban expansion areas should be made available for
  - 32 residential uses before additional agricultural lands are converted into residential uses.
- 33 ▪ 10.2.2(c): Encourage joint community-school library facilities, where a separate community library
- 34 may not be feasible, in proximity to other community facilities, affording both pedestrian and
- 35 vehicular access.
- 36 ▪ 10.3.2

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<sup>1</sup> <http://www.governing.com/generations/government-management/gov-how-will-boomers-reshape-cities.html>;  
<http://www.governing.com/generations>

1 ○ (e): Stations in outlying districts shall be based on the population to be served and response  
2 time rather than on geographic district.

3 ○ (g): Encourage the further development and expansion of community policing programs and  
4 neighborhood and farm watch programs in urban, rural and agricultural communities.

5 ■ 10.5.2

6 ○ (d): Encourage the State to  
7 continue operation of the rural  
8 hospitals.



9 ○ (e): Encourage the  
10 establishment or expansion of  
11 community health centers and  
12 rural health clinics.

13 ■ 11.2.2(a): Water system improvements  
14 shall correlate with the County's  
15 desired land use development pattern.

16 ■ 13.2.3(l): Adopt street design standards that accommodate, where appropriate, flexibility in the  
17 design of streets to preserve the rural character of an area and encourage a pedestrian-friendly  
18 design, including landscaping and planted medians.

19 ■ 13.4.3(a): Improve the integration of transportation and land use planning in order to optimize the  
20 use, efficiency, and accessibility of existing and proposed mass transportation systems.

21 ■ 14.1.3

22 ○ (b): Promote and encourage the rehabilitation and use of urban areas that are serviced by  
23 basic community facilities and utilities.

24 ○ (j): Encourage urban development within existing zoned areas already served by basic  
25 infrastructure, or close to such areas, instead of scattered development.

26 ■ 14.3.3

27 ○ (b): Commercial facilities shall be developed in areas adequately served by necessary  
28 services, such as water, utilities, sewers, and transportation systems. Should such services  
29 not be available, the development of more intensive uses should be in concert with a  
30 localized program of public and private capital improvements to meet the expected  
31 increased needs.

32 ○ (e): Encourage the concentration of commercial uses within and surrounding a central core  
33 area.



34 ■ 14.4.3(e): Industrial development shall be located in areas adequately served by transportation,  
35 utilities, and other essential infrastructure.

36 ■ 14.7.3

- 1           ○ (b): Promote and encourage the rehabilitation and the optimum utilization of resort areas  
2           that are presently serviced by basic facilities and utilities.
- 3           ○ (c): Lands currently designated Resort should be utilized before new resorts are allowed in  
4           undeveloped coastal areas.
- 5           ○ (j): Re-evaluate existing undeveloped resort designated and/or zoned areas and reallocate  
6           these lands in appropriate locations.
- 7           ▪ Table 7-14 of the County’s Natural Beauty Sites includes Punalu’u Black Sand Beach and Pohue Bay.
- 8           ▪ Table 14-5 lists urban and rural centers, industrial areas, and resort areas of the County by district.  
9           Nā’ālehu, Pāhala, Wai’ōhinu, and Ocean View are considered Urban and Rural Centers, Nā’ālehu,  
10           Pāhala, and Ocean View are considered Industrial Centers, and Punalu’u is considered a Minor  
11           Resort Area.

12 **Courses of Action**

- 13           ▪ 2.4.9.2
- 14           ○ (a): Balance development with the social and physical environment of the area. Provisions  
15           for orderly development, housing, and pollution controls shall be implemented.
- 16           ○ (c): Recognize the natural beauty of the area as a major economic and social asset. Protect  
17           this resource through appropriate review processes when development is proposed.
- 18           ▪ 10.2.4.6.2
- 19           ○ (a): Encourage continual improvements to existing educational facilities.
- 20           ○ (b): Encourage the State Department of Education to plan a K-8 School at Ocean View.



- 21           ▪ 10.3.4.8.2
- 22           ○ (a): Fire protection and emergency medical services for Ocean View, Nā’ālehu, and Pāhala  
23           shall be encouraged.

- 1           ○ (b): Consideration shall be given to a joint police-fire facility [in Ka'ū].
- 2    ▪ 10.5.4.8.2(a): A solid waste transfer station should be established for Ocean View.
- 3    ▪ 11.2.4.8.2
- 4           ○ (a): Provide additional water system improvements for the currently serviced areas of
- 5           Nā'ālehu, Wai'ōhinu, and Pāhala.
- 6           ○ (b): Pursue groundwater source investigation, exploration and well development at Ocean
- 7           View, Pāhala, and Wai'ōhinu.
- 8           ○ (c): Continue to evaluate growth conditions to coordinate improvements as required to the
- 9           existing water system.
- 10          ○ (d): Investigate alternative means to finance the extension of water systems to subdivisions
- 11          that rely on catchment.
- 12    ▪ 12.5.9.2
- 13          ○ (a): Encourage the development of a swimming facility in Naalehu.
- 14          ○ (b): Develop parks in Ocean View, commensurate with population growth.
- 15          ○ (c): Encourage the establishment of the Punalu'u-Nīnole Springs region as a recreation area.
- 16          ○ (d): Encourage the State Department of Hawaiian Homes Lands to develop the South Point
- 17          area for recreational opportunities.
- 18          ○ (e): Recommend the development of Ka'alu'alu Bay as a remote camping-beach park.
- 19          ○ (f): Encourage the State Department of Land and Natural Resources to develop wilderness
- 20          recreation uses of the Kapua-Manuka Forest Reserve.
- 21          ○ (g): Encourage the restoration of Ninole Pond as a recreation area.
- 22          ○ (h): Encourage land acquisition surrounding
- 23          Whittington Beach Park to allow for its
- 24          expansion and the construction of a parking
- 25          area.
- 26    ▪ 13.2.5.9.2
- 27          ○ (a): Continue to improve Māmalaha
- 28          Highway, realigning where necessary.
- 29          ○ (b): Install culverts and construct drainage
- 30          channels and other related improvements.
- 31          ○ (c): Encourage the improvement of
- 32          substandard subdivision roads.





1           ○ (d): Explore alternatives and means to establish an evacuation route through Hawaiian  
 2           Ocean View Estates Subdivision to Highway 11, in cooperation with the residents of Ocean  
 3           View.

4           ▪ 13.3.5.7(a): Provide for general aviation and small boat harbor facilities and launching activities [in  
 5           Ka'ū] as the need arises.

6           ▪ 14.3.5.9.2

7           ○ (a): Centralization of commercial  
 8           activity in the communities of  
 9           Pāhala, Nā'ālehu and Ocean View  
 10           and the area of the Volcanoes  
 11           National Park shall be  
 12           encouraged.



13           ○ (b): Do not allow strip or spot  
 14           commercial development on the  
 15           highway outside of the  
 16           designated urban areas.

17           ▪ 14.4.5.9.2(a): Identify sites suitable for  
 18           future industrial activities as the need arises.

19           ▪ 14.7.5.9.2(a): The development of visitor accommodations and any resort development shall  
 20           complement the character of the area.

21           At the same, some General Plan policies and courses of action may be at odds with community  
 22           objectives:

23           ▪ The General Plan's Transportation map includes a Highway 11 bypass, starting on the Hilo side of  
 24           Nā'ālehu and extending to the Kona side of South Point Road.

25           ▪ 14.4.5.9.2(b): Service oriented Limited Industrial and/or Industrial-Commercial uses may be  
 26           permitted in the Nā'ālehu area although the area is not currently identified on the LUPAG map.

27           **Types of Strategies for Building Community**

28           To achieve Ka'ū's community objectives, the Ka'ū CDP will employ four complimentary and sometimes  
 29           overlapping types of core strategies:

30           ▪ **Establish Policy** with policy maps and policy statements related to land use, watersheds and natural  
 31           features, public improvement priorities, government services, and public re/development;

32           ▪ **Recommend Advocacy** with federal and state policy makers and agencies for policies, regulations,  
 33           incentives, programs, and action;

34           ▪ **Detail Community-based, Collaborative Actions**, including research, place-based planning and  
 35           program design, and program implementation; and

36           ▪ **Identify Easement and Acquisition Priorities**, either by fee simple ownership or through  
 37           conservation easements.

1 In preparation for identifying the mix of strategies best suited for Ka'ū, the next section in this appendix  
2 summarizes existing policy related to land use, capital improvements, and housing and introduces  
3 community-based, collaborative actions for financing infrastructure, preserving affordable housing,  
4 retaining design character, and advancing redevelopment. The following section focuses on the current  
5 status of Ka'ū's infrastructure, facilities, and services as well as potential policies and courses of action  
6 for making improvements. The last four sections complement those more general overviews by  
7 highlighting policies and community-based, collaboration actions specific to Ka'ū's historic towns and  
8 villages, Punalu'u, and the more recent subdivisions in the Discovery Harbour and Ocean View areas.

9 Chapter IV2 of the CDP will draw on this analysis to identify the "preferred" set of strategies for  
10 achieving Ka'ū's community objectives.

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## Overview of Alternative Strategies

This section of the appendix introduces many of the basic strategies available for strengthening communities, including land use regulation, capital improvements, affordable housing, retaining design character, and redevelopment tools used by local municipalities, state government, and communities.

### State Land Use Regulations

#### State Land Use (SLU) Districts

“Figure 1: State Land Use Districts Map,” “Figure 12: State Land Use Districts in Pāhala,” “Figure 16: State Land Use Districts in Nā’ālehu,” “ Figure 20: State Land Use Districts in Wai’ōhinu,” and “Figure 24: State Land Use Districts in Punalu’u,” identify the State land use district boundaries in Ka’ū.

**Urban:** Hawai’i Revised Statutes (HRS) chapter 205 establishes Urban and Rural districts as the location of residential, commercial, and industrial land uses. It defines Urban districts as “those lands that are now in urban use and a sufficient reserve area for foreseeable urban growth” and empowers the counties to regulate activities in the Urban district. Pāhala, Punalu’u, Nā’ālehu, and Wai’ōhinu are in the SLU Urban district. [County land use](#) is discussed in more detail below.

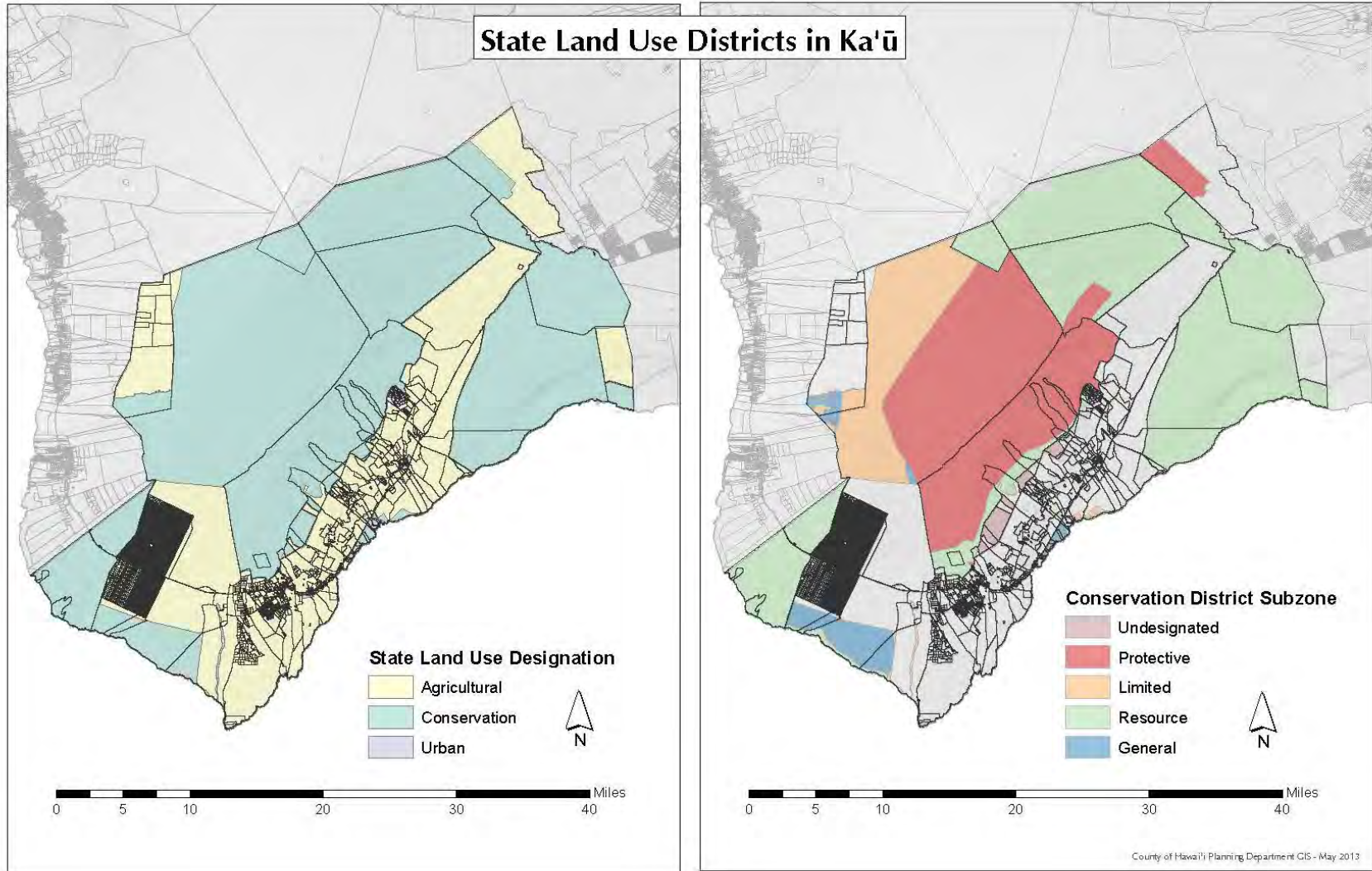
**Rural:** Though no land in Ka’ū is in the SLU Rural district, it is worth introducing because the [Ocean View](#) and [Discovery Harbour](#) areas meet the criteria for being in that district. HRS sections 205-2 and 5 define rural districts as “areas of land composed primarily of small farms mixed with very low density residential lots.” It also specifies the following permitted densities and uses:

- Low density residential lots of not more than one dwelling house per one-half acre in areas where "city-like" concentration of people, structures, streets, and urban level of services are absent, and where small farms are intermixed with low density residential lots
- Two single-family dwelling units on any lot where a residential dwelling unit is permitted if the County has adopted reasonable standards
- Agricultural uses
- Contiguous areas which are not suited to low density residential lots or small farms by reason of topography, soils, and other related characteristics
- Golf courses, golf driving ranges, and golf-related facilities
- Public, quasi-public, and public utility facilities.

Within a subdivision and by Special Permit, the State Land Use Commission for good cause may allow one lot of less than one-half acre, but not less than 18,500 square feet, or an equivalent residential density, within a rural subdivision and permit the construction of one dwelling on such lot, provided that all other dwellings in the subdivision shall have a minimum lot size of one-half acre or 21,780 square feet.

**Agricultural:** A discussion of the State Conservation and Agricultural districts and permitted uses is included in the discussion of natural and cultural resource management in Appendix V4A.

Figure 1: State Land Use Districts Map



1 **Boundary Amendments:** SLU district boundaries may be amended by the State Land Use Commission,  
 2 or, if the property is 15 acres or less in size, by the County Council. More information about SLU district  
 3 boundary amendments is included in Appendix V4A.

4 **Special Permits:** Rather than amend district boundaries, landowners often apply for a special permit, as  
 5 permitted by HRS section 205-6. For parcels 15 acres in size or smaller, the County Planning  
 6 Commissions may permit certain unusual and reasonable uses within agricultural district other than  
 7 those for which the district is classified. The LUC considers special permit applications for parcels larger  
 8 than 15 acres. The Planning Commission or LUC may impose restrictions as may be necessary or  
 9 appropriate in granting the approval, including the adherence to representations made by the applicant.  
 10 Special Permits are explained in more detail in the discussion of [County Land Use Law](#).

11 **Special Management Area (SMA)**

12 The SMA is discussed in detail in Appendix V4A. [Punalu'u](#) is the only developed area in Ka'u that falls  
 13 within the SMA.

14 **Historic Preservation Review and Public Notice**

15 Pursuant HRS section 6E-42, prior to approval of any project involving a permit, license, certificate, land  
 16 use change, subdivision, or other entitlement for use that may affect historic property, SHPD is to be  
 17 advised by Hawai'i County of the project and allowed an opportunity for review and comment on the  
 18 effect of the proposed project on historic properties. Moreover, SHPD is to inform the public of any  
 19 project proposals that are not otherwise subject to the requirement of a public hearing or other public  
 20 notification.

21 **County Land Use Law**

22 **Zoning Code**

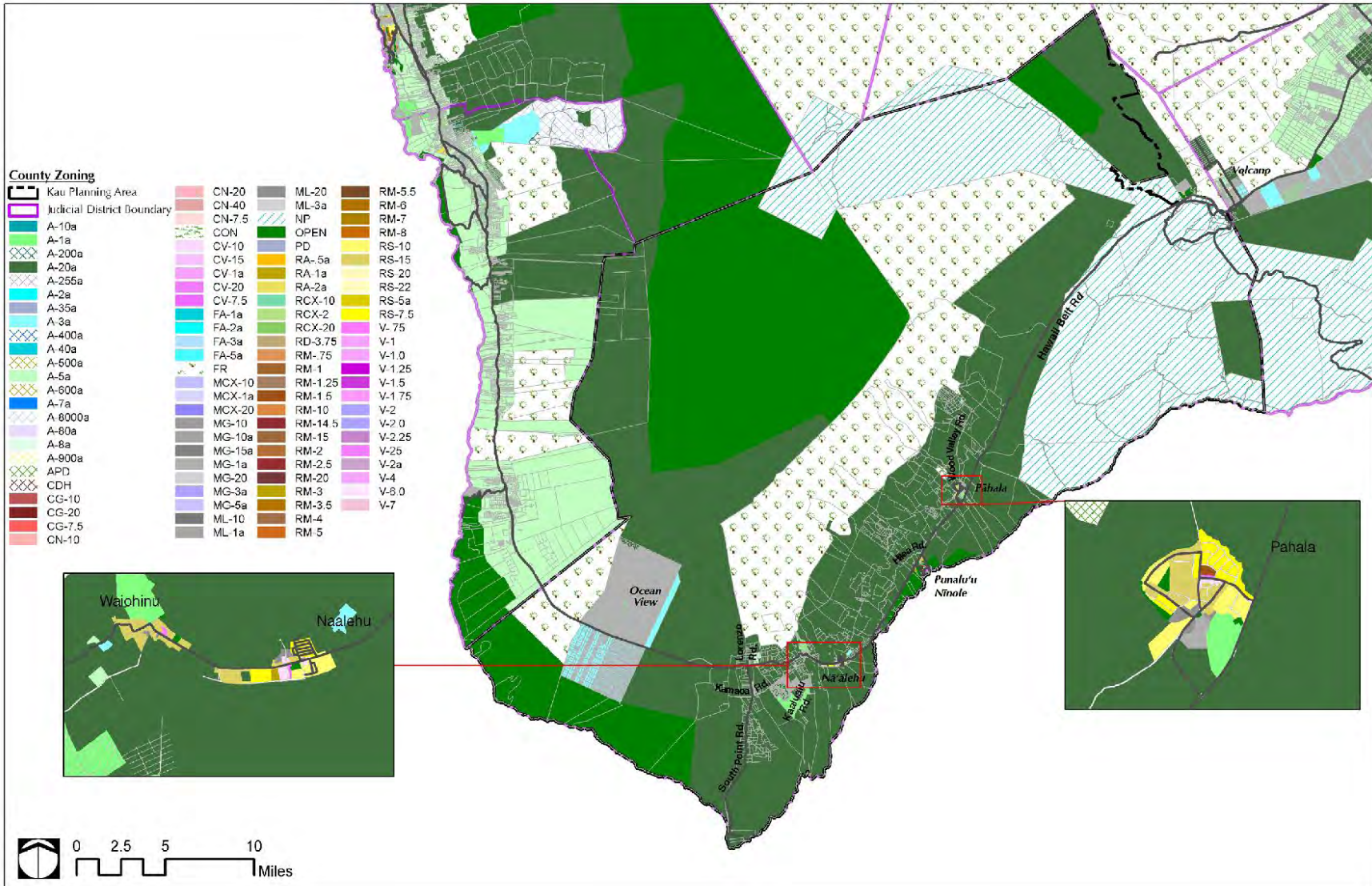
23 Chapter 25 of the Hawai'i County Code (HCC) regulates land use within the SLU Urban, Rural, and  
 24 Agricultural districts. Several elements of the Zoning Code are discussed in detail in Appendix V4A and  
 25 are referenced below. Other elements of the Zoning Code are not referenced below but apply as  
 26 described in Appendix V4A, including **Variiances** and **Planned Unit Development**.

27 Ka'u's towns, villages, and subdivisions include the County zones introduced below and identified in  
 28 "Figure 2: Zoning in Ka'u," "Figure 13: County Zoning in Pāhala," "Figure 17: County Zoning in Nā'ālehu,"  
 29 "Figure 21: County Zoning in Wai'ōhinu," "Figure 25: County Zoning in Punalu'u," "Figure 28: County  
 30 Zoning in Ocean View," and "Figure 31: County Zoning in Discovery Harbour, Mark Twain & Green  
 31 Sands." A table summarizing permitted uses in each zone is available on the County of Hawai'i Planning  
 32 Department's web site at: <http://www.cohplanningdept.com/wp-content/uploads/2013/05/Permitted-Uses-Table-040913.pdf>.  
 33

34 **Single-Family Residential (RS)**

35 The RS district provides for lower or low and medium density residential use, for urban and suburban  
 36 family life. Each RS district is designated on the zoning map by the symbol "RS" followed by a number  
 37 which specifies the required minimum building site area in thousands of square feet (e.g., RS-10). The  
 38 minimum building site area in the RS district is 7,500 square feet, and the height limit is 35 feet. There  
 39 may be more than one single-family dwelling on each building site in an RS district provided there is not  
 40 less than the required minimum building site area for each dwelling.

Figure 2: Zoning in Ka'ū



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Of note are the following uses permitted in the RS district:

- One guest house, in addition to a single-family dwelling, may be located on any building site in the RS district.
- An ‘ohana dwelling may be located on any building site in the RS district, as permitted under Article 6, Division 3 of the Zoning Code.
- Home occupations, as permitted under HCC section 25-4-13
- Family child care and adult day care homes
- Group living facilities
- Meeting facilities
- Cemeteries and mausoleums, as permitted under Chapter 6, Article 1 of the County Code
- Crop production.

In addition, the following uses may be permitted in the RS district, provided that a use permit is issued for each use:

- Bed and breakfast establishments as permitted under HCC section 25-4-7
- Crematoriums, funeral homes, funeral services, and mortuaries
- Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings and golf club houses
- Major outdoor amusement and recreation facilities
- Telecommunication antennas and towers.

**Multi-Family Residential (RM)**

The RM district provides for medium and high density residential use in areas with full community facilities and services. It may occupy transition areas between commercial or industrial areas and other districts of less intense land use. Each RM district shall be designated on the zoning map by the symbol “RM” followed by a number that indicates the required land area, in thousands of square feet, for each dwelling unit or for each separate rentable unit. The maximum density designation in the RM district is .75 or 750 square feet of land area per dwelling unit or separate rentable unit, and the minimum building site in the RM district shall be 7,500 square feet. The height limit in the RM district is 45 feet, and landscaping must be provided on a minimum of twenty percent of the total land area.

Of note are the following uses permitted in the RM district:

- Commercial or personal service uses, on a small scale, as approved by the director, provided that the total gross floor area does not exceed one thousand two hundred square feet and a maximum of five employees
- Bed and breakfast establishments, as permitted under HCC section 25-4-7

- 1   ▪ Crop production.
- 2   In addition, the following uses may be permitted in the RM district, provided that a use permit is issued
- 3   for each use:
- 4   ▪ Crematoriums, funeral homes, funeral services, and mortuaries
- 5   ▪ Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings
- 6   and golf club houses
- 7   ▪ Major outdoor amusement and recreation facilities
- 8   ▪ Telecommunication antennas and towers.

9   **Neighborhood Commercial (CN)**

10   The CN district applies to strategically located centers suitable for commercial activities of such size and  
11   shape as will accommodate a compact shopping center that supplies goods and services to a residential  
12   or working population on a frequent need or convenience basis. Each CN district shall be designated by  
13   the symbol “CN” followed by a number that indicates the minimum land area, in thousands of square  
14   feet, required for each building site. The height limit in the CN district is 40 feet, and the minimum  
15   building site area is 7,500 square feet. All front yards in the CN district must be landscaped, and, in  
16   conjunction with plan approval, the Planning Director may require the construction of a continuous eave  
17   overhanging the front property line.

18   Of note are the following uses permitted in the CN district:

- 19   ▪ Automobile service stations
- 20   ▪ Convenience stores
- 21   ▪ Crop production
- 22   ▪ Farmers markets
- 23   ▪ Repair establishments, minor.

24   **Village Commercial Districts (CV)**

25   The CV district provides for a broad range or variety of commercial and light industrial uses that are  
26   necessary to serve the population in rural areas where the supplementary support of the general  
27   business uses and activities of a central commercial district is not readily available. Each CV district is  
28   designated by the symbol “CV” followed by a number that indicates the minimum land area, in number  
29   of thousands of square feet, required for each building site. The height limit in the CV district is 30 feet,  
30   and the minimum building site area in the CV district shall be 7,500 square feet. All front yards in the CV  
31   district must be landscaped.

32   Of note are the following uses permitted in the CV district:

- 33   ▪ Hotels, when the design and use conform to the character of the area, as approved by the director
- 34   ▪ Lodges
- 35   ▪ Bars



- 1   ▪ Theaters
- 2   ▪ Crop production
- 3   ▪ Farmers markets.
- 4   ▪ Automobile service stations
- 5   ▪ Commercial parking lots and garages
- 6   ▪ Repair establishments, major, when there are not more than five employees, as approved by the
- 7   director
- 8   ▪ Publishing plants for newspapers, books and magazines, printing shops, cartographing, and
- 9   duplicating processes such as blueprinting or photostating shops, which are designed to primarily
- 10   serve the local area
- 11   ▪ Manufacturing, processing and packaging light and general, except for concrete or asphalt products,
- 12   where the products are distributed to retail establishments located in the immediate community, as
- 13   approved by the director.

14 In addition to those permitted uses permitted, the following uses may be permitted in the CV district,

15 provided that a use permit is issued for each use:

- 16   ▪ Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings
- 17   and golf club houses
- 18   ▪ Major outdoor amusement and recreation facilities.

19 **Industrial-Commercial Mixed Districts (MCX)**

20 The purpose of the MCX district is to allow mixing of some industrial uses with commercial uses. The

21 intent is to provide for areas of diversified businesses and employment opportunities by permitting a

22 broad range of uses, without exposing nonindustrial uses to unsafe and unhealthy environments. Each

23 MCX district shall be designated by the symbol “MCX” followed by a number which indicates the

24 minimum land area, in number of thousands of square feet, required for each building site. The

25 minimum building site area in the MCX district is 20,000 square feet, and the height limit is 45 feet. All

26 front yards in the MCX district must be landscaped.

27 Of note are the following uses permitted in the MCX district:

- 28   ▪ Agricultural products processing, minor
- 29   ▪ Automobile sales and rentals
- 30   ▪ Automobile service stations
- 31   ▪ Bars, nightclubs and cabarets
- 32   ▪ Cleaning plants
- 33   ▪ Commercial parking lots and garages
- 34   ▪ Equipment sales and rental yards

- 1   ▪ Farmers markets
- 2   ▪ Food manufacturing and processing
- 3   ▪ Laundries
- 4   ▪ Manufacturing, processing and packaging establishments, light
- 5   ▪ Publishing plants for newspapers, books and magazines, printing shops, cartographing, and
- 6    duplicating processes such as blueprinting or photostating shops
- 7   ▪ Repair establishments, minor
- 8   ▪ Self-storage facilities
- 9   ▪ Veterinary establishments in sound-attenuated buildings.

10 In addition, the following uses may be permitted in the MCX district with a use permit: Major outdoor  
11 amusement and recreation facilities.

## 12 **Limited Industrial (ML)**

13 The ML district applies to areas for business and industrial uses which are generally in support of but not  
14 necessarily compatible with those permissible activities and uses in other commercial districts. Each ML  
15 district shall be designated by the symbol “ML” followed by a number that indicates the minimum land  
16 area, in thousands of square feet, required for each building site. The minimum building site area in the  
17 ML district is 10,000 square feet, the height limit is 45 feet, and landscaping is required in all front yards.

18 Of note are the following uses permitted in the ML district:

- 19   ▪ Airfields, heliports and private landing strips
- 20   ▪ Animal hospitals
- 21   ▪ Automobile and truck sales and rentals
- 22   ▪ Automobile service stations
- 23   ▪ Cleaning and dyeing plants
- 24   ▪ Contractors’ yards for equipment, material, and vehicle storage, repair, or maintenance
- 25   ▪ Heavy equipment sales, service and rental
- 26   ▪ Junkyards, provided that the building site is not less than one acre in area
- 27   ▪ Lumberyards and building material yards, but not including concrete or asphalt mixing and the
- 28    fabrication by riveting or welding of steel building frames
- 29   ▪ Manufacturing, processing and packaging establishments, light
- 30   ▪ Recycling centers, which do not involve the processing of recyclable materials
- 31   ▪ Truck, freight and draying terminals.

1 In addition to those permitted uses, the following uses may be permitted in the ML district, provided  
 2 that a use permit is issued for each use: Major outdoor amusement and recreation facilities.

3 **General Industrial (MG)**

4 The MG district applies to areas for uses that are generally considered to be offensive or have some  
 5 element of danger. Each MG district shall be designated by the symbol “MG” followed by a number that  
 6 indicates the minimum land area, in number of thousands of square feet, required for each building site,  
 7 or if the number is followed by the symbol “a,” by the minimum number of acres required for each  
 8 building site. The height limit in the MG district is 45 feet, and all front yards in the MG district must be  
 9 landscaped.

10 Of note are the following uses permitted in the MG district:

- 11 ▪ Agricultural products processing, major and minor
- 12 ▪ Airfields, heliports and private landing strips
- 13 ▪ Animal sales, stock, and feed yards
- 14 ▪ Automobile body and fender establishments
- 15 ▪ Breweries, distilleries, and alcohol manufacturing facilities
- 16 ▪ Bulk storage of flammable products and bulk storage of explosive products
- 17 ▪ Cleaning and dyeing plants
- 18 ▪ Concrete or asphalt batching and mixing plants and yards
- 19 ▪ Dumping, disposal, incineration, or reduction of refuse or waste matter
- 20 ▪ Fertilizer manufacturing plants
- 21 ▪ Junkyards
- 22 ▪ Lava rock or stone cutting or shaping facilities
- 23 ▪ Machine, welding, sheet metal, and metal plating and treating establishments
- 24 ▪ Manufacturing, processing and packaging establishments, light and general
- 25 ▪ Public dumps
- 26 ▪ Reduction, refining, smelting, or alloying of metals, petroleum products or ores
- 27 ▪ Saw mills
- 28 ▪ Slaughterhouses.

29 In addition to those permitted uses, the following uses may be permitted in the MG district, provided  
 30 that a use permit is issued for each use:

- 31 ▪ Commercial excavation
- 32 ▪ Major outdoor amusement and recreation facilities.

1 **Resort-Hotel (V)**

2 The V district applies to areas to accommodate the needs and desires of visitors, tourists and transient  
3 guests. It applies to specific areas where public roads and public utilities are available or where suitable  
4 alternate private facilities are assured. Each V district shall be designated on the zoning map by the  
5 symbol “V” followed by a number which indicates the required land area, in thousands of square feet,  
6 for each dwelling unit or for each separate rentable unit in the case of hotels, resorts, inns, lodges,  
7 motels, motor hotels, motor lodges, or other similar rentable units. Maximum density designation in  
8 the V district is .75 or 750 square feet of land area for each dwelling unit or separate rentable unit, and  
9 the minimum building site in the V district shall be 15,000 square feet. The height limit in the V district  
10 is 45 feet.

11 **Agricultural (A)**

12 In the agriculture zone, one single-family dwelling per lot is permitted, though more intensive uses are  
13 allowed with a Special Permit (pursuant HCC section 25-5-70). Appendix V4A details permitted uses in  
14 the Agricultural zone.

15 **Open (O)**

16 Pursuant HCC section 25-5-160, the Open zone “applies to areas that contribute to the general welfare,  
17 the full enjoyment, or the economic well-being of open land.” Uses are limited to activities like  
18 aquaculture, cemeteries, community buildings, forestry, historical areas, natural features, and public  
19 parks and uses. With a use permit, mortuaries, golf courses, yacht harbors, wind energy facilities, and  
20 telecommunication antennas are allowed.

21 **Change of Zone**

22 Pursuant HCC section 25-2-42, a property owner or any other person with the property owner’s consent  
23 may apply for a change of zoning district (i.e., change of zone or rezoning). More information about  
24 rezones is included in Appendix V4A.

25 **Concurrency Requirements**

26 Pursuant HCC section 25-2-46, any application for change of zone must meet County concurrency  
27 requirements for roads, water supply, and civil defense sirens to ensure the basic infrastructure will be  
28 sufficient for the new intensity of use.

29 In most areas, a change of zone cannot not be granted unless (1) the Department of Water Supply has  
30 determined that it can meet the water requirements of the project and issue water commitments using  
31 its existing system; or (2) specific improvements to the existing public water system, or a private water  
32 system equivalent to the requirements of the Department of Water Supply will be provided to meet the  
33 water needs of the project.

34 However, **to facilitate the development of village centers in rural areas that are not currently served**  
35 **by a public water system (e.g., Ocean View), the County Council may waive the water supply**  
36 **requirements for zoning amendments for commercial or light industrial uses in areas that do not**  
37 **currently have a public water system**, and where the department of water supply has no plans to build  
38 a public water system, and which are (1) designated as an “urban and rural center” or “industrial area”  
39 on table 14-5 of the general plan and (2) designated for urban use on the land use pattern allocation  
40 guide map of the general plan; provided that conditions of zoning shall require water supply consistent  
41 with public health and safety needs such as sanitation and fire-fighting.

42 **Special Permits**

1 Pursuant Planning Commission Rules 6-7 and 6-3(a)(5)(G), the County Planning Commissions consider  
 2 applications for special permits for uses that are unusual and reasonable use of land in the State  
 3 Agricultural and Rural district. Special Permits are discussed in more detail in Appendix V4A.

4 **Project District (PD)**

5 Pursuant HCC section 25-6-40, a PD development is intended to provide for a flexible and creative  
 6 planning approach rather than specific land use designations, for quality developments. It also allows  
 7 for flexibility in location of specific uses and mixes of structural alternatives. The planning approach  
 8 would establish a continuity in land uses and designs while providing for a comprehensive network of  
 9 infrastructural facilities and systems. A variety of uses as well as open space, parks, and other project  
 10 uses are intended to be in accord with each individual project district objective. The minimum land area  
 11 required for a project district is fifty acres.

12 Any uses permitted either directly or conditionally in the RS, RD, RM, RCX, CN, CG, CV or V districts is  
 13 permitted in a project district, provided that each of the proposed uses and the overall densities for  
 14 residential and hotel uses shall be contained in a master plan for the project district and in the project  
 15 district enabling ordinance.

16 A project district is an amendment to the Zoning Code, which changes the district boundaries in  
 17 accordance with the individual project district. The application for a PD is similar to that for a change in  
 18 zone, including an environmental report. At least one hearing must be held by the Planning Commission  
 19 in the district in which the proposed PD is located. The commission may recommend approval in whole  
 20 or in part, with or without modifications, or rejection of a proposal.

21 **A project district may only be established if the proposed district is consistent with the intent and**  
 22 **purpose of the Zoning Code and the County general plan and will not result in a substantial adverse**  
 23 **impact upon the surrounding area, community or region. The Council may impose conditions** on the  
 24 use of the property subject to the project district, provided the council finds that the conditions are:

- 25 ▪ Necessary to prevent circumstances which may be adverse to the public health, safety and welfare;  
 26 or
- 27 ▪ Reasonably conceived to fulfill needs directly emanating from the land uses proposed with respect  
 28 to protection of the public from the potentially deleterious effects of the proposed uses, o  
 29 fulfillment of the need for public service demands created by the proposed uses.

30 In addition, the Council shall include the following conditions in any project district ordinance:

- 31 ▪ A description of each of the uses proposed in the project district
- 32 ▪ The overall densities for the residential and hotel uses established in the project district
- 33 ▪ Any infrastructure requirements for the project district, and
- 34 ▪ Any open space requirements for the project district.

35 **Use Permits**

36 Pursuant HCC section 25-2-60, use permits are permits for certain permitted uses in zoning districts  
 37 which require special attention to insure that the uses will neither unduly burden public agencies to  
 38 provide public services nor cause substantial adverse impacts upon the surrounding community. Use  
 39 Permits are discussed in more detail in Appendix V4A.

1 **Plan Approval**

2 Pursuant HCC section 25-2-70, plan approval allows closer inspection of development in order to ensure  
3 conformance with the General Plan, the Zoning Code, and conditions of previous approvals related to  
4 the development. Plan approval is required prior to the construction or installation of any new structure  
5 or development or any addition to an existing structure or development in all districts except in the RS,  
6 RA, FA, A and IA districts, and except for the construction of one single-family dwelling and any  
7 accessory buildings per lot. In addition, plan approval is required in all districts prior to the change of  
8 the following uses in existing buildings: residential to commercial use and warehouse and manufacturing  
9 to retail use. Moreover, plan approval is required prior to the construction or establishment of the  
10 following improvements and uses: public uses, structures and buildings and community buildings;  
11 telecommunication antennas and towers; temporary real estate offices and model homes; utility  
12 substations.

13 **Plan approval may also be required as a condition of approval of any use permit, variance, or other**  
14 **action relating to a specific use**, in which case the use or development so conditioned may not be  
15 established until plan approval has been secured.

16 Upon receipt of a detailed site plan, **the Planning Director may issue plan approval subject to**  
17 **conditions or changes in the proposal** which, in the director’s opinion, are necessary to carry out and  
18 further the purposes of the Zoning Code. In addition, the Director considers the proposed structure,  
19 development or use in relation to the surrounding property, improvements, streets, traffic, community  
20 characteristics, and natural features and may require conditions or changes to assure:

- 21 ▪ Adequate light and air, and proper siting and arrangements are provided for
- 22 ▪ Existing and prospective traffic movements will not be hindered
- 23 ▪ Proper landscaping is provided that is commensurate with the structure, development or use and its  
24 surroundings
- 25 ▪ Unsightly areas are properly screened or eliminated
- 26 ▪ Adequate off-street parking is provided
- 27 ▪ Within reasonable limits, any natural and man-made features of community value are preserved
- 28 ▪ Dust, noise, and odor impacts are mitigated.

29 **Clustered Plan Development (CPD)**

30 Pursuant HCC section 25-6-20, the purpose of a CPD is to provide exceptions to the density  
31 requirements of the RS district so that permitted density of dwelling units contemplated by the  
32 minimum building site requirements is maintained on an overall basis and desirable open space, tree  
33 cover, recreational areas, or scenic vistas are preserved. The minimum land area required for a CPD is  
34 two acres. Building sites in a CPD may be reduced in area below the minimum area required in the  
35 district in which the CPD is located, provided that the average building site of the area created in the  
36 CPD is not below the minimum building site area required in the district for CPD, as prescribed in the  
37 Zoning Code. The procedure for processing an application for a CPD permit shall be the same as that  
38 prescribed for a subdivision application.

39 **‘Ohana Dwellings**

1 Pursuant HCC section 25-6-30, ‘ohana dwellings are permitted on a building site within the RS district,  
 2 provided that the following public facilities are adequate to serve the ‘ohana dwelling unit: a public or  
 3 private sewage disposal system, an approved public or private water system, adequate fire protection  
 4 measures, and access to a public or private street. ‘Ohana dwellings are not permitted in PUDs, CPDs, or  
 5 on any building site where more than one dwelling unit is permitted.

6 **Subdivision Code**

7 Pursuant HCC section 23-6, **the Subdivision Code shall be applied and administered within the**  
 8 **framework of the County General Plan, including comprehensive or general plans for sections of the**  
 9 **County** which may be adopted as amendments to or portions of the County general plan.

10 Pursuant HCC section 23-84 and following, subdivision of large parcels into smaller parcels requires the  
 11 following improvements:

- 12 ▪ A **water system** meeting the minimum requirements of the County Department of Water Supply.  
 13 Prior to subdivision approval, the Department of Water Supply must confirm [water availability](#),  
 14 considering the capacity of its system’s sources, storage, transmission, and pressure service zone. If  
 15 the DWS system cannot accommodate the proposed number of lots and units, the landowner is  
 16 responsible for the improvements.
- 17 ▪ Meet the minimum requirements of the [State health department](#) relating to **sewage disposal**.
- 18 ▪ **Streets** constructed in accordance with the subdivision code specifications and those on file with the  
 19 Department of Public Works.
- 20 ▪ Land surface **drainage**.
- 21 ▪ Street **lights**.

22 Moreover, pursuant HCC section 23-26, the subdivider of a parcel of land capable of supporting two  
 23 hundred dwelling units shall reserve suitable areas for parks, playgrounds, schools, and other public  
 24 building sites that will be required for the use of its residents.

25 In addition, **outstanding natural or cultural features** such as scenic spots, water courses, fine groves of  
 26 trees, heiau, historical sites and structures **shall be preserved** as provided by the director.

27 Where a subdivision is traversed by a natural water course, drainage way, channel, or stream, there  
 28 shall be provided a drainage easement or drainage right-of-way conforming substantially with the lines  
 29 of the water course and of such further width as will be adequate. **Streets or parkways parallel to**  
 30 **water courses may be required.**

31 **Code Enforcement**

32 HCC section 5-48, Substandard Buildings, specifies that any building or portion thereof in which there  
 33 exists any of the following listed conditions to an extent that it endangers the life, limb, health, property,  
 34 safety or welfare of the public or the occupants shall be deemed and hereby is declared to be a  
 35 “substandard building:”

- 36 ▪ Inadequate sanitation, including but not limited to general dilapidation or improper maintenance or  
 37 lack of a bathroom, kitchen sink, hot and cold water, or minimum amounts of light and ventilation
- 38 ▪ Structural hazards

- 1   ▪ Presence of a nuisance, including any dangers to human life and overcrowding
- 2   ▪ Faulty weather protection
- 3   ▪ Inadequate maintenance
- 4   ▪ Inadequate exits
- 5   ▪ Any building or portion thereof that is not being occupied or used as intended or permitted.

6 HCC section 5-59 goes on to explain that whenever the Department of Public Works determines that  
7 there exists a violation of any provision of the Building Code, it shall serve a notice of violation upon the  
8 parties responsible for the violation, which may include, but shall not be limited to the owner and any  
9 lessee of the property where the violation is located, to make the building or portion thereof comply  
10 with the code. Any member of the public may file a complaint with the Administrative Division of the  
11 Department of Public Works.

## 12 **Exceptional Trees**

13 Article 10 of Chapter 14 of the Hawai'i County Code establishes safeguards to protect exceptional trees  
14 from destruction due to land development. "Exceptional trees" means a tree or grove of trees with  
15 historic or cultural value, or which by reason of its age, rarity, location, size, aesthetic quality, or  
16 endemic status has been designated by the County Council as worthy of preservation.

17 The County's Arborist Advisory Committee recommends to the Council exceptional trees to be  
18 protected; recommends to the Council appropriate protective ordinance, regulations and procedures;  
19 reviews all actions deemed by the Council to endanger exceptional trees; and advises property owners  
20 relative to the preservation and enhancement of exceptional trees.

21 Anyone may petition the arborist advisory committee to examine a tree for designation as an  
22 exceptional tree. The Committee's study shall include notification of the owner or lessee of the  
23 property and a duly held public hearing. The committee then forwards the proposed list of exceptional  
24 trees to the Council. The Council may affirm, modify, or disaffirm the proposed list of exceptional trees.  
25 The list shall be adopted by ordinance.

26 It is unlawful to substantially damage, remove, or destroy an exceptional tree. The Planning  
27 Department has the police power to take appropriate action to ensure compliance.

28 No trees in Ka'ū are designated as exceptional.

## 29 **Land Use Policy Map**

30 **Urban Growth Boundaries** identify areas to be protected for agriculture and areas where growth will be  
31 encouraged. Urban Growth Boundaries (UGBs) are intended to accommodate anticipated growth and  
32 to separate areas appropriate for future growth from areas intended for agricultural use. This is  
33 sometimes referred to as "Town and Country" zoning, which requires that development occur only in  
34 densely populated hamlets and villages, with the surrounding rural areas remaining undeveloped and  
35 available for farming, forestry, natural area preservation, and recreation.

36 Most comprehensive plans include an open space element and resource protection overlay districts,  
37 which can incorporate agricultural land. The County of Hawai'i's LUPAG map effectively establishes an  
38 UGB between the agricultural designations (orchard, agricultural, and intensive agricultural) and the  
39 urban designations (low, medium, and high density urban) (see "Figure 3: Regional Land Use Pattern



1 Allocation Guide (LUPAG),” “Figure 14: County Land Use Pattern Allocation Guide (LUPAG) for Pāhala,”  
 2 “Figure 18: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Nā’ālehu,” “Figure 22:  
 3 County General Plan Land Use Pattern Allocation Guide (LUPAG) for Wai’ōhinu,” “Figure 26: County  
 4 General Plan Land Use Pattern Allocation Guide (LUPAG) for Punalu’u,” “Figure 29: County General Plan  
 5 Land Use Pattern Allocation Guide (LUPAG) for Ocean View,” and “Figure 32: County General Plan Land  
 6 Use Pattern Allocation Guide (LUPAG) for Discovery Harbour, Mark Twain & Green Sands.”)

7 **General Plan Land Use Pattern Allocation Guide (LUPAG):** The land use pattern in the General Plan is a  
 8 broad, flexible design intended to guide the direction and quality of future developments in a  
 9 coordinated and rational manner. The General Plan Land Use Pattern Allocation Guide (LUPAG) Map  
 10 indicates the general location of various land uses in relation to each other. Any changes in zone have  
 11 to be consistent with the General Plan.

12 Land uses are designated generally on the map in reference to the following categories:

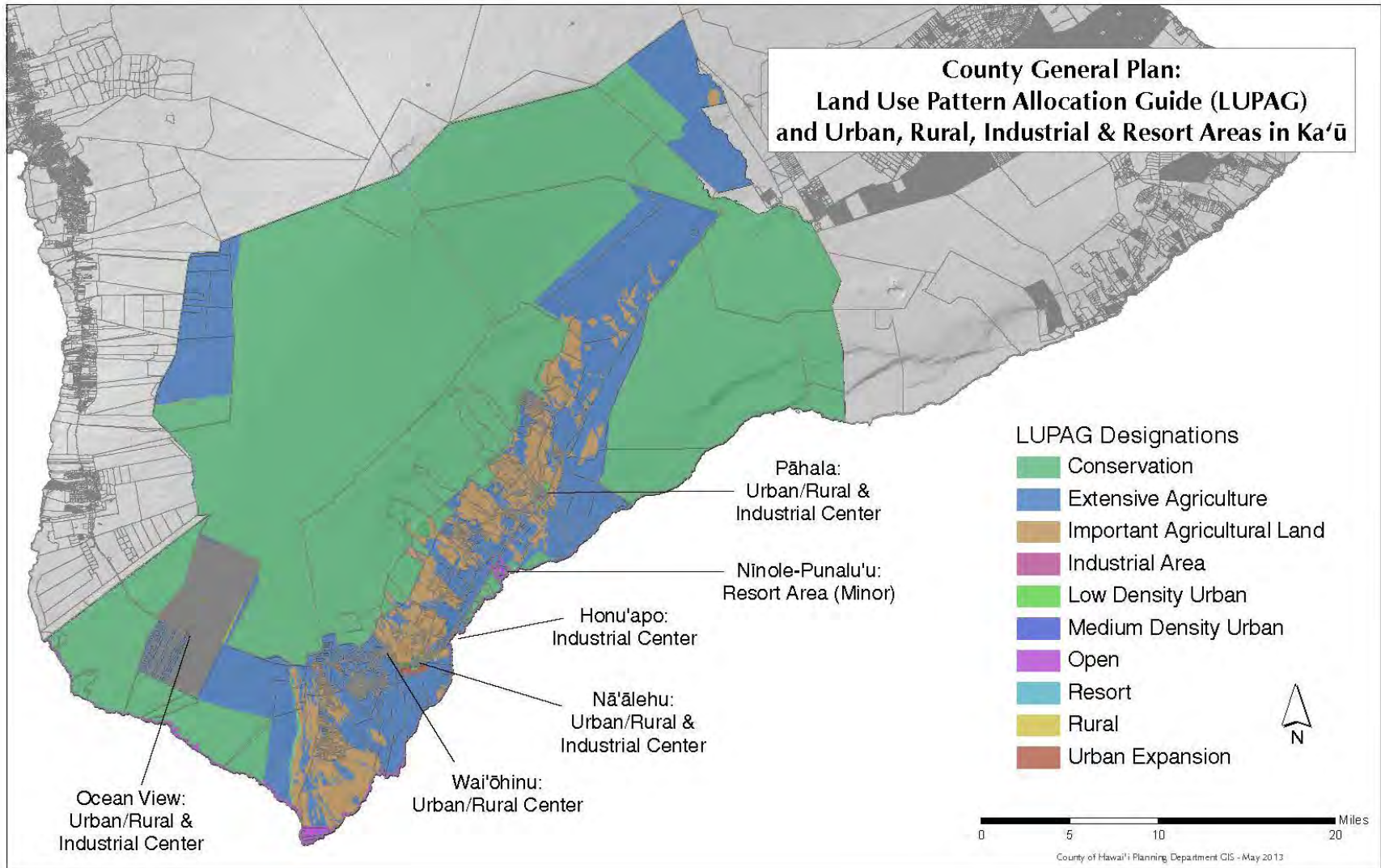
13 **Urban Designations**

14 The urban centers include high, medium and low density designations. These centers and clusters  
 15 provide physical, social, governmental and economic concentrations so that the total activities of the  
 16 community can be more readily and easily conducted. The future improvement and development  
 17 objectives are directed toward making urban and rural centers more efficient, livable, and safe. **Growth**  
 18 **should be encouraged in terms of renewing older areas or extending existing areas.** The creation of  
 19 new urban and rural centers should be initiated only when it is in the public interest and must be  
 20 accompanied by commitments from both government and the private sector for the development of  
 21 basic community and public facilities and services. Infrastructure costs less when new residential areas  
 22 are located near existing highways, water and sewer lines, and employment centers.

- 23 ▪ High Density: General commercial, multiple family residential and related services (multiple family  
 24 residential – up to **87 units per acre**).
- 25 ▪ Medium Density: Village and neighborhood commercial and single family and multiple family  
 26 residential and related functions (multiple family residential – up to **35 units per acre**).
- 27 ▪ Low Density: Residential, with ancillary community and public uses, and neighborhood and  
 28 convenience-type commercial uses; overall residential density may be up to **six units per acre**.
- 29 ▪ Resort Node: These areas include a mix of visitor-related uses such as hotels, condominium-hotels  
 30 (condominiums developed and/or operated as hotels), single family and multiple family residential  
 31 units, golf courses and other typical resort recreational facilities, resort commercial complexes and  
 32 other support services. Only Major Resort Areas are identified as Resort Nodes on the LUPAG Map.
- 33 ▪ Resort Area: These areas include a mix of uses such as hotels, condominium-hotels (condominiums  
 34 developed and/or operated as hotels), and support services. Intermediate Resort, Minor Resort,  
 35 and Retreat Resort Areas are identified as Resort Areas on the LUPAG Map.
- 36 ▪ Urban Expansion Area: Allows for a **mix of high density, medium density, low density, industrial,**  
 37 **industrial-commercial and/or open designations** in areas where new settlements may be desirable,  
 38 but where the specific settlement pattern and mix of uses have not yet been determined.

39

Figure 3: Regional Land Use Pattern Allocation Guide (LUPAG)



1 Industrial Area: These areas include uses such as manufacturing and processing, wholesaling, large  
 2 storage and transportation facilities, light industrial and industrial-commercial uses.

3 **Rural Designation**

- 4 ▪ Rural: This category includes existing subdivisions in the State Land Use Agricultural and Rural  
 5 districts that have a significant residential component. Typical lot sizes vary from 9,000-square feet  
 6 to two acres. These subdivisions may contain small farms, wooded areas, and open fields as well as  
 7 residences. Allowable uses within these areas, with appropriate zoning, may include commercial  
 8 facilities that serve the residential and agricultural uses in the area, and community and public  
 9 facilities. The Rural designation does not necessarily mean that these areas should be further  
 10 subdivided to smaller lots. Most lack the infrastructure necessary to allow further subdivision.

11 **Agriculture Designations**

12 Agriculture designations are described in Appendix V4A.

13 **Open and Conservation Designations**

- 14 ▪ Open: Parks and other recreational areas, historic sites, and open shoreline areas.
- 15 ▪ Conservation Area: Forest and water reserves, natural and scientific preserves, areas in active  
 16 management for conservation purposes, areas to be kept in a largely natural state, with minimal  
 17 facilities consistent with open space uses, such as picnic pavilions and comfort stations, and lands  
 18 within the State Land Use Conservation District.

19 Table 14-5 lists urban and rural centers, industrial areas, and resort areas of the County by district. The  
 20 following are identified for Ka‘ū:

- 21 ▪ Urban and Rural Centers: Nā‘ālehu, Pāhala, Wai‘ōhinu, Ocean View
- 22 ▪ Industrial Centers: Honu‘apo, Nā‘ālehu, Pāhala, Ocean View
- 23 ▪ Resort Areas: Nīnole-Punalu‘u (Minor).

24 **General Plan Policies, Standards, and Courses of Action**

25 **Policies**



26 In addition to the LUPAG, the General Plan establishes the following policies related to land use in Ka‘ū:

27 14.3.3(b): **Commercial facilities shall be developed in areas adequately served by necessary services,**  
 28 **such as water, utilities, sewers, and transportation systems.** Should such services not be available, the  
 29 development of more intensive uses should be in concert with a localized program of public and private  
 30 capital improvements to meet the expected increased needs.

31 14.3.3(e): Encourage the **concentration of commercial uses within and surrounding a central core area.**

32 14.4.3(e): Industrial development shall be located in areas adequately served by transportation, utilities,  
 33 and other essential infrastructure.

34 14.7.3(b): **Promote and encourage the rehabilitation and the optimum utilization of resort areas that**  
 35 **are presently serviced by basic facilities and utilities.**

1 14.7.3(c): **Lands currently designated Resort should be utilized before new resorts are allowed in**  
2 **undeveloped coastal areas.**

3 **Shopping Centers**

4 14.3.4 Standards: There are three basic types of shopping centers:

5 (a) Neighborhood Centers

- 6 ▪ Provide: Convenience goods, e.g., foods, drugs, and personal services.
- 7 ▪ Major Shops: Supermarket and/or drug store.
- 8 ▪ Number of Shops: 5 to 15.
- 9 ▪ Acreage: 5 to 10 acres.
- 10 ▪ Approximate Market: 3,000 people.

11 (b) Community Centers

- 12 ▪ Provide: Convenience goods, plus "soft line" items, such as clothing, and "hard line" items, such as  
13 hardware and small appliances.
- 14 ▪ Major Shops: Variety or junior department store.
- 15 ▪ Number of Shops: 20 to 40.
- 16 ▪ Acreage: 10 to 30 acres.
- 17 ▪ Approximate Market: 15,000 people.

18 (c) Regional Centers

- 19 ▪ Provide: Full range of merchandise and services.
- 20 ▪ Major Shops: Full size department store.
- 21 ▪ Number of Shops: 40.
- 22 ▪ Approximate Market: 50,000 people.

23 **Courses of Action**

24 14.3.5.9.2 Courses of Action (Ka'ū)

- 25 ▪ (a) **Centralization of commercial activity in the communities of Pahala, Naalehu and Ocean View**  
26 and the area of the Volcanoes National Park shall be encouraged.
- 27 ▪ (b) Do not allow strip or spot commercial development on the highway outside of the designated  
28 urban areas.

29 14.4.5.9.2 Courses of Action (Ka'ū)

- 30 ▪ (a) Identify sites suitable for future industrial activities as the need arises.

- 1   ▪ (b) Service oriented Limited Industrial and/or Industrial-Commercial uses may be permitted in the
- 2       Naalehu area although the area is not currently identified on the LUPAG map.

3   14.7.5.9.2 Courses of Action (Ka’ū)

- 4   ▪ (a) The development of visitor accommodations and any resort development shall complement the
- 5       character of the area.
- 6   ▪ (b) Encourage the development of small family or "bed and breakfast" type visitor accommodations.

7   **Capital Improvements**

8   **County Capital Improvements Program (CIP)**

9   Capital improvements are major, nonrecurring expenditure like those listed below:

- 10   ▪ Land acquisition
- 11   ▪ Infrastructure improvement that adds value to the land or improves utility (e.g., roads, drainage,
- 12       sewer lines, parking, landscape or similar construction)
- 13   ▪ New buildings or structures or addition to a building, including related equipment and
- 14       appurtenances that are integral to the new structure
- 15   ▪ Nonrecurring rehabilitation or deferred maintenance of infrastructure and buildings, provided that
- 16       the cost is \$25,000 or more and the improvement will have a useful life of 10 years or more
- 17   ▪ Planning, feasibility, engineering, or design studies related to individual capital improvement
- 18       projects or to a program that is implemented through individual capital improvement projects
- 19   ▪ Information and communications technology provided that the cost is \$25,000 or more.

20   The County Charter outlines the process for adopting a Capital Improvements Program (CIP) budget:

- 21   ▪ The head of each county agency furnishes the mayor estimates of any capital improvements
- 22       pending or proposed to be undertaken within the ensuing fiscal year and within the five fiscal years
- 23       thereafter. Typically, seven county agencies submit CIP projects – Environmental Management,
- 24       Public Works, Fire, Housing and Community Development, Parks and Recreation, Police, and Mass
- 25       Transit. The bulk of the projects are submitted by Environmental Management, Public Works, and
- 26       Parks and Recreation.
- 27   ▪ The Planning Director reviews the lists of proposed capital improvements contemplated by agencies
- 28       of the county and recommends the order of their priority.
- 29   ▪ The Managing Director recommends to the mayor the annual capital improvement budget.
- 30   ▪ The Finance Department assists the mayor in the preparation of the capital budget.
- 31   ▪ The Mayor submits an annual capital budget, six-year capital program, and budget message to the
- 32       Council.

33   When proposing CIP projects, agencies prepare Financial Impact Statements (FIS), which include

34   information about the lead agency, location, project description, Council benefit districts, project

1 consistency with long range plans, impact on operating budget, sustainability focus, project readiness,  
2 and funding sources and phasing.

3 County capital projects are typically funded by

- 4 ▪ Debt (bonds, State Revolving Fund loans)
- 5 ▪ Revenue sources (fuel tax, other special revenues)
- 6 ▪ State grants
- 7 ▪ Federal grants or loans, and/or
- 8 ▪ Other financing options (fair share contributions or special financing districts).

9 Adoption of the CIP budget is the first of four steps in securing funds to make a capital improvement:

- 10 1. Appropriation by Council via the annual/6-year CIP budget and subsequent amendments
- 11 2. Bond Authorization by Council, sometimes specifying projects that the funding can be used for
- 12 3. Allotment by the Finance Department, releasing the funds for use
- 13 4. Encumbrance by departments and the Mayor via executed contracts.

14 Communities have several options for advancing capital improvements:

- 15 ▪ Be clear about community capital improvement priorities. The CDP is the ideal place to identify  
16 those priorities.
- 17 ▪ Prepare FIS forms for high priority projects in collaboration with the responsible agency.
- 18 ▪ When the annual budgeting process begins at the end of each calendar year, meet with agency  
19 heads and project managers to discuss the status of high priority projects and their inclusion in the  
20 CIP budget.
- 21 ▪ Via the Planning Director, recommend the order of priority of projects. Once the CDP is adopted,  
22 this can be done formally through the CDP Action Committee. HCC section 16-6(4) empowers the  
23 CDP Action Committees to “Provide timely recommendations to the County on priorities relating to  
24 the...CIP budget and program....”
- 25 ▪ While the annual CIP submittal is being finalized, meet with the Mayor to discuss the status of high  
26 priority projects and their inclusion in the CIP budget.
- 27 ▪ Before the Council deliberates on the proposed CIP budget, meet with County Council members to  
28 discuss the status of high priority projects and their inclusion in the CIP budget.
- 29 ▪ Once high priority projects are appropriated, work with County Council members to secure any  
30 bond authorization needed to finance the projects.
- 31 ▪ Once necessary bonds are authorized for high priority projects, work with the Mayor to secure  
32 necessary project allotments.
- 33 ▪ Once allotments are secured for high priority projects, work with the responsible agencies to  
34 prepare and execute contracts to encumber funds and initiate the projects.

1 Recent and current CIP projects in Ka’ū are detailed in the [Regional Infrastructure](#) section below.

2 **Other Infrastructure Financing**

3 Because there are limits on the size of the capital improvement debt burden that the County and State  
 4 can carry, bond financing can be complemented with other forms of infrastructure financing. For any  
 5 given project, these financing tools are often used in conjunction.

6 For example, in the case of the Kona Coast View/Wonder View Community Improvement district project  
 7 for water system improvements, the County was able to obtain a USDA grant and USDA loans at very  
 8 favorable rates and terms.

9 Because circumstances for each project are unique and the tools and their coordination are complex, it  
 10 is impossible to describe their potential use in Ka’ū in great detail. However, they are useable tools that  
 11 the community should consider to address high priority infrastructure needs (see “Table 1:  
 12 Infrastructure Financing Districts”).

13 **Grants and Loans**

14 **DOH Drinking Water State Revolving Fund (DWSRF):** The Safe Drinking Water Act, as amended in 1996,  
 15 established the Drinking Water State Revolving Fund (DWSRF) to make funds available to drinking water  
 16 systems to finance infrastructure improvements. The program also emphasizes providing funds to small  
 17 and disadvantaged communities and to programs that encourage pollution prevention as a tool for  
 18 ensuring safe drinking water.

19 State DOH receives approximately \$7 to 8 million of Federal funds from the EPA each year. About 70  
 20 percent of this funding is available to applicants through low interest loans from the DWSRF Loan Fund.  
 21 The intent of the DWSRF is to assist water systems in constructing the infrastructure needed to address  
 22 current and future compliance problems.

23 The County of Hawai’i DWS has applied for these funds on many occasions for well projects. Most of  
 24 DWS well projects are at least partially funded by the revolving fund.

25 **USDA Rural Development:** This federal agency makes grants and low interest loans in rural communities  
 26 like Hawai’i County. Examples of specific programs include:

- 27 ▪ **Community Facilities Programs<sup>2</sup>:** Loans and grants for essential community facilities are available  
 28 through programs like the following:
  - 29 ○ **Community Facilities Direct Loan Program:** USDA makes direct loans to applicants who are  
 30 unable to obtain commercial credit in order to develop essential community facilities in  
 31 rural areas and towns of up to 20,000 in population. Loans are available to public entities  
 32 such as municipalities, counties, and special-purpose districts, as well as to non-profit  
 33 corporations and tribal governments. Loan funds may be used to construct, enlarge, or  
 34 improve community facilities for health care, public safety, and public services. This can  
 35 include costs to acquire land needed for a facility, pay necessary professional fees, and  
 36 purchase equipment required for its operation.

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<sup>2</sup> [http://www.rurdev.usda.gov/HCF\\_CF.html](http://www.rurdev.usda.gov/HCF_CF.html)

1 **Table 1: Infrastructure Financing Districts**

	Community Improvement Districts (CID)	Community Facilities District (CFD)	Tax Increment Financing (TIF)
<b>Enabling Legislation</b>	HCC 12	HRS 46-80.1 and HCC 32	HRS 46-101 thru 113 and HCC 33
<b>Eligible Projects</b>	Benefit must be specific to the assessed district	Local/regional public benefit infrastructure like roads, park facilities, open space, schools, cultural facilities, utilities, water, wastewater, public safety, transit, environmental remediation, etc.	Improvements, new construction, demolition, reconstruction, and acquisition (not necessarily in the TIF district)
<b>Use of Funds</b>		Project costs (new or already built)  Debt service on bonds  Administrative costs (of County)	Project costs  Debt service on CFD or CID  Start-up and administrative costs (e.g., professional services, county staff costs)
<b>Nature of Assessment</b>	Special assessment on property within a geographically-defined district, with a lien on the property	Special tax on property within a geographically-defined district, usually collected as part of property tax bill after a defined event (e.g., subdivision, plan approval, building permit), with a lien on the property	For property within a geographically-defined district, future increases in property tax revenue (from increased assessed value – not increased tax rates) are deposited in a TIF fund
<b>Basic Steps</b>	<ol style="list-style-type: none"> <li>1. Council orders study by Resolution</li> <li>2. Can be blocked with a protest of landowners with a majority of the assessment</li> <li>3. Council establishes the district by Ordinance</li> <li>4. Bonds floated</li> <li>5. Assessments collected</li> </ol>	<ol style="list-style-type: none"> <li>1. 25% of landowners petition Council</li> <li>2. Council orders study by Resolution</li> <li>3. Can be blocked by owners of more than 55% of land, or more than 55% of landowners</li> <li>4. Council establishes the district by Ordinance</li> </ol>	<ol style="list-style-type: none"> <li>1. Council orders studies by Resolution</li> <li>2. Council establishes the district by Ordinance</li> <li>3. Property tax on incremental increase in value deposited in TIF fund</li> </ol>



	Community Improvement Districts (CID)	Community Facilities District (CFD)	Tax Increment Financing (TIF)
		5. Bonds floated 6. Assessments collected	
<b>Examples</b>	Water distribution improvements at Kona Coast View and Wonder View subdivisions in North Kona	No CFD bonds have been issued by the County	Not yet used in Hawai'i
<b>Notes</b>		OVDC attempted a CFD in 2001 but was not able to obtain signatures from 25% of HOVE property owners	<p>Per the Kona Public Facilities Financing Plan, current law severely limits the applicability of this financing tool. To make it more useful, HCC 33 would need to be amended to eliminate the following two requirements:</p> <ol style="list-style-type: none"> <li>1. That the area to be included within a tax increment district be a targeted area; and</li> <li>2. That the area to be included within a tax increment district be designated as an improvement district or community facilities district with identical boundaries.</li> </ol>

- 1           ○ Community Facilities Guarantee Loan Program: Loans are made for the same type of  
2           community facilities by private lenders but guaranteed for up to 90% of the eligible loss.
- 3           ○ First Responder Initiative: This initiative provides financing of a variety of community  
4           facilities, such as: fire and rescue facilities and equipment, police and emergency vehicles  
5           and services, and other community focused facilities and services. The initiative prioritizes  
6           funding of at least \$100 million to specifically strengthen the ability of rural communities to  
7           respond to local emergencies and situations affecting public safety.

8           USDA Rural Development also provides technical and advisory assistance to applicants through all  
9           stages of project development.

10          ▪ **Rural Utilities Water and Waste Disposal Loan and Grant Program**<sup>3</sup>: This program can provide  
11          funding for as much as 40 to 75% of the capital costs. This funding source cannot be used for test  
12          well drilling but can be used in development of the production well. The program has several types  
13          of grants and loans including:

- 14           ○ Water and Waste Disposal Direct Loans for water, wastewater, solid waste, and storm  
15           drainage projects in rural areas and cities and towns with a population of 10,000 or less.
- 16           ○ Water and Waste Disposal Guaranteed Loans for the same types of projects. The loans are  
17           made by private lenders but guaranteed for up to 90% of the eligible loss.
- 18           ○ Water and Waste Disposal Grants to reduce water and waste disposal costs to a reasonable  
19           level for users of the systems. Grants may cover up to 75% of eligible facility development  
20           costs.
- 21           ○ Technical Assistance and Training Grants to identify and evaluate solutions to water and  
22           waste disposal problems in rural areas, assist applicants in preparing applications for water  
23           and waste disposal grants, and improve operation and maintenance of existing water and  
24           waste disposal facilities in rural areas.
- 25           ○ Rural Broadband Access Loan and Loan Guarantee Programs provide loans and loan  
26           guarantees for the construction, improvement, and acquisition of facilities and equipment  
27           for broadband service in eligible rural communities. Priority is given to applications that are  
28           proposing to serve areas where no residential broadband service currently exists.
- 29           ○ Distance Learning and Telemedicine Program provides loans, grants, and loan/grant  
30           combinations for computers and Internet hookups in schools and libraries as well as rural  
31           clinics and health care centers.

32          **Technical and Labor Assistance**

33          **Rural Community Assistance Corporation**: In addition to technical assistance directly from the USDA,  
34          nonprofit intermediary organizations like the Rural Community Assistance Corporation (RCAC)<sup>4</sup> help  
35          rural communities plan for, secure, and manage infrastructure improvements. In Hawai'i and other  
36          western states, the RCAC helps develop partnerships, advocate for financing, and develop community

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<sup>3</sup> [http://www.rurdev.usda.gov/HCF\\_CF.html](http://www.rurdev.usda.gov/HCF_CF.html)  
<sup>4</sup> [www.rcac.org](http://www.rcac.org)

1 capacity in pursuit of projects to upgrade water, wastewater, or solid waste operations and  
 2 management.

3 **Air National Guard:** As part of its Innovative Readiness Training (ANG IRT), the Air National Guard has  
 4 committed to provide manpower to infrastructure projects in Ka’ū when they are “shovel ready” (i.e.,  
 5 when financing and permitting are in place). The target project start date is late 2014, and manpower  
 6 will then be available for five years.

7 At the close of her term, County Council Member Smart was working with Corporation Counsel and  
 8 various State agencies (e.g., DHHL, HDOA, the Governor’s office) to develop a project list that would  
 9 then be appropriated as State and/or County capital improvement projects. Potential projects in Ka’ū  
 10 included:

- 11 ▪ Road to the Sea grading
- 12 ▪ [Ocean View Well #2](#) and Distribution Lines to Commercial Areas
- 13 ▪ [Green Sands Water Main](#)
- 14 ▪ [Water Tanks](#)
- 15 ▪ [South Point Water System](#)
- 16 ▪ [Ocean View Transfer Station](#)
- 17 ▪ Ka’ū Agricultural Water Co-op Source and Distribution System Development.

18 **Affordable Housing**

19 **Federal Programs**

20 The USDA Rural Development<sup>5</sup> program has single- and multi-family housing programs. Single Family  
 21 Housing Programs provide homeownership opportunities to low- and moderate-income rural  
 22 households through several loan, grant, self-help, and loan guarantee programs. The programs also  
 23 make funding available to individuals to finance vital improvements necessary to make their homes  
 24 decent, safe, and sanitary.

25 Multi-Family Housing Programs offer Rural Rental Housing Loans to provide affordable multi-family  
 26 rental housing for very low, low, and moderate income families, the elderly, farm laborers, and persons  
 27 with disabilities. This is primarily a direct mortgage program, but funds may also be used to buy and  
 28 improve land and to provide necessary facilities such as water and waste disposal systems. In addition,  
 29 subsidy rental assistance is available to eligible families.

30 The U.S. Department of Housing and Urban Development<sup>6</sup> also has programs in Hawai’i, but they  
 31 operate largely through the County’s Office of Housing and Community Development and local  
 32 nonprofit organizations.

33 **State Programs**

34 **Hawai’i Public Housing Authority**

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<sup>5</sup> <http://www.rurdev.usda.gov/HI-HousingPrograms.html>

<sup>6</sup> <http://portal.hud.gov/hudportal/HUD?src=/states/hawaii>

1 The Hawai'i Public Housing Authority<sup>7</sup> (HPHA) helps provide Hawai'i residents with affordable housing  
2 and shelter. HPHA efforts focus on developing affordable rentals, supportive housing, and public  
3 housing. The HPHA provides public housing across Hawai'i County, including elderly housing in [Pāhala](#)  
4 and teacher housing in Pāhala and [Nā'ālehu](#).

#### 5 **Hawai'i Housing Finance and Development Corporation**

6 The Hawai'i Housing Finance and Development Corporation<sup>8</sup> offers loans through the Hula Mae  
7 Mortgage Loan Program for homeowners. For affordable housing developers, it also manages the  
8 State's Low Income Housing Tax Credit Program, the Rental Housing Trust Fund, the Rental Assistance  
9 Revolving Fund, and the Hula Mae Multi-Family Program. For communities with high foreclosure rates,  
10 HHFDC also administers the Neighborhood Stabilization Program.

#### 11 **Department of Hawaiian Home Lands**

12 Through a 1920 Congressional act, lands have been set aside for eligible native Hawaiians for residential  
13 and agricultural purposes. Through the State Hawaiian Homes Commission and Department of  
14 Hawaiian Home Lands<sup>9</sup>, house lots on a leasehold basis are made available to eligible native Hawaiians.  
15 In Ka'ū, DHHL has agriculture/pastoral lots available in Kamā'oa Pu'u'eo (near South Point) and 40  
16 residential lots in Discovery Harbour. As of June 2011, 12 lessees have agriculture homesteads in  
17 Pu'u'eo, and 25 have pastoral homesteads in Kamā'oa. As of November 2011, two of the lots were  
18 awarded for residential homesteading. DHHL also owns subsistence agriculture land in Wai'ōhinu and  
19 63 acres in Wailau / Nīnole for residential development.

#### 20 **County Programs**

##### 21 **Office of Housing and Community Development**

22 Federal housing and community redevelopment programs were reorganized under the 1974 Housing  
23 and Community Development Act, which placed much of the initiative for addressing community  
24 housing needs to the local government level. As a result, the County established the Hawai'i County  
25 Housing Agency and the Office of Housing and Community Development (OHCD)<sup>10</sup>. The Hawai'i County  
26 Housing Agency, which is comprised of the members of the Hawai'i County Council, has the capability to  
27 develop affordable housing either on its own, in conjunction with the State, or through joint programs  
28 with the private sector.

29 The Office of Housing and Community Development administers the Federal Section 8 rental assistance  
30 program benefiting low income families, manages several housing projects, and administers federal  
31 grants. OHCD focuses on providing housing for a variety of need categories such as employee housing,  
32 low and moderate income groups, special needs groups, and the elderly.

##### 33 **Inclusionary Zoning**

34 Among other things, HCC chapter 11 requires large resort and industrial enterprises to address related  
35 affordable housing needs as a condition of rezoning approvals, based upon current economic and  
36 housing conditions.

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<sup>7</sup> <http://www.hcdch.hawaii.gov/>

<sup>8</sup> <http://hawaii.gov/dbedt/hhfdc>

<sup>9</sup> <http://www.hawaiianhomelands.org/>

<sup>10</sup> <http://www.hawaiicounty.gov/office-of-housing/>

1 **Tax Exemptions**

2 HCC chapter 19 provides the following real property tax exemptions:

- 3 ▪ Homeowner: Real property owned and occupied as a principal home shall be exempt \$40,000.
- 4 ▪ Senior: If the owner is 60 years or older, the homeowner exemption doubles to \$80,000. If 70 years  
5 or older, the exemption is \$100,000.
- 6 ▪ Disabled Veterans: Veterans disabled due to injuries while on duty with the armed services are  
7 exempted from real property taxes except for the minimum tax from all property taxes.
- 8 ▪ Blind, Deaf, or Disabled: Those with disabilities are exempt \$50,000.
- 9 ▪ Historic Property: As explained in Appendix V4A, historic residential property dedicated for  
10 preservation is exempted from real property taxes except for the minimum tax from all property  
11 taxes.

12 **Nonprofit Programs**

13 Many nonprofit organizations also provide a range of housing assistance. The services summarized in  
14 “Table 2: Housing Services” are available to residents of Ka’ū:

15 **Other Housing Strategies**

16 PolicyLink<sup>11</sup> provides an excellent overview of the range of strategies that communities use to assure  
17 affordable housing, including links to hosts of other online resources. It also summarizes six affordable  
18 housing tool sets:

- 19 ▪ Regulate the private housing market through rent control, controlling conversion of rental property  
20 to owner-occupied housing, and “anti-flipping” transfer taxes
- 21 ▪ Create nonprofit-owned affordable housing that is either rented or sold at affordable prices to very-  
22 low-, low-, and/or moderate-income people
- 23 ▪ Increase affordable housing opportunities, including self-help or sweat-equity housing, as done by  
24 Habitat for Humanity and the Hawai’i Island Community Development Corporation
- 25 ▪ Encourage resident-controlled limited-equity ownership in which residents own their units,  
26 providing security, wealth creation, and a degree of control and investment. The ownership is  
27 limited in certain ways, however, in order to make the unit more affordable to the initial buyer and  
28 future owners. There are usually limits on the price at which the housing can be resold or leased,  
29 and sometimes to whom. Options for limited-equity housing include condominiums, cooperatives,  
30 and land trusts.
- 31 ▪ Leverage market-rate development pressures by requiring or providing incentives for market-rate  
32 development to include a percentage of below-market rate units in new developments (called  
33 inclusionary zoning) or by requiring fees or land from new development to develop subsidized  
34 affordable housing. This is the intent of HCC Chapter 11.

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<sup>11</sup> [http://www.policylink.org/site/c.lkIXLbMNJrE/b.5137215/k.14C2/Affordable\\_Housing\\_Development.htm](http://www.policylink.org/site/c.lkIXLbMNJrE/b.5137215/k.14C2/Affordable_Housing_Development.htm)

1 **Table 2: Housing Services**

	Financial Literacy and Housing Education	Financial and Housing Counseling	Homeownership Programs	Other Services
<b>Alu Like</b> <sup>12</sup>	x			
<b>Consumer Credit Counseling Service</b> <sup>13</sup>		x		
<b>Hawaiian Community Assets</b> <sup>14</sup>	x	x	Down Payment Assistance Mortgage Lending	
<b>Legal Aid Society of Hawai'i</b> <sup>15</sup>	x	x		Legal Services: homeless, renter's assistance, fair housing enforcement
<b>Hawai'i Island Community Development Corporation</b>			Self-Help Housing	
<b>Hale Aloha O Hilo (Habitat for Humanity Hilo)</b> <sup>16</sup>			Self-Help Housing	
<b>Habitat for Humanity West Hawai'i</b> <sup>17</sup>			Self-Help Housing	
<b>Council for Native Hawaiian Advancement</b> <sup>18</sup>			Homestead Self-Help Housing	

<sup>12</sup> <http://www.alulike.org/>

<sup>13</sup> <http://cccsofhawaii.org/>

<sup>14</sup> <http://www.hawaiiancommunity.net/>

<sup>15</sup> <http://www.legalaidhawaii.org/>

<sup>16</sup> <http://www.hilohabitat.org/>

<sup>17</sup> [www.habitatwesthawaii.org](http://www.habitatwesthawaii.org)

<sup>18</sup> <http://www.hawaiiancouncil.org/>

	Financial Literacy and Housing Education	Financial and Housing Counseling	Homeownership Programs	Other Services
Hawai'i Homeownership Center <sup>19</sup>	x	x	Down Payment Assistance Mortgage Lending	

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<sup>19</sup> <http://www.hihomeownership.org/>

- 1     ▪ Preserve publicly-assisted affordable housing by building public housing or by limiting owners' of  
2       subsidized housing ability to resell at market rates.

### 3     **Retaining Design Character**

4     **Ka'ū's Architectural Character**<sup>20</sup>: The Ka'ū community has a strong architectural sensibility that is multi-  
5     cultural and rooted in historic tradition. Additionally, it is a vernacular language that has evolved in  
6     response to the challenging climate of the district, and with generations of local wisdom shaping it, it  
7     has become very sustainable. While it is not possible to guess what architectural fashions might be like  
8     in the future, it most certainly is possible to build things that incorporate patterns that reflect timeless  
9     aspects of the region's architectural heritage.

10    There is a range of options for retaining the character of a town's or village's buildings:

### 11    **Historic Preservation**

12    Appendix V4A summarizes the historic sites, structures, and districts in Ka'ū; related federal and state  
13    programs; the County's Cultural Resources Commission; tax incentives for historic preservation; and  
14    related academic programs.

15    In addition to the tax benefits, historic preservation has many advantages, including<sup>21</sup>:

- 16    ▪ Culturally, a community is richer for having the tangible presence of past eras and historic styles
- 17    ▪ Socially, a community benefits when citizens take pride in its history and mutual concern for the  
18       protection of the historic building fabric
- 19    ▪ Educationally, a community benefits through teaching local heritage and the understanding of the  
20       past and the resultant cultural respect by its citizens
- 21    ▪ Developmentally, a community benefits from having a concerted and well-defined planning  
22       approach for the protection of historic buildings while accommodating healthy growth
- 23    ▪ Environmentally, a community benefits when historic buildings are restored or rehabilitated rather  
24       than demolished and disposed of in the community landfill
- 25    ▪ Economically, a community benefits when historic buildings are protected and made the focal point  
26       of revitalization and when the community is attractive to visitors seeking heritage tourism  
27       opportunities.

28    There are limited disadvantages to establishing historic districts and sites<sup>22</sup>. Federal, state, or local  
29    governments do not assume any property rights in a building that is listed on a historic register.  
30    Moreover, being listed on the register does not restrict the rights of private property owners in the use,  
31    development, or sale of private historic property. Likewise, owners of private residences listed on the  
32    Hawai'i Register have no obligation to open their properties to the public. If they take a County  
33    property tax exemption for a listed residence, however, one of the conditions they agree to is that the  
34    public be assured a reasonable view of the property.

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<sup>20</sup> Adapted from Stephen A. Mouzon. *The Original Green: Unlocking the Mystery of True Sustainability*. The Guild Foundation Press, 2010.

<sup>21</sup> [http://www.historichawaii.org/n\\_04\\_why.html](http://www.historichawaii.org/n_04_why.html)

<sup>22</sup> [http://www.historichawaii.org/n\\_04\\_facts.html](http://www.historichawaii.org/n_04_facts.html)



1 In addition, private property owners are not required to maintain, repair, or restore properties listed on  
 2 the Hawai'i Register. They may make changes to their historic homes, but must allow the SHPD an  
 3 opportunity to review and comment. This is to ensure the appropriateness of the alteration. It is  
 4 possible that inappropriate alterations could cause a historic residence to be removed from the register,  
 5 and an owner risks losing property tax benefits previously claimed.

6 **Funding**

7 Limited funding is available to nonprofits and municipalities<sup>23</sup>:

- 8 ▪ The National Trust Preservation Fund includes funds that provide two types of assistance to  
 9 nonprofit organizations and public agencies: 1) matching grants from \$500 to \$5,000 for  
 10 preservation planning and educational efforts, and 2) intervention funds for preservation  
 11 emergencies. Matching grant funds may be used to obtain professional expertise in areas such as  
 12 architecture, archeology, engineering, preservation planning, land-use planning, fund raising,  
 13 organizational development and law as well as to provide preservation education activities to  
 14 educate the public.
- 15 ▪ Grants from the Hart Family Fund for Small Towns are intended to encourage preservation at the  
 16 local level by providing seed money for preservation projects in small towns. These grants help  
 17 stimulate public discussion, enable local groups to gain the technical expertise needed for particular  
 18 projects, introduce the public to preservation concepts and techniques, and encourage financial  
 19 participation by the private sector. Grants generally range from \$2,500 to \$10,000.
- 20 ▪ The Johanna Favrot Fund for Historic Preservation provides nonprofit organizations and public  
 21 agencies grants ranging from \$2,500 to \$10,000 for projects that contribute to the preservation or  
 22 the recapture of an authentic sense of place. Individuals and for-profit businesses may apply only if  
 23 the project for which funding is requested involves a National Historic Landmark. Funds may be  
 24 used for professional advice, conferences, workshops and education programs.
- 25 ▪ The Cynthia Woods Mitchell Fund for Historic Interiors provides nonprofit organizations and public  
 26 agencies grants ranging from \$2,500 to \$10,000 to assist in the preservation, restoration, and  
 27 interpretation of historic interiors. Individuals and for-profit businesses may apply only if the  
 28 project for which funding is requested involves a National Historic Landmark. Funds may be used for  
 29 professional expertise, print and video communications materials, and education programs.
- 30 ▪ The Peter H. Brink Leadership Fund helps to build the capacity of existing preservation organizations  
 31 and encourages collaboration among these organizations by providing grants for mentoring and  
 32 other peer-to-peer and direct organizational development and learning opportunities. The purpose  
 33 of these grants is to support the leadership and effectiveness of staff and board members of  
 34 preservation organizations to fulfill their mission and to create a stronger, more effective  
 35 preservation movement. Grants from the Peter H. Brink Leadership Fund pay for travel costs and  
 36 honoraria and generally range up to \$1,500.

37 **Technical and Financial Assistance**

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<sup>23</sup> <http://www.preservationnation.org/resources/find-funding/>

1 **Historic Hawai'i Foundation (HHF)**<sup>24</sup>: HHF is a statewide non-profit organization that encourages the  
2 preservation of historic buildings, sites and communities relating to the history of Hawai'i. HHF  
3 programs include:

- 4 ▪ Preservation Resource Center, including FAQs and "Ask an Expert"
- 5 ▪ The Guide to the Hawai'i Historic Register
- 6 ▪ Hawai'i's Most Endangered Sites list, which includes Nā'ālehu Theater
- 7 ▪ The Heritage House Workshop Series to assist homeowners gain practical and in-depth knowledge  
8 on how to repair, maintain, and preserve older homes
- 9 ▪ The Circuit Rider program, through which the Director of Field Services conducts regular visits to all  
10 of the Hawaiian islands to work with local communities and host classes, seminars and in-person  
11 visits to answer preservation questions
- 12 ▪ The Preservation Professionals Directory
- 13 ▪ An extensive online Resource Directory for historic preservation.

14 **National Park Service**<sup>25</sup>: The NPS maintains a "Working on the Past in Local Historic Districts" web site  
15 that is full of guidance and resources related to historic districts, preservation ordinances, preservation  
16 design guidelines, treatment options, and the role of local governments in supporting historic  
17 preservation.

18 **National Trust for Historic Preservation (NTHP)**<sup>26</sup>: The NTHP is focused on saving America's historic  
19 places. It leads campaigns, to save national treasures<sup>27</sup>, advocates for historic preservation, and  
20 maintains resource libraries on sustainable communities, place-saving, law and policy, and the  
21 economics of revitalization.

22 **Citizens' Institute on Rural Design (CIRD)**<sup>28</sup>: CIRD offers annual competitive funding to as many as four  
23 small towns or rural communities to host a two-and-a-half day community design workshop. With  
24 support from a wide range of design, planning and creative placemaking professionals, the workshops  
25 bring together local leaders from non-profits, community organizations, and government to develop  
26 actionable solutions to the community's pressing design challenges. The community receives additional  
27 support through webinars, conference calls, and web-based resources.

28 Established in 1991 as Your Town: the Citizens' Institute on Rural Design<sup>29</sup>, CIRD has convened more  
29 than 60 workshops in all regions of the country. Your Town was initially a partnership among the  
30 National Endowment for the Arts (NEA), the National Trust for Historic Preservation, and the State  
31 University of New York (SUNY) at Syracuse. CIRD remains one of the NEA's key design leadership  
32 initiatives, and is currently conducted in partnership with the U.S. Department of Agriculture and Project  
33 for Public Spaces, Inc., along with the Orton Family Foundation and CommunityMatters® Partnership.

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24 <http://www.historichawaii.org/>

25 <http://www.nps.gov/tps/education/workingonthepast/>

26 [www.preservationnation.org](http://www.preservationnation.org)

27 <http://savingplaces.org/>

28 <http://www.rural-design.org/>

29 <http://www.yourtowndesign.org/>

1 **Design Guidelines**

2 Design guidelines retain character by identifying the existing architectural patterns that define a town  
3 and summarizing them as guidelines for use by planners and architects.

4 **Kailua Village:** HCC section 25-7 establishes the Kailua Village Design District and Design Commission  
5 (KVDC), whose role is to advise the planning director in matters concerning the design of buildings and  
6 structures and all public and private improvements within Kona’s Kailua Village. To make its  
7 recommendations, the KVDC uses the Kailua Village Design Guidelines, which were developed as part of  
8 the 1994 Kailua-Kona Plan and adopted by the Council by resolution in 1996.

9 **Kona Village Design Guidelines:** The Kona CDP also incorporates [Village Design Guidelines](#), an earlier  
10 draft of which included Architectural Standards for building façades, streetscreens, openings, roof pitch,  
11 finish material, porches, and fences.

12 **Pahoa:** A community group in Pahoa is also in the process of developing Pahoa Village design guidelines.

13 **Maui:** Chapter 2.26 of the Maui County Code (MCC) establishes the advisory Urban Design Review  
14 Board<sup>30</sup> to ensure that the architectural qualities prevalent in a community are preserved by ensuring  
15 that new construction, reconstruction, and renovation enhance and complement the existing built  
16 environment. Included in the Board’s Rules of Practice and Procedure is a “Checklist of Standard  
17 Concerns”, including visual impacts, landscaping, architectural and building design, lighting, and signage.

18 Likewise, Chapter 19.15 of the MCC establishes Country Town Business Districts<sup>31</sup> to establish  
19 development standards for businesses in rural communities. MCC 19.15.060 establishes design  
20 guidelines and standards and encourages the adoption of community-specific guidelines. The following  
21 guidelines have been developed:

- 22 ▪ The Architectural Style Book for Lahaina
- 23 ▪ Lahaina Historic District: Sign Design Guidelines
- 24 ▪ Wailuku Redevelopment Area Development Area Design Guidelines
- 25 ▪ Paia – Haiku: Country Town Design Guidelines
- 26 ▪ Makawao – Pukalani – Kula: Country Town Design Guidelines
- 27 ▪ Hana Community Design Guidelines
- 28 ▪ Lanai City Community Design Guidelines
- 29 ▪ Molokai: Design Guidelines: Country Town Business Districts.

30 **Kaua’i:** In March 2010, Kaua’i County adopted the Lihue Town Core Urban Design Plan<sup>32</sup>. The Plan  
31 guides the revitalization of Lihue by establishing special planning areas that provide recommendations  
32 for mixed-use zoning, historic preservation, building design, and streetscaping. The Plan includes both

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<sup>30</sup> <http://www.mauicounty.gov/index.aspx?NID=200>

<sup>31</sup> <http://www.co.maui.hi.us/index.aspx?NID=1300>

<sup>32</sup> <http://www.kauai.gov/Government/Departments/PlanningDepartment/Projects/LihueTownCoreUrbanDesignPlan/ta/bid/546/Default.aspx>

1 General Design Guidelines for All Town Core Neighborhoods and Neighborhood-Specific Design  
2 Guidelines, including sections on Architecture and Building Design, Signage, Walls and Fences, and  
3 Outdoor Lighting.

#### 4 **Form-based Codes**<sup>33</sup>

5 Form-based zoning is a tool that regulates land-use development by focusing primarily on physical *form*.  
6 Building on the core characteristics of vibrant neighborhoods and towns, the intent is to retain or create  
7 community vitality based on aesthetics, walkability, mixed-use, housing choices, and higher densities.  
8 By de-emphasizing use and allowing demographic shifts and market forces to drive development, form  
9 based codes can also support economic development.

10 Form-based codes differ from traditional Euclidean zoning, which is based on the segregation of land  
11 *uses* according to their intensity. If rigidly focused on segregating land uses, traditional zoning can make  
12 mixed-use development difficult, if not impossible. “Figure 4: Zoning, Design-Guidelines, and Form-  
13 Based Code” visually contrasts the regulatory scope of conventional [zoning](#) with [design guidelines](#) and  
14 form-based codes.

15 Form-based codes can operate at three levels:

16 1. Sector Plan: Like a land use policy map or the County’s [LUPAG](#) map, sector plans distinguish  
17 “open” and “growth” areas and specify the type of development permitted in each sector. Only  
18 certain “community types” are permitted in each sector. Community types might be CLD  
19 (clustered development), TND (traditional neighborhood development), or TOD (transit-oriented  
20 development).

21 Sector plans and community types are based on landscape transects<sup>34</sup>, from wilderness, to  
22 farmland, to rural residential, to low density urban, to high density urban, and finally to the  
23 dense urban core. “Figure 5: Hawaiian Ahupua’a as Transects” overlays transects on major  
24 sections of a prototypical Hawaiian ahupua’a, and “Figure 6: A Prototypical Rural-to-Urban  
25 Transect” is a schematic drawing contrasting the form of typical transects between natural areas  
26 and the urban core.

27 2. Regulating Plan: A regulating plan provides developers and planners a unified design that  
28 illustrates where form-based codes apply and guides developers to implement them properly.  
29 Based on the appropriate community type and “calibrated” with community input, it classifies  
30 sites according to street, block, lot, and district characteristics and includes illustrations of build-  
31 to lines, projected building footprints, location of public spaces, and allowable building types  
32 specific for each site. A regulating Plan may also include building envelope standards (i.e.,  
33 placement, height, orientation), architectural standards (e.g., facades, window dimensions,  
34 building materials), signage and landscaping standards, and street standards (e.g., width, paving,  
35 tree types, lighting). “Figure 7: Honokohau Village Regulating Plan” is a regulating plan  
36 developed for the area around the West Hawai’i Civic Center.

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<sup>33</sup> American Planning Association. “How do form-based codes differ from traditional zoning?” *You Asked. We Answered*. April 2007; American Planning Association. “Form-Based Zoning.” Planning Advisory Service (PAS) QuickNotes No. 1., 2004; <http://formbasedcodes.org/>

<sup>34</sup> <http://www.transect.org/index.html>

Figure 4: Zoning, Design-Guidelines, and Form-Based Code

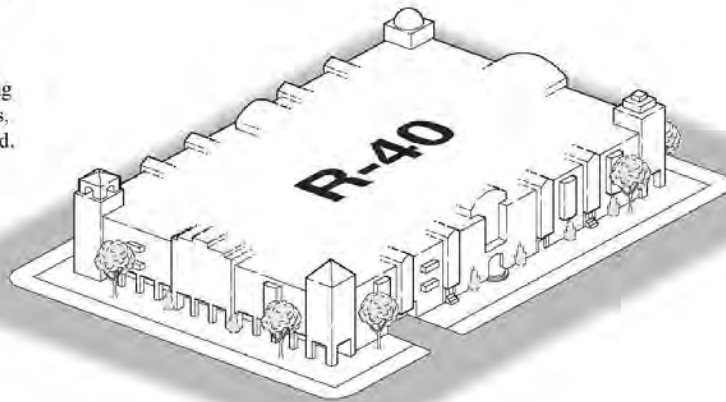
**How zoning defines a one-block parcel**

Density, use, FAR (floor-area ratio), setbacks, parking requirements, and maximum building height(s) specified.



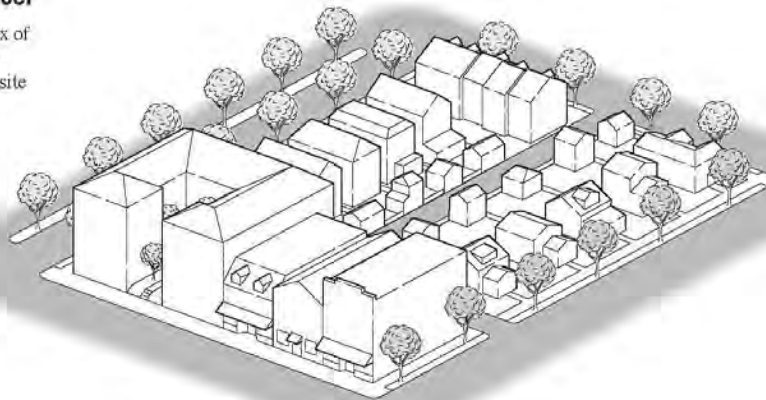
**How design guidelines define a one-block parcel**

Density, use, FAR (floor-area ratio), setbacks, parking requirements, maximum building height(s), frequency of openings, and surface articulation specified.



**How form-based codes define a one-block parcel**

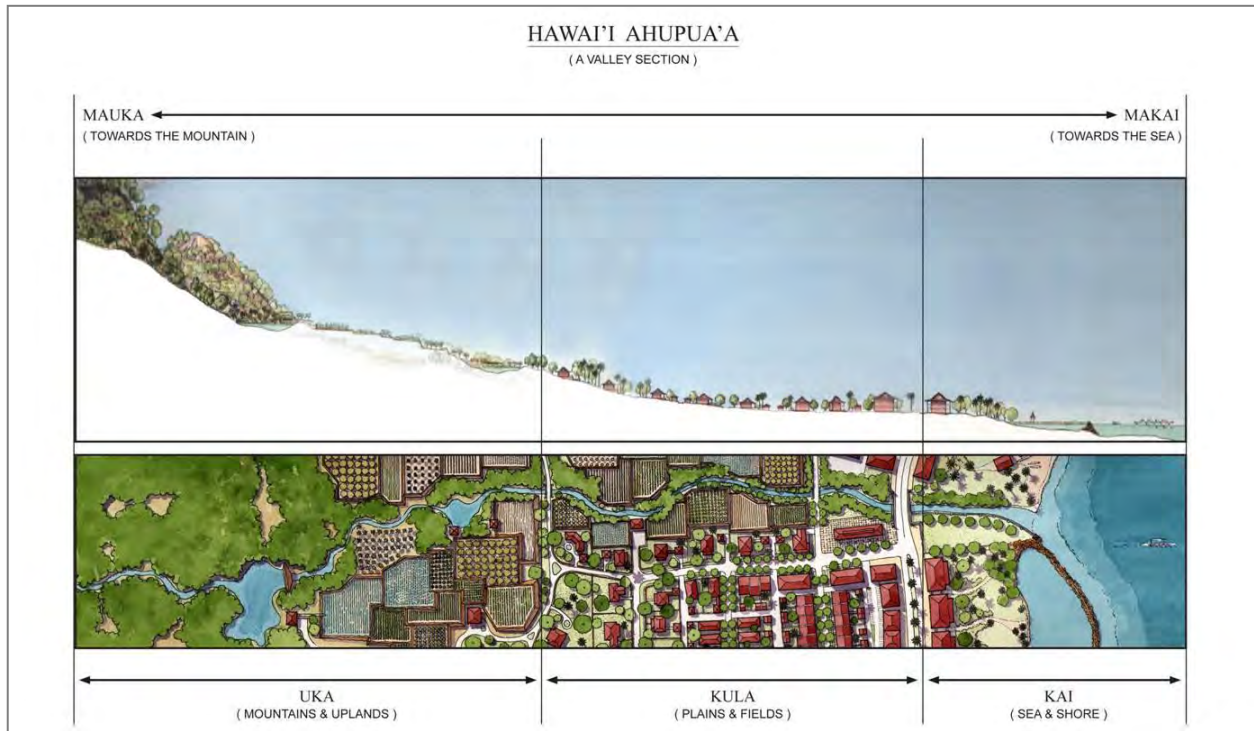
Street and building types (or mix of types), build-to lines, number of floors, and percentage of built site frontage specified.



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1

**Figure 5: Hawaiian Ahupua'a as Transects**



2

3

**Figure 6: A Prototypical Rural-to-Urban Transect**



4

5

35

<sup>35</sup> <http://www.transect.org/transect.html>

1

**Figure 7: Honokohau Village Regulating Plan**



36

2

3 3. Community Plan: For infill, town expansion, or new communities, site-specific community plans  
 4 are developed in conformance with the sector and regulating plans. These are equivalent to  
 5 master site plans, [subdivision applications](#), or [Planned Unit Developments](#) that specify  
 6 roadways, civic space, and building footprints.

7 Often, form-based regulating plans are adopted as site-specific overlays (for, for example, town centers  
 8 or transit-oriented development districts), but some municipalities have replaced comprehensive use-  
 9 based codes with form based codes<sup>37</sup>. Other communities have adopted hybrids of the two types of  
 10 codes. In 2011, Maui approved the Pulelehua<sup>38</sup> plan for West Maui, which is a form-based code.

11 The Kona CDP included Village Design Guidelines for both existing town centers and new communities<sup>39</sup>.  
 12 The Guidelines were based on the SmartCode<sup>40</sup>, which is one application of form-based coding, and  
 13 calibrated during the 2009 Honokohau charrette<sup>41</sup>.

14 The County is considering making form-based coding available island-wide as an optional planning tool.

<sup>36</sup> <http://honokohauvillage.com/wp-content/uploads/2009/10/Regulating-Plan.jpg>

<sup>37</sup> American Planning Association. “Update on Form Based Codes.” [www.planning.org](http://www.planning.org). October 2006.

<sup>38</sup> <http://pulelehua.com/>

<sup>39</sup> <http://www.hawaii-county-cdp.info/north-and-south-kona-cdp/working-on-village-design-guidelines>

<sup>40</sup> <http://www.smartcodecentral.org/>

<sup>41</sup> <http://honokohauvillage.com/>

# 1 Local Redevelopment Strategies

## 2 Infill Incentives<sup>42</sup>

3 Local governments use infill incentives to promote the development of vacant land – or rehabilitation of  
4 existing structures – in already urbanized areas where infrastructure and services are in place. Local  
5 governments offer infill incentives for a number of reasons:

- 6 ▪ Infill development reuses properties that may have been underutilized or blighted, helping to  
7 catalyze revitalization and preserving open space and agricultural land.
- 8 ▪ Infill development capitalizes on existing community assets like parks and other infrastructure.
- 9 ▪ Infill has the potential to boost jobs, purchasing power, and public amenities and generate tax  
10 dollars for local government.
- 11 ▪ Infill housing is dense in comparison with housing in suburban areas and represents an effective way  
12 to meet a jurisdiction's affordable housing or population growth needs.
- 13 ▪ Located in proximity to existing transit routes or within walking distance of services and  
14 entertainment, infill development can reduce auto use and accompanying congestion and pollution.

15 Infill development is not, however, always a developer's first choice. Challenges associated with infill  
16 include the small, scattered nature of many infill parcels, complex title issues, outdated infrastructure  
17 serving the infill site, and environmental contamination. For these reasons, urban infill is often  
18 bypassed by developers for cheap, readily available suburban or agricultural land.

19 To address the infill challenges, jurisdictions often offer incentives to make infill development attractive  
20 and feasible. Examples include:

- 21 ▪ Mixed-use zoning
- 22 ▪ Upgraded infrastructure and amenities like parks and streetscapes
- 23 ▪ Greater density allowances
- 24 ▪ Modifying building site, setback, and parking requirements
- 25 ▪ Expedited permit approval
- 26 ▪ Fee waivers for infrastructure hook-up
- 27 ▪ Lower or waiver of impact fees
- 28 ▪ Property tax abatements.

29 To finance incentives, some jurisdictions use [brownfield funding](#) or alternative [infrastructure financing](#)  
30 like Community Improvement Districts (CID), Community Facilities District (CFD), and Tax Increment  
31 Financing (TIF).

32

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<sup>42</sup> [www.policylink.org/site/c.lkIXLbMNJrE/b.5137445/k.A34D/Infill\\_Incentives.htm](http://www.policylink.org/site/c.lkIXLbMNJrE/b.5137445/k.A34D/Infill_Incentives.htm);  
<http://www.mrsc.org/subjects/planning/infilldev.aspx>



1 **Accessory Dwelling Units<sup>43</sup>**

2 Accessory dwelling units (ADUs) are small, self-contained living units that typically have their own  
 3 kitchen, bedroom(s), and bathroom space. Often called granny flats, elder cottage housing  
 4 opportunities (ECHO), mother-daughter residences, secondary dwelling units, or, in Hawai'i, [‘ohana](#)  
 5 [units](#), ADUs are apartments that can be located within the walls of an existing or newly constructed  
 6 single-family home or can be an addition to an existing home. They can also be freestanding cottages on  
 7 the same lot as the principal dwelling unit or a conversion of a garage or barn.

8 The benefits to the home owner and the ADU occupant are many. For the home owner, ADUs provide  
 9 the opportunity to offer an affordable and independent housing option to family who might need a  
 10 helping hand nearby. The unit could also be leased to unrelated individuals or newly established  
 11 families, which would provide the dual benefit of providing affordable housing to the ADU occupant and  
 12 supplemental rental income to the owner.

13 Despite the benefits, some communities resist allowing ADUs, or allow them only after time-consuming  
 14 and costly review procedures and requirements. Public resistance to ADUs usually takes the form of a  
 15 perceived concern that they might transform the character of the neighborhood, increase density, add  
 16 to traffic, make parking on the street more difficult, increase school enrollment, and put additional  
 17 pressure on fire and police service, parks, or water and wastewater. However, communities that have  
 18 allowed ADUs find that these perceived fears are mostly unfounded or overstated when ADUs are  
 19 actually built.

20 **Brownfields<sup>44</sup>**

21 Brownfield is the term used for all abandoned or underused sites where redevelopment or reuse is  
 22 complicated by the presence or perceived presence of contamination. Brownfields come in all shapes  
 23 and sizes – from an abandoned mining operation covering several square miles to a vacant single family  
 24 home with lead paint or asbestos insulation. Aside from the health and environmental risks posed by  
 25 polluted soil and water resources, brownfields can be an economic drain on a community. They  
 26 represent lost jobs and a diminished tax base, and their presence often leads to decreased property  
 27 values, vandalism, and criminal activity. Brownfields are also opportunities – they often occupy prime  
 28 locations with existing infrastructure.

29 **Stages of Brownfield Redevelopment:** There are four basic stages to brownfield redevelopment<sup>45</sup>:

- 30 1. Testing and Pre-Development: This involves organizing residents, prioritizing sites within a  
 31 community, securing predevelopment funding, getting site access, and beginning reuse  
 32 planning. The environmental assessment process can also be started during this stage. That  
 33 process determines what, if anything, is contaminating the site, and where and how much so  
 34 that an appropriate clean-up plan can be determined. This process has three phases:
- 35 a. Phase I: Determine if there is potential for contamination based on previous uses.

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<sup>43</sup> American Planning Association. “Accessory Dwelling Units.” Planning Advisory Service (PAS) Quicknotes No. 19; <http://www.mrsc.org/publications/textadu.aspx>

<sup>44</sup> American Planning Association. “Community-Based Brownfield Redevelopment.” Planning Advisory Service (PAS) Memo, January/February 2008; American Planning Association. *Reuse: Creating community-based brownfield redevelopment strategies*.

<sup>45</sup> [http://www.policylink.org/site/c.lkIXLbMNJrE/b.5140173/k.8735/How\\_to\\_Use\\_It.htm](http://www.policylink.org/site/c.lkIXLbMNJrE/b.5140173/k.8735/How_to_Use_It.htm)

- 1           b. Phase II: Take samples from air, water, and soil in order to determine the location, type,  
2           and amount of environmental contamination.
- 3           c. Phase III: Examine potential risks of the contamination and identify remediation options.
- 4       2. Complete Development Planning: This involves securing title and any required land use  
5       entitlements, determining regulatory requirements for remediation, packaging the financing,  
6       and developing a formal site plan.
- 7       3. Clean-up and Site Design
- 8       4. Construction and Final Use: Like any infill project, this involves construction, marketing, and  
9       lease/sale.

10 **Keys to Success:** Brownfield redevelopment is not easy, and there are several keys to successful  
11 projects<sup>46</sup>:

- 12   ▪ Communities will succeed in brownfields revitalization when they consider these properties as  
13   community and economic opportunities that happen to have an environmental challenge, and  
14   connect brownfields initiatives to their broader community vision and revitalization priorities.
- 15   ▪ If a site does not have high redevelopment potential, chances are it will remain contaminated and  
16   underused.
- 17   ▪ Even with an advantageous site, brownfield redevelopment is unlikely to occur without a  
18   community supported vision. Brownfields projects have much greater success when the local  
19   community first identifies the potential reuse of the idled, contaminated property.
- 20   ▪ Community involvement and consensus are two of the most important ingredients for a successful  
21   brownfield project.
- 22   ▪ Brownfields success is about people. Localities most successful in brownfields revitalization have set  
23   up brownfields teams that include prominent local leaders, a brownfields staff champion, a cross-  
24   sector team of public and private supporters, and a citizens stakeholder advisory group.
- 25   ▪ Most brownfield properties will be revitalized by the private sector with the support of private  
26   finance. Thus, local communities must understand private sector needs, help reduce private sector  
27   risk, and facilitate private sector strategies.
- 28   ▪ Liability issues make brownfield redevelopments riskier than greenfield projects. Because  
29   community development corporations (CDCs) have a commitment to neighborhood revitalization,  
30   they are often more willing than private developers to engage in risky projects, making them ideal  
31   partners for brownfield redevelopment.
- 32   ▪ Brownfields successes ultimately involve overcoming environmental cleanup challenges at  
33   contaminated sites. Communities and brownfields redevelopers are using new strategies and new  
34   technologies to avoid making environmental costs the brownfields “deal-breaker.”

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<sup>46</sup> American Planning Association. “Community-Based Brownfield Redevelopment.” Planning Advisory Service (PAS) Memo, January/February 2008; American Planning Association. *Reuse: Creating community-based brownfield redevelopment strategies*.

- 1   ▪ The most basic component of a successful brownfield project is adequate funding. CDCs working on
- 2   brownfield redevelopments often tap multiple funding sources to cover costs associated with
- 3   cleanup and construction.
- 4   ▪ Familiarity with federal, state, and local brownfield programs and guidelines can save much time
- 5   and trouble once a project is underway. Site investigation and cleanup require expertise and
- 6   sophisticated project management.
- 7   ▪ Now more than ever, the success of local brownfields initiatives will depend upon the strength and
- 8   capacity of state brownfields programs, and the ability of localities to partner with their states.
- 9   Brownfields revitalization is enhanced by the strong partnership that emerged between local
- 10   communities, state brownfields programs, and the “federal family” of key agencies that targeted
- 11   resources to the brownfields problem.

12   **Funding:** There is a wide range of funding sources to support the brownfield planning and

13   redevelopment process, and several organizations maintain directories of those sources<sup>47</sup>.

14   **Resources:** There are also many resources available to help communities with brownfield

15   redevelopment<sup>48</sup>. Focusing specifically on vacant, abandoned, and problem properties, the Center for

16   Community Progress provides technical assistance, capacity building, and research support to local

17   communities<sup>49</sup>.

18   **Brownfields in Ka’ū:** The County Department of Environmental Management (DEM) has identified the

19   following *potential* brownfield sites in Ka’ū:

- 20   ▪ Mills in Pāhala, Honu’apo, and elsewhere
- 21   ▪ Baseyards in Pāhala, Nā’ālehu, and elsewhere
- 22   ▪ Truck or ship fueling depots at Whittington or elsewhere
- 23   ▪ Old gas stations or repair shops in Pāhala or Nā’ālehu
- 24   ▪ Agricultural lands with pesticide contamination
- 25   ▪ Illegal dumping and mining sites in Ocean View.

26   In 2009, DEM applied for but did not receive a brownfields assessment grant, which would enable the

27   County to complete the Phase I and II environmental assessment for high priority sites.

28   **Transfer of Development Rights**

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<sup>47</sup> <http://www.policylink.org/site/c.lkIXLbMNJrE/b.5136799/k.EBF3/Financing.htm>;  
<http://www.nemw.org/images/stories/documents/BFfinancingredev.pdf>;  
<http://www.nemw.org/images/stories/documents/brownfield%20rural%20financing.pdf>;  
[http://www.epa.gov/brownfields/grant\\_info/index.htm](http://www.epa.gov/brownfields/grant_info/index.htm); <http://www.epa.gov/brownfields/tax/index.htm>;  
[http://www.epa.gov/swerosps/bf/grant\\_info/index.htm](http://www.epa.gov/swerosps/bf/grant_info/index.htm)

<sup>48</sup> <http://www.policylink.org/site/c.lkIXLbMNJrE/b.5136805/k.EE18/Resources.htm>;  
<http://www.epa.gov/brownfields/tools/index.htm>; <http://www.smartgrowthamerica.org/2013/05/15/a-new-resource-for-engaging-community-members-in-brownfield-redevelopment/>

<sup>49</sup> <http://www.communityprogress.net/>

1 Transfer of Development Rights (TDR) programs are introduced in Appendix V4A. TDR, Density Transfer  
2 Charge (DTC), or Residential Density Transfer (RDT) programs could be used to “send” development  
3 rights from agricultural areas and subdivisions to designated growth zones with municipal services.

4 The County would have to adopt enabling legislation for the option to be available locally. Maui County  
5 has a draft TDR ordinance<sup>50</sup> based on the findings of an implementation study<sup>51</sup>. The study identified  
6 the following “success factors”:

- 7     ▪ Pubic and property-owner support for preservation of the sending areas
- 8     ▪ Comprehensive plans for implementation, including consistency with General Plan goals and policies  
9         and the identification of sending and receiving areas
- 10    ▪ Send area development disincentives, including physical constraints, density restrictions,  
11         development regulations, and off-site requirements for development
- 12    ▪ Adequate, affordable allocations to sending areas, including the appropriate transfer ratios and  
13         allocation rates necessary to create a market
- 14    ▪ Optimal receiving areas that are appropriate for development, have community support, and have  
15         developer interest
- 16    ▪ Effective density thresholds for receiving areas
- 17    ▪ Extra density in receiving areas only possible via TDR
- 18    ▪ TDR banks that expedite transfers and accommodate changes in the real estate market
- 19    ▪ Legal issues addressed, including enabling authority in the General Plan, enabling legislation in the  
20         form of a TDR ordinance, taxation of TDR, and documenting TRD transfers.

21 **LEED for Neighborhood Development<sup>52</sup>**

22 The LEED for Neighborhood Development Rating System (LEED-ND) integrates the principles of smart  
23 growth, urbanism, and green building into the first national system for neighborhood design. As with  
24 LEED (Leadership in Energy and Environmental Design) for Green Buildings, which certifies new buildings  
25 based on design criteria, LEED-ND certification provides independent, third-party verification that a  
26 development's location and design meet accepted high levels of environmentally responsible,  
27 sustainable development.

28 The LEED-ND Checklist used to rate neighborhood development is a useful screen through which to  
29 assess a community’s sustainability:

30 **Smart Location and Linkage**

- 31     ▪ Smart Location
- 32     ▪ Imperiled Species and Ecological Communities

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<sup>50</sup> <http://www.co.maui.hi.us/documents/17/69/71/332/Draft%20TDR%20Ordinance%202.pdf>

<sup>51</sup> <http://www.co.maui.hi.us/documents/17/69/71/332/Preliminary%20Draft%20TDR%20PDR%20Report.pdf>

<sup>52</sup> <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>

- 1   ▪ Wetland and Water Body Conservation
- 2   ▪ Agricultural Land Conservation
- 3   ▪ Floodplain Avoidance
- 4   ▪ Preferred Locations
- 5   ▪ Brownfield Redevelopment
- 6   ▪ Locations with Reduced Automobile Dependence
- 7   ▪ Bicycle Network and Storage
- 8   ▪ Housing and Jobs Proximity
- 9   ▪ Steep Slope Protection
- 10  ▪ Site Design for Habitat/Wetland & Water Body Conservation
- 11  ▪ Restoration of Habitat/Wetlands and Water Bodies
- 12  ▪ Long-Term Conservation Management of Habitat/Wetlands & Water Bodies
- 13  **Neighborhood Pattern & Design**
- 14  ▪ Walkable Streets
- 15  ▪ Compact Development
- 16  ▪ Connected and Open Community
- 17  ▪ Mixed-Use Neighborhood Centers
- 18  ▪ Mixed-Income Diverse Communities
- 19  ▪ Reduced Parking Footprint
- 20  ▪ Street Network
- 21  ▪ Transit Facilities
- 22  ▪ Transportation Demand Management
- 23  ▪ Access to Civic and Public Spaces
- 24  ▪ Access to Recreation Facilities
- 25  ▪ Visitability and Universal Design
- 26  ▪ Community Outreach and Involvement
- 27  ▪ Local Food Production
- 28  ▪ Tree-Lined and Shaded Streets
- 29  ▪ Neighborhood Schools

1 **Green Infrastructure & Buildings**

- 2 ▪ Certified Green Building
- 3 ▪ Construction Activity Pollution Prevention
- 4 ▪ Certified Green Buildings
- 5 ▪ Building Energy Efficiency
- 6 ▪ Building Water Efficiency
- 7 ▪ Water-Efficient Landscaping
- 8 ▪ Existing Building Use
- 9 ▪ Historic Resource Preservation and Adaptive Reuse
- 10 ▪ Minimized Site Disturbance in Design and Construction
- 11 ▪ Stormwater Management
- 12 ▪ Heat Island Reduction
- 13 ▪ Solar Orientation
- 14 ▪ On-Site Renewable Energy Sources
- 15 ▪ District Heating and Cooling
- 16 ▪ Infrastructure Energy Efficiency
- 17 ▪ Wastewater Management
- 18 ▪ Recycled Content in Infrastructure
- 19 ▪ Solid Waste Management Infrastructure
- 20 ▪ Light Pollution Reduction.

21 Against these criteria, Ka’ū’s traditional towns rate very high, with the possible exception of  
22 housing/jobs proximity, mixed-use centers, and some of the green building and infrastructure criteria,  
23 most of which are most relevant for new construction.

24 **State Redevelopment Agencies**

25 **Urban Redevelopment Act**

26 HRS chapter 53, the Urban Redevelopment Act, empowers the County to create a local redevelopment  
27 agency to make and implement redevelopment plans for urban renewal and blighted areas. Targeted  
28 areas are designated by the Planning Commission and must be in conformity with the master plan for  
29 the development of the locality. The Agency includes a five-member board and related management  
30 staff. As an alternative to creating a redevelopment agency, the County may also directly exercise the  
31 powers conferred on the agency in the Urban Redevelopment Act and explained below.

1 “Blighted area” means an area in which any combination of these factors or conditions predominate,  
 2 thus making the area an economic or social liability or otherwise detrimental to the public health, safety,  
 3 and welfare:

- 4 ▪ Improper subdivision or obsolete platting
- 5 ▪ Faulty lot layout in relation to size, adequacy, accessibility, or usefulness
- 6 ▪ Defective or inadequate street layout
- 7 ▪ Diversity of ownership
- 8 ▪ Dilapidation, deterioration, age, or obsolescence of buildings
- 9 ▪ Inadequate ventilation, light, sanitation, or open spaces, or other insanitary or unsafe conditions
- 10 ▪ Existence of conditions which endanger life or property by fire or other causes Tax or special  
 11 assessment delinquency exceeding the fair value of the land.

12 Redevelopment plans are approved by the Council by resolution, after Planning Commission review and  
 13 associated public hearings. The redevelopment agency must concur with any amendments to the plan.

14 After plan approval, the redevelopment agency may implement the plan. In conformance with the plan,  
 15 the agency has the power to acquire land (by condemnation if necessary), clear land, rehabilitate  
 16 structures, sell or lease property, and install infrastructure. These improvements can be made by the  
 17 agency, in collaboration with other public agencies, or by contract with private contractors.

18 The agency may also create a redevelopment corporation to acquire areas under a redevelopment plan  
 19 and to construct, own, maintain, operate, sell, and convey projects. If a major portion of the  
 20 redevelopment project is composed of residential units that are rented at reasonable rates, the land and  
 21 improvements shall be exempted from real property taxes for 10 years, and the development will be  
 22 assessed at 50% of the assessed valuation for 15 years thereafter. The redevelopment corporation must  
 23 be organized to serve a public purpose and shall be subject to the supervision and control of the  
 24 redevelopment agency.

25 To implement redevelopment plans, the redevelopment agency may borrow, apply for, and accept  
 26 advances, loans, grants, contributions, and any other form of financial assistance from the federal, state,  
 27 or county governments or other public body, or from any sources, public or private. The agency may  
 28 also issue bonds. In addition, the legislature may appropriate funds to support the agency’s  
 29 administrative costs, but the County must match the State allocation.

30 If it is necessary to relocate displaced families from the redevelopment area, the agency may acquire  
 31 land outside the redevelopment area and implement a redevelopment project for that new area.

32 Cape Coral, Florida, a 130,000 lot subdivision blighted itself and formed a community redevelopment  
 33 area in 1993 in order to fund major infrastructure improvements.

34 **Hawai’i Community Development Authority<sup>53</sup>**

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<sup>53</sup> [www.hcdaweb.org](http://www.hcdaweb.org)

1 The Hawai'i Community Development Authority (HCDA) is a State agency that was established in HRS  
2 section 206E to supplement traditional community renewal methods by promoting and coordinating  
3 public and private sector community development. The HCDA is to plan for and revitalize areas in the  
4 State that lawmakers find to be in need of timely redevelopment. These areas, designated as  
5 "Community Development Districts," were determined to be underused and deteriorating, but with the  
6 potential, once redeveloped, to address the needs of Hawai'i's people and to provide economic  
7 opportunities for the State. The Legislature has created two Community Development Districts –  
8 Kaka'ako and Kalaeloa.

9 The HCDA is established as a public corporate entity attached to the Department of Business, Economic  
10 Development & Tourism (DBEDT) for administrative purposes. The Authority is composed of 16 voting  
11 members from the private and public sectors who oversee HCDA operations and establish policies to  
12 implement its legislative objectives. The HCDA Executive Director serves as the chief executive officer  
13 and is appointed by the Authority members. The HCDA staff includes personnel from several  
14 professional fields including planning, engineering, architecture, development, finance, public  
15 information and administrative services.

16 Above and beyond broad powers to develop and implement redevelopment plans and projects – alone  
17 or in partnership with private entities – the HCDA can condemn property, levy district-specific taxes, and  
18 float bonds.

## 19 **Community-Based, Collaborative Action**

20 Though a CDP can go a long way toward achieving community goals by establishing County policy, many  
21 community priorities are outside County jurisdiction and require community-based, collaborative action.  
22 For example, strengthening Ka'ū's villages, towns, and subdivisions will require community leadership to  
23 establish or extend water systems, maintain village character, manage proposed development, and  
24 guarantee that Ka'ū gets its fair share of health, educational, and social services.

25 Appendix V4A includes a detailed introduction of community-based, collaborative action. Though  
26 presented in the context of resource management, the same basic "best practices" apply to any  
27 community improvement effort:

- 28 1. Establish a Prioritized Focus in collaboration with the CDP Action Committee and other  
29 stakeholders
- 30 2. Get Organized by establishing basic initial organizational structure and supports
- 31 3. Firmly Ground the Effort in the Community
- 32 4. Strengthen Collaboration and Coordination among the diversity of stakeholders that are unique  
33 to each initiative
- 34 5. Build a Solid Understanding of Historical and Current Conditions
- 35 6. Craft a Strategic, Achievable Plan, including a clear vision, goals, objectives and a work plan  
36 specifying priority strategies, resources needed, and sources of support
- 37 7. Establish a Structure Tailored to the Partners and the Goals
- 38 8. Build Capacity



1 9. Implement the Plan.

2 Likewise, recognizing that a number of such initiatives are already active in Ka’ū, and more are likely to  
 3 be started, a networked approach to coordinating and supporting community-based, collaborative  
 4 projects may be most effective, possibly with active facilitation by the CDP Action Committee.

5 **Placemaking**

6 Placemaking is a multi-faceted approach to the planning, design, and management of public spaces.  
 7 Though it could be applied in many types of public spaces, placemaking is usually focused on creating  
 8 squares, plazas, parks, streets, and waterfronts that will attract people because they are pleasurable or  
 9 interesting. Landscaping and public art often play an important role in the design process.

10 In 2007, the Knight Foundation and Gallup initiated the “Soul of the Community”<sup>54</sup> study to answer the  
 11 questions: “What makes people love where they live? And why does it matter?” The primary findings  
 12 included<sup>55</sup>:

- 13 ▪ There is an important and significant correlation between how attached people feel to where they  
 14 live and local GDP growth. What this means is that *the more people love their town, the more*  
 15 *economically vital that place will be*. It seems that, when people love where they live, they spend  
 16 more time there and invite others to do the same. They may choose to stay-cation versus travel.  
 17 They are also more productive at work and more satisfied in their jobs. They are more likely to buy  
 18 a house. There are so many little ways in which a love of place can translate to economic impacts,  
 19 and these all add up.
- 20 ▪ What most drives people to love where they live (their attachment) is their perception of aesthetics,  
 21 social offerings, and openness of a place. It appears that *what people most want out of a*  
 22 *neighborhood is a place that is attractive, engaging, friendly, and welcoming*. In every place, every  
 23 year of the study, these factors were found to be the most important to tying people to place.

24 Subsequent research has revealed several lessons learned:

- 25 ▪ Optimizing place. *Places should be who they are – just optimized*. Instead of changing who your  
 26 community is, it’s about being the best version of yourself that you can be. Places have to know  
 27 their narratives: what constitutes their unique identity?
- 28 ▪ Lead with strengths. The most powerful path to change for people and places is to *leverage*  
 29 *strengths* to address challenges. Any community intervention should lead with strengths.
- 30 ▪ Place optimism matters. Optimism is empirically linked to attachment. That means that the more  
 31 optimistic people feel about the future of their city, the more likely they are going to be attached to  
 32 it today. Why does this matter? Because it is with this spirit, commitment and dedication that  
 33 community turnarounds begin. This speaks to the importance of public messages and leadership to  
 34 *cultivate optimism* and then follow through with sound leadership to realize that optimism.
- 35 ▪ Young talent is leading the place renaissance. Gallup was finding increasingly that young talent was  
 36 choosing a place to live first, and then finding a job. The fact that people are now prioritizing place

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<sup>54</sup> <http://www.soulofthecommunity.org/>

<sup>55</sup> <http://www.pps.org/blog/learning-from-knights-soul-of-the-community-leaning-toward-the-future-of-placemaking/>

1 before deciding what jobs to pursue has to change the way communities are imagined if places are  
2 to succeed. Optimizing place has to be moved to the front burner as an economic imperative,  
3 immediately.

- 4 ▪ The corporate world gets this. They may have not had an empirical model to use until now, but  
5 many corporations had already noticed that, to attract and retain the best talent, they had to be  
6 able to successfully sell the place where the job is located. As a result, they want to be in places that  
7 sell themselves. This was all reinforced by the Soul finding that there’s an empirical relationship  
8 between job satisfaction and community attachment.
- 9 ▪ A solution on the “growth” tug of war that immobilizes many places. Placemaking often allows  
10 residents to finally put their finger on what had kept them stuck. For many, this was the fact that,  
11 while the ‘growth’ people are saying if we don’t stay modern and provide the place people want to  
12 live we are economically in trouble, the ‘anti-growth’ residents are really worried that growth for  
13 growth’s sake would cause them to lose who they were as a place – that they’d become generic.  
14 The Placemaking framework enables these folks to re-frame the issue by saying: *We will cherish our  
15 unique narrative as a place as we continue to grow in a smart and sustainable way.*
- 16 ▪ You’ll see impact sooner. Because Soul of the Community found a relationship between social  
17 offerings, openness, and aesthetics, and resident attachment, if you change public perception of one  
18 of those things *you can see same-year differences* in attachment. This core strength of the “[Lighter,  
19 Quicker, Cheaper](#)” approach to places is one that few other models can claim.
- 20 ▪ Placemaking is totally scalable. You can truly start anywhere and see impact, sooner than you might  
21 think. Places have started to turn around because they mobilized to get a strip of sidewalk installed  
22 where it was missing, while other places have come together around crafting and decorating their  
23 town’s trees with lit balls of fashioned chicken wire. Sometimes, it’s all about reminding people of  
24 the greatness of their place by helping them to rediscover what’s already there. The best ideas often  
25 come from the residents themselves, who are really the true keepers of the soul of their  
26 community.
- 27 ▪ The power of place. *Love of place is great equalizer and mobilizer.* The message of attachment –  
28 that the softer sides of place matter – resonates deeply. Everyone has a personal relationship with  
29 their place and people can see themselves and their communities in the Soul findings.

30 The Project for Public Spaces (PPS)<sup>56</sup> is a nonprofit planning, design, and educational organization  
31 dedicated to helping people create and sustain public spaces that build stronger communities. PPS has  
32 identified four key attributes of great places (sociability, uses and activities, access and linkages, and  
33 comfort and image) as well as eleven principles of placemaking:

- 34 ▪ The Community Is The Expert
- 35 ▪ Create a Place, Not a Design
- 36 ▪ Look for Partners
- 37 ▪ You Can See a Lot Just By Observing
- 38 ▪ Have a Vision

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<sup>56</sup> <http://www.pps.org/>

- 1   ▪ Start with the Petunias: Lighter, Quicker, Cheaper
- 2   ▪ Triangulate
- 3   ▪ They Always Say “It Can’t Be Done”
- 4   ▪ Form Supports Function
- 5   ▪ Money Is Not the Issue
- 6   ▪ You Are Never Finished.

7 PPS’s philosophy and approach are exemplified in this quote from one of the articles on their web site:  
 8 “Great places and strong local economies are created in the same way: by getting people together to  
 9 define local challenges and come up with appropriate solutions to address them. Placemaking makes  
 10 tangible the opportunities inherent within a place so that they might be taken advantage of. People  
 11 develop places; thereafter, places develop people.”<sup>57</sup> This approach is exemplified in the “Better Block  
 12 Jefferson Park” video<sup>58</sup>.

13 ArtPlace<sup>59</sup> invests in art and culture at the heart good placemaking. It works to accelerate creative  
 14 placemaking in part by making grants and loans, using investments by several large financial institutions  
 15 and foundations. ArtSpace Hawai‘i<sup>60</sup> in Honolulu’s Kaka‘ako district is one of ArtPlace’s grantees.

16 **Lighter, Quicker, Cheaper**

17 One example of this community-based, networked approach is the “Lighter, Quicker, Cheaper”  
 18 strategy<sup>61</sup>. The LQC approach taps local ingenuity to turn public spaces into treasured community places  
 19 through small, low-cost, incremental improvements. Although LQC is not for every situation, it can be a  
 20 creative, locally-powered alternative to slow, capital-heavy planning. Lighter, quicker, cheaper projects:

- 21   ▪ Transform underused spaces into laboratories that citizens can start using right away and see  
 22    evidence that change can happen.
- 23   ▪ Represent an “action planning process” that builds a shared understanding of a place that goes far  
 24    beyond the short term changes that are made.
- 25   ▪ Leverage local partnerships that have greater involvement by a community and results in more  
 26    authentic places.
- 27   ▪ Encourage an iterative approach and an opportunity to experiment, assess, and evolve a  
 28    community’s vision before launching into major construction and a long term process.
- 29   ▪ Employ a place-by-place strategy that, over time, can transform an entire village, town, or region.

30 The LQC approach has been used to establish public or farmers’ markets, improve streetscapes, and  
 31 revitalize business and industrial districts.

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<sup>57</sup> <http://www.pps.org/blog/challenges-and-warts-how-physical-places-define-local-economies/>  
<sup>58</sup> [http://www.youtube.com/watch?feature=player\\_embedded&v=BA5tMyuHXoo](http://www.youtube.com/watch?feature=player_embedded&v=BA5tMyuHXoo)  
<sup>59</sup> <http://www.artplaceamerica.org/>  
<sup>60</sup> <http://www.artplaceamerica.org/articles/artspace-hawaii-8/>  
<sup>61</sup> <http://www.pps.org/reference/lighter-quicker-cheaper-a-low-cost-high-impact-approach/>

1 The Better Block model is one example of the application of the LQC approach<sup>62</sup>. Better Block serves as  
2 a living charrette so that communities can actively engage in the buildout process and provide feedback  
3 in real time. Better Block initiatives exist in communities large and small around the world.

4 Similarly, some communities are experimenting with “crowdsourced development.”<sup>63</sup> In Salt Lake City,  
5 the Kentlands Initiative combines social-media, community organizing, and implementation to help  
6 neighborhoods thrive<sup>64</sup>. Locally, LQC is the approach embraced by the OurDowntownHilo<sup>65</sup> initiative,  
7 which is using “crowdsourced placemaking” to brainstorm and initiate manageable, community-based  
8 improvements. It has sparked a “guerrilla” gardening and beautification initiative and grassroots path  
9 and park improvements.

## 10 **Main Street**<sup>66</sup>

11 In use for the past 30 years, the four-point Main Street approach has proven effective in revitalizing and  
12 managing neighborhood commercial districts and downtowns across the nation:

- 13 1. **Organization** establishes consensus and cooperation by building partnerships among the various  
14 groups that have a stake in the commercial district.
- 15 2. **Promotion** creates a positive image that will rekindle community pride and improve consumer  
16 and investor confidence.
- 17 3. **Design** means getting the area into top physical shape and creating a safe, inviting environment  
18 for shoppers, workers, and visitors.
- 19 4. **Economic Restructuring** strengthens your community's existing economic assets while  
20 diversifying its economic base.

21 The National Trust Main Street Center leads a national network of 1,200 local programs, providing  
22 training, research, technical assistance, and national partnerships.

## 23 **Sustainable Design Assessment Teams**<sup>67</sup>

24 The SDAT is a community assistance program run by the American Institute of Architects that focuses on  
25 the principles of sustainability. SDATs bring a team of volunteer professionals (e.g., architects, urban  
26 designers, planners, hydrologists, economists, attorneys, and others) to work with community decision-  
27 makers and stakeholders to help them develop a vision and framework for a sustainable future.  
28 Specifically, the SDAT process helps communities:

- 29 ▪ Understand their structure at various scales and contexts;
- 30 ▪ Explore interactions between ecological, sociological, economic, and physical systems;
- 31 ▪ Visualize potential futures;
- 32 ▪ Articulate the qualities of a place;

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62 <http://betterblock.org/>

63 <http://www.planetizen.com/node/63112>

64 <http://www.kentlandsinitiative.org/>

65 <http://ourdowntownhilo.com/>

66 <http://www.preservationnation.org/main-street/about-main-street/the-center/>

67 <http://www.aia.org/about/initiatives/AIAS075425>

- 1   ▪ Advance the principles of sustainable communities; and
- 2   ▪ Define the role of stakeholders and players in both the public and private sectors.

3  **Community Benefits Agreement<sup>68</sup>**

4 Community-based, collaborative initiatives sometimes utilize community benefits agreements (CBA) to  
 5 achieve community goals. A CBA is a contract made between community representatives or groups and  
 6 a prospective developer of a project with significant likely impacts. The CBA specifies benefits provided  
 7 by the developer in exchange for community support for a proposed project and often involve  
 8 government subsidies or contribution of public infrastructure or services. Examples of developers’ CBA  
 9 commitments include:

- 10   ▪ Local hiring program for employees
- 11   ▪ Job training of local residents
- 12   ▪ Living wages for employees of service contractors
- 13   ▪ Environmentally-friendly design standards
- 14   ▪ Affordable housing beyond regulatory requirements
- 15   ▪ Funding for community programs and services in the surrounding communities (e.g., youth, culture).

16 CBAs offer the following benefits to the major stakeholders in any large development:

- 17   ▪ Community: reduce negative impacts and maximize benefits; address past and current injustices;  
 18    reach long-term community vision
- 19   ▪ Developers: save time and money; reduce obstacles and uncertainties; reassure investors
- 20   ▪ Government: reduce political pressures that come with conflict; reduce risk of having to defend  
 21    permitting decisions; gain political support with a win-win solution.

22 CBAs also come with issues and challenges, including:

- 23   ▪ Facilitation: It can be helpful to involve a third-party facilitator, but funding may be difficult to  
 24    secure for a systematic, participatory, and democratic process.
- 25   ▪ Representation: Different stakeholders need to feel that their perspectives are represented in the  
 26    community coalition or group and that no members have a conflict of interest.
- 27   ▪ Consensus: It can be difficult to get community agreement on contract terms.
- 28   ▪ Dissent: Not all community members may support the contract, or if some may oppose the project  
 29    regardless.
- 30   ▪ Monitoring: Mechanisms for reporting and compliance review may not be clear.

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<sup>68</sup> Karen Umemoto, Pat Onesta and Chris de Venecia. “An Introduction to Community Benefits Agreements (CBAs).” Department of Urban & Regional Planning. University of Hawai‘i at Mānoa. Presented at the December 2010 Assets Symposium in Kona.

- 1   ▪ Enforcement: CBAs have yet to stand the test of legal review, so it is unclear who will have standing
- 2   to challenge and enforce privately negotiated CBAs that lack government authorization.
- 3   Government support is key, but involvement in the agreement may be interpreted as an “exaction.”
- 4   Hawai‘i’s Collaborative Leaders Network introduces “A Community Engagement Strategy for Negotiating
- 5   a Package of Community Benefits”<sup>69</sup> and provides a detailed description of eight stages of the
- 6   negotiation strategy.
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<sup>69</sup> <http://collaborativeleadersnetwork.org/strategies/a-community-engagement-strategy-for-negotiating-a-package-of-community-benefits/>

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## Regional Infrastructure, Facilities, and Services

‘Ike aku, ‘ike mai, kokua aku kokua mai; pela iho la ka nohana ‘ohana.  
*Recognize others, be recognized, help others, be helped; such is a family relationship.*  
 Mary Kawena Pukui, ‘ōlelo no‘eau

This section of the appendix introduces Ka’ū’s resources and challenges, current policy, previous planning, and alternative strategies related to infrastructure, facilities, and services. It begins with a summary Ka’ū’s related values, priorities, and objectives and then focuses on specific areas of community interest, including housing, transportation, water, solid waste, emergency services, health care, social services, education, libraries, and parks and recreation.

### Community Values, Priorities, and Objectives

During the initial round of CDP input (see Appendix V2), the Ka’ū community identified two **values** related to infrastructure, facilities, and services: **schools** and **safety**.

Likewise, the community identified the following related **priorities**:

- Local economy: **housing**
- Recreation: **recreational facilities, youth recreation, parks, programs**
- Education: **more schools, improved schools, adult/vocational/higher education**
- Health care: **hospital, other medical facilities, services**
- Public services: **water, roads, mass transit, public safety, solid waste/recycling.**

When considering the community’s values and priorities along with resources and challenges summarized in the Community Profile, the Steering Committee adopted two community **objectives** that speak directly to infrastructure, facilities, and services:

- Identify viable sites for critical community infrastructure, including **water, emergency services and educational facilities to serve both youth and adults.**
- Establish a rural transportation network, including **roadway alternatives to Highway 11**, a regional trail system, and an interconnected **transit system.**

Specific aspects of each of those values, priorities, and objectives are introduced in the remainder of this section by summarizing related resources and challenges, current policy, previous planning, and alternative strategies available to achieve community objectives.

### Housing

#### Resources and Challenges

**Available House Lots:** Ka’ū has a great excess of lots available for single-family dwellings. In 2007, there were large numbers of vacant house lots in Ka’ū, including over 10,000 in Ocean View and over 1,500 in

1 the Discovery Harbour area (including Mark Twain and Green Sands). There were also more than 100  
2 vacant lots in Pāhala and Nā'ālehu.

3 The Ocean View Community Development Corporation's 2010 Dwelling Survey provides data on all  
4 "dwellings," including tents, cargo containers, and natural features like lava tubes. That survey counted  
5 2,646 dwellings in HOVE, which indicates that there are still nearly 10,000 vacant lots in the area.

6 The Moa'ula Coffee Farm PUD added an additional 98, 1.5-acre buildable sites on farm lots.

7 **Sales Prices:** Based on sales data in July 2011, Green Sands and Ocean View offer the most affordable  
8 housing (averaging ~\$100,000 for a single family dwelling). Next came Nā'ālehu and Pāhala (~\$150,000),  
9 followed by Mark Twain (~\$225,000). Prices varied significantly across the district depending on  
10 location and the quality of the housing, with Discovery Harbour and Ocean View showing the widest  
11 variation.

12 [DHHL](#) house and agriculture lots are also available in Discovery Harbor and South Point with affordable  
13 terms and financing.

14 **Population:** Between 2000 and 2010, all of the growth in Ka'ū was in the Discovery Harbour and Ocean  
15 View areas, with most of it in Ocean View. Pāhala and Nā'ālehu experienced slight reductions in  
16 population.

17 **Homeownership:** In 2011, the homeownership rate in Ka'ū was over 78% -- the highest in the County,  
18 and the condition of over 90% of those homes is considered satisfactory or excellent<sup>70</sup>.

19 **Historic Homes:** [SHPD](#) has the opportunity to review any permit or other land use entitlement that may  
20 affect buildings that are over 50 years old and comment on the effect of the proposed project on  
21 historic properties. Approximately 600 of Ka'ū's single-family dwelling units are more than 50 years old,  
22 which represents about 80% of the housing stock in Pāhala and Nā'ālehu<sup>71</sup>.

## 23 **General Plan Policies and Courses of Action**

### 24 9.3 County-wide Housing Policies

25 ▪ (g) Large industries or developments that create a demand for housing shall provide employee  
26 housing based upon a ratio to be determined by an analysis of the locality's needs.

27 ▪ (m) Accommodate the housing requirements of special need groups including the elderly,  
28 handicapped, homeless and those residents in rural areas.

29 ▪ (x) ***Vacant lands in urban areas and urban expansion areas should be made available for***  
30 ***residential uses before additional agricultural lands are converted into residential uses.***

31 9.5.9.2(a) Course of Action (Ka'ū): Require developments that create a demand for employee housing  
32 provide for that need.

## 33 **Tools and Alternative Strategies**

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<sup>70</sup> 2011 Housing Planning Study, County of Hawai'i.

<sup>71</sup> General Plan Table 9-45



1 Now and for the foreseeable future, Ka’ū will have an adequate supply of affordable housing and house  
 2 lots. Moreover, pursuant established General Plan policies, new industries or developments that create  
 3 additional housing demand shall provide necessary housing.

4 In addition, the [Affordable Housing](#) section above summarizes a range of Federal, State, County, DHHL,  
 5 and nonprofit housing programs available to residents of Ka’ū as well as both nonprofit and market-rate  
 6 housing developers. It also summarizes strategies that communities can use to preserve affordable  
 7 housing if trends in Ka’ū change significantly.

8 **Transportation**

9 **Resources and Challenges**

10 “Figure 8: Regional Transportation Network in Ka’ū” includes much of Ka’ū’s transportation  
 11 infrastructure referenced below.

12 **State Highway:** The regional arterial providing access to Ka’ū is Māmalahoa Highway (also known as the  
 13 Hawai’i Belt Road), a two-lane State highway (Highway Route 11). The General Plan proposes a bypass  
 14 arterial from Nā’ālehu to Wai’ōhinu. However, according to the State Department of Transportation  
 15 (DOT), the General Plan alignment is probably based on a proposal by DOT years ago, and it is no longer  
 16 actively being considered.

17 **Alternate Routes:** Ka’alāiki Road (or Cane Haul Road) and roads within Kapāpala Ranch have been used  
 18 as emergency bypass routes when Highway 11 has closed. Parts of Ka’alāiki Road are County-owned,  
 19 but much of it is private. The County recently improved sections it owns.

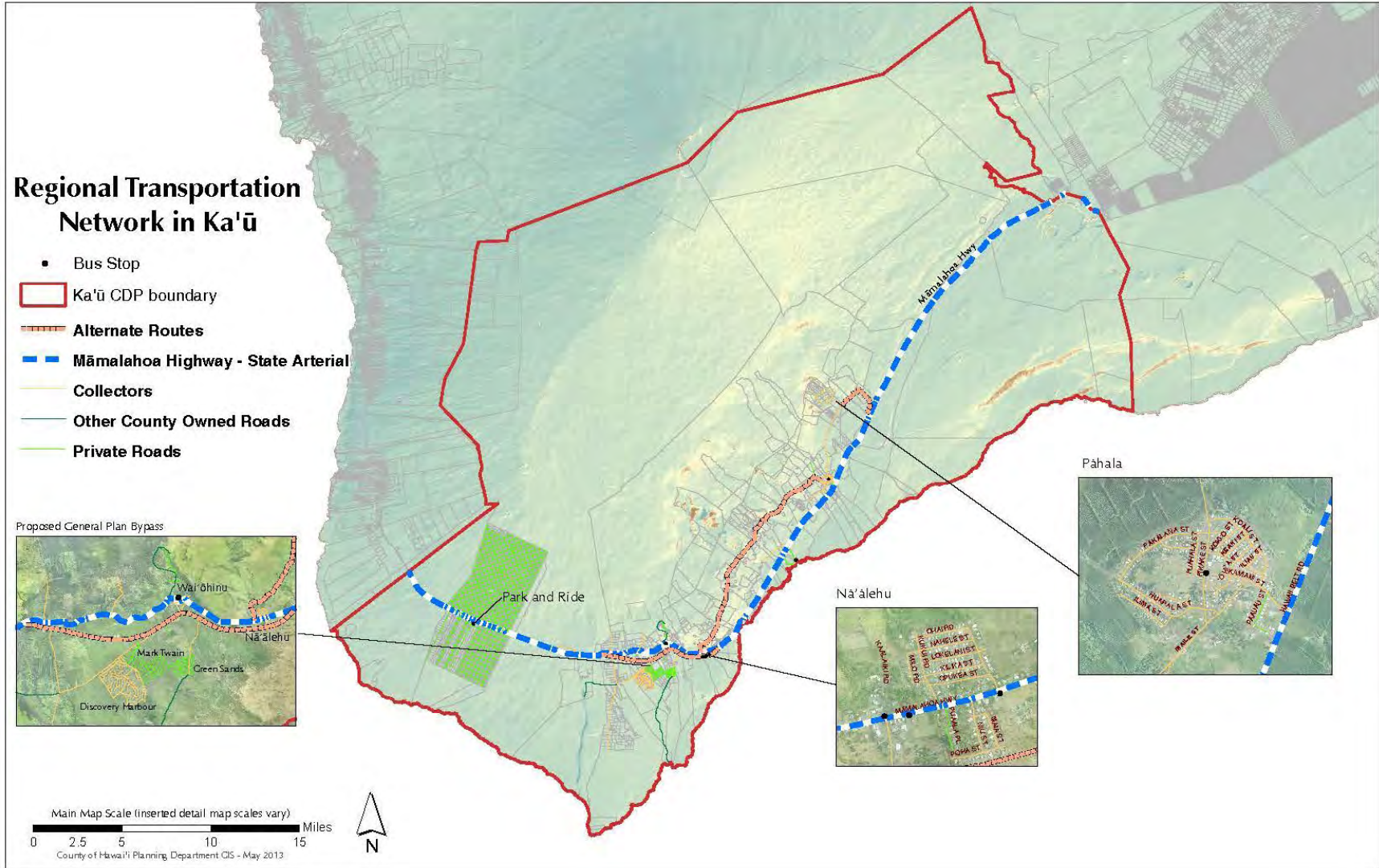
20 **Village Street Structure:** Nā’ālehu and Pāhala have thoroughfares that naturally support slower  
 21 vehicular traffic, walking, and bicycling. Networks of interconnected streets distribute traffic and  
 22 provide multiple routing choices.

23 Designed in the mid-20th century, these towns have small blocks and relatively narrow streets (Nā’ālehu  
 24 more so than Pāhala). Newer street designs tend to be optimized for higher automobile speeds and  
 25 feature wider travel lanes, larger curb and curve radii, and higher design speeds than the traditional  
 26 streets.

27 **Bicycle Transportation:** Within Pāhala and Nā’ālehu, bicycles are accommodated on the street in the  
 28 regular travel lane, rather than in bicycle lanes. In these low-speed, low-volume contexts, shared lanes  
 29 are the safest way to bicycle.

30 **Subdivision Street Structure and Circulation Patterns:** The roadway networks in the Discovery Harbour  
 31 area offer less connectivity and are less friendly to pedestrians and bicycles. Discovery Harbour features  
 32 many cul-de-sacs and large, looping blocks, making it difficult to travel from one part of the  
 33 neighborhood to another. Likewise, Mark Twain and Green Sands consist of a series of parallel routes  
 34 roughly perpendicular to the nearest minor collector road, with limited opportunities for connection  
 35 between interior subdivisions roads. Moreover, because the Mark Twain and Green Sands roads are  
 36 private and lack an organized road corporation, many of the roads are overgrown and impassable. The  
 37 streets in Ocean View are largely structured in a grid pattern of large blocks, which offers reasonable  
 38 connectivity but limited options for pedestrians or bicyclists.

Figure 8: Regional Transportation Network in Ka'ū



1 **Roads in Limbo:** Roads in limbo (RIL) are existing road segments owned by the County or State but that  
 2 are neither County nor State roads. The County has agreed to maintain RIL, and County Resolution 320-  
 3 10 resolved to have the Department of Public Works (DPW) partner with communities to provide road  
 4 maintenance material from County-owned quarries for the purpose of maintaining RIL.

5 The County has identified nine existing roads in limbo segments in Ka’ū (not including paper roads),  
 6 extending a total of 9.6 miles:

- 7 ▪ Road segments off of South Point Road, including
  - 8 ○ Schultz Road, which is regularly maintained by DPW
  - 9 ○ Satellite Road in Kamā’oa Homesteads
  - 10 ○ Paul Road in Kamā’oa Homesteads, which is regularly maintained by DPW, except for the 1.2
  - 11 miles at the end that are rough and uneven
- 12 ▪ A portion of Ka’alu’alu Road just beyond Green Sands subdivision, which is extremely rough
- 13 ▪ Portions of Kiolaka’a Road, including Young Road, which were recently paved by DPW
- 14 ▪ Punalu’u Sand Road, connected to Nīnole Loop Road at Punalu’u
- 15 ▪ A road segment in Wood Valley.

16 In the Department of Public Works’ 2010 Roads in Limbo Assessment Report, Paul Road and Satellite  
 17 Road were identified as priorities for repair.

18 **Mauka Road Access:** To access the mauka uplands, Ka’ū residents must generally travel to one end of  
 19 the district or the other and enter the Ka’alāiki Road through Pāhala or Nā’ālehu. From Ka’alāiki Road,  
 20 private, unpaved roads head mauka (see Appendix V4A).

21 **Trails:** Ka’ū has a shoreline trail open to the public that nearly extends through the entire district.  
 22 Appendix V4A identifies and maps pedestrian trail rights, the proposed Ala Kahakai system, and  
 23 recognized vehicular shoreline and mauka access.

24 **Mass Transit:** Transit service in Ka’ū is provided by the Hawai’i County Mass Transit Agency through its  
 25 Hele-On bus routes. Service from Ka’ū goes to either Hilo or Kona/Kohala. The Hilo route provides one  
 26 morning-early afternoon round-trip from Ocean View to Hilo and four round-trips daily between  
 27 Volcano and Hilo. Though drivers honor “flag stops” most anywhere, established stops in Ka’ū include  
 28 Ocean View (at a Park and Ride lot near Pohue Plaza), Wai’ōhinu (at the Wong Yuen Store), Nā’ālehu (at  
 29 the main commercial center, the park, and the school), Punalu’u (at the parking lot), and Pāhala (at the  
 30 commercial center). The Kona/Kohala route provides three morning departures daily, and one morning  
 31 and two afternoon returns. Two routes reach Mauna Kea Resort, and one stops at the airport. The  
 32 route begins in Pāhala and has stops in Nā’ālehu, Wai’ōhinu, and Ocean View.

33 The commute from Pāhala to the South Kohala resorts is approximately 3 hours one-way. There is also  
 34 an existing after-school route that enables students to participate in after-school activities.

35 Hawai’i County Coordinated Services for the Elderly and the HCEOC (Hawaii County Economic  
 36 Opportunity Council) provides on-demand shuttle service for the disabled

37 **General Plan Policies and Courses of Action**

38 **Road Network**

- 1   ▪ Policy 13.2.3(l): **Adopt street design standards that accommodate, where appropriate, flexibility in**  
2   **the design of streets to preserve the rural character of an area** and encourage a pedestrian-friendly  
3   design, including landscaping and planted medians.
- 4   ▪ 13.2.5.9.2 Courses of Action (Ka'ū)
  - 5       ○ (a) Continue to improve Māmalahoa Highway, realigning where necessary.
  - 6       ○ (b) Install culverts and construct drainage channels and other related improvements.
  - 7       ○ (c) **Encourage the improvement of substandard subdivision roads.**
  - 8       ○ (d) **Explore alternatives and means to establish an evacuation route through Hawaiian**  
9       **Ocean View Estates Subdivision** to Highway 11, in cooperation with the residents of Ocean  
10      View.
- 11  ▪ The General Plan's Transportation map includes the Highway 11 bypass referenced above, starting  
12   on the Hilo side of Nā'ālehu and extending to the Kona side of South Point Road.

### 13   **Mass Transit Policies**

- 14  ▪ 13.4.3(a): Improve the integration of transportation and land use planning in order to optimize the  
15   use, efficiency, and accessibility of existing and proposed mass transportation systems.
- 16  ▪ 13.4.3(b): Support and encourage the development of alternative modes of transportation, such as  
17   enhanced bus services and bicycle paths.
- 18  ▪ 13.4.3(d): Provisions to enhance the mobility of minors, non-licensed adults, low-income, elderly,  
19   and people with disabilities shall be made.

### 20   **Boat Launch Course of Action**

- 21  ▪ 13.3.5.7(a): Provide for general aviation and small boat harbor facilities and launching activities [in  
22   Ka'ū] as the need arises.

### 23   **Previous Planning**

24   **Past Community Planning:** The 2004 Draft Strategic Plan for the District of Ka'ū identified the following  
25   Courses of Action related to transportation:

- 26  ▪ Work with the National Park Service to eliminate 45 mph speed limit sections on Highway 19 within  
27   the Hawai'i Volcanoes National Park.
- 28  ▪ **Improve the section of Highway 19 between miles 58 and 59** to prevent closure after heavy rain.
- 29  ▪ **Open bypass roads** that can be used as diversions during closure of the Belt Road.
- 30  ▪ **Shelve plans for a Nā'ālehu bypass.**
- 31  ▪ **Improve Ka'alu'alu Road** to Green Sands subdivision to reduce accident dangers.
- 32  ▪ **Provide buses for evening trips** from Ka'ū to Hilo and Kona.
- 33  ▪ As the population of Ocean View grows, **provide a mini-bus service circulating around HOVE.**



1 **Rural Infrastructure Standards in the North Kohala CDP:** Strategy 4.8 of the North Kohala CDP charged  
 2 the County Planning Department and Department of Public Works with the development and  
 3 implementation of Rural Infrastructure Standards. Desirable features of rural infrastructure would  
 4 include neighborhood low speed roads with drainage down the center of pervious pavement  
 5 (preventing shoulder erosion), runoff routed to sedimentation ponds, road design following the  
 6 contours of the terrain (as opposed to “cookie-cutter” layout), wide grass shoulders for walkways and  
 7 trees, and underground utilities (additionally advantageous in hurricanes and storms, as well as  
 8 emergency relief efforts), and low profile minimal street lighting.

9 **State Transportation Planning:** In the Hawai‘i DOT Modernization Plan, Māmalahoa Highway is  
 10 designated to receive a bridge replacement at Hīlea Bridge and a rock fall stabilization project. As of  
 11 August 2012, the Final Environmental Assessment for the Kāwā highway drainage project was released,  
 12 so DOT can proceed with final permitting required to begin construction. Otherwise, this two-lane rural  
 13 highway is planned to remain more or less as-is, with a few minor improvements or repairs.

14 **Scenic Byway:** The County has designated Highway 11 and South Point Road as a Heritage Corridor, and  
 15 the State recently established the Ka‘ū Scenic Byway – The Slopes of Mauna Loa<sup>72</sup>. The byway includes  
 16 17 points of interest along Highway 11 between Manukā and Volcano.

17 Scenic Byways are “roads that tell a special story” and contribute to the legacy of Hawai‘i. Local byways  
 18 are sponsored by the Hawai‘i Department of Transportation (DOT) and facilitated locally by a  
 19 community sponsor that wishes to lead the preservation, protection and/or promotion of the byway  
 20 with a Local Advisory Committee and Corridor Management Plan. The Ka‘ū Chamber of Commerce  
 21 sponsors Ka‘ū’s byway.

22 Local byway sponsors and committees receive technical assistance and training from the State byways  
 23 program and the National Scenic Byway Program. The Federal Highways Administration also has an  
 24 Annual Discretionary Grant program corridor management, safety improvements, facilities, access  
 25 improvements, resource protection, interpretation, and marketing.

26 **County Capital Improvements:** Recent and planned County road improvement projects in Ka‘ū include:

- 27 ▪ Ka‘alāiki Road (Cane Haul Road) Improvements: The Department of Public Works recently improved  
 28 and paved County-owned segments. There are no plans for additional improvements.
- 29 ▪ Wood Valley Bridges: \$800,000 in County CIP funding was appropriated in Ordinance 10-60 to  
 30 replace four wooden bridges in Wood Valley with reinforced concrete bridges. The existing wooden  
 31 bridges are old and structurally substandard. Failure of any of the four bridges will cut off access to  
 32 the residences of Wood Valley as well as the Kapāpala Ranch bypass. The County is expected to  
 33 request an additional \$6,000,000 in CIP funding over the next three fiscal years to fund construction.  
 34 As of December 2012, the initial \$800,000 had not yet been allotted and will lapse on June 30, 2013  
 35 if not encumbered.



36 **Bicycle Transportation:** Hawai‘i DOT has created Bike Plan Hawai‘i<sup>73</sup>, a detailed manual describing  
 37 planned and preferred bicycle facilities in the State of Hawai‘i. In this plan, Highway 11 is listed as a  
 38 “Signed Shared Lane Facility” for the length of its traverse through Ka‘ū. This facility type simply means  
 39 that the highway has signs indicating that cyclists are sharing the roadway. By and large, there are few

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<sup>72</sup> <http://www.hawaiiscenicbyways.org/index.php/byway/kau-scenic-byway-the-slopes-of-mauna-loa>  
<sup>73</sup> <http://hidot.hawaii.gov/highways/bike-and-pedestrian-gateway/>

1 segments of this highway with paved shoulders or bike lanes. However, the traffic volumes on the  
2 highway are low enough, and sight lines are long enough, that cyclists may safely travel this road, in the  
3 travel lane, with no difficulty.

4 The Bike Plan calls for the following improvements in Ka'ū:

- 5 ▪ 82 miles of Māmalahoa Highway, from Hawai'i Volcanoes National Park to Captain Cook Village Rd  
6 (Kona): Signed, Shared Road; \$301,000
- 7 ▪ 12 miles of South Point Road: Signed, Shared Road; \$3.8M
- 8 ▪ 4 miles of Kamā'oa Road: Signed, Shared Road; \$1.3M.

## 9 **Tools and Alternative Strategies**


### 10 **Road Standards**

11 Section 13.2.4 of the General Plan establishes the following standards for new road construction:

- 12 ▪ (a) Primary Arterial: Includes major highways, parkways, and primary arterials that move vehicles in  
13 large volumes and at higher speeds from one geographic area to another; highest traffic volume  
14 corridor. Designed as a limited access roadway. Primary arterials shall have a minimum right-of-  
15 way of 120 feet.
- 16 ▪ (b) Secondary Arterial: A street of considerable continuity that is primarily a traffic artery between  
17 or through large areas; interconnect with and augment primary system. Designed as a limited  
18 access roadway. Secondary arterials shall have a minimum right-of-way of 80 feet.
- 19 ▪ (c) Major Collector: Any street supplementary to the arterial street system that is a means of transit  
20 between this system and smaller areas; used to some extent for through traffic and to access  
21 abutting properties; collect and distribute traffic between neighborhood and arterial system. Major  
22 collectors shall have a minimum right-of-way of 60 feet.
- 23 ▪ (d) Local Streets-commercial/industrial: Local streets within commercial and industrial areas shall  
24 have a minimum right-of-way of 60 feet.
- 25 ▪ (e) Minor Collector and Local Streets: Minor collectors are used at times as throughstreets and for  
26 access to abutting properties. The principal purpose of a local street is to provide access to property  
27 abutting the public right-of-way.

28 The transportation map in the General Plan identifies Māmalahoa Highway as an arterial and the  
29 following streets as collectors:

- 30 ▪ Pāhala: Kamani, Maile, Pikake, Pakalana, and Huapala
- 31 ▪ Punalu'u: Nīnole Loop Road
- 32 ▪ Nā'ālehu: Niu, Poha, Maia, Ohai, Kukui, Milo, Melia, Opukea, Kilika, Lokelani, and Nahele.

33 Sections 23-41 and 23-86 and 87 of the County's Subdivision Code establish minimum road right-of-way  
34 and pavement widths in feet, unless otherwise indicated on the County General Plan (see "Table 3: Road  
35 Standards"): 

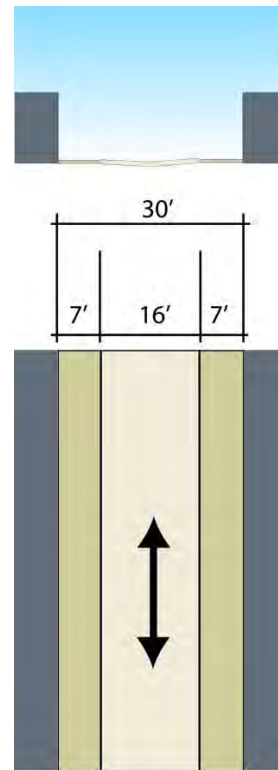
1 **Table 3: Road Standards**

Type of Street	Minimum Right of Way	Minimum Urban Pavement	Minimum Rural Pavement	Minimum Nondedicable Agricultural Pavement (for lots 3 acres or larger)
<b>Parkway</b>	300	24		
<b>Primary Arterial</b>	120	24		
<b>Secondary Arterial</b>	80	60	24	24
<b>Business &amp; Industrial Streets</b>	60	36	24	24
<b>Collector Streets</b>	60	24 (36 with curb & gutter)	20	20
<b>Minor Streets</b>	50	20 (32 with curb & gutter)	20	20
<b>Alleys</b>	20	20	20	20

2

- 1 In addition, the Fire Department requires a minimum 15 foot wide road for emergency vehicle access.
- 2 Because many of the streets in Pāhala, Nā'ālehu, and Wai'ōhinu were designed before these standards
- 3 were established, they may not conform.
- 4 The thoroughfare sections below have been prepared and calibrated based on existing streets in
- 5 Nā'ālehu and Pāhala, as well as walkable streets in other locations as appropriate. In thoroughfare
- 6 section shorthand, the first number is the right-of-way (ROW) width, and the second is the pavement
- 7 width.

**AL 30-16 Alley:** This alley was calibrated from an existing rear lane in Nā'ālehu; it also matches Hapu, Hala, and Hau Streets in Pāhala. It has 30 feet between building faces, 16 feet of pavement, and bi-directional traffic. It is appropriate in town center locations.



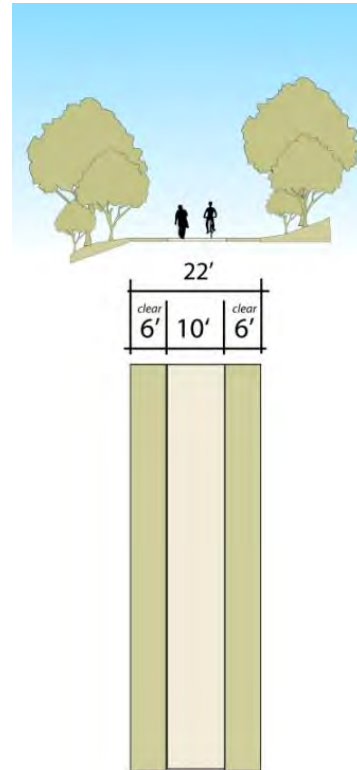
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1

### PA 22-10 Shared Use Path

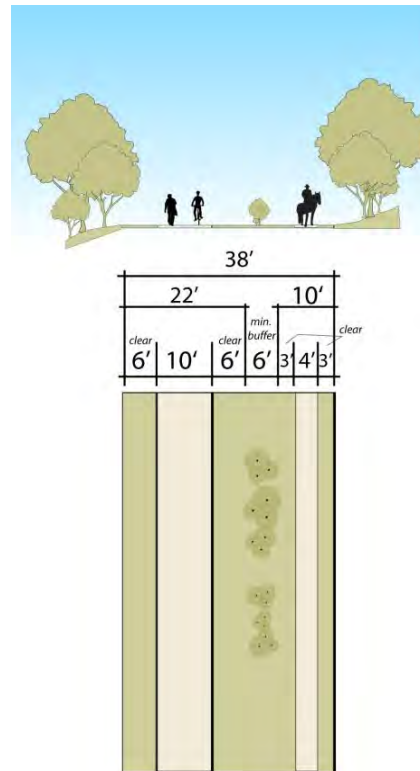
PA 22-10: This multi-use path is based on the standard American Association of State Highway and Transportation Officials (AASHTO) multi-use path prototype.



2

### PA 38-14 EQ Equestrian Multiuse Path

PA 38-14 EQ: During the charrette, several requests were made for paths that support equestrian travel. The Federal Highway Administration's (FHWA) Equestrian Design Guidebook indicates that the PA-22 trail may be shared by pedestrians and equestrians where conflicts are expected to be light but provides additional guidance for separated paths if needed. The PA 38-14 EQ is designed to these specifications, providing a 6 foot wide trail for pedestrians and cyclists to share, a 4 foot wide trail for horses, and appropriate clear zones.



3

4

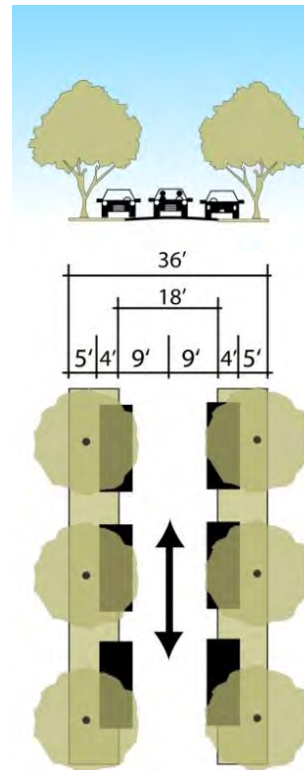
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### ST 36-18 9/9 Residential Yield Street

ST 36-18 9/9: This thoroughfare is calibrated from existing residential streets in Nā'ālehu. The 18 foot pavement is uncurbed, and vehicles park on the 4 foot shoulder, resulting in a yield travel condition.

Pāhala has similar streets, which were built in the early 1960s. Hinano, Lima, and portions of Pikake have a 40 foot ROW and 8 or 9 foot uncurbed paved travel lanes.

This walkable thoroughfare is most appropriate in town locations with short block faces (400 feet or less). Target speed is 15 mph.

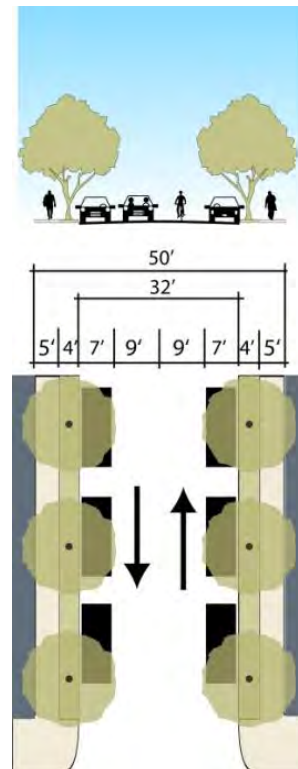


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### ST 50-32 7/9/9/7 Village Street

ST 50-32 7/9/9/7: This curbed thoroughfare is used extensively in historic and new traditional neighborhood development (TND) communities. Several minor collectors built in the 1960s in Pāhala have similar dimensions but do not have paved shoulders, curbs, or sidewalks (Huapala, Pakalana, Pumeli, Ohia, Lehua, Puahala, Kaoli, Liau, Keahi, and Kokio); they have a 50 foot ROW and 9-10 foot paved travel lanes. In the mid-1980s, Paauau Street and Place were built with a 50 foot ROW and 10 foot paved travel lanes – but with 6 foot paved shoulders and 9 foot paved swales on each side.

This thoroughfare as presented provides 7 foot parallel parking on both side of the street and two 9 foot travel lanes. It is most effectively used in alley-loaded blocks, as front-loaded blocks with driveways generally do not generate sufficient on-street parking, resulting in an overly wide street. If treewells are used instead of the 4 foot planting strip, this thoroughfare is also appropriate for lower-intensity locations (such as a B-grid street) or a neighborhood commercial street. Target speed is 20 mph.



3

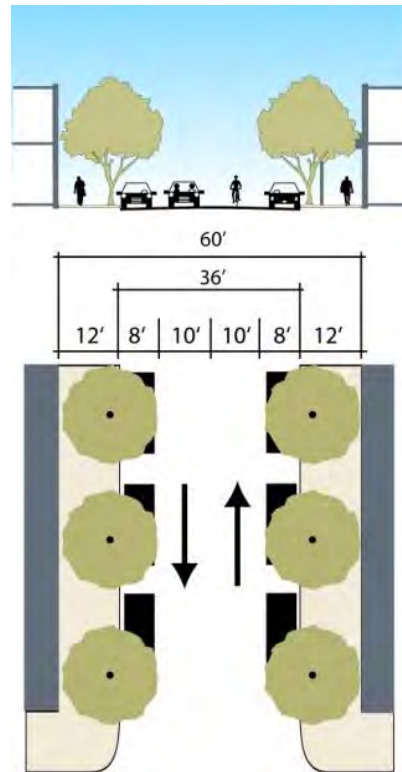
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### MS 60-36 8/10/10/8 Main Street

MS 60-36 8/10/10/8: This Town Center thoroughfare has two 8 foot parallel parking lanes and two 10 foot travel lanes. It includes 12 foot sidewalks and trees in treewells. Target speed is 25 mph, though if appropriately short block faces are used (400' or less), speeds should remain much lower. Intended for use in primarily commercial locations, such as a town center, this thoroughfare is wide enough to accommodate tractor-trailer delivery trucks, transit buses, and other large vehicles on a daily basis. This thoroughfare is most appropriate in the most urban portions of Ka'ū, most likely in an intensified Nā'ālehu or Pāhala town center at some point in the future.

Kamani Street in Pāhala is of a similar scale, with an 80 foot ROW and 12 foot paved travel lanes.



2

3

### 4 Alternate Routes

5 **Ka'alāiki Road**, also known as Cane Haul Road, runs roughly parallel to the Māmalahoa Highway but  
6 mauka of Pāhala and Nā'ālehu. During the charrette, Ka'alāiki Road was commonly cited as a potential  
7 alternate road to the Māmalahoa Highway, which is occasionally washed out after a storm or blocked by  
8 a crash.

9 Originally constructed to provide access to cane fields, this road features a 40 foot pavement in many  
10 places, though it has been severely encroached upon in many other places (it is only 18 feet clear near  
11 Nīnole Gulch, for instance). There are also several bridges, some as narrow as 14 feet (at Hīlea Gulch). A  
12 detailed engineering study of the road design cross-section was not conducted, but visual inspection  
13 indicates the road was designed to support heavy traffic and is generally well constructed.  
14 Unfortunately, it has been poorly maintained and is beginning to deteriorate through neglect (see  
15 "Figure 9: Potholes forming due to lack of maintenance on Ka'alāiki Road").

16 Most of the road is currently in private ownership. Based on County GIS records, only 10% of the road is  
17 in State or County ownership (8% and 2%, respectively). Ownership is summarized in "Table 4: Ka'alāiki  
18 Road Ownership". The rest is in private ownership, with 72% of the road owned by four different  
19 landholders (EC Olson, WWK Hawai'i, Kamehameha Schools, and Monica Mallick). The remaining 20% is  
20 divided between 8 other landowners. The ownership parcel map, per County GIS, is shown in "Figure  
21 10: Ownership Parcel Map of Ka'alāiki Road". Heavy black and green lines represent road alignment.

1 It is necessary to improve/repair Ka'alāiki Road for use as an alternative route to the Māmalahoa  
2 Highway. The County could prioritize the purchase and improvement of an access easement on the  
3 road and/or could require improvement and dedication of the road as a condition of permits for  
4 property along the road.

5 **Figure 9: Potholes forming due to lack of maintenance on Ka'alāiki Road**



6  
7 Taking the road through eminent domain would allow the entire road to be completed at once, or at  
8 least on a programmed phasing plan, but would be expensive. Construction and ROW costs, if the entire  
9 road were rebuilt, is estimated at \$5 million per lane-mile (based on the Infrastructure and Public  
10 Facilities Needs Assessment prepared in 2006, with cost per mile inflated from \$4.4 million to \$5  
11 million). Total construction cost for 14 miles is \$70 million.

12 However, the entire road may not need to be purchased or improved. The County could pursue the  
13 purchase of an access easement and program additional construction as the need and financing allows.  
14 This would open the road for access by conventional vehicles as an emergency access route or for scenic  
15 driving but would not improve it sufficiently to permit large-scale redevelopment.

16 Two possible thoroughfare sections for Ka'alāiki Road are provided, keeping it a scenic, rural, alternate  
17 route to the Māmalahoa Highway. With either section, it would remain usable as a diversionary or  
18 emergency route but will never be able to provide speed and ease of access comparable to the highway  
19 In comparison to the Māmalahoa Highway, both sections provide generous 9 foot bicycle lanes and  
20 could easily attract bicyclists wishing to tour from Nā'ālehu to Pāhala. There are already several  
21 locations along the road that would be of interest to visitors (cyclists or motorists), including coffee  
22 plantations, spectacular viewsheds, and access to other roads mauka and makai.

23

1 **Table 4: Ka'alāiki Road Ownership**

<b>Ka'alāiki Road Ownership</b>			
	<b>Owner Segment Length</b>		
<b>Landowner</b>	<b>Feet</b>	<b>Miles</b>	<b>% of Total</b>
<b>EC Olson</b>	21,700	4.11	30%
<b>WWK Hawai'i</b>	11,900	2.25	16%
<b>Kamehameha Schools</b>	11,640	2.20	16%
<b>Monica Mallick</b>	7,130	1.35	10%
<b>State of Hawai'i</b>	5,500	1.04	8%
<b>EWM Investments</b>	5,350	1.01	7%
<b>Pahanaka LLC</b>	2,345	0.44	3%
<b>County of Hawai'i</b>	1,700	0.32	2%
<b>Noel C Akamu</b>	1,700	0.32	2%
<b>Searle Bernice</b>	830	0.16	1%
<b>Hester Ellis</b>	830	0.16	1%
<b>Jeff John Silva</b>	790	0.15	1%
<b>Preacher Creek LLC</b>	790	0.15	1%
<b>Philip Becker</b>	500	0.09	1%
<b>Total</b>	<b>72,705</b>	<b>13.77</b>	<b>100%</b>

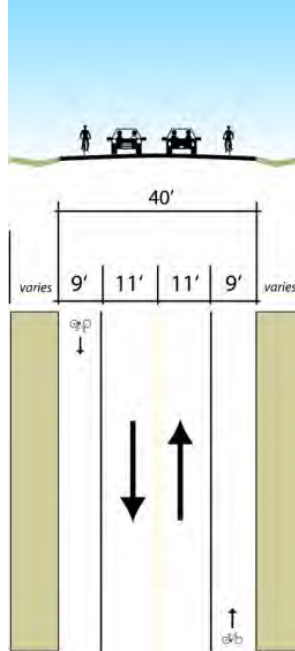
2 \*Based on County GIS Data – does not represent or replace survey data or estimates and should be used  
 3 for general planning purposes only. Site-specific survey needed for detailed design and analysis.

Figure 10: Ownership Parcel Map of Ka'alāiki Road



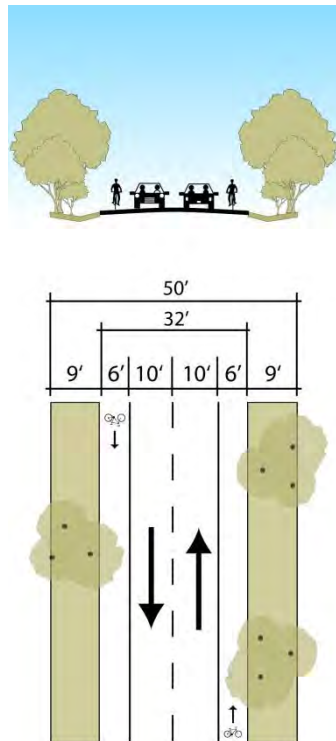
**RD 40-9/11/11/9 Ka'alāiki Road Rural Section**

RD 40 9/11/11/9: Based on the existing 40 foot paved dimension, this is the rural road design for Ka'alāiki Road. Despite the wide travel lanes for automobiles, the design speed for this rural road is only 35 mph, due to the mountainside condition and the curves required as the road follows the mountain terrain. Most of Ka'alāiki Road could be constructed or restored to this condition, but the ROW would be based on local conditions and would likely vary as conditions warrant. Sufficient room for stormwater drainage is provided.



**RD 50-32 6/10/10/6 Transitional Section**

RD 50-32 6/10/10/6: The RD 50-32 6/10/10/6 section provides a slower design speed of 25 mph due to a narrowing of the travel lanes and the entire roadway width, from 40 to 32 feet.



- 1
- 2 **Kapāpala Ranch Road** also serves as an alternate route when Highway 11 is closed. PA 22 Shared
- 3 Use Path along the existing road through Kapāpala Ranch, Wood Valley Road could be connected to

1 Māmalahoa Highway. In addition to providing faster emergency access to Wood Valley Road, the  
2 improvement would open Wood Valley Road for greater recreational access. The road has splendid  
3 viewsheds and will be attractive to bicycle and equestrian visitors. Currently, cyclists traveling the Belt  
4 Road must climb mauka into Pāhala, and then go back down makai to rejoin the Belt Road. A Kapāpala  
5 Ranch connection would provide a scenic and navigationally preferred route to or from Pāhala.

6 **Mauka-Makai Routes:** Over the ~11 mile stretch between Pāhala and Nā'ālehu, there is no established  
7 mauka-makai route connecting Māmalahoa Highway and Ka'alāiki Road. As with the possible Kapāpala  
8 Ranch alternate route, such connectors could serve both as emergency alternate routes and hiking,  
9 biking, and equestrian recreational paths. Depending on site-specific conditions, the PA 22-10 Shared  
10 Use Path or the PA 38-14 EQ Equestrian Multiuse Path may be appropriate.

11 There is at least one legal mauka access from Māmalahoa Highway at Kāwā. It might also be  
12 advantageous to connect existing shoreline access at Honu'apo and Punalu'u to routes mauka of the  
13 highway. Private roads already connect Honu'apo and Punalu'u with Hīlea.

14 There are also several gulches, including Honu'apo, Hīlea, Nīnole, Punalu'u, and Moa'ula. As noted in  
15 Appendix V4A, paths could be established along those riparian corridors.

16 **Village and Town Connectivity**

17 If transportation connections are sparse, then travel between locations requires more time, and people  
18 spend more time traveling and less time visiting family, going fishing or hunting, hiking, or otherwise  
19 enjoying life. Moreover, in the event of an emergency, there are fewer options to evacuate or choose  
20 alternate routes, and rescuers have fewer routes to reach those who need help.

21 Limited transportation connections also generates greater vehicle miles of travel (VMT) compared to a  
22 rich, diverse network. Planners use VMT as one measurement of travel impacts because vehicle miles of  
23 travel can be converted into hours of travel (using an average travel speed) as well as into pounds of  
24 pollutants and volumes of greenhouse gases created by automobile travel.

25 With additional connectivity, travel times and VMT are reduced because we there are more direct  
26 routes to our destinations. When the network include trails and paths as well as conventional streets  
27 and roads, there are options of going by human-power or horse, for even more sustainable  
28 transportation.

29 **Subdivision Code:** Section 23-28ff of the County's Subdivision Code establishes the following block  
30 design parameters:

- 31 ▪ Block design: The lengths, widths, and shapes of blocks shall be designed with regard to providing  
32 adequate building sites suitable to the use contemplated, needs for convenient access, circulation,  
33 control, and safety of street traffic, and limitations and opportunities of topography.
- 34 ▪ Block sizes: Blocks shall not exceed two tiers of lots in width and thirteen hundred feet in length,  
35 except for blocks adjacent to arterial streets or when the previous adjacent layout or topographical  
36 conditions justify a variation. Blocks shall not be less than four hundred feet in length. The desired  
37 length for normal residential blocks is from eight hundred to one thousand feet. When the layout is  
38 such that sewers will be installed or easements for future sewer lines are provided along rear lot  
39 lines, the block should not exceed eight hundred feet in length.
- 40 ▪ Pedestrian ways: In any block over seven hundred fifty feet in length, the director may require  
41 creation of a pedestrian way to be constructed to conform to standards adopted by the department



1 of public works at or near the middle of the block. If unusual conditions require blocks longer than  
2 thirteen hundred feet, two pedestrian ways may be required. The pedestrian way shall be  
3 dedicated for public use and shall have a minimum width of ten feet.

4 Section 23-40 of the County’s Subdivision Code provides the following requirements for street  
5 connectivity: The location, width, and grade of a street shall conform to the County general plan and  
6 shall be considered in its relation to existing and planned streets, to topographical conditions, to public  
7 convenience and safety, and to the proposed use of land to be served by the street. Where the location  
8 is not shown in the County general plan, the arrangement of a street in a subdivision shall either:

- 9 ▪ Provide for the continuation or appropriate projection of existing principal streets in surrounding  
10 areas; or
- 11 ▪ Conform to a plan for the neighborhood which has been approved or adopted by the director to  
12 meet a particular situation where topographical or other conditions make continuance or  
13 conformance to existing streets impractical.



14 **Kona CDP Connectivity Standards:** The Kona CDP includes alternative connectivity standards.  
15 Specifically, within the Kona Urban Area (UA), new development shall contribute to this interconnected  
16 transportation network of streets, pedestrian, and bicycle access that work to disperse traffic and  
17 connect and integrate new development with the existing fabric of the community. Proposals for new  
18 development or redevelopment within Kona’s UA shall meet the following connectivity standards:

- 19 ▪ **Maximum Block Size.** In lieu of HCC section 23-29(c), the maximum length of blocks for  
20 predominantly residential subdivisions shall be 800 feet, unless unfeasible due to natural  
21 topography, protected resources, or surrounding development patterns.
- 22 ▪ **Connection to Adjoining Development.** The road system for new development shall contribute to  
23 the local transportation network. To supplement HCC section 23-40, at a minimum, new  
24 subdivisions shall incorporate and continue all collector streets, and selected local streets to  
25 adjoining property. If a portion of the stub-out is not improved, the current developer shall improve  
26 the stub-out portion. Connection to adjoining properties may not be required if seriously  
27 constrained by topography or other physical hindrances, or in cases where through travel cannot  
28 occur because the property is bounded by development with private streets previously allowed.
- 29 ▪ **Gated Entry.** In the Kona UA, gates will be prohibited across new roadways identified to service the  
30 local transportation network.
- 31 ▪ **Cul-de-sacs Discouraged.** Cul-de-sacs are discouraged based on Policy TRAN-2.1 (1) Maximum Block  
32 Size and Policy TRAN-2.1 (2) Connection to Adjoining Property unless construction of a through  
33 street is found to be impracticable. Where cul-de-sacs or dead-end streets are allowed, they shall  
34 meet the prevailing standards in the Chapter 23 Subdivision Code.
- 35 ▪ **Future Extensions.** Roads serving future transportation interconnectivity will be identified for any  
36 proposed subdivision located adjacent to a vacant parcel. To supplement HCC section 23-44, where  
37 necessary to give access to or permit a satisfactory future subdivision of adjoining land, or to  
38 conform with the Official Transportation Network Map, a street stub-out or pedestrian path  
39 improved to the boundary is required unless financially guaranteed to enable the County to  
40 coordinate the stub-out construction as a regional project or in coordination with the development  
41 of the adjoining property. Applicants submitting preliminary development plans shall provide for

1 extension of selected local streets to adjoining undeveloped properties and eventual connection  
2 with the existing street system. Within phased subdivisions, temporary stub-outs shall be required.

3 ▪ Connectivity. In the Kona UA, all new roads that will serve as part of the interconnecting roadway  
4 system shall be dedicated to the County.

5 Along those lines, the Ka'ū CDP could provide clear, place-based connectivity standards that so that new  
6 roads contribute to the existing transportation network of streets, pedestrian, and bicycle access and  
7 integrate new development with the existing fabric of the community. In Pāhala, Nā'ālehu, and  
8 Wai'ōhinu, and block sizes should be comparable to those already established, which are ~2,000-2,700  
9 feet in perimeter in Pāhala and ~2,400 feet or less in Nā'ālehu. Pursuant HCC section 23-29(c), in Pāhala  
10 and Nā'ālehu, blocks should not exceed 800 feet in length to accommodate future sewer connections.

### 11 **Scenic Corridor**

12 For many of the same reasons that a Scenic Byway was recently established in Ka'ū, a Scenic Corridor  
13 could also be established, pursuant HCC section 25-6-60. For transportation corridors that require a  
14 comprehensive planning approach, the Hawai'i County Council may, by ordinance, establish all or  
15 portions of public roadways and an appropriate portion of the adjacent property as a scenic corridor.  
16 Within scenic corridors, all permitted uses defined by the underlying zoning classification remain in  
17 place unless otherwise specified by the scenic corridor enabling ordinance.

18 Any standards and conditions not included in the underlying zoning related, but not limited, to signage,  
19 lighting, design standards, access management, landscaping, parking, height, historic and cultural  
20 preservation, view planes, and/or setbacks, must be included as part of the scenic corridor management  
21 plan and adopted by scenic corridor enabling ordinance by the Council. The scenic corridor  
22 management plan must demonstrate the need for the adoption of special standards and conditions in  
23 order to preserve, maintain, protect, or enhance the intrinsic character of the corridor.

24 A scenic corridor may only be established if the proposed district meets the following criteria:

- 25 ▪ (1) Is consistent with the intent and purpose of the Zoning Code and the County General Plan.
- 26 ▪ (2) Will not result in a substantial adverse impact upon the surrounding area, community and/or  
27 region.
- 28 ▪ (3) Will enhance Hawai'i County's significant natural, visual, recreation, historic and/or cultural  
29 qualities.
- 30 ▪ (4) Will protect and enhance the attractiveness of Hawai'i County to make it a better place to live,  
31 work, visit, and/or play.
- 32 ▪ (5) Will improve Hawai'i County's economic vitality by enhancing and protecting our unique natural,  
33 scenic, historic, cultural, and/or recreational resources.
- 34 ▪ (6) Is located on a major or minor arterial highway, or collector road.
- 35 ▪ (7) Significantly possesses at least one of the following intrinsic qualities: scenic, natural, historic,  
36 cultural, archaeological, recreational, or demonstrates local, private, and public support and  
37 participation.

38 Steps for establishing a scenic corridor include:

- 1   ▪ The Planning Director or Council introduces a resolution to initiate the establishment of a scenic  
2   corridor.
- 3   ▪ Notice is served to all owners and lessees of property within 300 feet of the proposed corridor.
- 4   ▪ Within 24 months of the adoption of the resolution, the Planning Director or a corridor advocacy  
5   group identified in the resolution completes a corridor management plan and enabling ordinance. A  
6   scenic corridor management plan is a written document that assesses the intrinsic qualities of the  
7   corridor and specifies actions, procedures, controls, and administrative as well as community  
8   strategies that will be pursued to maintain those qualities.
- 9   ▪ Within 120 days, the Planning Commission reviews the proposed plan and ordinance, holds a public  
10   hearing, and makes a recommendation to Council.
- 11   ▪ The Council may adopt the plan by ordinance, with or without conditions.

12 After adoption of a scenic corridor enabling ordinance and corridor management plan, all approvals  
13 including, but not limited to sign permits, grading and grubbing permits, building permits, and  
14 subdivision approvals shall conform to the standards and conditions contained in the scenic corridor  
15 enabling ordinance.

16 **Active Transportation**

17 A recent study<sup>74</sup> by the Rails to Trails Conservancy<sup>75</sup> examined “active transportation” in rural areas and  
18 small towns. Active transportation is human-powered mobility, including biking and walking. It has  
19 been repeatedly shown that people who live in communities where it is safe and convenient to engage  
20 in active transportation enjoy better overall health, greater economic opportunities, a cleaner  
21 environment, lower energy bills, and numerous personal and social gains associated with a strong sense  
22 of community.

23 This study’s findings challenged the conventional wisdom that people in rural areas walk and bike less  
24 than people in urban areas. In most cases, rates of bicycling and walking in rural communities are not  
25 dramatically different from that of large cities. Biking and walking count as significant means of  
26 transportation all across the countryside.

27 And when it comes to work, residents of certain kinds of rural communities walk and bike almost as  
28 much (and in a few cases, even more) as residents of cities and inner suburbs. Within small towns of  
29 2,500 to 10,000 residents, people walk for work purposes (both commuting and during work) at a rate  
30 similar to cities and close-in suburbs and nearly double that of urban centers.

31 Active transportation creates more jobs per dollar than highway projects, and attracts business  
32 investment. Opportunities for people to bike and walk can transform a community’s economic picture,  
33 as a string of towns along the Root River State Trail in far southeastern Minnesota discovered.  
34 Lanesboro (population: 750), which was fast becoming a ghost town before the state built the trail on an  
35 out-of-service rail line, now reaps a \$1.5 million yearly dividend from bike riders and other trail users,  
36 and has seen many new businesses open on its now-thriving Main Street. Other communities along the  
37 60-mile trail network have seen similar gains.

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<sup>74</sup> <http://www.railstotrails.org/ourWork/reports/beyondurbancenters.html>

<sup>75</sup> [www.railstotrails.org](http://www.railstotrails.org)

1 Rural areas receive almost twice as much funding per capita as urban areas from the federal  
2 Transportation Enhancements (TE) program<sup>76</sup>. Transportation Enhancements, which has been the  
3 nation’s primary source for funding trails, bicycling and walking infrastructure for 20 years, also  
4 improves local communities by preserving historic landmarks, creating safe and attractive streets and  
5 otherwise mitigating problems created by roadways. The TE program is being replaced by the  
6 Transportation Alternatives Program (TAP).

7 **Bicycle Transportation**

8 Bicycles are best accommodated as part of the traffic on town, village, and rural roads rated 25 mph or  
9 lower. Bike lanes are not necessary and are out of character on rural streets that lack curbs and gutters.

10 On the rural roads, such as the possible new sections for Ka’alāiki Road, paved shoulders or bike lanes  
11 are indicated in the proposed thoroughfare sections. On these roads, even though speeds are expected  
12 to be 35 mph or less, sight lines may be more difficult to maintain, so bike lanes are required.

13 **Potable Water**

14 **Resources and Challenges**

15 **Department of Water Supply:** The County Department of Water Supply (DWS) has two separate water  
16 systems in the Ka’ū District, the Nā’ālehu-Wai’ōhinu system and the Pāhala system (see Figure 2 in  
17 Appendix V3). The Nā’ālehu-Wai’ōhinu system is one of the smaller of the DWS’ water systems in terms  
18 of both production (average 0.4 million gallons per day (mgd) in 2003) and number of connections (778).  
19 It is fed by the Mountain House Tunnel and Haa Spring sources. The Pāhala system is even smaller  
20 than Nā’ālehu-Wai’ōhinu in terms of both production (average 0.2 mgd in 2003) and number of  
21 connections (480).

22 **Ocean View Water System:** The Hawaiian Ocean View Estates (HOVE) Water System was activated for  
23 public use on July 5, 2012. This publicly-funded \$6.4 million water system is comprised of a well, storage  
24 tank, transmission pipeline, and fill station. In 2006, \$6,000,000 in appropriated State funds were  
25 released to the County of Hawai’i Mayor’s Office for the design and construction of a water system in  
26 the Ocean View area. Additionally, the Mayor’s Office supplemented another \$400,000.00 in County  
27 funds to upsize the reservoir from 100,000 gallons of storage capacity to 300,000 gallons. The Fire  
28 Department also contributed \$15,000.00 for the installation of a fire hydrant for their use in the event of  
29 an emergency. In lieu of outsourcing the project administrative services, the Mayor’s Office requested  
30 assistance from the DWS to oversee the design and construction of this project, which took place from  
31 July 2007 through June 2012. This resulted in a savings of approximately 5-10% of the total cost.

32 This facility accommodates both public and private water users every day from 7:00 a.m. to 7:00 p.m.  
33 The Department of Public Works, County of Hawai’i, pays for water used at the six (6) public water  
34 spigots at no cost to the users while the standpipe facility provides service to 10 private customers for  
35 water hauling and/or delivery services. The DWS operates and maintains the water system  
36 infrastructure and the Department of Public Works maintains the fill station site.

37 **Catchment:** Approximately one third of the District’s population is served by private individual rainwater  
38 catchment systems. Because some areas receive as little as 20 inches of rainfall per year, residents must

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<sup>76</sup> [http://www.fhwa.dot.gov/environment/transportation\\_enhancements/;](http://www.fhwa.dot.gov/environment/transportation_enhancements/)  
<http://www.enhancements.org/profile/HIprofile.php>

1 often pay to truck water to fill their tanks. More information about water and catchment systems in  
 2 specific subdivisions is included in the [Ocean View](#) and [Discovery Harbour](#) sections below.

3 **General Plan Policies and Courses of Action**

- 4 ▪ Policy 11.2.2(a): Water system improvements shall correlate with the County’s desired land use  
 5 development pattern.

6 **Courses of Action**

- 7 ▪ 11.2.4.8.2(a): Provide additional water system improvements for the currently serviced areas of  
 8 Nā’ālehu, Wai’ōhinu, and Pāhala.
- 9 ▪ 11.2.4.8.2(b): **Pursue groundwater source investigation, exploration and well development at**  
 10 **Ocean View, Pāhala, and Wai’ōhinu.**
- 11 ▪ 11.2.4.8.2(c): Continue to evaluate growth conditions to coordinate improvements as required to  
 12 the existing water system.
- 13 ▪ 11.2.4.8.2(d): **Investigate alternative means to finance the extension of water systems to subdivi-**  
 14 **sions that rely on catchment.**

15 **Previous Planning**

16 **Department of Water Supply Plans and Policies:** The Department of Water Supply (DWS) is a semi-  
 17 autonomous agency of the County of Hawai’i that operates by the Rules and Regulations adopted by the  
 18 Water Board. Members of the Water Board are nominated by the Mayor and confirmed by the County  
 19 Council.

20 The Department is not supported by tax revenues. As a semi-autonomous agency, the DWS operates  
 21 and maintains its water systems with revenues generated wholly through water rates paid by DWS  
 22 customers.

23 The primary function of the DWS is to provide safe, affordable domestic water service through its 22  
 24 water systems and 67 sources scattered throughout the island. Its focus, therefore, is on maintaining  
 25 and upgrading its own existing water systems. DWS projects are prioritized according to: safety needs,  
 26 compliance with EPA regulations, improvements to operational efficiency (leaks and repairs), and DWS  
 27 standards.

28 The Water Board endeavors to keep rates affordable, and any proposed rate increase requires an in-  
 29 depth study, public hearings, and the approval of the Water Board. Consequently, in order to control  
 30 costs, the DWS has to act in a financially responsible manner. DWS will typically only take over an  
 31 existing system if it already meets the Department’s Water System Standards and if the revenue it will  
 32 generate pays for operations and maintenance of the system. Similarly, the DWS normally only assumes  
 33 debt service for system improvements when revenues received will cover capital costs, operations, and  
 34 maintenance.

35 The cost of expanding existing water systems or constructing new water systems can be very high  
 36 relative to the revenues gained by adding new customers and doing so could lead to significant rate  
 37 increases for all of its customers. The DWS typically only expands its existing system capacity when  
 38 replacing and upgrading infrastructure. Generally, DWS leaves the expansion of water systems and  
 39 creation of new water systems to developers, who pay for the infrastructure improvements through a

1 portion of their land sales, or to communities forming improvement districts, which finance the  
2 improvements to enhance living conditions for the community as well as increase their land values.

3 The DWS updated its Water Use and Development Plan in 2010. Based on the General Plan population  
4 projections, the projected water demand for Ka'ū's two public water systems is expected to grow at an  
5 annual average rate of 1.8%. Based on this growth rate, the projected demand at year 2025 is 0.645  
6 mgd for Nā'ālehu-Wai'ōhinu and 0.302 mgd for Pāhala. Proposed DWS capital improvement projects for  
7 these two systems to meet the needs to 2025 include:

- 8 ▪ Source development: A test well in Wai'ōhinu was unsuccessful. Pāhala Well No. 2 is complete. A  
9 new South Point Well is planned far in the future.
- 10 ▪ Additional storage capacity: A Wai'ōhinu Homestead Tank would increase some capacity. A  
11 Discovery Harbour Offsite Tank is also planned to serve Discovery Harbour. Replacement of  
12 Discovery Harbour Tanks No. 3 & 4 is planned far in the future.
- 13 ▪ Pipeline replacement and booster system improvements: The Nā'ālehu booster MCC building  
14 received an upgrade. Pāhala waterlines are replaced as needed.

15 These capital improvements will not increase system capacity and do not include any plans to expand  
16 the County system to serve areas currently relying on water catchment. The DWS does not plan to  
17 develop any water projects in Ka'ū outside of the existing service areas because revenues from a new  
18 system would not cover the construction, operating, and maintenance costs. In particular, the DWS has  
19 no current plans to upgrade the South Point line due to extremely high cost relative to the number of  
20 customers. With support from DHHL, South Point waterline replacement could possibly occur by  
21 sections to serve existing customers.

22 However, the DWS is willing to help support community efforts by providing technical support. A rough  
23 estimate for a source, storage, transmission, and distribution system is from \$15,000 to \$25,000 per lot.  
24 Although the facilities charges collected by the DWS cannot cover these costs, the DWS has innovated  
25 with other cost-sharing financial sources such as U.S. Department of Agricultural grant/loan programs  
26 coupled with improvement districts to find feasible alternatives to expand the water system to  
27 catchment areas. In addition, the DWS could provide support if a community develops a community  
28 facilities district or improvement district with, for example, preliminary conceptual design and  
29 preliminary estimation of engineering costs, overall construction management and administration, DWS  
30 inspectors for construction inspections, and credits applied to the facilities charge required for each unit  
31 of water. The credit amount is based on which water system facilities are constructed.

32 As noted above, changes of zone and subdivisions require water systems. When reviewing applications,  
33 the Planning Department requests a determination of water availability from the DWS. **Determinations  
34 of water availability must be made on a case-by-case basis** by the DWS engineering division and must  
35 take into account various factors, including, but not limited to:

- 36 ▪ Is the parcel within the Department's pressure service zone or "Out of Bounds"?
- 37 ▪ What is the general water availability in the subject pressure service zone?
- 38 ▪ Is the parcel a pre-existing lot of record (PLOR)? If not, what was the PLOR?
- 39 ▪ Has there been a change of zone previously?
- 40 ▪ Has there been a subdivision previously?


- 1   ▪ Is the meter located on a private, County, or State road?
- 2   ▪ Are permits or easements required?
- 3   ▪ Is there meter or service lateral overcrowding at the location where the service would originate?
- 4   ▪ Are there existing services and is there overuse of water by existing services?
- 5   ▪ Is there remaining capacity in the pipeline to be tapped?
- 6   ▪ Would there be pressure issues at any location within the parcel requiring an “Elevation Agreement”?
- 7
- 8   The current water availability in areas of Ka’ū is generally as follows **but is subject to change without**
- 9   **notice:**
- 10  ▪ Below the Haa Spring, no service is available above 2,208 feet elevation, which is the pressure
- 11  service zone established by the overflow elevation (2,308 ft.) of a small reservoir supplied by the
- 12  Haa Spring.
- 13  ▪ On the 4” pipe from Haa Spring to South Point, no new water services or additional water units are
- 14  available. Any additional services would be detrimental to existing customers.
- 15  ▪ Residential lots within Discovery Harbour were each provided with water service laterals and are
- 16  allotted one water unit each, even if the land is not currently occupied. Water is not available for
- 17  further subdivision or for more than one water unit per lot.
- 18  ▪ In Wai’ōhinu and the Mark Twain subdivision, water is typically available for up to two units of water
- 19  per pre-existing lot of record for properties fronting existing waterlines based on existing zoning.
- 20  Water is not available for new changes of zone. Properties not fronting waterlines as of 7/13/12 are
- 21  limited to one unit of water even if water mains are newly extended to front the properties.
- 22  Unserved parcels in Mark Twain may not be able to get service from Wakea Avenue depending on
- 23  the crowding of meters at the intersections from which the customer would need to run a private
- 24  waterline. When a meter does not front the property served, then the DWS requires the applicants
- 25  to sign an “Out of Bounds” agreement acknowledging that they are entirely responsible for their
- 26  private waterline beyond the meter location.
- 27  ▪ In the areas south of the existing Discovery Harbour, Mark Twain, and Green Sands subdivisions,
- 28  subdivision is generally allowed for existing zoning but changes of zone are not. Only two water
- 29  units are typically available for subdivision.
- 30  ▪ The only possibility for new water services in Green Sands is to come off the highway somewhere
- 31  near, but not at, the Ka’alu’alu Road intersection. The potential customer would need to secure an
- 32  easement from a landowner abutting the highway allowing the installation of a meter and a private
- 33  line across the property. In addition, if the private line will run along the Ka’alu’alu Road right-of-
- 34  way, then the customer must secure a County permit. Likewise, if the private line will run alongside
- 35  private property, legal easements are required from those property owners. “Out of Bounds”
- 36  agreements with the DWS are required in these instances, and only one service per pre-existing lot
- 37  of record is available.


1     ▪ In Nā'ālehu east of the tank, water is typically available for up to seven units of water per existing lot  
2     based on existing zoning. Pressure service in this area extends up to an elevation of 783 feet, so  
3     water service is not available at higher elevations. Water is not available for new changes of zone.


4     ▪ In Pāhala, water is typically available for up to seven units of water per pre-existing lot of record.  
5     Water is typically available for new changes of zone.


6     An Equivalent Unit of Water (EU or "unit") allows an average day usage of up to 400 gallons per day with  
7     a maximum day usage of 600 gallons per any one day. One EU of water is generally considered suitable  
8     for a single family residence and is typically allowed to serve one residence only.

9     **County Capital Improvements:** Recent and planned County (not DWS) water system improvement  
10    projects in Ka'ū include:

11    ▪ Ocean View Business District Water Infrastructure Improvements: \$5,760,000 were appropriated in  
12    Ordinance 12-152 and will lapse on June 30, 2015. This project would create the redundant source  
13    required to dedicate a water system to the DWS, which would allow for the installation of service to  
14    lots abutting the water line. 

15    ▪ Green Sands Subdivision Water Infrastructure Improvements: \$1,545,000 were appropriated in  
16    Ordinance 12-153 and will lapse on June 30, 2015. This project would install a waterline down  
17    Ka'alu'alu Road so that private lines could be run into the subdivision. An additional source and  
18    water tank will likely still be needed to accommodate the additional services. 

19    ▪ Ka'ū Water Source and Storage Expansion Project: \$10,640,000 were appropriated in Ordinance 12-  
20    161 and will lapse on June 30, 2015. The goals of this project are to increase storage capacity and  
21    replace leaking waterlines in the Wai'ōhinu and South Point areas. 

22    ▪ South Point Road Water Infrastructure Expansion Project: \$9,900,000 were appropriated in  
23    Ordinance 12-87 and will lapse on June 30, 2015 if not encumbered. 

24    As part of its [Innovative Readiness Training](#) (ANG IRT), the Air National Guard may be in a position to  
25    assist with some of these projects.

26    **Department of Hawaiian Homelands:** DHHL beneficiaries identified the need for the water system to be  
27    improved to meet their homesteading needs and for fire suppression. The regional plan for Ka'ū  
28    identifies two water-related priorities:

29    ▪ Increased transmission of water into Kalae

30    ▪ Source development is needed to access the substantial groundwater resources (An exploratory well  
31    in the South Point area was brackish).

32    It also calls first for a Kamā'oa Pu'u'eo Water Master Plan, which would:

33       1. Determine the amount of water necessary to meet the needs of current and proposed uses in  
34       Kamā'oa Pu'u'eo.

35       2. Access the availability of water and/or identification of a water source.

36       3. Determine the feasibility of utilizing the former military barracks water system (storage and  
37       conveyance).



- 1        4. Prepare preliminary engineering costs for necessary source development, water conveyance
- 2        and storage to meet water requirements.
- 3        5. Consult with U.S. Department of Agriculture-Rural Development (USDA-RD) to determine if
- 4        project is eligible for funding.
- 5        6. Consult with County of Hawai'i Department of Water Supply regarding hybrid system
- 6        development.
- 7        7. Assess and evaluate alternatives.

8        **Solid Waste and Wastewater**

9        **Resources and Challenges**

10       The County has transfer stations at Wai'ōhinu and Pāhala and plans to construct a new transfer station

11       at Ocean View. In the interim, the County is providing a temporary rubbish transfer station for

12       household trash at Kahuku Park. The trash collected at the transfer stations is hauled to the Hilo

13       Landfill.

14       Wastewater systems connected to gang cesspools serve a portion of the homes in Pāhala and Nā'ālehu.

15       The County has assumed responsibility for the systems and is planning the construction of wastewater

16       treatment plants that will enable closure of the gang cesspools.

17       A private system serves the development at Punalu'u.

18       **Hawai'i Department of Health (DOH), Wastewater Branch**

19       The Wastewater Branch administers the statewide engineering and financial functions relating to water

20       pollution control, including individual wastewater systems program. The various program activities

21       include the review and approval of all new wastewater systems, including cesspools and septic tanks.

22       New cesspools are restricted in Hawai'i and are prohibited in designated critical wastewater disposal

23       areas (CWDA) on all islands, where the disposal of wastewater has or may cause adverse effects on

24       human health or the environment due to existing hydrogeological conditions. New cesspools require

25       the approval of the Director of DOH, and large-capacity cesspools (i.e., those designed to serve 20 or

26       more people per day) have been banned.

27       DOH Wastewater Branch has identified the following zones to guide its regulation applications for new

28       disposal systems:

- 29       ▪ Critical Wastewater Disposal Area (CWDA): All lots within this designated area are subject to the use
- 30       of a septic tank system approved by DOH.
- 31       ▪ Cesspool -1: Cesspools are not allowed for lots less than one (1) acre in size.
- 32       ▪ Cesspool - 5: Cesspools are not allowed for lots less than five (5) acres in size.
- 33       ▪ Non-CWDA - Cesspools are allowed.

34       Pursuant HAR 11-62-05, CWDA zones are identified based on one or more of the following concerns:

- 35       ▪ (1) High water table;
- 36       ▪ (2) Impermeable soil or rock formation;

- 1   ▪ (3) Steep terrain;
- 2   ▪ (4) Flood zone;
- 3   ▪ (5) Protection of coastal waters and inland surface waters;
- 4   ▪ (6) High rate of cesspool failures; and
- 5   ▪ (7) Protection of groundwater resources.

6 For [subdivisions](#) of 50 or more single family lots, the DOH Wastewater Branch requires a centralized  
 7 wastewater treatment system. Otherwise, individual wastewater systems are permitted according to  
 8 the zone in which the subdivision is proposed.

9 Ka'ū's villages, towns, and subdivisions are within those zones as follows:

- 10   ▪ Pāhala: Non-CWDA
- 11   ▪ Punalu'u: CWDA, except for the subdivision mauka of the highway, which is Non-CWDA.
- 12   ▪ Nā'ālehu: Non-CWDA
- 13   ▪ Wai'ōhinu: Non-CWDA
- 14   ▪ Discovery Harbour, Mark Twain, and Green Sands: Non-CWDA
- 15   ▪ HOVE: Cesspool -5
- 16   ▪ Ocean View Makai: Non-CWDA.

17 **General Plan Course of Action**

- 18   ▪ 10.5.4.8.2(a): A solid waste transfer station should be established for Ocean View.

19 **Previous Planning**

20 **Past Community Plans:** The 2004 Draft Strategic Plan for the District of Ka'ū includes the following  
 21 Courses of Action:

- 22   ▪ Construct a Solid Waste Transfer Station in Ocean View as a high priority.
- 23   ▪ Develop a viable plan to relieve residents of an impossible burden to meet the federal mandate to  
 24 eliminate ganged cesspools.

25 **County Capital Improvements:** Recent and planned County solid waste projects in Ka'ū include:

- 26   ▪ Ocean View Transfer Station: The land allocation process is complete, and right-of-way access is  
 27 being secured through the State Department of Transportation. Design work is expected to begin  
 28 soon, and construction is expected to begin in fall of 2013. \$550,000 has so far been allotted for this  
 29 project.
- 30   ▪ Wai'ōhinu Transfer Station: Reconstruction is planned, and funding is being sought to at a minimum  
 31 replace the decaying wall. This site is considered the best choice to consolidate loads so as to  
 32 reduce the number of truck trips to and from Ka'ū.

1   ▪ Pāhala Transfer Station: Improvements are planned for the recycling area but are not currently  
2 funded.

3   ▪ Pāhala and Nā’ālehu Wastewater Treatment: \$17,548,000 in CIP funding has been appropriated for  
4 the new wastewater systems in Pāhala and Nā’ālehu. It is anticipated that the project will go to bid  
5 sometime in 2013.

6   The project will include land acquisition and installation of new sewer pipes and sewer treatment  
7 plants. These communities are currently served by large capacity cesspools, and federal law  
8 mandates that they be converted to a collection system serviced by a wastewater treatment and  
9 disposal system.

10   The Nā’ālehu wastewater treatment facility will be located near the highway on a portion of TMK  
11 (3)9-5-012:002, a State-owned parcel managed by DLNR. The location of the treatment facility in  
12 Pāhala has not yet been determined.

13   For properties that were on the C. Brewer system and for which the deeds made C. Brewer  
14 responsible for the sewer systems, C. Brewer has installed sewer laterals within residential lots that  
15 will connect to county pipes. Otherwise, connection costs will typically be at the expense of the  
16 property owner.

17   **Emergency Services**

18   **Resources and Challenges**

19   **Fire:** Firefighting service in Ka’ū is divided into response areas. In general, the area surrounding Pāhala,  
20 extending south to Ka Lae and west to Ocean View is serviced by the County of Hawai’i Fire Department.  
21 Lands within Hawai’i Volcanoes National Park are serviced by the DLNR, Department of Forestry and  
22 Wildlife (DOFAW), and the Volcano National Park Co-Op Response. Other mauka reserve areas,  
23 including Manukā Natural Area Reserve are primarily serviced by DOFAW.




24   County fire stations are located at Nā’ālehu, Pāhala, and Ocean View. Volunteer fire stations are also  
25 located at Pāhala, Nā’ālehu, Discovery Harbour, and Ocean View. The Nā’ālehu and Ocean View stations  
26 provide EMS (emergency medical service) in addition to fire protection. Although there are no search  
27 and rescue resources assigned to the Ka’ū district, all fire department personnel are provided with basic  
28 skills and equipment to conduct basic search and rescue missions. Presently, there are no plans to  
29 replace or convert any of the volunteer stations to full time paid staffed stations.

30   In 2009, the average response time in the Ka’ū District was 15:53 minutes for fires and 20:57 for EMS in  
31 the Nā’ālehu/Pāhala districts and 1:04 for fires and 12:50 for EMS in Ocean View. The variation in the  
32 response times may be attributed to a number of factors such as location of incidents as well as access  
33 issues. The National Fire Protection Association (NFPA) standard for response times is a tool used to  
34 evaluate performance (i.e., required response times of 4 minutes for the first arriving units 90% of the  
35 time). However, that standard is based on a more urban setting. The very rural nature of Ka’ū makes it  
36 impractical to use it as an absolute standard; meeting the standard would require a tremendous  
37 increase in capacity and the establishment of new fire stations almost every 10 miles. There is a need to  
38 establish the variation from this standard for a rural setting and in consideration of “population clusters”  
39 (i.e., Pāhala, Nā’ālehu, and Ocean View).

40   Part-time lifeguard services at Punalu’u Beach Park are provided by the Fire Department.

1 **Police:** The Ka'ū District falls under Hawai'i Police Department's Area II West Hawai'i Operations Bureau.  
2 The Ka'ū District Police Station is in Nā'ālehu, and a substation is located in Ocean View. There are three  
3 shifts over the 24-hour period, with usually two officers/shift for the entire district. Ka'ū also has two  
4 Community Policing officers.

5 Relative to other districts in Hawai'i County, Ka'ū has a high officer-to-population ratio. However, it is  
6 also the largest district and can take an hour or more to travel from one part of the district to another. 

7 **Community Hazard Risk Profile:** As part of the CDP Community Profile, the National Oceanic and  
8 Atmospheric Administration (NOAA) developed a Community Hazard Risk Profile for the Ka'ū district.  
9 The profile is compilation of information related to natural hazard and climate risks and was developed  
10 by compiling available scientific and technical information, individual interviews, community mapping,  
11 and focus groups. Contributors and reviewers include scientists, technical experts, planners,  
12 government officials, and community members.

13 This profile includes information on the extent, location, and history of natural hazards in the Ka'ū  
14 district, including tsunامي, flash floods, storm surge, high winds, earthquakes, volcanic fog (VOG), lava  
15 flow, drought, wildfires, landslides, and cliff and coastal erosion in addition to information on potential  
16 climate impacts on hazard risks. Each section also contains information regarding key community assets  
17 and the associated social, economic, and environmental vulnerabilities.

18 In summary, the Community Hazard Risk Profile found that:

- 19 ▪ The Ka'ū district faces significant risk from lava flows, VOG, and earthquakes due to the proximity to  
20 Mauna Loa and Kilauea, which remain active. These volcanic hazards negatively impact public  
21 health and agriculture production in Ka'ū as well as pose risks to life, infrastructure, and public and  
22 private property. Hawaiian Ocean View Estates Community Center and Police substation are  
23 located within lava hazard zone 2.
- 24 ▪ The entire coastline of the Ka'ū district is exposed to tsunami; however, few public or private  
25 structures are currently located within the tsunami evacuation zone.
- 26 ▪ Flash flooding causes frequent road closures along the only highway (Route 11) connecting  
27 communities in the Ka'ū district; however, few structures (residential, commercial, etc.) are  
28 currently located within the 100 or 500 year floodplain.
- 29 ▪ Electric, water supply, and transportation lifelines currently serving Ka'ū are generally limited to  
30 single systems with few alternates increasing the likelihood of service interruptions and long-term  
31 loss of use. For instance, Route 11 (Hawai'i Belt Road) is the only access to the district and is  
32 vulnerable to closures from bridge washouts in coastal stretches, lava flows on both the east and  
33 west sides of the district, and potential flooding and washouts from stream and flash flooding.
- 34 ▪ In the Hawai'i County Hazard Mitigation Plan update, **five structures were identified as particularly**  
35 **vulnerable to earthquakes and hurricanes and in need of retrofit:** Ka'ū Hospital, Hawaiian Ocean  
36 View Estates Fire Station, Pāhala Fire Station), Ka'ū Police Station Generator Building, and the Ka'ū  
37 Police Station (Nā'ālehu Police Station).
- 38 ▪ The Ka'ū district has high a percentage of special needs and vulnerable populations (youth under 18,  
39 elderly 60+ years, public assistance), which are typically disproportionately impacted by natural  
40 hazards.

1     ▪ A number of climate implications are expected to exacerbate the risks posed by these hazards in  
 2     Ka’ū, including increased severity and frequency of severe storms, increased wave heights, sea level  
 3     rise, and longer periods of drought.

4     **Civil Defense:** Planning by the County’s Civil Defense agency is not disaster-specific. Instead, the  
 5     Multihazard Mitigation Plan (see below) establishes general goals and objectives based on the General  
 6     Plan, and the Emergency Operations Plan serves as a “manual” to guide hazard preparation and  
 7     response.

8     **Emergency Communications:** Public Safety radio is transmitted across the island via microwave towers  
 9     that are arranged in a ring that encircles the island. Transmission can go both clockwise and  
 10    counterclockwise, so if one tower fails, transmissions still reach the remaining towers

11    There are three Public Safety repeater sites in Ka’ū, each with propane-powered backup: Nā’ālehu (116  
 12    hours capacity), Manukā (87 hours), and South Point (360 hours).

13    Capital funds have also been appropriated for an island wide 700 mhz emergency radio upgrade project.

14    **General Plan Policies and Courses of Action**

15    **Policies**

16    ▪ 10.3.2(e): Stations in outlying districts shall be based on the population to be served and response  
 17    time rather than on geographic district.

18    ▪ 10.3.2(g) Encourage the further development and expansion of community policing programs and  
 19    neighborhood and farm watch programs in urban, rural and agricultural communities.

20    **Courses of Action**

21    ▪ 10.3.4.8.2(a): Fire protection and emergency medical services for Ocean View, Nā’ālehu, and Pāhala  
 22    shall be encouraged.

23    ▪ 10.3.4.8.2(b): Consideration shall be given to a joint police-fire facility.

24    **Previous Planning**

25    **Past Community Plans:** The 2004 Draft Strategic Plan for the District of Ka’ū includes the following  
 26    Courses of Action:

27    ▪ Provide funds for **more equipment and training for fire crews**

28    ▪ Provide **newer fire trucks** for Nā’ālehu and Discovery Harbour Volunteer fire crews

29    ▪ Release the already approved funds for a professional fire station in Nā’ālehu

30    ▪ A staffed ambulance and fire station in Ocean View

31    ▪ Ensure that County policies favor a high standard of emergency care in Ka’ū, including fast  
 32    paramedic response and the availability for helicopter service on call for extreme emergencies.

33    ▪ Establish a criminal investigation department in the Ka’ū Police Station

34    ▪ Develop a focused strategy to reduce the incidence of agricultural theft in Ka’ū

1     ▪ Support the need for **more working police officers** in Kaʻū

2     ▪ Provide **ongoing training for Neighborhood Watches**.

3     **Honuʻapo Park Resources Management Plan:** This 2010 plan stresses that, with the arid conditions and  
4 strong winds that prevail at Honuʻapo Park, ignition of wildfires will become an increased threat to park  
5 visitors if not properly managed. It recommends a Wildfire Management Plan be developed by the  
6 County Department of Parks and Recreation to mitigate those threats, which could include but not be  
7 limited to the following recommendations:

8     ▪ No open fires allowed outside of BBQ pits

9     ▪ Wildfire ignition mitigation measures at BBQ pits: wind break, lava rock construction, 15-foot  
10 diameter sand base around pit

11    ▪ Removal of California and Guinea grass in parks, campsites, and along trails and roads, and  
12 replacement with fire and drought tolerant vegetation

13    ▪ Maintenance of fire truck emergency access route

14    ▪ Caution signage

15    ▪ Controlled burns near park areas to serve as fire breaks in the event of wildfire ignition.

16    **Kaʻū Community Wildfire Protection Plan:** Hazardous fire conditions exist throughout the Kaʻū area.  
17 Steep slopes, rough terrain, strong trade winds, and a prevalence of fire-promoting fuels characterize  
18 the Kaʻū landscape. This, coupled with warm weather, recurring drought conditions, and a history of  
19 human-caused fire starts, puts the area at risk of wildfire.

20    County Fire Department records document numerous fire starts along the main highway and community  
21 roads. These fires spread through unmanaged fuels in the untended lands along the roads and between  
22 homes. Once ignited, these fires spread rapidly and threaten nearby community infrastructure,  
23 neighborhoods, orchards, timber plantations, grazing lands, and valuable native flora and fauna.

24    There is a particularly high frequency of fires near roads and neighborhoods on the Wildfire-Urban  
25 Interface (WUI). The WUI describes all areas where natural land conditions come into direct and  
26 interactive contact with existing and new villages.

27    Hawaiʻi Wildfire Management Organization (HWMO) was founded by firefighting agencies on the island  
28 (DLNR, County, National Park Service, etc.), scientists, and natural resource managers in order to  
29 mitigate wildfires before they start. The firefighting agencies generally respond to fires and don't have  
30 the funding or time to proactively mitigate wildfire threat; hence the need for HWMO. HWMO has  
31 implemented a variety of projects, including: fuel-breaks, research to gather information on various  
32 mitigation measures, hazard assessments to identify risks and how to mitigate them, 'Firewise'  
33 workshops to educate homeowners on how to mitigate their risks, dip tanks to decrease travel times for  
34 helicopters, and pioneering work on using succulents and native plants to create living fuel breaks.

35    The HWMO also develops Community Wildfire Protection Plans (CWPPs). CWPPs identify fire hazards  
36 and prioritize actions needed to mitigate wildfire, especially in the WUI). The Federal, State, and County  
37 agencies responsible for suppressing wildfires provide critical data and input into CWPPs and ensure the  
38 plans are actionable. The public's input regarding what they see as the issues and needs regarding  
39 wildfire mitigation is also included in the scoping/data gathering process of CWPPs.

1 The HWMO completed the Ka'ū Community Wildfire Protection Plan (KCWPP) in 2010. KCWPP action  
 2 items addressing wildfire issues are listed below, in order of priority:

- 3 1. Install pre-staged static water and helicopter dip **tanks**.
- 4 2. Acquire adequate **resources for first responders**:
  - 5 a. Appropriate technology resources for mapping at each fire station and on location; and
  - 6 b. Water tanker/tenders (minimum 2000 gallon tanker/tender with high wheel base for  
 7 off-highway capabilities).
- 8 3. **Create development standards and implement community planning that requires the  
 9 mitigation of wildfire risks** at the regional, community/subdivision, roads/highways, and  
 10 individual structure levels.
- 11 4. Reduce fuel load and/or appropriately convert fuels along road sides, in community open areas,  
 12 around individual homes:
  - 13 a. Appropriate conversion would include transition to vegetation with low ignition  
 14 potential and low ability to carry fire, especially native plants. This can be accomplished  
 15 through **installing/ establishing living fuel breaks**.
  - 16 b. **Reduce fuels** through well-managed grazing, mechanical reduction, herbicide, or  
 17 combinations of all treatments.
  - 18 c. Encourage/educate large landowners to reduce fuels on private property.
  - 19 d. Identify opportunities to assist vulnerable populations (elderly, disabled) in creating  
 20 defensible space around homes and property.
  - 21 e. **Develop and or enforce fuels mitigation requirements** within communities (to include  
 22 developed and vacant lots, permanent resident and absentee landowners).
- 23 5. **Continue fire prevention education and outreach**, including arson prevention education:
  - 24 a. Hold community workshops;
  - 25 b. Implement the fire danger rating system;
  - 26 c. Provide individual home and neighborhood assessments;
  - 27 d. Increase public service announcements during high fire hazard periods; and
  - 28 e. Develop wildland fire materials for youth and implement educational programs in local  
 29 schools.
- 30 6. **Increase communication capabilities** between state, federal, and county agencies, particularly  
 31 to maximize initial attack capabilities in wildfire events:
  - 32 a. Integrate current and future communication equipment utilized by federal, state, and  
 33 county fire suppression personnel to increase effective firefighting response.

- 1                    b. Develop protocols for multi-agency involvement to utilize available specialized wildland  
2                    fire expertise and equipment/resources.
- 3                    7. **Reduce and/or control invasive species** that increase fire risk and, where appropriate, convert  
4                    to vegetation as described in priority number three.
- 5                    8. **Advocate for increased penalties** for arson and some level of amnesty for reporting fire.
- 6                    9. **Develop emergency staging areas and safety zones** within communities and promote  
7                    awareness of such areas within the community, including holding mock disaster drills.
- 8                    10. **Create/improve secondary access roads** for those communities with only one means of  
9                    ingress/egress; identify evacuation routes within subdivisions, especially in neighborhoods  
10                    where secondary access roads are not available.


11 **Three Mountain Alliance Management Plan:** The 2007 plan also identifies wildfire as a threat to natural  
12 resources in Ka'ū and proposes the following actions:

- 13                    ▪ Identify and prioritize TMA areas that need fire prevention measures and pre-suppression planning.  
14                    Prevention and pre-suppression planning will reduce fire hazard as well as ensure TMA members are  
15                    prepared to detect and respond quickly and effectively to fire.
- 16                    ▪ **Implement fire prevention measures and pre-suppression planning.** This includes mapping of  
17                    fuels/fire history, fuels reduction projects, fire potential monitoring (e.g. fire weather data),  
18                    creating/maintaining firebreaks, and community awareness and education.
- 19                    ▪ Assist willing private landowners with development of fire plans, communication with fire response  
20                    agencies and maps showing infrastructure (e.g. access roads, gates, water sources, important  
21                    resources etc).
- 22                    ▪ Expand TMA member firefighting capacity through greater interagency cooperation (e.g., sharing  
23                    equipment, training, and fighting capacity).
- 24                    ▪ Develop fire projects that address other threats (e.g. fountain grass reduction).
- 25                    ▪ Encourage TMA members and private landowners to participate in BIGWIG regarding concerns  
26                    about fire response.
- 27                    ▪ Assist post-fire restoration - TMA can play an important role in ecosystem restoration following fire  
28                    (e.g. technical expertise) and assist with developing fire recovery and restoration plans as well as  
29                    with implementation.

30 **Hawai'i County Multihazard Mitigation Plan:** The Plan developed by Hawai'i County Civil Defense  
31 includes the following mitigation goals and objectives:

- 32                    1. Goal: Continually strive to improve the state of the art for the identification of hazard areas,  
33                    prediction capabilities, and warning systems.
- 34                    1. 4. Establish a warning system that is cognizant of warning siren gaps that require  
35                    supplemental field warning, which strives to fill those gaps based on population, that is routinely  
36                    tested and maintained, and that educates the public on proper response.



- 1        2. Goal: Control future development and retrofit existing structures within hazard areas to
- 2        minimize losses.
- 3        2. 2. Periodically review the effectiveness of current land-use- related plans, codes, and
- 4        standards to control future development within hazard areas.
- 5        3. Goal: Ensure that all emergency response critical facilities and communication systems remain
- 6        operational during hazard events. 
- 7        3. 1. Harden all essential emergency facilities and communication systems to withstand
- 8        earthquake and hurricane forces.
- 9        5. Goal: Provide adequate pre- and post- disaster emergency shelters to accommodate residents
- 10       and visitors.
- 11       5. 1. Identify and harden selected shelters to withstand hurricane.
- 12       6. Goal: Develop a level of awareness among the general public and businesses, particularly the
- 13       visitor industry, that results in calm and efficient evacuations, self-sufficient survival skills, and
- 14       willingness to abide by preventive or property protection requirements.
- 15       6. 1. Develop a broad-based public information program that utilizes a diversity of
- 16       communication media.
- 17       6. 2. Develop special public information programs targeted to vulnerable populations.
- 18       6. 3. Develop a community-based network that double-functions as the Community Emergency
- 19       Response Team and provides input into mitigation planning.

20 **County Capital Improvements:** Recent and planned County emergency services projects in Ka’ū include:

- 21       ▪ Ka’ū District Emergency Gym and Shelter: Construction is scheduled to be completed in early 2014.
- 22       ▪ Volunteer Fire Garages in Nā’ālehu and Pāhala: New garages for volunteer fire apparatus were built
- 23       in 2012. The Nā’ālehu site is next to the police station, and the Pāhala is directly behind the Pāhala
- 24       Fire Station.
- 25       ▪ Nā’ālehu Fire Station: Ordinance 12-87 appropriated \$300,000 for a new station; the funds will lapse
- 26       June 30, 2015 if not encumbered.
- 27       ▪ Nā’ālehu Police Station: Ordinance 11-60 appropriated \$75,000 for Nā’ālehu Police Station
- 28       improvements, and Ordinance 12-150 authorized the issuance of bonds to include \$75,000 for
- 29       Nā’ālehu Police Station improvements; the funds will lapse June 30, 2014 if not encumbered. The
- 30       following improvements have been also appropriated but not allotted: \$120,000 for repairs,
- 31       \$50,000 for hardening, \$5,000 for hazardous materials abatement, \$300,000 for energy efficiency,
- 32       and \$110,000 for ADA compliance.

33 **Tools and Alternative Strategies**

34 **FEMA Pre-Disaster Mitigation Grant Program**<sup>77</sup>: The Pre-Disaster Mitigation (PDM) program provides

35 funds to states, territories, Indian tribal governments, communities, and universities for hazard

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<sup>77</sup> <http://www.fema.gov/pre-disaster-mitigation-grant-program>

1 mitigation planning and the implementation of mitigation projects prior to a disaster event. Hawai'i  
2 County Civil Defense applies for and manages these funds locally.

3 **Coastal Resilience Networks (CRest) Program**<sup>78</sup>: NOAA's Coastal Services Center, Pacific Services  
4 Center<sup>79</sup> offered the new, Coastal Resilience Networks (CRest) grant program in 2011. The program  
5 funds projects that help communities become more resilient to the threats posed by coastal hazards  
6 (which include storms, flooding, sea level rise, climate change, etc.).

7 Projects that connect existing federal, state, and local programs are very desirable, as are efforts that  
8 engage the public and include one or more of the following: preparedness, recovery, risk and  
9 vulnerability, adaptation, and under-served or under-represented populations. Eligible applicants  
10 represent state, territorial, and local or county governments; nonprofit organizations; regional  
11 authorities; and institutions of higher education.

12 Availability of CRest funds are dependent upon Congressional appropriations each year. Applicants can  
13 request between \$100,000 and \$350,000 per year for a single project. The award period for funded  
14 projects is between 1 - 3 years.

## 15 **Health Care**

### 16 **Resources and Challenges**

17 **Ka'ū Hospital**: Ka'ū Hospital and Rural Health Clinic in Pāhala provides emergency and long term care  
18 and includes a Certified Rural Health Clinic. The State Department of Health's Division of Community  
19 Hospitals built the existing 21-bed hospital in 1971 to replace C. Brewer's plantation hospital. Hawai'i  
20 Health Systems Corporation formed in 1997, creating a state hospital system that included the Ka'ū  
21 Hospital. Federal officials gave Ka'ū Hospital critical access hospital status in 2001, which provides  
22 financial assistance to small, rural hospitals that provide emergency and acute services in remote areas.  
23 The hospital opened a walk-in, Medicare-certified Rural Health Clinic on-site in 2003. It also houses the  
24 only pharmacy in the district. Several community groups, including South Point Red Hats, Ka Lae  
25 Quilters, the Ka'ū Golf Group, and O Ka'ū Kakou have raised tens of thousands of dollars to support the  
26 hospital.

27 **Ka'ū Family Health Center**: Bay Clinic operates the Ka'ū Family Health Center in Nā'ālehu. Its Mobile  
28 Dental Clinic also visits the Center several days each month. The Clinic broke ground on its new Health  
29 and Dental Center in front of its existing Center in Nā'ālehu in November 2011. Once completed, the  
30 Center will be equipped with eight medical exam rooms, two dental rooms, and two patient and family  
31 counseling rooms to care for 3,400 additional patients with 8,500 additional visits.

32 **Ocean View Family Health Clinic**: The Family Nurse Practitioner in this clinic serves over 3,000 patients  
33 every year in the Ocean View area.

34 **Mobile Medical Van**: In March 2012, a mobile medical van based in Kona Community Hospital began  
35 serving Ka'ū and South Kona. The van has a spacious exam room, indoor and outdoor reception, a lab,  
36 and refrigerated storage. Wireless tele-health capabilities will enable attention from specialists.

37 **Online Care**: Also starting in March 2012, Ka'ū residents may use the Internet to consult with Hawaii  
38 Medical Service Association (HMSA) credentialed physicians and other health care providers. Patients

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<sup>78</sup> <http://www.csc.noaa.gov/psc/grants/crest.html>

<sup>79</sup> <http://www.csc.noaa.gov/psc/>

1 can be treated online for nonemergency conditions, get prescriptions, and have questions answered  
 2 about minor ailments, symptoms, or medications. The service is part of a pilot project with Ka’ū Rural  
 3 Health Community Association’s Health and Wellness Partnership. By appointment, from 8 a.m. to noon  
 4 Monday through Friday, Ka’ū residents can use six computers at the Ka’ū Resource and Distance  
 5 Learning Center in Pāhala to access HMSA’s Online Care. For those who cannot come into the center,  
 6 appointments can be made with a team member, who can come to the homes or businesses and  
 7 demonstrate how to access HMSA’s Online Care.

8 **General Plan Policies**

- 9 ▪ 10.5.2(d): Encourage the State to continue operation of the rural hospitals.
- 10 ▪ 10.5.2(e): Encourage the establishment or expansion of community health centers and rural health  
 11 clinics.

12 **Previous Planning**

13 The 2004 Draft Strategic Plan for the District of Ka’ū includes the following Courses of Action:

- 14 ▪ Provide Senior Care Centers, both public and private, for senior care at various levels from assisted  
 15 living to full elder care
- 16 ▪ Develop and implement plans for a clinic in Ocean View
- 17 ▪ Establish a drug- and alcohol-rehabilitation center in Ka’ū.

18 **Social Services**

19 **Resources and Challenges**

20 During a meeting on October 8, 2009, a “talk story” meeting was held in Nā’ālehu to gather information  
 21 about human services in Ka’ū and to discuss ways to use the CDP to enhance services in Ka’ū.

22 The list of human services in Ka’ū in “Table 5: Human Services in Ka’ū” was compiled based on  
 23 information shared during the meeting. The list may not be complete and may include some outdated  
 24 information and errors.

25 Since 2009, Family Support Services West Hawai’i (FSSWH) closed its office in Nā’ālehu, so there is no  
 26 longer a place for people to go for help accessing social services. Rather than maintaining offices in  
 27 Ka’ū, many agencies now make periodic visits to serve clients. The State Department of Human Services  
 28 (DHS) and Adult Mental Health still have offices at the Nā’ālehu Civic Center.

29 The Ka’ū Community Partnership meets monthly. It is a network of human and social service providers  
 30 that focuses on information sharing among agencies, and it also serves as a point of entry for agencies  
 31 from outside the community.

32

1 **Table 5: Human Services in Ka'ū**

Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
<b>Education and Youth</b>		
<b>Nā'ālehu Elementary</b>		
<b>Ka'ū High &amp; Pāhala Elementary</b>		
<b>Tutu and Me</b>	(Nā'ālehu) Early childhood program, improve school readiness and literacy, supporting the caregiver	
<b>Pāhala Preschool</b>		
<b>Family Support Hawai'i (Malama Perinatal)</b>	(Nā'ālehu) Work with families from pregnancy to 2 years old providing women's health, pregnancy testing, nutrition, fetal development, labor and birth, breastfeeding, infant toddler care, depression, family planning, referrals and resources	Working with EFNP providing nutrition classes for pregnant women
<b>Ka'ū Community Children's Council</b>	(Pāhala) Serve children with special needs and their parents; work with community, schools, agencies and families in identifying needs, service delivery, culturally sensitive strategies, interagency sharing and planning, advocacy	
<b>Migrant Education</b>	(Ka'ū) Summer school, tutoring, classroom instruction, statewide child ID&R	
<b>Boys and Girls Club</b>	(Pāhala, Nā'ālehu, Ocean View) After school programming, education, sports and fitness, career and life skills, arts, community services	Keystone Club for Teens, extended learning opportunities, academic instruction during furlough days, Be Great-Be Smart Program
<b>Health</b>		

Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
<b>Bay Clinic</b>	Primary care and specialties, health care for the uninsured, dental clinic, case management	
<b>Ocean View Family Health Clinic</b>	(Ocean View) Nurse practitioner services, comprehensive healthcare, Marshallese staff interpreter, DOH clinics once a month	
<b>Local dentist</b>	Family dentistry (does not take MedQuest)	
<b>Department of Health</b>	(Nā'ālehu) Health assessment, care coordination, development of Individualized family support plan, transition planning, linkages with resources, children with chronic and/or complex medical conditions, high risk pregnancy, frail dependent elderly, communicable diseases, health services in public schools, disaster response, partnership with community	Stop Flu Clinics at schools statewide
<b>Woman Infant &amp; Children</b>	Supplemental food and nutrition program serving women, infants and children (pregnant/0-5 yrs old)	
<b>'Ohana Health Plan</b>	Medicaid health insurance for aged, blind and disabled; comprehensive health, mental health and pharmacy; service coordination, home and community based services, medical transportation	
<b>Ka'ū Rural Health</b>		
<b>Family and Adult Services</b>	(Nā'ālehu) Child welfare differential response system, family strengthening services (low level), voluntary case management (moderate level), child welfare services (high level of severity)	
<b>Lokahi Treatment Center</b>	(Nā'ālehu) Drug and alcohol education and treatment, anger assessment and group	

Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
<b>Adult Mental Health</b>		
<b>Other Health Care Providers</b>		
<b>ChirOhana Wellness Center</b>	(Nā'ālehu) Comprehensive chiropractic services	
<b>Body Talk Massage</b>	Licensed massage therapist, certified body talk practitioner, certified senior fitness therapist	
<b>Noa's Island Massage</b>	Pain relief massage, yoga classes	Interested in teaching some related wellness methods thru massage therapy (swim teacher)
<b>Velvet Touch Massage</b>	Private practice	Would like to see physical therapist in Ocean View
<b>Michelle's Massage</b>	Private practice	
<b>Ocean View Wellness Center</b>	Private practice	
<b>A Mind Body Connection</b>		
<b>Fitness Trainer</b>		
<b>Release &amp; Balance</b>		
<b>Leslie's Home Care</b>	Private practice	

Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
<b>Ursula D'Angelo</b>	Private practice	
<b>Senior Services</b>		
<b>Hawai'i County Office of Aging</b>	(Hilo) Adult day care, assisted transportation, caregiver support, case management, chore workers, congregate & home delivered meals, employment, homemakers, home modification, legal assistance, long-term care access, personal care	
<b>Hawai'i County Nutrition Program for the Elderly</b>	(Pāhala, Nā'ālehu, Ocean View) Congregate dining and meals on wheels	
<b>Coordinated Services for the Elderly (Hawai'i County Parks)</b>	(Pāhala) Information and assistance, transportation, in home care, referral, follow-up and advocacy, nutrition program, Retired Senior Volunteer Program, employment, recreation	
<b>Hawai'i County Economic Opportunity Council</b>	Transportation for elderly with handy lift	
<b>Ever Care</b>	Medicaid plans, hospice and caregiver services, assistance with choosing a nursing home.	
<b>Services for Seniors</b>	(Hilo) Case management for frail elderly 60+ and homebound	Access funds for caregivers and for durable medical equipment and short term respite
<b>Care Home Nā'ālehu/Pāhala</b>		

Agency	Current Programs/Services (location noted in parentheses)	Future Programs/Services
<b>Other Social Services</b>		
<b>Department of Human Service</b>	Financial, medical and food stamp benefits	
<b>Family Support Services of West Hawai'i</b>	(Kailua Kona with office in Nā'ālehu) Perinatal counseling, fatherhood Initiative, home visiting, youth development, parent education, family counseling, family centers	
<b>Neighborhood Place of Kona</b>	(Kailua Kona) Family strengthening services, parenting classes, link to services/resources, social support, coping skills, problem solving, strengthen family relationships	Teen Parenting Classes Referral information for all in West Hawaii
<b>QLCC</b>	Serves orphaned or destitute children giving preference to children of Hawaiian descent; health, family enrichment and supporting communities in the welfare of our children	
<b>Arc of Kona</b>	Independent living: adult day health, personal assistance habilitation, training and consultation, chore services, residential program, Ka'ū service center (Ocean View), adult mental health transportation; vocational and job training: job placement supported employment, vocational training	
<b>Hui Malama Ola Nā 'Ōiwi</b>	(Nā'ālehu) Serves Hawaiian population with health assessments, education, prevention and screenings, emergency medical assistance, transportation to medical appointments, nutrition, primary care services and tobacco cessation	
<b>Volunteer Legal Services Hawai'i</b>	(Oahu) Intake and referral, neighborhood legal clinics, nonprofit program, housing support legal program, community tax assistance program, na keiki law center, project visitation	



1 **Aging Population:** Compared to the statewide age distribution pattern, Pāhala and Nā‘ālehu have a  
 2 relatively high elderly population (>65 years old), while Ocean View has an older population with a  
 3 median age of 43. With projected growth expected to be the greatest in households between 55 to 74  
 4 years of age in the next five years, growth in this sector will be needed to meet the service demands of  
 5 the region’s aging population. Several types of care are typically available to seniors:

- 6 ▪ In-home assistance includes home chore services and meals (for those ill or disabled) provided by  
 7 the County’s Coordinated Services for the Elderly (CSE). Home healthcare services by private  
 8 providers are also available for those who can afford or have long-term care coverage for those  
 9 services.
- 10 ▪ A licensed residential care home provides a choice for those needing assistance with two or more of  
 11 the daily care skills that would qualify for Medicare, Medicaid, or long-term care insurance  
 12 payments. As of September 2012, there were four licensed adult residential care homes (ARCH) in  
 13 Ka‘ū.
- 14 ▪ An assisted living facility is a larger facility providing similar services as an ARCH with additional  
 15 amenities and programs for fitness and entertainment. Currently, there is only one assisted living  
 16 facility in the County located in Kona.
- 17 ▪ The highest level of assistance are those requiring skilled nursing. The fortunate have family who  
 18 become trained to enable the elder to live at home. The Planning Area has a long-term care facility  
 19 in the Ka‘ū Hospital.

20 CSE provides transportation for those unable to use conventional transportation (ill or disabled). For  
 21 those who are not ill or disabled, Hawai‘i County Economic Opportunity Council (HCEOC) provides  
 22 paratransit services throughout the Planning Area on contract with the County Mass Transit Agency.

23 **General Plan Policies and Courses of Action**

24 The General Plan does not speak specifically to the provision of social services.

25 **Previous Planning**

26 **Past Community Plans:** The 2000 Rural Enterprise grant application for Ka‘ū calls for a one-stop center  
 27 for all social services in Ka‘ū (Goal 6).

28 **Tools and Alternative Strategies**

29 During the October 8, 2009 “talk story” meeting in Nā‘ālehu, participants responded to the question:  
 30 “How can the Ka‘ū CDP be used to advance your work?” Responses are organized thematically below:

31 **Acknowledge Assets**

- 32 ▪ Hospital is area’s largest employer
- 33 ▪ There is strong demand for massage and other types of alternative care
- 34 ▪ **The area needs language interpreters and physical therapists**
- 35 ▪ There will be growing demand for health and senior services
- 36 ▪ There is demand for affordable office space
- 37 ▪ The Bay Clinic is expanding its Nā‘ālehu facility and services

1   ▪ There are community gardens in Ocean View, Nā'ālehu (at the school), Green Sands, and Pāhala (at  
2   the senior center)

3   ▪ The Nā'ālehu Theater (and the Ka'ū Theater in Pāhala) could once again be community spaces for  
4   arts, entertainment, programming

#### 5   Clearly Articulate Needs

6   ▪ Use good demographic information (e.g., age of population, population shift to Ocean View) to  
7   identify need for a range of services in Ka'ū

8       ○ **The area lacks health providers**

9       ○ Aging population means greater need for senior services

10      ○ Micronesians have unique challenges

11  ▪ Identify the needs for services and the results when services are not available

12      ○ The local DHS office is closing and losing its child welfare social worker

13      ○ DHS is cutting Medicaid

14      ○ Supportive services (e.g., transportation) are being cut

15  ▪ Interpreters needed but hard to find

16  ▪ Physical therapists needed

#### 17  Demonstrate Opportunities for Greater Collaboration among Agencies

18  ▪ Build on the work of the Community Partnership

19  ▪ Identify sites for co-location of services or some kind of “one-stop” center that services everyone,  
20   keiki to kupuna

#### 21  **Improve Transportation, particularly within Ka'ū** (this was the most common response)

22  ▪ For clients to get to appointments, shopping, etc.

23  ▪ For employees

24  ▪ For youth

25  ▪ Within Ocean View

#### 26  Identify Sites/Facilities for Services

27  ▪ **Rent for office space is not available/affordable**

28      ○ A professional building is needed

29  ▪ The library needs a site in Ocean View

30  ▪ The National Park may need sites for offices/visitors centers

- 1   ▪ The Boys and Girls Club, which has recently expanded services for youth in Ka’ū, needs facilities,  
2    particularly in Nā’ālehu
- 3   ▪ Identify sites for co-location of services or some kind of “one-stop” center that services everyone,  
4    keiki to kupuna
- 5   ▪ Zoning in Ocean View makes the provision of services challenging
- 6   ▪ Use the CDP to engage the Weinberg Foundation in a serious conversation about the future of the  
7    Nā’ālehu Theater
- 8   Demonstrate the Interconnections of a Complete Community
- 9   ▪ Nutrition and health
- 10  ▪ Multiple benefits of community gardens
- 11  Land Use
- 12  ▪ **Incorporate building code changes that allow for “traditional” or other structures to decriminalize**  
13  **poverty** that is at the root of unpermitted structures, particularly in Ocean View
- 14  ▪ Zoning in Ocean View makes the provision of services challenging
- 15  Solid Waste
- 16  ▪ Proposed “pay as you throw” policy will result in a sanitation/public health issue when people start  
17   illegally dumping
- 18  **Help with Volunteer Recruitment**
- 19  ▪ The Boys and Girls Club needs volunteers, as do many other organizations
- 20  Capitalize on Opportunities
- 21  ▪ The Rotary Club is very interested in helping Ka’ū as part of the Year of Literacy, possibly as part of  
22   the Nā’ālehu library expansion, the siting of a library in Ocean View, and/or to bring Ka’ū to the  
23   attention of the funding community
- 24  ▪ **Human service providers need good employees**
- 25       ○ Health care is growing sector
- 26       ○ Senior care is growing sector
- 27  ▪ The Nā’ālehu Theater needs a new owner for community uses
- 28  **Use the CDP to bring resources to the community**
- 29  ▪ Use good demographic information (e.g., age of population, population shift to Ocean View) to  
30   make a case for more resources
- 31       ○ Help with Census

1     ▪ Approach Hawai'i foundations as a group and present them with a comprehensive plan for how to  
2       make a significant impact in a targeted area

3     ▪ Use the CDP to engage the Weinberg Foundation in a serious conversation about the Nā'ālehu  
4       Theater and its commercial property in Nā'ālehu and Pāhala

5     **Resources Match**<sup>80</sup>: Resources Match is an interactive tool allowing organizations to provide their clients  
6     with accurate referrals to various resources in their communities. It uses individual socio-economic  
7     profiles to find appropriate resources, prints the list of matching resources, refers eligible clients to  
8     organizations, completes applications online for select programs, and produces reports on client  
9     referrals and outcomes. An extensive list of Hawai'i County organizations use Resources Match,  
10    including several operating in Ka'ū: Bay Clinic, Boys and Girls Club, Habitat for Humanity, and Lokahi  
11    Treatment Center.

## 12    **Education**

### 13    **Resources and Challenges**

14    The State of Hawai'i Board of Education school complex area for Ka'ū is the Ka'ū-Kea'au-Pahoia Complex.  
15    It includes Ka'ū High and Pāhala Elementary, Nā'ālehu Elementary and Intermediate, and Volcano School  
16    of Arts/Science Public Charter School (K-8).

17    That Complex is a "Zone of School Innovation" (ZSI) for the State of Hawai'i's federal "Race to the Top"  
18    grant<sup>81</sup>. Under the ZSI, reform plans are tailored for individual schools and include early-childhood  
19    subsidies, early-learning centers, attracting and retaining highly-qualified teachers, developing  
20    community partnerships, comprehensive support for students' non-academic needs, extended learning  
21    opportunities, and repair and maintenance projects. The Pāhala campus will receive \$1.3 million, and  
22    Nā'ālehu will receive \$650,000 in repairs.

23    Total enrollment at Ka'ū High and Pāhala Elementary for the 2009-2010 school year was 525 students  
24    (~68% of capacity). Total enrollment at Nā'ālehu Elementary and Intermediate for the 2010-2011 school  
25    year was 384 students (~90% of capacity).

### 26    **General Plan Courses of Action**

27    ▪ 10.2.4.6.2(a): Encourage continual improvements to existing educational facilities.

28    ▪ 10.2.4.6.2(b): **Encourage the State Department of Education to plan a K-8 School at Ocean View.**

### 29    **Previous Planning**

30    **Past Community Plans:** The 2004 Draft Strategic Plan for the District of Ka'ū Courses of Action includes:

31    ▪ Provide funds for building upgrades at Ka'ū High and Nā'ālehu schools, and for more space at  
32       Nā'ālehu School.

33    ▪ Provide funds for Youth Centers or Youth Programs in Nā'ālehu, Ocean View and Pāhala.

34    ▪ Provide day care for teen mothers at Ka'ū High School.

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<sup>80</sup> [www.assetshawaii.org/practice/resources\\_match](http://www.assetshawaii.org/practice/resources_match) ; [www.resourcesmatch.org](http://www.resourcesmatch.org)

<sup>81</sup> <http://hawaiidoereform.org/Zones-of-School-Innovation>

1   ▪ **As the population of Ocean View grows, develop and implement plans for K-12 schools located**  
 2   **within that community.** The school might share a community library, as in Pāhala.

3   ▪ **Provide better opportunities for adult education,** including small business training and GED  
 4   programs.

5   **State Capital Improvements<sup>82</sup>:** The State has appropriated and allocated \$1,947,000 in funding for  
 6   various projects at Ka’ū schools:

7   ▪ Ka’ū High and Pāhala Elementary Electrical Upgrades: This \$700,000 project was completed in  
 8   September 2011.

9   ▪ Ka’ū High and Pāhala Elementary Special Education, Restroom, and Shower Renovations: This  
 10   \$80,000 project was completed.

11   ▪ Ka’ū High and Pāhala Elementary Renovations: \$158,000 have been allotted, and design work is in  
 12   progress, but a contract has not yet been awarded.

13   ▪ Ka’ū High and Pāhala Elementary Sink Installation: \$10,000 have been allotted, but a contract has  
 14   not yet been awarded.

15   ▪ Ka’ū High and Pāhala Elementary Light and Outlet Installation: \$30,000 have been allotted, but a  
 16   contract has not yet been awarded.

17   ▪ Ka’ū High and Pāhala Elementary Reroof: \$20,000 have been allotted, but a contract has not yet  
 18   been awarded.

19   ▪ Ka’ū Teacher Cottage Renovation: A planning contract has been awarded.

20   ▪ Nā’ālehu Elementary Parking Stalls: This \$500,000 project was completed in September 2010.

21   ▪ Nā’ālehu Elementary Classroom Building Construction: This \$4,000,000 project is in progress.

22   ▪ Nā’ālehu Elementary Interior Renovations: \$345,000 have been allotted, and design work is in  
 23   progress, but a contract has not yet been awarded.

24   ▪ Nā’ālehu Elementary Water Cooler Installation: \$15,000 have been allotted, but a contract has not  
 25   yet been awarded.

26   **DOE School Planning<sup>83</sup>:** According to projections by the Planning Section of the Department of  
 27   Education’s Facilities Development Branch, which are based on recent enrollment growth and some  
 28   indications of increased construction and occupancy in the area a school serves rather than general  
 29   population trends, the current schools in Ka’ū will be able to accommodate projected growth in the  
 30   school-age population. The DOE assessment is that schools in Ka’ū are growing slowly and aren't  
 31   expected to grow any faster in the next few years. Another factor is the excess classroom space at the  
 32   Ho’okena and Honaunau schools.

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<sup>82</sup> <http://factrak.k12.hi.us/index.aspx>

<sup>83</sup> Based on email communications from Heidi Meeker, Planning Section, Department of Education/Facilities Development Branch, Hawai’i Department of Education.

1 The Board of Education policy is that elementary schools are built for between 400 and 750 students,  
2 but the DOE does not have standard, cut-and-dry criteria that trigger the construction of new schools.  
3 In some situations, DOE determines that a projected increase in enrollment can be addressed through  
4 additional classrooms (portable or permanent), other campus development, or by redistricting the  
5 school attendance area.

6 The biggest factor in DOE’s decision to build a new school is the availability of a school site. The DOE  
7 does not tend to buy land; it typically receives school land from developers, which also provide the  
8 infrastructure, including water. If DOE projects that Ka’ū is going to need new schools, it would ask the  
9 Board of Education to adopt a Ka’ū School Impact Fee District. Then, if the County cooperates, DOE  
10 would collect land and/or fees from all developers in the impact district.

11 The lava hazard zone is currently not a standard condition in our current agreements with developers  
12 but might have to be considered in some areas.

13 As the developments progress, DOE builds new schools according to the planning, design and  
14 construction funds appropriated from the Legislature. The single biggest factor in determining when we  
15 build is the Legislature appropriating funds. The DOE does not want to build schools years before they  
16 will get filled up – it cannot afford to operate half-filled new schools.

17 **Tools and Alternative Strategies**

18 **Charter Schools<sup>84</sup>**: In Hawai’i, charter schools are public schools funded on a “per pupil” allocation  
19 separate from the Department of Education. They are state-legislated, legally independent, outcome-  
20 based public schools operating under contract with the State Public Charter School Commission (PCSC).  
21 There are currently 32 charter schools in Hawai’i, 14 of which are on Hawai’i Island.

22 Communities interested in starting a charter school must apply to the PCSC. Because the PCSC is newly  
23 created pursuant to Act 130/2012, the application, process, or timeline have not yet been established.

24 **Libraries**

25 **Resources and Challenges**

26 **Hawai’i State Public Library System**: The Hawai’i State Public Library System operates two libraries in  
27 Ka’ū – one in Nā’ālehu, and one adjacent to Ka’ū High School and Pāhala Elementary. In addition to  
28 books and other media, the libraries have computers with Internet access available for use. In recent  
29 years, due to staffing shortages, hours at both branches were sometimes significantly limited. However,  
30 in February 2013, vacant positions were filled, and both library branches resumed normal hours.

31 During the 2012 legislative session, a proposal was considered to close the Pāhala branch, turn its  
32 materials and equipment over to other branches, and allow the school to use the facility. Also  
33 considered was a DOE-library partnership to share library resources and expenses. The school and  
34 library had a limited partnership in the past, which included the school providing a full-time librarian and  
35 funding for books, but the school can no longer afford to fund the librarian’s position.

36 **Friends of the Library of Hawai’i<sup>85</sup>**: Friends of the Library of Hawai’i promotes and supports the fifty  
37 public libraries that make up the Hawai’i State Public Library System. The Friends primary objectives are

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<sup>84</sup> <http://hcsao.org>

<sup>85</sup> <http://www.friendsofthelibraryofhawaii.org/>

1 to: maintain free public libraries in Hawai'i, promote extension of library services throughout the State,  
 2 and increase the facilities of the public library system by securing materials beyond the command of the  
 3 ordinary library budget.

4 Friends of the Library of Hawai'i acts as the statewide umbrella organization for the affiliated local  
 5 Friends groups at the State of Hawai'i's Public Libraries. The Affiliates Committee provides resources to  
 6 the Affiliates in the form of: affiliate matching grants, an annual affiliate conference, and  
 7 training/technical support. Friends of the Ka'u Libraries is an affiliate.

8 In 2012, the Friends of Ka'u Libraries<sup>86</sup> launched a campaign to save the libraries for use by students and  
 9 the public. Others have suggested modifying hours to accommodate school and work schedules.

10 **General Plan Policy**

- 11 ▪ 10.2.2(c): Encourage joint community-school library facilities, where a separate community library  
 12 may not be feasible, in proximity to other community facilities, affording both pedestrian and  
 13 vehicular access.

14 **Previous Planning**

15 The 2004 Draft Strategic Plan for the District of Ka'u Courses of Action includes:

- 16 ▪ Provide funds for a library extension in Nā'ālehu.

17 **Parks and Recreation**

18 **Resources and Challenges**

19 State Park facilities, which are operated by the Department of Land and Natural Resources (DLNR),  
 20 include Manukā State Wayside and three marine facilities: Honu'apo Pier, Kaulana Ramp, and Punalu'u  
 21 Harbor.

22 County park facilities include Kahuku Park, Wai'ōhinu Park, Nā'ālehu Park and Community Center,  
 23 Honu'apo and Whittington Beach Parks, Punalu'u Beach Park, and the Pāhala Community Center and  
 24 swimming pool. The County offers after-school recreational programs at the Nā'ālehu and Pāhala  
 25 Community Centers, including sports, arts and crafts, and Summer Fun.

26 The Boys and Girls Club of the Big Island offers after-school recreational programs at the Pāhala  
 27 Community Center and the Nā'ālehu Community Center.

28 The County Department of Parks and Recreation also manages the only public cemetery in Ka'u, which is  
 29 located in Nā'ālehu. 620 plots were occupied as of September 2012, and about half of the three acres is  
 30 still available.

31 **General Plan Policy and Courses of Action**

32 **Policy**

- 33 ▪ 10.5.2(b): Develop and implement a cemeteries master plan for the siting of future cemeteries.

34 **Courses of Action**

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<sup>86</sup> <http://www.friendsofthelibraryofhawaii.org/index.php/affiliates/flhaffiliates/87-kauaffiliate>

- 1   ▪ 12.5.9.2(a): Encourage the development of a **swimming facility in Naalehu**.
- 2   ▪ 12.5.9.2(b): **Develop parks in Ocean View**, commensurate with population growth.
- 3   ▪ 12.5.9.2(c): Encourage the establishment of the **Punalu‘u-Ninole Springs region as a recreation**
- 4   **area**.
- 5   ▪ 12.5.9.2(g): Encourage the restoration of Ninole Pond as a recreation area.
- 6   ▪ 12.5.9.2(h): Encourage land acquisition surrounding Whittington Beach Park to allow for its
- 7   expansion and the construction of a parking area.
- 8   ▪ 12.5.9.2(d): Encourage the State Department of Hawaiian Homes Lands to **develop the South Point**
- 9   **area for recreational opportunities**.
- 10  ▪ 12.5.9.2(e): Recommend the **development of Ka‘alu‘alu Bay as a remote camping-beach park**.
- 11  ▪ 12.5.9.2(f): Encourage the State Department of Land and Natural Resources to **develop wilderness**
- 12  **recreation uses of the Kapua-Manukā Forest Reserve**.

### 13 **Previous Planning**

14 **Past Community Plans:** The 2004 Draft Strategic Plan for the District of Ka‘ū Courses of Action included:

- 15  ▪ **Establish a Forest Park** with campground and cabins, similar to Kalopa Park, possibly located **in**
- 16  **Manuka Forest Reserve**.
- 17  ▪ **Improve the facilities at Ka Lae** and promote small-group guided tours of scenic and historic sites.
- 18  ▪ **Approve skateboard parks** for Ka‘ū youth.
- 19  ▪ Provide County staffing for Kahuku Park.
- 20  ▪ Help the community **build a swimming pool at Kahuku Park**.
- 21  ▪ Implement the intention in the draft County Plan for a **swimming pool in Nā‘ālehu**, as part of a
- 22  Sports Complex.
- 23  ▪ Protect Honu‘apo Pond and provide parking and picnic tables, with possibly a Nature Trail.
- 24  ▪ **Develop Ninole Pond as a recreational area**.

25 **Honu‘apo Park Resources Management Plan:** Honu‘apo Park is owned by the State of Hawai‘i and was

26 set aside to the County of Hawai‘i for Estuarine Land Conservation and Public Recreation purposes by

27 Executive Order No. 4164 in 2006. The County’s Department of Parks and Recreation (DPR) signed a

28 Memorandum of Understanding (MOU) with Ka ‘Ohana O Honu‘apo (KOOH)<sup>87</sup> in 2008, which allows

29 KOOH to assist the County in maintaining current park facilities and to plan for community park

30 improvements.

31 The goal of the Honu‘apo Park Resources Management Plan is to provide land use guidance to help

32 protect and restore the important natural and cultural resources of the property while providing

33 integrated and respectful recreational and educational opportunities for the Ka‘ū community.

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<sup>87</sup> <http://www.honuapopark.org/>



1 Implementation steps include enhanced recreation facilities (e.g., BBQ pits, pavilions, camping),  
2 community-based management, improved access and parking, the Ala Kahakai trail segment, improved  
3 signage and interpretative displays, and ongoing cultural and educational activities.

4 **County Capital Improvements:** Recent and planned County parks and recreation projects in Ka’ū  
5 include:

6     ▪ Ka’ū District Emergency Gym and Shelter: Construction of this \$17,900,000 project is scheduled to  
7     be completed in early 2014.

8     ▪ Kahuku Park Community and Senior Center and Gym: \$8,500,000 has been appropriated in  
9     Ordinances 06-80, 08-133, and 12-87. \$400,000 has been allotted, and more than \$380,000 has  
10    been encumbered for design and planning. The project is on hold, however, while determining  
11    whether FEMA will collaborate to design the center as an emergency shelter. \$8,000,000 will lapse  
12    if not encumbered by June 30, 2015.

13    ▪ Pāhala Tennis Court Improvements: \$50,000 was appropriated in Ordinance 10-60 for the design  
14    and installation of lighting for nighttime usage of the Pāhala tennis courts, court resurfacing to  
15    address deterioration of the existing surface, and related improvements. The funds will lapse on  
16    June 30, 2013 if not encumbered.

17    ▪ Nā’ālehu Ball Park: Through a “Friends of the Park” agreement, the Nā’ālehu Park ball park field was  
18    renovated in 2012. The County supplied the materials, and community members supplied the labor.  
19    The County also installed new bleachers, ADA accessible walkways, dugouts, and fencing.

20 **State Capital Improvements:** \$476,296 in facility improvements, including comfort station, parking,  
21 landscape and picnic area improvements, are underway for Manukā State Wayside Park.

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**Preserving Village & Town Character**

‘A ‘ohe hala ‘ula i ka pō.  
*Beauty must be seen to be enjoyed.*  
‘Ōlelo no‘eau #137

This is the first of four sections of this appendix that focus on specific regions in Ka‘ū. Because Pāhala, Nā‘ālehu, and Wai‘ōhinu are so similar in character, this section addresses them together. It begins with summaries of Ka‘ū’s related values, priorities, and objectives and of the benefits of traditional village development. In tabular format, it then summarizes each village’s assets and challenges and concludes with summaries of existing County policy and previous planning.

**Community Values, Priorities, and Objectives**

During the initial round of CDP input (see Appendix V2), the Ka‘ū community identified a range of **values** related to Ka‘ū’s historic villages and towns: **people, community, family, aloha, diversity, church, quiet, lifestyle, country, small, isolation, little traffic, culture, uncrowded, history, freedom, pace.**

Likewise, the community identified the following related **priorities** for the local economy: **jobs, retail, services, dining, entertainment, tourism, and local business.** In Nā‘ālehu, **preserving character, smart growth,** and the **Nā‘ālehu Theater** were also identified as priorities.

When considering the community’s values and priorities along with resources and challenges summarized in the Community Profile, the Steering Committee adopted several community **objectives** that speak directly to Ka‘ū’s historic villages and towns:

- **Encourage future settlement patterns that are safe, sustainable, and connected.** They should protect people and community facilities from natural hazards, and they should **honor the best of Ka‘ū’s historic precedents: concentrating new commercial and residential development in compact, walkable, mixed-use town/village centers,** allowing rural development in the rural lands, and limiting development on shorelines.
- **Protect, restore, and enhance Ka‘ū’s unique cultural assets,** including archeological and historic sites and **historic buildings.**
- **Establish and enforce standards for development and construction that reflect community values of architectural beauty and distinctiveness.**
- **Identify viable sites for critical community infrastructure,** including water, emergency services and educational facilities to serve both youth and adults.
- **Establish or expand retail, service, dining, and entertainment centers** in rural villages and towns capable of supporting Ka‘ū- appropriate growth.

**Benefits of Traditional Villages**

1 The benefits of high-quality traditional villages and towns that are compact, walkable and include a mix  
2 of uses – like Pāhala, Nā’ālehu, and Wai’ōhinu – are well-documented<sup>88</sup>:

3 ▪ Stronger Community: People living in walkable neighborhoods trust neighbors more, participate in  
4 community projects and volunteer more than in non-walkable areas.

5 ▪ Improved Health: The average white male living in a compact community weighs 10 pounds less  
6 than his counterpart in a low density subdivision.

7 ▪ Lower Infrastructure Costs: Compact infrastructure is up to 47% less expensive than conventional  
8 suburban development patterns.

9 ▪ Lower Transportation Costs: Households in drivable suburban neighborhoods spend on average 24%  
10 of their income on transportation; those in walkable neighborhoods spend about 12%.

11 ▪ Cleaner Environment: Less driving means less air pollution, including lower greenhouse gas  
12 emissions.

13 ▪ Greater Property Values: Homes in walkable urban neighborhoods have experienced less than half  
14 the average decline in price from the housing peak in the mid-2000s.

15 **Community Assets and Challenges**


16 As the sugar industry in Ka’ū grew, plantation camps were established in the vicinity of the mills,  
17 including Honu’apo, Waibata, Ka’alāiki, Keaiwa, Kusumoto, Meyer, Higashi, and Moa’ula Camps. Later,  
18 the camps were consolidated into Nā’ālehu and Pāhala. The first three camps listed above were  
19 consolidated into Nā’ālehu, and the latter five into Pāhala. “Table 6: Pāhala Assets and Challenges” and  
20 “Table 7: Nā’ālehu Assets and Challenges” summarize the assets and challenges of those historic  
21 plantation towns. “Table 8: Wai’ōhinu Assets and Challenges” does the same for Wai’ōhinu, whose  
22 heritage as an agricultural center and crossroads extends to pre-contact Hawai’i. “Figure 11: Pāhala  
23 Community Base Map,” “Figure 12: State Land Use Districts in Pāhala,” “Figure 13: County Zoning in  
24 Pāhala,” “Figure 14: County Land Use Pattern Allocation Guide (LUPAG) for Pāhala,” “Figure 15: Nā’ālehu  
25 Community Base Map,” “Figure 16: State Land Use Districts in Nā’ālehu,” “Figure 17: County Zoning in  
26 Nā’ālehu,” “Figure 18: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Nā’ālehu,”  
27 “Figure 19: Wai’ōhinu Community Base Map,” “Figure 20: State Land Use Districts in Wai’ōhinu,” “Figure  
28 21: County Zoning in Wai’ōhinu,” and “Figure 22: County General Plan Land Use Pattern Allocation  
29 Guide (LUPAG) for Wai’ōhinu” also include many of the features referenced in the tables.

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<sup>88</sup> <http://www.placemakers.com/2012/09/13/places-that-pay-benefits-of-placemaking/>

- 1 **Pāhala Analysis**
- 2 **Table 6: Pāhala Assets and Challenges**

<b>Character</b>	Classic rural plantation town surrounded by working agriculture, with a strong sense of place and <u>historic buildings</u> .
<b>Neighborhoods</b>	Residential neighborhoods clustered around commercial and community facilities. Mostly single family residential <u>zoning</u> (RS), with minimum lot sizes of 7,500 to 15,000 square feet. Small section of multi-family residential zoning (RM) adjacent to the main commercial district to the north. Senior and teacher housing available.
<b>Transportation Facilities: road standards, connectivity, transit, active transport</b> 	Compact TND with curvilinear street pattern just mauka of Māmalahoa Highway; along <u>Scenic Byway</u> route. Network of interconnected streets distributes traffic and provides multiple routing choices. Collector streets include Kamani, Maile, Pikake, Pakalana, and Huapala. Narrow rural village road standards accommodate multi-modal traffic and calm vehicle speeds. Walkable and bikable: small blocks, and all neighborhoods within ½ mile of town center and facilities, with most within ¼ mile. Transit stop in town center. Ka‘alāiki and Wood Valley/Kapāpala Ranch Roads provide alternates to the highway.
<b>Potable Water</b>	Served by the <u>Pāhala water system</u> , which was recently upgraded with a new well. <u>Water service</u> is typically available for up to seven dwelling units per existing lot based on existing zoning. Service is also typically available for new changes of zone.
<b>Wastewater</b>	Individual cesspools <u>permitted</u> . <u>New sewer treatment system</u> under development. Lines limited to the baseyard and portions of Ilima, Huapala, Hinano, and Pikake Streets. Wastewater treatment plant site still undetermined and may lead to system expansion along new lines required. Otherwise, no plans to expand current system, but the plant will accommodate future growth.
<b>Emergency Services</b>	Fire Station and EMS staffed both by County and volunteer firefighters.
<b>Other Facilities &amp; Services: health, social, education, libraries</b>	Ka‘ū Hospital, Pāhala Elementary School, Ka‘ū High School, library, community center, senior center, park, pool, post office, transfer station
<b>Planned and In-Progress Capital Improvements</b>	<ul style="list-style-type: none"> <li>• Construction of <u>Ka‘ū District Emergency Gym and Shelter</u> is scheduled to be completed in early 2014.</li> <li>• Funds have been appropriated for a <u>fire station upgrades</u>.</li> <li>• Improvements are planned for the <u>recycling area</u>.</li> <li>• Various improvements are planned for the <u>schools</u>.</li> <li>• <u>Tennis court improvements</u> have been appropriated.</li> </ul>
<b>Commercial Districts</b>	<u>Village Commercial</u> (VC) district along Kamani, on the south side between Maile and Pikake and on the north side between Ohia and Pikake. Office buildings also located


	at Maile and Pikake.
<b>Agriculture Operations</b>	Macadamia and coffee orchards surround town. Macadamia husking mill on southern edge of town near highway. Coffee mill on Wood Valley Road. Biofuel production facility proposed north of town.
<b>Industrial Districts</b>	Identified as Industrial Center in the <a href="#">General Plan</a> . Large Limited and General Industrial zones on southern end of town. Vehicle maintenance facility and abandoned mill site border entrances to town via Maile and Meyer.
<b>Potential Brownfields</b>	Abandoned mills sites, base yards, & gas stations. Sites with pesticide contamination.
<b>Infill Options</b>	<p><b>Residential:</b> On RS parcels with an existing dwelling, an ‘ohana unit requires a public or private sewage disposal system and an approved public or private water system.</p> <p>Via subdivision of parcels under existing zoning and without any water system improvements, approximately 43 additional buildable lots could be created (456 are currently occupied).</p> <p><b>Commercial:</b> The capacity of existing commercially-zoned areas far exceeds commercial development. Portions of existing commercial development often have vacancies, and several commercially-zoned parcels are not developed for commercial use.</p> <p><b>Industrial:</b> The capacity of existing industrially-zoned areas far exceeds current industrial development.</p>
<b>Extension Options</b>	<p>The current State Land Use Urban district and the LUPAG Low Density Urban designation include TMK (3)9-6-012:012, which is the large parcel on the mauka, Hilo side of the highway, across the gulch to the east of Kamani Street. Access to the parcel from the existing town is difficult and would require either an expensive bridge or access from the highway, which would leave development disconnected from the existing neighborhoods.</p> <p>Existing infill potential will accommodate growth projections through 2030.</p> <p>Future expansion needs could be accommodated with the extension of water service to TMKs (3)9-6-005:045, (3)9-6-005:036, and (3)9-6-005:054, portions of which are zoned RS.</p> <p>51-acre TMK (3)9-6-005:001 is currently zoned Ag-20a and planted in macadamia, but it sits adjacent to a water line and two roads, and the subdivision directly makai was designed to accommodate street extensions mauka, so it would be a logical site for future town extension. It would require water system improvements and, if the number of dwellings exceeds 49, connection to the wastewater system.</p>



1 **Nā'ālehu Analysis**

2 **Table 7: Nā'ālehu Assets and Challenges**

<b>Character</b>	Classic rural plantation town surrounded by open pasture, with a strong sense of place and <u>historic buildings</u> , including the Nā'ālehu Theater. Picturesque, tree-lined highway serves as Main Street. Blends into Wai'ōhinu on Kona end.
<b>Neighborhoods</b>	Residential neighborhoods mauka and makai of the highway, bookended by the school and the park and commercial center. Single family residential <u>zoning</u> (RS), with minimum lot sizes of 7,500 to 15,000 square feet. Teacher housing available.
<b>Transportation Facilities: road standards, connectivity, transit, active transport</b>	Compact TND with a rectilinear grid pattern straddling Māmalahoa Highway, which serves as the town's tree-lined main street; along <u>Scenic Byway</u> route. Network of interconnected streets distributes traffic and provides multiple routing choices. Collector streets include Niu, Poha, Maia, Ohai, Kukui, Milo, Melia, Opukea, Kilika, Lokelani, and Nahele. Narrow rural village road standards accommodate multi-modal traffic and calm vehicle speeds. Walkable and bikable: small blocks, and all neighborhoods within ½ mile of town center and facilities, with most within ¼ mile. Transit stop in town center. Ka'alāiki Road provides alternate to the highway.
<b>Potable Water</b>	Served by the <u>Nā'ālehu-Wai'ōhinu water system</u> . Water service is typically available for up to seven dwelling units per existing lot based on existing zoning. Pressure service in this area extends up to 783 feet elevation, so water service is not available at higher elevations. Water is not available for new changes of zone.
<b>Wastewater</b>	Individual cesspools permitted. <u>New sewer treatment system</u> under development. Lines run to most of the residential neighborhood mauka of the highway. Wastewater treatment facility will be located near the highway on a portion of TMK (3)9-5-012:002, a State-owned parcel managed by DLNR and may lead to system expansion along new lines required. Otherwise, no plans to expand current system, but plant will accommodate future growth.
<b>Emergency Services</b>	Fire Station and EMS staffed both by County and volunteer firefighters. Police station.
<b>Other Facilities &amp; Services: health, social, education, libraries</b>	Nā'ālehu Elementary and Intermediate Schools, library, community center, park, cemetery, civic center, post office, Ka'ū Family Health Center
<b>Planned and In-Progress Capital Improvements</b>	<ul style="list-style-type: none"> <li>• Funds have been appropriated for a new <u>fire station</u>.</li> <li>• Funds have been appropriated for <u>police station</u> improvements.</li> <li>• Various improvements are planned for the <u>school</u>.</li> </ul>
<b>Commercial Districts</b>	<u>Village Commercial</u> (VC) district along the highway and in the commercial center.

<b>Agriculture Operations</b>	Pasture surrounds the town.
<b>Industrial Districts</b>	Identified as Industrial Center in the <a href="#">General Plan</a> . ~13 acre Limited Industrial zone north of town along Ka'alāiki Road.
<b>Potential Brownfields</b>	Base yards, old gas stations or repair shops
<b>Infill Options</b>	<p><b>Residential:</b> On RS parcels with an existing dwelling, an 'ohana unit requires a public or private sewage disposal system and an approved public or private water system.</p> <p>Via subdivision of parcels under existing residential zoning, approximately 68 additional dwelling units could be created (302 are currently occupied).</p> <p>On those parcels, approximately 154 more units could be developed with upgrades to the DWS water system that allow for full subdivision. If developers are able to include wastewater system improvements, another 180 more could be developed.</p> <p>Parcels (3)9-5-008:001 &amp; 010, which straddle Ka'alāiki Road and cover most of the area directly mauka of town, from Wai'ōhinu mauka to areas mauka of the police station, are also natural areas for infill. 2.7 acres adjacent to Punalu'u Bakery is zoned RS-15, and the rest is zoned either industrial or Ag-20a. However, the parcels have 67 pre-existing lots of record, most of which are smaller than 20 acres. In town, the parcels have access to the DWS water system, but service is limited very far mauka by the 783' pressure service zone, and a water variance is not possible due to limited rainfall.</p> <p><b>Commercial:</b> The capacity of existing commercially-zoned areas far exceeds commercial development. Portions of existing commercial development often have vacancies, and several commercially-zoned parcels are not developed for commercial use.</p> <p><b>Industrial:</b> The capacity of existing industrially-zoned areas far exceeds current industrial development.</p> 
<b>Extension Options</b>	<p>The current State Land Use Urban district and the LUPAG Low Density Urban designation include parcels makai of town as well as a portion of TMK (3)9-5-008:001, all of which are zoned Ag-20a. Because existing zoning is sufficient to accommodate foreseeable growth, expansion into those areas is inappropriate.</p> <p>Existing infill potential will easily accommodate growth projections through 2030.</p>

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1 **Wai'ōhinu Analysis**

2 **Table 8: Wai'ōhinu Assets and Challenges**

<b>Character</b>	Classic rural crossroads village surrounded by open pasture and working agriculture, with a strong sense of place and <u>historic buildings</u> . Blends into Nā'ālehu on the Hilo end.
<b>Neighborhoods</b>	Residential neighborhoods mauka and makai of the highway. Single family residential <u>zoning</u> (RS), with minimum lot sizes of 15,000 square feet.
<b>Transportation Facilities: road standards, connectivity, transit, active transport</b>	Compact CLD mostly straddling Māmalahoa Highway; along <u>Scenic Byway</u> route. Crossroads include Kamā'oa, Ka'alu'alu, and Haa Spring Roads. Sharp highway turns and narrow rural village road standards accommodate multi-modal traffic and calm vehicle speeds. Walkable and bikable: small blocks, and all neighborhoods within ½ mile of village center, with most within ¼ mile. Transit stop.
<b>Potable Water</b>	Served by the <u>Nā'ālehu-Wai'ōhinu water system</u> . Water service is typically available for up to two dwelling units per existing lot for properties fronting existing waterlines based on existing zoning. Service is not available for new changes of zone.
<b>Wastewater</b>	Individual cesspools permitted.
<b>Emergency Services</b>	None. Served by Nā'ālehu.
<b>Other Facilities &amp; Services: health, social, education, libraries</b>	Park, transfer station.
<b>Planned and In-Progress Capital Improvements</b>	<u>Transfer station</u> slotted for reconstruction.
<b>Commercial Districts</b>	<u>Village Commercial</u> (VC) district is home to the Shirakawa Hotel, and there are smaller Neighborhood Commercial (CN) districts along the highway.
<b>Agriculture Operations</b>	Pasture and orchards surround the town. DHHL owns subsistence agriculture land mauka of the village along Haa Spring Road.
<b>Industrial Districts</b>	Limited Industrial zones adjacent to Neighborhood Commercial district along highway and for County base yard. Both are owned by the State.
<b>Potential Brownfields</b>	Base yards, old gas stations or repair shops


<p><b>Infill Options</b></p> 	<p><b>Residential:</b> On RS parcels with an existing dwelling, an 'ohana unit requires a public or private sewage disposal system and an approved public or private water system</p> <p>Throughout Wai'ōhinu, many lots, most of which already have dwellings, are eligible for subdivision under existing zoning. Approximately 40 additional buildable lots could be created. Significantly more would be possible with upgrades to the DWS water system that allow for full subdivision.</p> <p><b>Commercial:</b> The capacity of existing commercially-zoned areas exceeds commercial development.</p>
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Figure 11: Pāhala Community Base Map



Figure 12: State Land Use Districts in Pāhala



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Figure 13: County Zoning in Pāhala

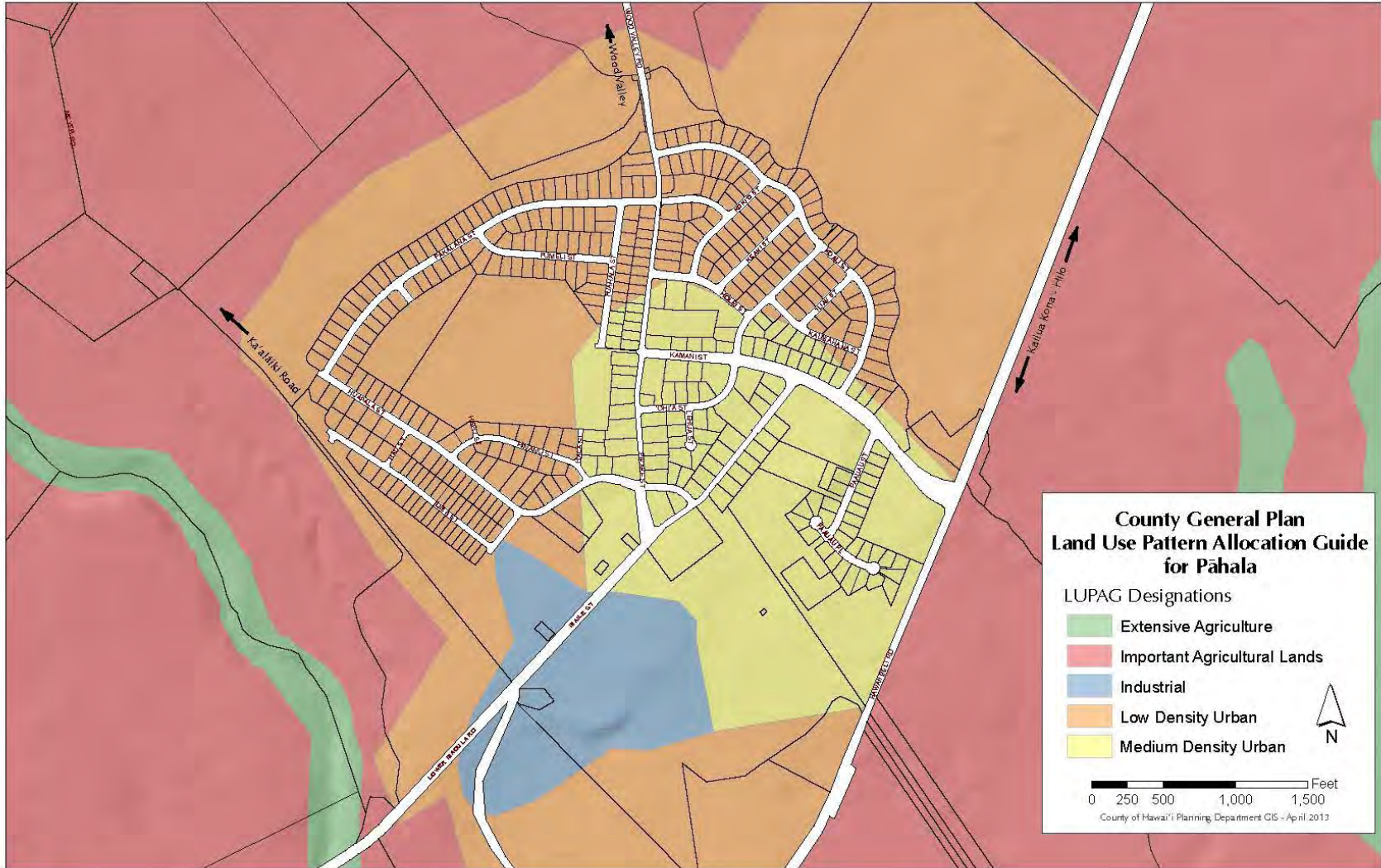


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Figure 14: County Land Use Pattern Allocation Guide (LUPAG) for Pāhala

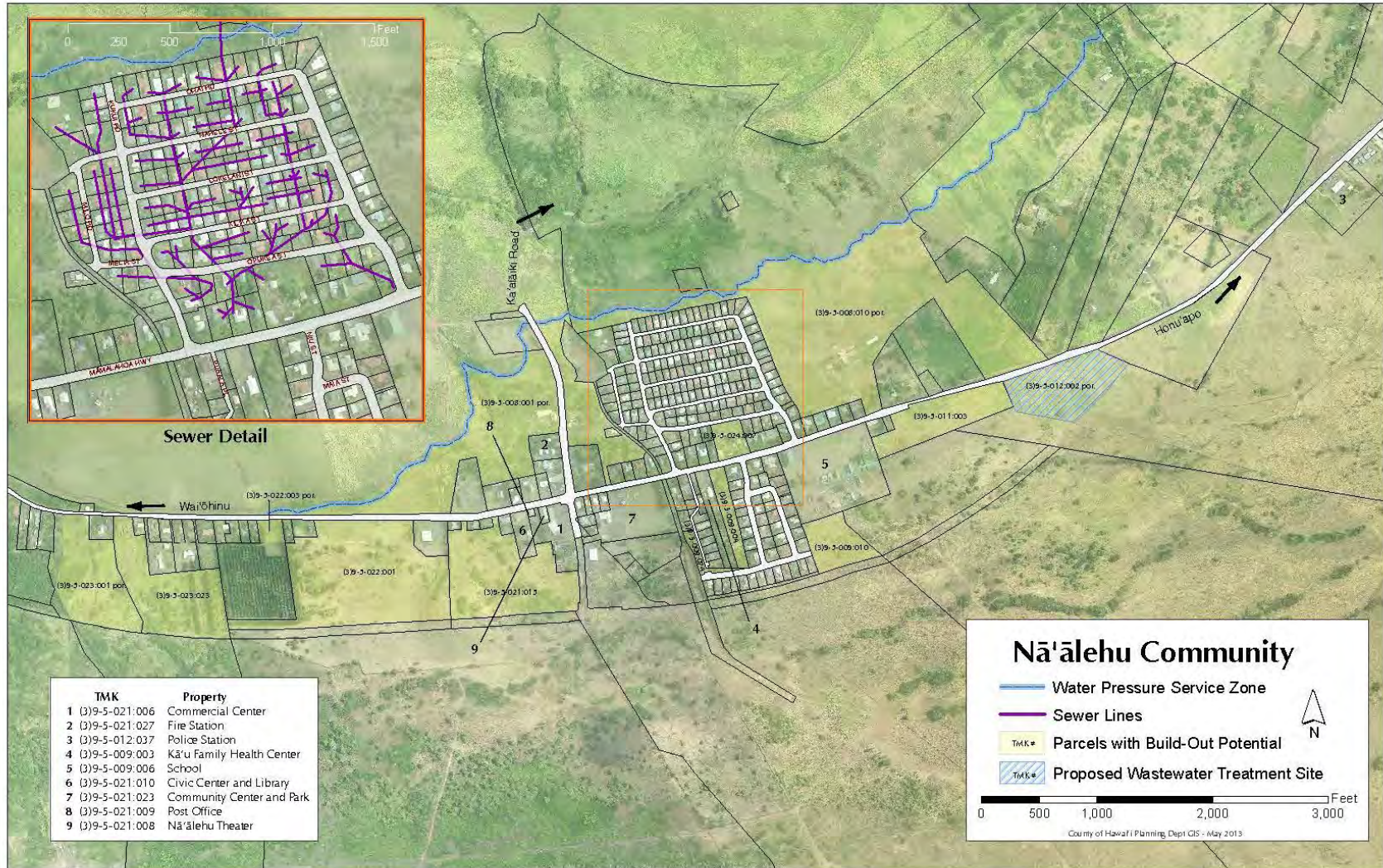


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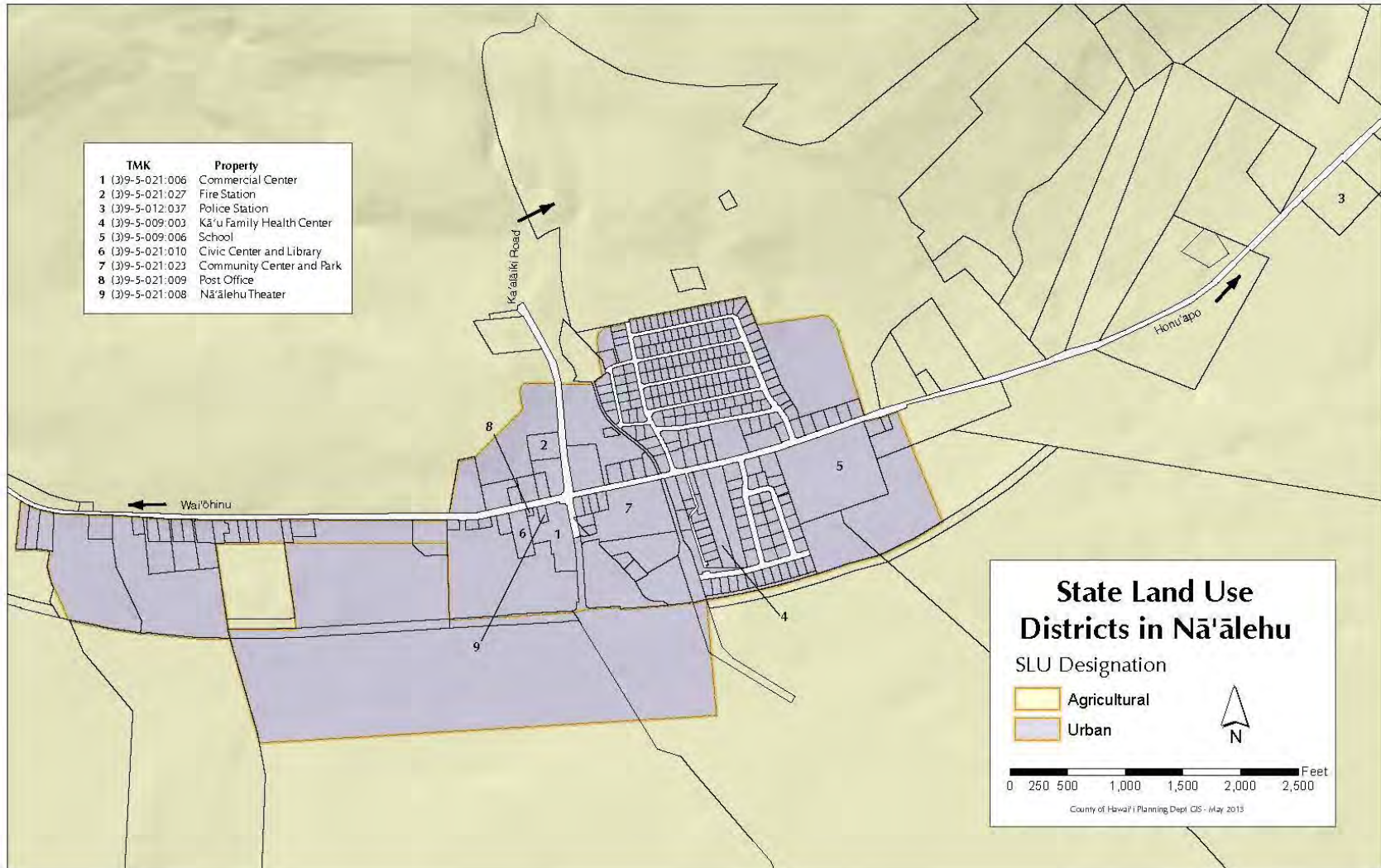
Figure 15: Nā'ālehu Community Base Map



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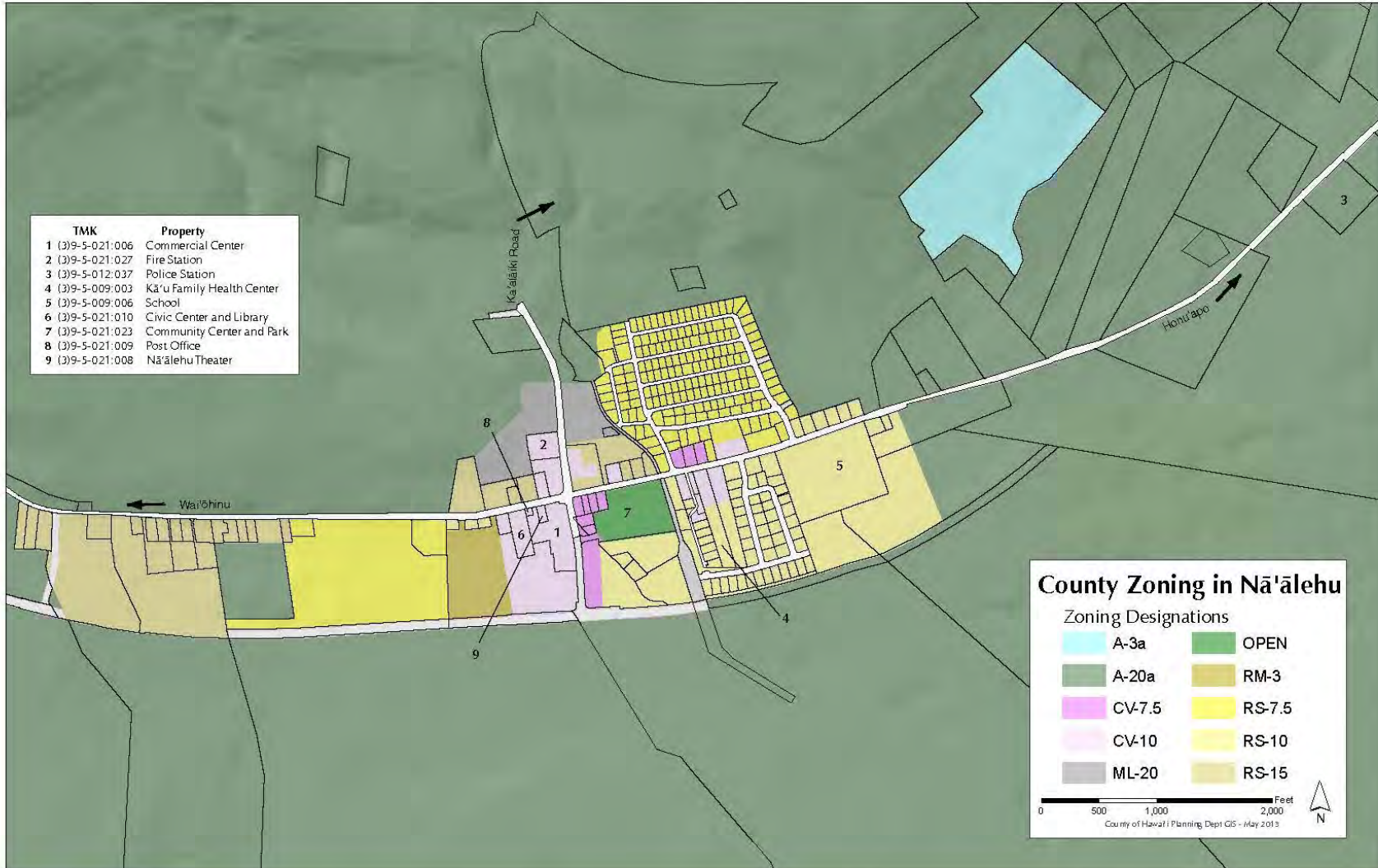
Figure 16: State Land Use Districts in Nā'ālehu





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Figure 17: County Zoning in Nā'ālehu



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Figure 18: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Nā'ālehu

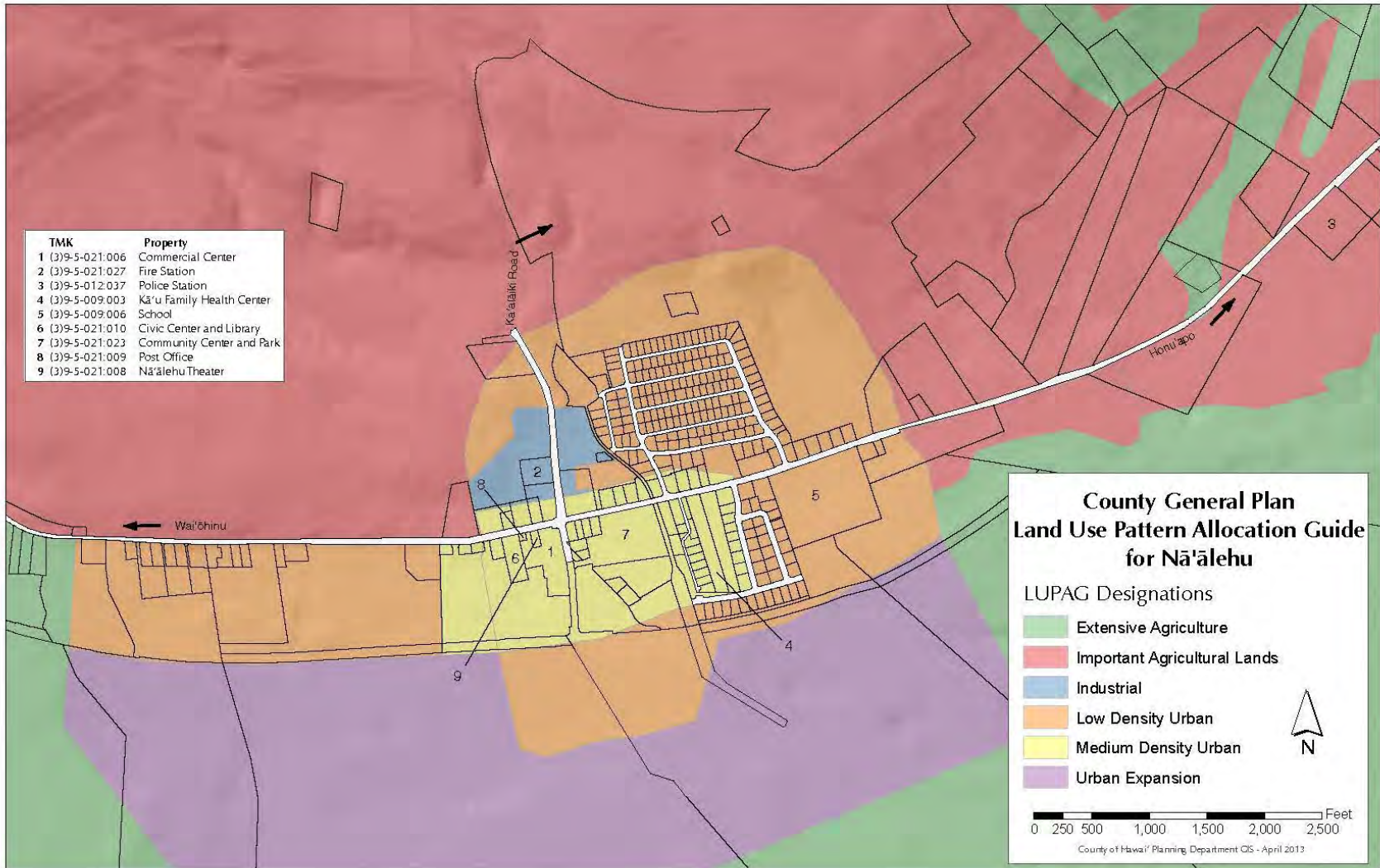


Figure 19: Wai'ōhinu Community Base Map



Figure 20: State Land Use Districts in Wai'ōhinu

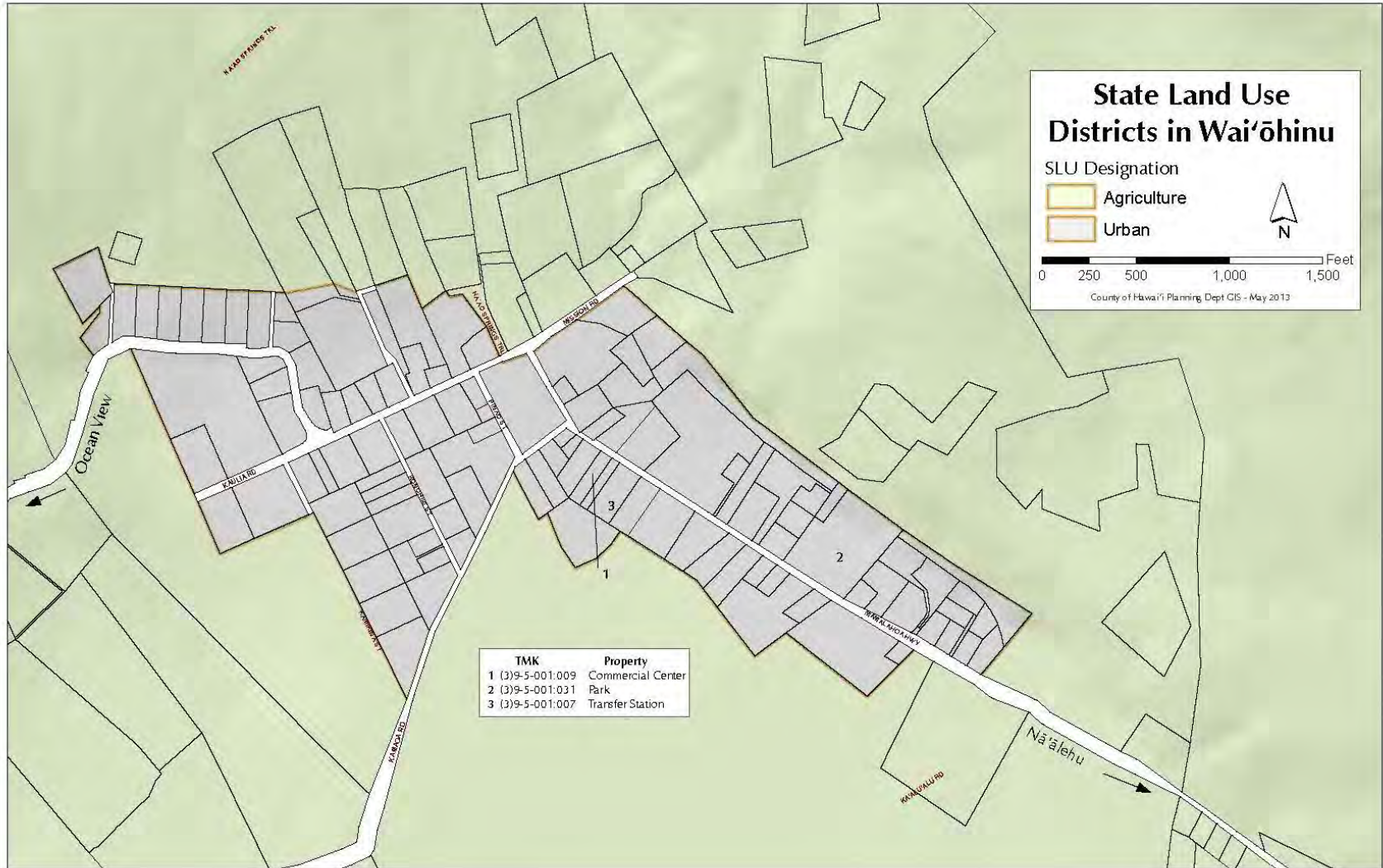


Figure 21: County Zoning in Wai'ōhinu

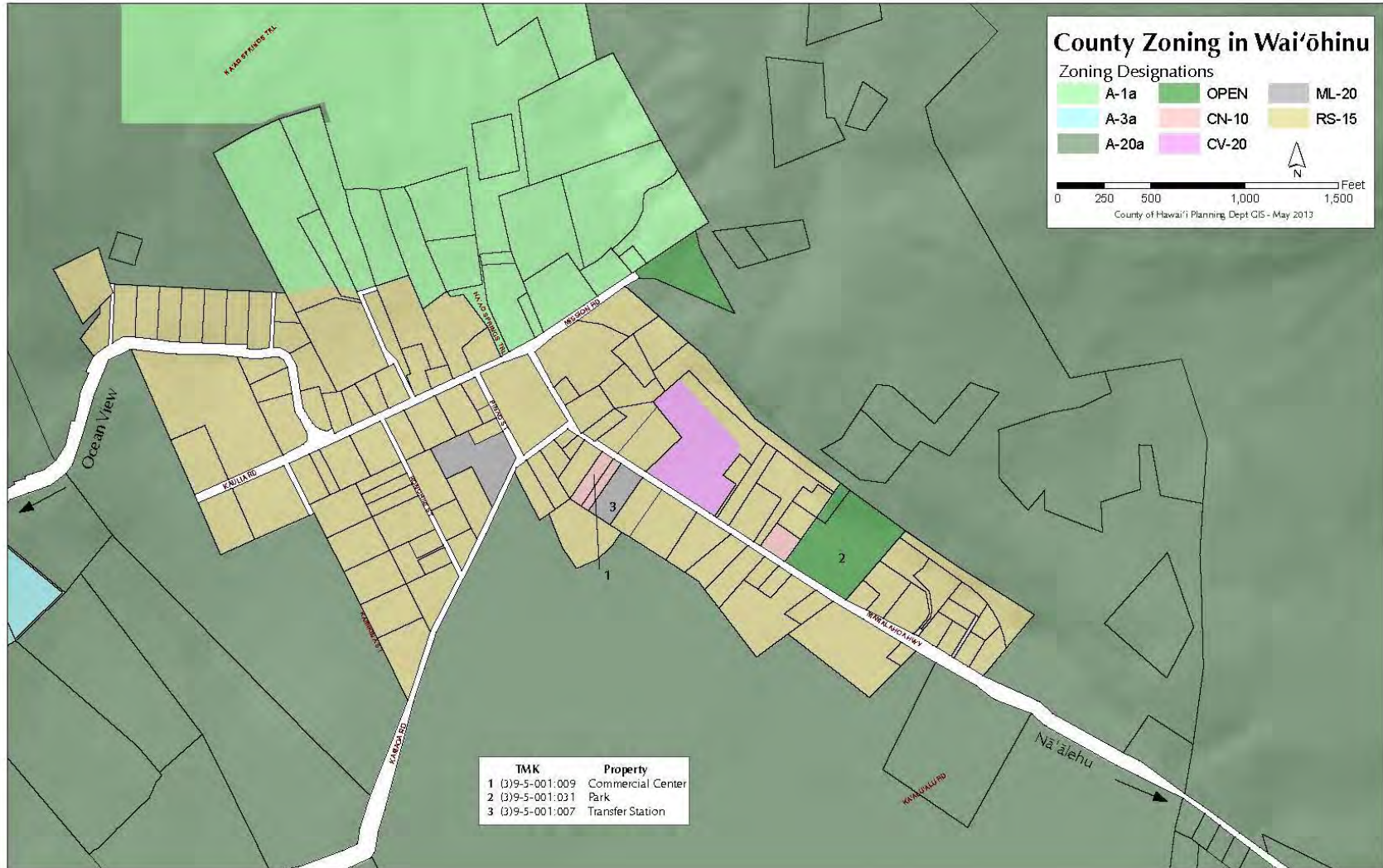
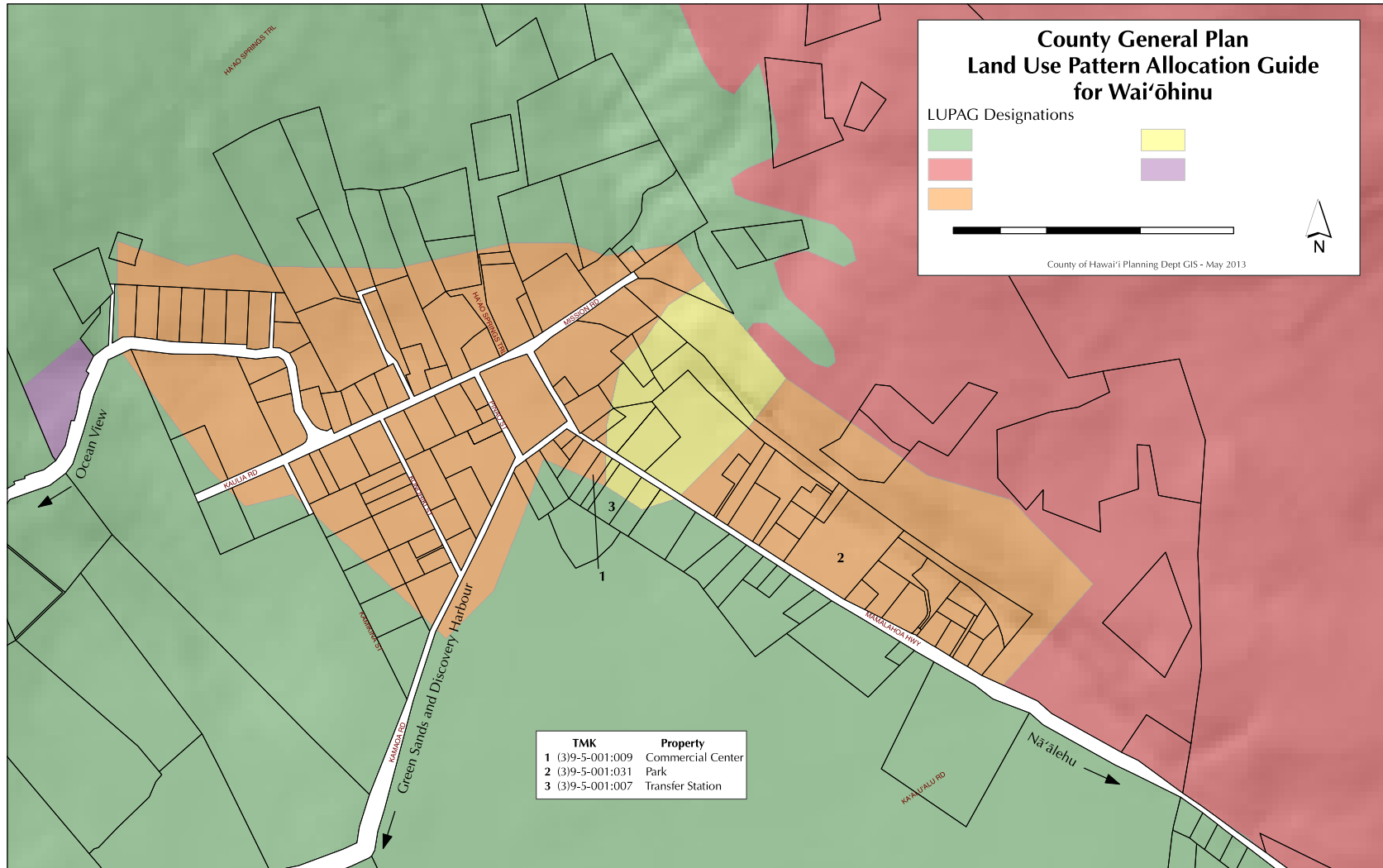


Figure 22: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Wai'ōhinu



1 **General Plan Policies and Courses of Action**

2 **Policies**

- 3     ▪ 14.1.3(b): Promote and encourage the rehabilitation and use of urban areas that are serviced by
- 4         basic community facilities and utilities.
- 5     ▪ 14.1.3(j): **Encourage urban development within existing zoned areas already served by basic**
- 6         **infrastructure, or close to such areas, instead of scattered development.**

7 **Courses of Action**

- 8     ▪ 14.3.5.9.2(a): Centralization of commercial activity in the communities of Pāhala, Nā’ālehu and
- 9         Ocean View and the area of the Volcanoes National Park shall be encouraged.
- 10    ▪ 14.3.5.9.2(b): Do not allow strip or spot commercial development on the highway outside of the
- 11         designated urban areas.
- 12    ▪ 14.4.5.9.2(a): Identify sites suitable for future industrial activities as the need arises.
- 13    ▪ 14.4.5.9.2(b): Service oriented Limited Industrial and/or Industrial-Commercial uses may be
- 14         permitted in the Nā’ālehu area although the area is not currently identified on the LUPAG map.

15 Table 14-5 lists urban and rural centers, industrial areas, and resort areas of the County by district.  
 16 Nā’ālehu, Pāhala, Wai’ōhinu are considered Urban and Rural Centers, and Nā’ālehu and Pāhala are  
 17 considered Industrial Centers.

18 **Previous Planning**

19 **Urban Design Plans:** In 1978, George Heneghan and Associates developed a draft of “Pāhala and  
 20 Nā’ālehu Urban Design Plans” for the County Planning Department in collaboration with a citizen  
 21 advisory committee and County agencies. The purpose of the plans was to facilitate quality design in  
 22 future development and construction, both public and provide, by addressing land use, circulation,  
 23 community facilities, protection of significant historic and natural features, and design guidance for  
 24 environmental and architectural character.

25 Recommendations were limited to Pāhala and included:

- 26     ▪ **Maintain appropriate protection of historic structures and sites** by controlling use and
- 27         compatibility of adjacent development and improving visibility, identification, and encouraging
- 28         rehabilitation
  - 29             ○ Encourage improvements for all historic buildings and sites that will aid in the interpretation
  - 30             of their significance and maintain their contribution to town character, including the
  - 31             plantation manager’s and supervisor’s houses, the row of camp houses on Pikake Street, the
  - 32             Hongwanji Mission, the Plantation Offices, and the Pāhala Theater.
  - 33             ○ Historic structures or sites should be buffered from incompatible development, either
  - 34             through siting or landscaping.
  - 35             ○ Development adjacent to historic structures or sites should be complementary in height and
  - 36             scale.

- 1   ▪ **Maintain appropriate and compatible use mixtures** and avoid detrimental conflicts
- 2   ▪ **Maintain appropriate gateway treatment** to create a visual awareness of arrival
- 3       ○ Announce the entry points at Kamani and Maile Streets with trees on the mauka side of the
- 4       highway
- 5       ○ Establish a tree canopy on both sides of Kamani Street
- 6   ▪ **Maintain streetscape standards** to include landscape, lighting, overhead utilities, signage, wooden
- 7       fences, and other appurtenances and setbacks
- 8       ○ Allow for see-through vistas
- 9       ○ Parking lots should be screened with landscaping or fencing
- 10      ○ Street lighting should be low-scale and integrated with landscaping
- 11      ○ Encourage historic wooden fencing
- 12      ○ Phase out existing overhead utilities to underground installation and require underground
- 13      utilities for proposed developments
- 14      ○ Do not require curbs and gutters where drainage can be adequately handled with
- 15      landscaped or asphalt swales
- 16   ▪ **Create a cohesive image through similarity in building scale and quality of detail** and preservation
- 17      of important buildings and natural features
- 18      ○ Encourage the continuance of the low-rise scale of existing residential and commercial
- 19      development
- 20      ○ Use materials and colors that reflect those that are existing and historically used in the area
- 21      ○ Roof slopes should reflect those historically associated with the area – hip, gable, etc.

22 **Nā'ālehu Theater:** The Nā'ālehu Theater was built after World War I by the Hutchinson Sugar Company  
 23 to provide entertainment for local residents<sup>89</sup>. Since 1979, the Theater has been owned and managed  
 24 by the 300 Corporation, which is the development arm of the Weinberg Foundation. Over the years,  
 25 Nā'ālehu Theater has been used for a variety of arts and youth programming and performances. Since  
 26 2006, it has stood vacant and has fallen into disrepair and is in need of improvements, including a new  
 27 roof.

28 The 300 Corporation currently leases it to KCOM Corporation, whose President is Val Peroff, one of the  
 29 principals behind the proposed Kahuku Village development. Future plans for this historic building are  
 30 unclear.

31 The Historic Hawai'i Foundation includes the theater on its list of Hawai'i's Most Endangered Sites. In  
 32 2005, volunteers submitted an application to the State for designation of the Nā'ālehu Theater as a  
 33 historic site. The Hawai'i Office of Historic Preservation was ready to assign historic status to the

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<sup>89</sup> *Honolulu Magazine*. November 2010.



- 1 theater, but the 300 Corporation declined, citing property rights issues, said Ross Stephenson, historian
- 2 for the state Historic Preservation Division of the Department of Land and Natural Resources<sup>90</sup>.
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<sup>90</sup> Bishop, Hunter. "Neglect in Nā'ālehu." *West Hawai'i Today*. May 6, 2013.



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<b>Punalu'u</b>
<p>E lauhoe mai na wa'a; i ke ka, i ka hoe; i ka hoe, i ke ka; pae aku i ka 'aina.</p> <p><i>Paddle together, bail, paddle; paddle, bail; paddle towards the land.</i></p> <p>Mary Kawena Pukui, 'ōlelo no'ēau</p>

This is the second of four sections of this appendix that focus on specific regions in Ka'u. It begins with summaries of Ka'u's values, priorities, vision, and objectives related to Punalu'u and of Punalu'u's assets and challenges. Next, it summarizes the area's land use designations by parcel as well as related General Plan policies and courses of action. Then the appendix chronicles the history of planning and development at Punalu'u, including initiatives by private developers; the County, State, and Federal government; the ali'i trusts; and local community groups.

Based on all of that analysis, a consensus community vision for Punalu'u is then offered along with the variables for the Ka'u community to consider when deliberating about options for Punalu'u's future. Finally, five alternative future scenarios for Punalu'u are introduced, including a description, similar examples from other communities, a summary of challenges and opportunities, and potential impacts for each scenario. This appendix concludes with a tabular summary of the "order of magnitude" impacts of each of the five alternative scenarios.

**Community Values, Priorities, Vision, and Objectives**

During the initial round of CDP input (see Appendix V2), the Ka'u community identified a range of values related to Punalu'u:

- 'Āina or Natural Resources: **natural beauty, beaches, open space, coastline, land, access, ocean, outdoor recreation**
- 'Ohana: **people, community, family, schools, safety**
- Country or Rural Lifestyle: **quiet, lifestyle, country, small, isolation, little traffic, culture, uncrowded, history, freedom, pace.**

Likewise, the community identified the following related priorities:

- Local Economy: **jobs, retail, services, dining, entertainment, agriculture, renewable energy, housing, tourism, local business**
- Recreation: **facilities, youth recreation, parks, programs**
- Education
- 'Āina: **access, natural resource protection, coastline, natural beauty.**

In addition, much of the **Values and Vision (V&V) Statement** adopted by the CDP Steering Committee speaks directly to community values and priorities at Punalu'u:

The Ka'u CDP should honor Ka'u's unique rural lifestyle, its connection between people and place, and its distinctive Hawaiian cultural heritage. [The Ka'u CDP] must plan for

1 the future in ways that protect and provide reasonable access to natural and  
2 recreational resources, including the mauka forests, the coastline, open spaces, and  
3 park facilities and programs...[and] that increase economic opportunities through a  
4 diverse, resilient, and sustainable economy.

5 When considering the community's values and priorities along with resources and challenges  
6 summarized in the Community Profile, the Steering Committee adopted several **community objectives**  
7 related to Punalu'u:

- 8 ▪ Protect, restore, and enhance **ecosystems**, including mauka forests and the **shorelines**, while  
9 assuring responsible **access** for residents and for visitors.
- 10 ▪ ...preserve and enhance **viewscapes** that exemplify Ka'u's rural character.
- 11 ▪ Protect, restore, and enhance Ka'u's unique **cultural assets**, including **archeological and historic**  
12 **sites** and historic buildings.
- 13 ▪ Encourage **community-based management plans** to assure that human activity doesn't degrade the  
14 quality of Ka'u's unique natural and cultural landscape.
- 15 ▪ **Encourage future settlement patterns that are safe, sustainable, and connected.** They should  
16 protect people and community facilities from natural **hazards**, and they should honor the best of  
17 Ka'u's historic precedents: **concentrating new commercial and residential development in**  
18 **compact, walkable, mixed-use town/village centers**, allowing rural development in the rural lands,  
19 and **limiting development on shorelines.**
- 20 ▪ Establish and enforce standards for development and construction that reflect community values of  
21 **architectural beauty and distinctiveness.**
- 22 ▪ **Identify viable sites for critical community infrastructure**, including water, emergency services and  
23 educational facilities to serve both youth and adults.
- 24 ▪ Establish a rural transportation network, including roadway alternatives to Highway 11, **a regional**  
25 **trail system**, and an interconnected transit system.
- 26 ▪ Preserve and greatly enhance **nā 'ohana economy.**
- 27 ▪ Increase the number and diversity of **income sources for residents**, including jobs and  
28 entrepreneurial opportunities **that complement Ka'u's ecology, culture** and evolving demographics.
- 29 ▪ **Establish or expand retail, service, dining, and entertainment centers** in rural villages and towns  
30 capable of supporting Ka'u- appropriate growth.

### 31 **Assets and Challenges**

32 "Figure 23: Punalu'u Community Base Map" includes many of the features referenced below.

33 **Location:** Punalu'u is located approximately 60 miles southwest of Hilo, 70 miles southeast of Kailua-  
34 Kona, five miles east of Nā'ālehu, and seven miles west of Pāhala along Māmalahoa Highway.

35 **Ahupua'a:** The Punalu'u ahupua'a is approximately 6,000 acres of land extending from mountains to  
36 sea. The climate and flora and fauna vary greatly from mauka to makai, with black sand beaches toward  
37 the sea, windswept plains in the kula region, and lush forests in the mountains. The Punalu'u shoreline

1 is a flat and rugged seascape that is dry and covered largely by pahoehoe lava, caves, heiau, naturally-  
 2 occurring wetlands (including anchialine and fish ponds and springs), and sparsely grown limu (seaweed)  
 3 that once grew in abundance. Turtles frequent the beach to feed on the limu and nest<sup>91</sup>.

4 **Hawaiian Village:** The Punalu‘u shoreline is rich with history, memories, legends, spiritual and cultural  
 5 practices and secret places that are passed on from generation to generation. Historically, the beautiful  
 6 black sand beach of Punalu‘u was the site of a major pre-contact Hawaiian village, and the area is now  
 7 home to significant archaeological sites from this period, including a human sacrificial heiau called  
 8 Punalu‘u Nui Heiau. In addition, numerous shrines, complex habitation sites, and petroglyphs are found  
 9 on lands in the vicinity of the black sand beach. The ala loa, or King’s Trail, is the relic footpath of  
 10 ancient Hawai‘i that circled the island along the shoreline, passing through Punalu‘u. Punalu‘u, or  
 11 “diving springs,” is well known for its fresh water springs filtering out into Nīnole, Puhau, and Punalu‘u.  
 12 Many ali‘i (chiefs) visited the fishing village in Punalu‘u and bathed and refreshed themselves in the  
 13 fresh water springs while on long journeys.

14 **Plantation Camp:** Hawaiians continued to farm and fish at Punalu‘u until their village was destroyed by  
 15 the 1868 tsunami. The village was rebuilt and eventually evolved into a thriving plantation camp with  
 16 the growth of the sugar industry in Ka‘ū between the late 1800’s and the 1940’s. Although no evidence  
 17 exists that Punalu‘u lands makai of the highway to Black Sand Beach were ever planted in sugar,  
 18 Punalu‘u did serve as an important harbor for the export of Hawaiian Agricultural Company sugar. With  
 19 the advent of the automobile and modern roads, where trucking the sugar in bulk proved more  
 20 economical than shipping in bags, the use of the harbor was discontinued and the village began a  
 21 gradual decline. In 1946, a major tsunami struck Punalu‘u and the village was largely abandoned. In  
 22 1975, another tsunami destroyed shoreline homes at Punalu‘u. Historic sites in Punalu‘u include Nīnole  
 23 School, Punalu‘u Harbor Wharf, Hokulau Church and cemetery, and numerous walls, enclosures and  
 24 roads.

25 **Black Sand Beach:** The black sand beach at Punalu‘u lies between Kahiolo and Pu‘umoa points is an  
 26 easily accessible swimming area that is heavily used. Parking just mauka of the beach is inadequate, and  
 27 vehicles sometimes park on the beach. A small, private, one-lane boat ramp is on the Hilo side of the  
 28 beach. The inshore waters from Punalu‘u to Nīnole have long been a popular fishing area for both pole  
 29 and throw-net for a variety of reef fish. A part-time County lifeguard monitors the beach.

30 Nīnole Pond, famous for its mullet, receives freshwater from icy springs. High storm surf and tsunamis  
 31 destroyed the pond walls, but the springs continued to flow until 1980, when extremely heavy rains  
 32 washed soil and boulders down the intermittent stream that empties into the pond, burying the pond  
 33 and springs. Nīnole Cove is a small public beach park with no facilities. A small inlet and several small  
 34 ponds in the lava rock are shallow and protected for children. Several pockets of black sand also offer  
 35 some small beach areas for easy entry and exit into the nearshore waters. The otherwise rocky  
 36 shoreline, high surf, and dangerous currents preclude swimming in the open ocean. Pole fishermen  
 37 report some good catches taken from these rough waters.

38 **Park:** The six-acre Punalu‘u Black Sand Beach Park located on Pu‘umoa Point is one of only two  
 39 developed beach parks in the District that offers safe swimming, is the dominant recreational focal point  
 40 for the community, and is a major tourist attraction. The area is scenic and used for picnicking, camping,

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<sup>91</sup> Punalu‘u’s rich natural resources are catalogued in a variety of sources, including Environmental Impact Statements and the National Park Service’s shoreline reconnaissance study.

1 and a rest stop for independent travelers and group bus tours. The County currently leases the park  
2 area from SM Investment Partners for \$1/year.

3 There are two distinct types of users currently visiting the park. The predominant recreational users are  
4 Ka'ū residents that principally visit the park on weekends for fishing and barbeques or more regularly for  
5 ocean-based subsistence activities. Tourists also utilize the park in heavy numbers. Many tourists arrive  
6 at regularly scheduled intervals by group tour busses and vans, but most only stay a short time to take  
7 photographs and view the black sand beach and turtles. During these frequent stops, especially on  
8 weekends, the beach can become quite crowded, losing its sense of tranquility.

9 According to a survey conducted jointly by the University of Hawai'i at Hilo, Hawai'i Community College,  
10 and Ka'ū Preservation between March and April 2006, an average of 1,148 persons per day visited the  
11 beach. Approximately 70% of these visitors arrived by car and 30% by commercial busses and vans.<sup>92</sup>  
12 The survey did not distinguish between visitors and residents. According to the survey, the tour busses  
13 stay at the beach for about 25 minutes allowing visitors sufficient time to take photos, view the turtles  
14 and use the restrooms. Beach users arriving by car are likely to comprise a mix short-term visitors and  
15 longer-term visitors that will recreate on the beach.

16 **Sea Mountain:** Mauka of the black sand beach is the existing, 432-acre Sea Mountain community  
17 developed by C. Brewer & Company between 1969 and 1972 (the site's [development history](#) is detailed  
18 below). Condominium and timeshare units are still in use as part of the Colony One development.  
19 However, due to inadequate investment into maintenance and upgrades over several decades by  
20 various owners, much of the existing resort infrastructure is in very poor condition, including the existing  
21 water and wastewater systems. Many of the resort's facilities have also been abandoned due to a lack  
22 of economic viability and increasing costs of maintenance. The Black Sand Beach Restaurant and gift  
23 shop is in considerable disrepair, with the buildings falling apart and being overtaken by surrounding  
24 vegetation. The Aspen Institute conference facility is also in disrepair, but these structures are still being  
25 used on a very limited basis by a non-profit organization that conducts regular meetings at the facility.  
26 The golf course is still in play, but most of the remaining lands are currently vacant in scrub grass, trees  
27 and shrubs. The property is owned by SM Investment Partners.

28 **Water System:** The Punalu'u Water & Sanitation Company owns the Punalu'u water system, which  
29 serves the Sea Mountain Resort and surrounding area (nursery taps, administration office, tennis courts,  
30 Colony One, golf club house, Punalu'u Beach Park, Punalu'u Village Restaurant). The source of potable  
31 water for the Punalu'u resort is a basal ground water aquifer, with an estimated pumping capacity of 10  
32 mgd.<sup>93</sup> The existing water system comprises two deep wells (approximately 200-feet apart), a pump  
33 station, and a 1.0 mgd water reservoir together with an underground distribution system. Each well has  
34 a pumping capacity of 1.5 mgd, but during simultaneous pumping the production capacity diminishes.<sup>94</sup>  
35 <sup>95</sup> Therefore, if one well is used for back-up purposes the total pumping capacity of the two wells is 1.5  
36 mgd.

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<sup>92</sup> Punalu'u Survey, March 6 through April 24, 2006.

<sup>93</sup> PBR Hawai'i. *Punalu'u Resort Final Environmental Impact Statement*. Page I -7. April 1998.

<sup>94</sup> PBR Hawai'i. *Punalu'u Resort Final Environmental Impact Statement*. Page IV- 213. April 1988.

<sup>95</sup> Hunsaker & Associates in Group 70, Inc., *Draft Environmental Impact Statement for Sea Mountain at Punalu'u: Appendix D, Potable Water, Recycled Water and Wastewater Systems, Sea Mountain at Punalu'u*. Page 3. June 2006.

1 Current projected water demand for the existing residential units and golf course is approximately  
 2 838,000 gpd. The projected water use for the existing residential units, based on the County of Hawai'i,  
 3 Water System Standards, Table 100-18 – Domestic Consumption Guidelines, is 38,000 gpd. Based on  
 4 actual irrigation of the golf course in 1988<sup>96</sup> it is estimated that golf course water demand is 800,000  
 5 gpd. In 1988, the golf course received approximately 20,000 gpd of treated wastewater<sup>97</sup> and 780,000  
 6 gpd of potable water for irrigation. Therefore, with one well serving as a back-up, the existing wells  
 7 could supply approximately 682,000 gpd of additional potable water. However, the existing water  
 8 system infrastructure appears to be in poor condition and significant maintenance, repairs and upgrades  
 9 may be necessary.<sup>98</sup>

10 **Wastewater System:** The entire area makai of the highway is in DOH's CWDA (critical wastewater  
 11 disposal area), meaning that it is subject to the use of a private wastewater system approved by DOH,  
 12 and cesspools are prohibited. DOH routinely monitors the water quality at one station located at  
 13 Punalu'u.

14 The existing wastewater collection system consists of gravity flow sewer lines, force mains and two lift  
 15 stations, and a wastewater reclamation plant. The existing wastewater reclamation plant has a capacity  
 16 of 0.18 mgd.<sup>99</sup> The existing residential units currently generate a projected 30,400 gpd, or .03 mgd of  
 17 wastewater based on the City and County of Honolulu's, Department of Wastewater Management's,  
 18 wastewater generation rates. This would leave approximately 150,000 gpd of additional capacity for  
 19 future development.

20 **Surrounding Lands:** The lands surrounding the Sea Mountain property are also largely undeveloped,  
 21 although most show evidence of disturbance due to sugar cane and ranching activities. To the west,  
 22 lands are owned by the State of Hawai'i, and parcels to the north and east are owned by the  
 23 Department of Hawaiian Home Lands, the State of Hawai'i, and Kamehameha Schools (Bishop Estate).  
 24 The Punalu'u Nui Heiau is located on the Kamehameha Schools property just mauka of the shoreline  
 25 along Sea Mountain's northwestern boundary. There are six privately owned parcels located between  
 26 black sand beach and the Sea Mountain properties. Two of these parcels are developed with a single-  
 27 family residence on each.

28 **Hazards:** The tsunami evacuation zone extends considerably inland at Punalu'u, and intermittent  
 29 streams in the area are also prone to flooding. Punalu'u is also vulnerable to wildfires, which are  
 30 frequent in and near the area.

31 **Punalu'u Land Use Designations by Parcel**

32 The Sea Mountain project site encompasses 16 parcels, the majority of which are within the State Land  
 33 Use Urban District. The shoreline lands are within the State Land Use Conservation District. Hawai'i  
 34 County General Plan Land Use Pattern Allocation Guide (LUPAG) designations for the project site include  
 35 Medium Density Urban, Low Density Urban, Open Area and Resort. Hawai'i County zoning includes  
 36 Agricultural 20-acre, Village Commercial, Open Area, and Multifamily Residential (RM-2 and RM-2.5).  
 37 The SMA extends from the shoreline to the highway. "Table 9: Punalu'u Land Use Designations by

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<sup>96</sup> PBR Hawai'i. *Punalu'u Resort Final Environmental Impact Statement*. Page IV-68. April 1998.

<sup>97</sup> Ibid.

<sup>98</sup> Hunsaker & Associates in Group 70, Inc., *Draft Environmental Impact Statement for Sea Mountain at Punalu'u: Appendix D, Potable Water, Recycled Water and Wastewater Systems, Sea Mountain at Punalu'u*. Page 3. June 2006.

<sup>99</sup> PBR Hawai'i. *Punalu'u Resort Final Environmental Impact Statement*. Page IV-215. April 1998.

1 Parcel” provides a breakdown of each parcel’s land use designations, which are also shown on “Figure  
2 24: State Land Use Districts in Punalu’u,” “Figure 25: County Zoning in Punalu’u,” and “Figure 26: County  
3 General Plan Land Use Pattern Allocation Guide (LUPAG) for Punalu’u.”

#### 4 **General Plan Policies and Courses of Action**

5 In addition to those listed in Appendix V4A that establish County shoreline policy, the following General  
6 Plan policies are relevant to the future of Punalu’u:

7 ▪ 2.3(c): Encourage the development of a visitor industry that is **in harmony with the social, physical,**  
8 **and economic goals of the residents of the County.**

9 ▪ 14.7.3(h): Encourage the visitor industry to provide resort facilities that **offer an educational**  
10 **experience** of Hawai’i as well as recreational activities.

11 ▪ 14.1.3(j): **Encourage urban development within existing zoned areas already served by basic**  
12 **infrastructure**, or close to such areas, instead of scattered development.

13 ▪ 14.3.3(b): Commercial facilities shall be developed in areas adequately served by necessary services,  
14 such as water, utilities, sewers, and transportation systems. Should such services not be available,  
15 the development of more intensive uses should be in concert with a localized program of public and  
16 private capital improvements to meet the expected increased needs.

17 ▪ 14.7.3(b): **Promote and encourage the rehabilitation and the optimum utilization of resort areas**  
18 **that are presently serviced by basic facilities and utilities.**

19 ▪ 14.7.3(c): Lands currently designated Resort should be utilized before new resorts are allowed in  
20 undeveloped coastal areas.

21 ▪ 14.7.3(j): **Re-evaluate existing undeveloped resort designated and/or zoned areas and reallocate**  
22 **these lands in appropriate locations.**

23 ▪ 14.7.3(i): Coastal resort developments shall provide public access to and parking for beach and  
24 shoreline areas.

25 ▪ 9.3(g): Large industries or developments that create demand for housing shall provide housing  
26 based upon a ratio to be determined by an analysis of the locality’s needs.

27 In addition, Table 7-14 of the County’s Natural Beauty Sites includes Punalu’u Black Sand Beach. Table  
28 14-5 lists Punalu’u as a Minor Resort Area.

29  
30



1 **Table 9: Punalu‘u Land Use Designations by Parcel**

TMK	Acres	SLU	Zoning	LUPAG
396001001	1.25	Urban	Resort – V-1.5	Resort
396001013	4.25	Urban	Resort – V-1.5	Resort
396001003	3.57	Cons. & Urban	Open & Resort – V-1.5	Open & Resort
396001002	1.95	Cons. & Urban	Open	Open & Resort
396002053	0.124	Urban	Resort – V-1.5	Resort
396001006	5.99	Cons. & Urban	Open	Open
396002037	3.71	Urban	Open & Resort – V-1.5	Open
396002008	3.29	Urban	Open & Resort – V-1.5	Open
396001011	0.442	Urban	Open	Open
396001012	0.188	Urban	Open	Open
395019031	4.88	Urban	Multi Family – RM-2	Med Dens Urban
395019026	2.73	Urban	Village Comm. – CV-10	Open
395019011	136.75	Cons. & Urban	Multi Family – RM-3 Multi Family - RM-2 Village Comm. – CV-10 Resort – V-1.5 Open	Low Dens Urban Open Resort
395019015	99.02	Urban	Multi Family - RM-2.5 Village Comm. – CV-10 Resort – V-1.5 Open	Open Med Dens Urban Low Dens Urban
396002038	44.56	Urban	Multi Family - RM-2.5 Village Comm. – CV-10 Resort – V-1.5 Open	Med Dens Urban Open Resort
395019024	108.80	Urban	Agricultural – A-20a	Med Dens Urban Open

2

3

Figure 23: Punalu'u Community Base Map



Figure 24: State Land Use Districts in Punalu'u

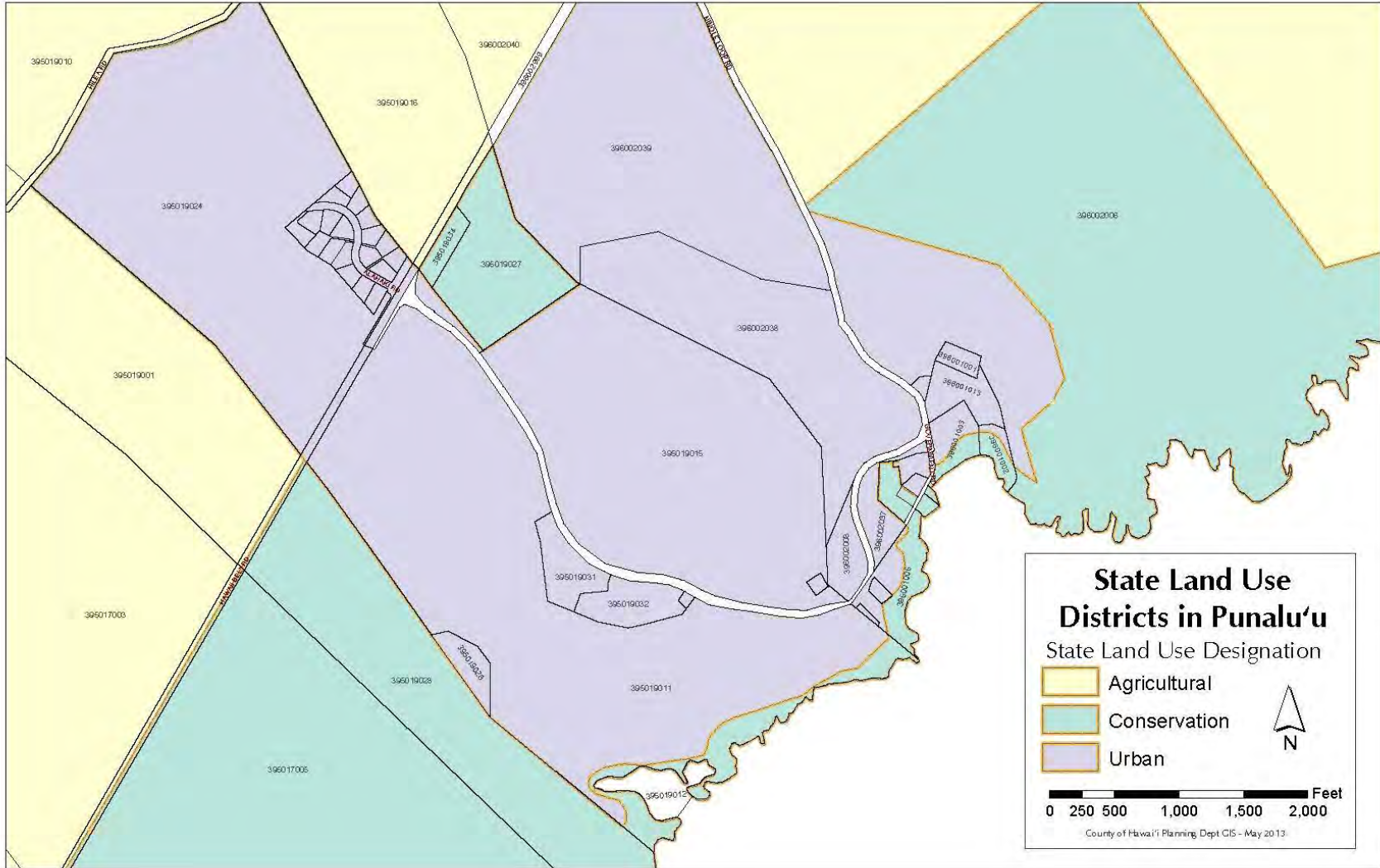
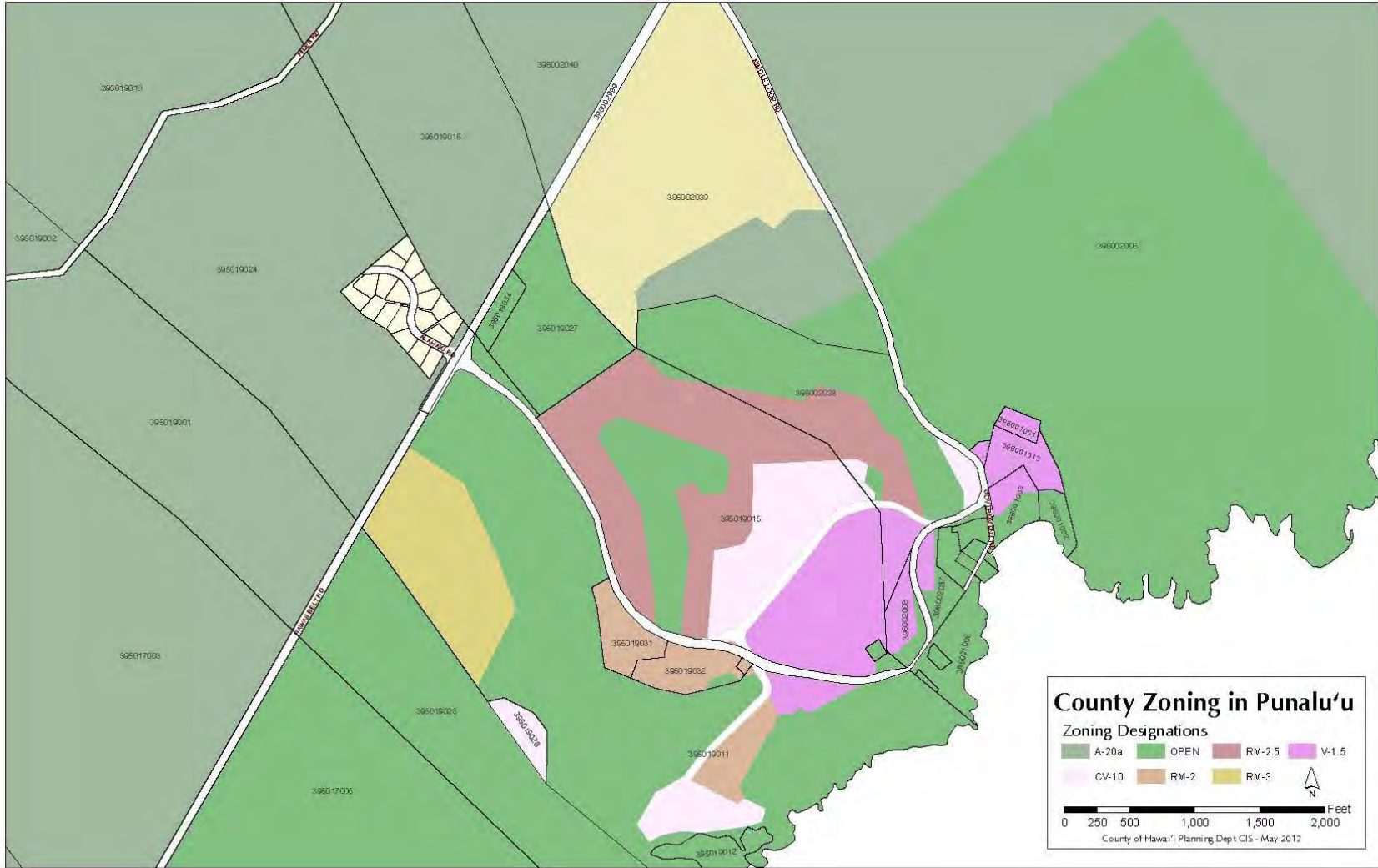
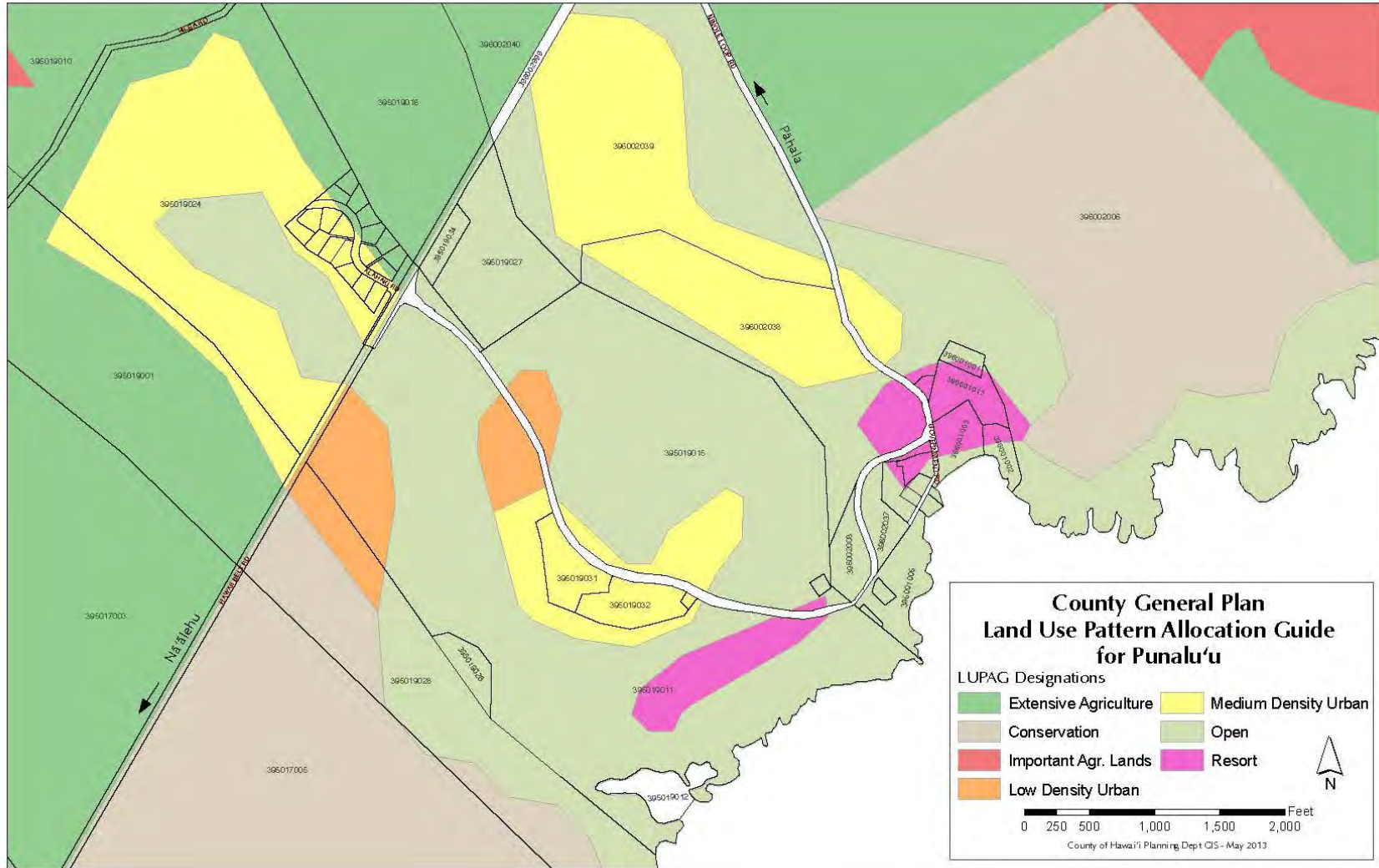


Figure 25: County Zoning in Punalu'u



1

Figure 26: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Punalu'u



2

- 1 General Plan Courses of Action for Ka'ū that are related to Punalu'u include:
- 2 ▪ 2.4.9.2(c): **Recognize the natural beauty of the area as a major economic and social asset. Protect**  
3 **this resource** through appropriate review processes when development is proposed.
  - 4 ▪ 2.4.9.2(a): **Balance development with the social and physical environment of the area.** Provisions  
5 for orderly development, housing, and pollution controls shall be implemented.
  - 6 ▪ 12.5.9.2(c): **Encourage the establishment of the Punalu'u-Ninole Springs region as a recreation**  
7 **area.**
  - 8 ▪ 12.5.9.2(g): **Encourage the restoration of Ninole Pond as a recreation area.**
  - 9 ▪ 14.7.5.9.2(a): **The development of visitor accommodations and any resort development shall**  
10 **complement the character of the area.**

## 11 **Previous Planning**

### 12 **C. Brewer & Company**

13 C. Brewer & Company was one of the original Big Five companies that controlled the sugar industry in  
14 Hawai'i for over 100 years. By the 1960s, even as sugar was declining statewide, C. Brewer controlled  
15 over 65,000 acres in the Ka'ū district. These lands were used primarily for sugar and later macadamia  
16 nut production and many thousands of acres were left fallow, including the Punalu'u lands.

17 By the late 1960s, C. Brewer & Company was looking to diversify its business by expanding into resort  
18 development. The Company viewed its Punalu'u properties mauka of the black sand beach as central to  
19 this goal. Between 1969 and 1972, C. Brewer Properties, Ltd. developed the Sea Mountain 18-hole golf  
20 course community, which included the 76-unit Colony One condominium project, 19-lot Kalana One  
21 single-family residential subdivision mauka of the highway, the Aspen Institute Center for Humanistic  
22 Studies, the Black Sands Restaurant, and the Ka'ū Center for History and Culture. C. Brewer also  
23 invested in considerable infrastructure including internal roadways, a wastewater treatment plant and  
24 distribution system, potable water wells and distribution system, and telephone and cable TV systems.  
25 In 1975 Punalu'u was hit by a tsunami, prompting C. Brewer to initiate a new master planning effort.

26 In 1984, C. Brewer had purchased additional adjacent parcels from Bishop Estate to expand the  
27 property. By 1988, entitlements were secured for the revised master plan, including a Final  
28 Environmental Impact Statement (EIS), a rezoning of 65 acres of the mauka portion of the property, and  
29 a General Plan Amendment to adopt the Resort Master Plan and support the rezoning.

### 30 **Punalu'u Development, Inc.**

31 In 1989, the Sazale Group (formerly Sekitei Kaihatsu Company, Ltd.) acquired the properties from  
32 C. Brewer, and Sazale established Punalu'u Development, Inc. (PDI) to carry out resort improvements.  
33 The proposed improvements included 500 to 635 hotel rooms, 240 to 400 hotel/condominium units,  
34 1240 to 1870 multi-family residential units, 71 to 78 single-family residences, up to 65,000 square feet of  
35 resort-oriented commercial, and various resort amenities.

36 In 1990, a Special Management Area (SMA) Use Permit Application was approved by a unanimous vote  
37 of the Planning Commission to permit development of the PDI Master Plan within the SMA. An appeal  
38 was filed in the Third Circuit Court by Punalu'u Preservation Inc., a Hawai'i nonprofit corporation;  
39 Margaret McGuire; and Palikapu Dedman against Phillip Michael Luce, in his capacity as the chairman of  
40 the Planning Commission of the County of Hawai'i, and Punalu'u Development Inc. While the case was

1 being processed through the courts, the collapse of the bubble economy of Japan began. As a result of  
 2 the resulting financial difficulties in its core business, the Sazale Group needed to divest itself of some of  
 3 its overseas assets and placed the property on the market for sale.

4 **SM Investments and Sea Mountain Five**

5 SM Investments (an investment partnership associated with Roberts Hawai'i) purchased the property  
 6 for ~10% the value paid by the Sazale Group. After purchasing the property, SM Investments did not  
 7 proceed with the development envisioned in the SMA approval, nor did it actively seek to resolve the  
 8 contested case that was before the Third Circuit. In 1998, the Court vacated the previous SMA approval  
 9 and sent the case back to the Planning Commission for resolution of the contested case before re-  
 10 hearing the SMA application. This was the state of affairs until 2005, when SM Investments agreed to  
 11 drop the contested case and start the process over again.

12 In 2006, Sea Mountain Five completed a Draft Environmental Impact Statement to support the  
 13 development of Sea Mountain at Punalu'u. The proposed development included up to 1,523 residential  
 14 units, up to 300 hotel units on one or two hotel sites, a championship 18-hole golf course, a  
 15 cultural/marine center, an upgraded wastewater treatment facility, a water reservoir, and other  
 16 supporting infrastructure. The proposed development received a broad array of community reaction  
 17 ranging from support for the project, to support of a scaled down resort development, to no support for  
 18 any type of resort development at Punalu'u. Reactions to the proposed project generated a great  
 19 amount of community conflict, and the development never proceeded.

20 **County Acquisition**

21 In 2006, Punalu'u Beach Park was identified as the third priority on the County Public Access, Open  
 22 Space, and Natural Resources Preservation Commission's (PONC) list of recommended acquisitions (The  
 23 acquisition of lands, including the PONC, is discussed in detail in Appendix V4A). Resolution 07-169 then  
 24 authorized the County Director of Finance to enter into negotiations for the acquisition of Punalu'u  
 25 Beach Park, Nīnole Ponds, and adjacent lands.

26 **Department of Hawaiian Home Lands (DHHL)**

27 DHHL owns 63 acres in Wailau, mauka of the highway at Punalu'u, across the gulch from the existing  
 28 mauka subdivision. DHHL has complete land use authority over DHHL lands and is therefore responsible  
 29 for determining land use of Hawaiian Home Lands.

30 DHHL's 2002 Hawai'i Island Plan calls for 110, 20,000-square foot residential lots, noting that off-site  
 31 expenses are relatively low given existing access points and utilities but that extensive on-site  
 32 preparation is required. At the time, the estimated project costs were nearly \$12 million. DHHL's 2012  
 33 Ka'u Regional Plan notes that it is likely that the Wailau infrastructure improvements will not occur prior  
 34 to leasing all 40 residential lots in Discovery Harbour.

35 **Kamehameha Schools**

36 Kamehameha Schools owns 62,490 acres of land in Ka'u. According to its 2009 Strategic Agricultural  
 37 Plan, about half is deemed unsuitable for agriculture due to the presence of high value ecosystems. The  
 38 remainder is leased for agricultural purposes, mostly for pasture, forest, and orchards. Most of the  
 39 lease agreements expire beyond 2015, but long term goals focus on agricultural, forest, and renewable  
 40 energy development.

41 Kamehameha Schools owns several parcels in and around Punalu'u. Mauka of the highway, it owns the  
 42 parcels to the Pāhala side of the DHHL parcel, on either side of Hilea Road. Those parcels are in the SLU

1 Agriculture district and zoned Ag-20a. Makai of the highway, it owns the large parcel to the Pāhala side  
2 of Nīnole Loop Road, portions of which are in the SLU Urban, Agriculture, and Conservation districts and  
3 zoned Ag-20 and Open. It also owns the parcel directly makai of the highway at the intersection of the  
4 highway, Hīlea Road, and Nīnole Loop Road; that parcel is in the SLU Urban district and zoned RS-15, Ag-  
5 20a, and Open.

### 6 **Ala Kahakai National Historic Trail (AKNHT)**

7 The AKNHT and the community-based, collaborative process for establishing and managing trail  
8 segments are explained in Appendix V4A.

9 According to the Ala Kahakai National Historic Trail Comprehensive Management Plan (CMP), Punalu'u  
10 was a royal center of the Hawaiian Kingdom. In addition to the residences of the king and high chiefs,  
11 these centers each had major sacrificial temples (luakini), refuge areas (pu'uhonua), and sporting  
12 ground. Large heiau were also present in some centers. Large populations were focused around these  
13 centers which were used steadily over successive generations. As a result, the CMP identifies the  
14 Punalu'u Ruins (including habitation sites, petroglyphs, and Punalu'unui Heiau, a huge luakini temple) as  
15 a "High Potential Cultural Site" along the Ala Kahakai trail. The trail segment in this area has curbing, is  
16 wider, and has causeways. Parts of the old trail on the edge of Nīnole Fishpond were damaged by the  
17 1868 tsunami.

### 18 **Scenic Byway**

19 Based on a nomination by the Ka'u Chamber of Commerce, the State established the [Ka'u Scenic Byway](#)  
20 – The Slopes of Mauna Loa<sup>100</sup>. Punalu'u is featured prominently among the 17 points of interest along  
21 Highway 11 between Manukā and Volcano.

### 22 **Ka'u Hawaiian Cultural Center**

23 In the late 1990s, Hana Laulima Lahui O Ka'u proposed the Ka'u Hawaiian Cultural Center (KHCC) at  
24 Punalu'u on the 5-acre, State-owned parcel along the highway, makai of the highway, to the Hilo-side of  
25 Nīnole Loop Road (TMK (3)9-5-019:034). Hana Laulima Lahui O Ka'u (HLLOK) was a non-profit  
26 community-based organization formed in 1995 to help address the economic challenges created by the  
27 closure of sugar plantations.

28 The Center was to be a community-based, sustainable, ecotourist attraction while also serving as a  
29 district-wide social and cultural anchor. The Center was to include:

- 30 ▪ Cultural events stage and traditional rock outdoor seating area. The purpose of the cultural events  
31 center was to stage cultural activities, cultural education, Hawaiian music festivals, Hula contests,  
32 special events, symposiums, and fundraisers.
- 33 ▪ Hawaiian museum and gift shop. The museum would have featured Hawaiian artifacts, art,  
34 sculpture and carvings, petroglyphs, historical items and photographs depicting the people and  
35 history of Ka'u. The gift shop would have featured Hawaiian handicrafts created by local artisans.
- 36 ▪ Hawaiian botanical garden. The agricultural products grown in the garden would have been used to  
37 create traditional value-added Hawaiian foods, arts and crafts, herbal teas, potpourri, lotions, oils,  
38 floral leis and ceremonial items.

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<sup>100</sup> <http://www.hawaiiscenicbyways.org/index.php/byway/kau-scenic-byway-the-slopes-of-mauna-loa>



- 1   ▪ Certified commercial kitchen. The certified kitchen would have been used to help raise funds for the
- 2   Center. It would also have been used to process and produce value-added products from plants
- 3   harvested from the botanical garden. The kitchen would have been available for rent by local
- 4   entrepreneurs to prepare Hawaiian and local ethnic foods for commercial distribution.
- 5   ▪ Kūpuna Project. The Kūpuna project was intended to preserve the oral history, traditions, and
- 6   knowledge of Hawaiian kūpuna in Kaʻū. The Center would have sponsored the kūpuna of Kaʻū to
- 7   preserve and teach Hawaiian history, language and songs to the community as well as visitors to the
- 8   Center.

9   The estimated construction costs for the KHCC were less than \$300,000. Assuming capture of a  
 10 conservative 1.5% of the annual visitors to Hawaiʻi Volcanoes National Park, HLLLOK estimated annual  
 11 gross sales over \$163,000 and profitability by year three of operation.

12 After receiving a State appropriation to help fund the project, the State failed to release the funds that  
 13 would have allowed the project to proceed.

14   **UH Mānoa Department of Urban and Regional Planning Practicum**

15 In 1998, a regional planning class used site visits, community meetings, informal and semi-structured  
 16 interviews, and observational activities to document daily life, physical environmental features of the  
 17 area, and notable cultural aspects of life in the district. Outcomes of the Practicum include the Punaluʻu  
 18 Land Management Plan developed with Hana Laulima Lahui O Kaʻū. In addition, the report also provides  
 19 an evaluation tool for any proposed project in Punaluʻu.

20   **Hawaiian Cultural Center at Kaʻū**

21 While negotiating a community benefits agreement with Sea Mountain Five, O Kaʻū Kakou developed a  
 22 proposal for The Hawaiian Cultural Center at Punaluʻu. Located on the Kamehameha Schools parcel  
 23 inside Nīnole Loop road makai of the highway (TMK (3)9-6-002:039), the Center would be developed in  
 24 partnership with Kamehameha Schools, the County of Hawaiʻi, and Sea Mountain Five. It would include  
 25 a Hawaiian village, Cultural Museum, art gallery, gift shop, open air Performing Arts Pavilion, theater,  
 26 multi-cultural food court, day care center, hula practice studio, and sleeping halau. The Center would  
 27 host classes, workshops, and other educational programs.

28   **The Punaluʻu Cultural Preserve: A Living Classroom**

29 Kaʻū Preservation proposes redeveloping the Punaluʻu ahupuaʻa as the Punaluʻu Cultural Preserve. The  
 30 Punaluʻu makai campus would include a visitors center, cultural center, theater, cultural marketplace,  
 31 aquaculture education center and farm, and a variety of outdoor classroom sites.

32   **Historic Site Nomination**

33 In 2007, Kaʻū Preservation nominated Punaluʻu to the National Register of Historic Places for its rich pre-  
 34 and post-contact historical and archaeological sites.

35   **Other Permitting Requirements**

36 As noted above, any future development at Punaluʻu would require an SMA use permit. In addition,  
 37 depending on the nature of the project, future development proposals may also have to address other  
 38 development controls, including: Shoreline Setback requirements, General Plan amendments, State land  
 39 use boundary amendments, rezoning, National Pollution Discharge Elimination System (NPDES) permit,  
 40 Underground Injection and Control Permit (UIC) approval, Commission on Water Resource Management

1 (CWRM) well permits, Department of Health (DOH) wastewater and irrigation approval, Clean Water Act  
2 compliance, subdivision approval, plan approval, grading permits, and building permits.

### 3 **Consensus Vision**

4 Despite the competing visions for Punalu'u within the Ka'u community, there is far greater consensus  
5 about what the future should hold than there is difference. Elements of that shared vision are offered  
6 below for community consideration:

7 **Keep It Ka'u:** Punalu'u should always be true to – and “feel” like – Ka'u. The size, uses, layout, and  
8 architecture of any future improvements should reflect and preserve Ka'u's open spaces, views,  
9 Hawaiian heritage, rural lifestyle, and “local” character.

10 Punalu'u should also protect and strengthen Ka'u's powerful connection between people and place.  
11 Unrestricted shoreline, beach, and park access should be maintained for boating, swimming, surfing,  
12 hiking/walking, fishing, gathering, camping, cook-outs, and cultural practices.

13 **Take Care:** This means taking care of Punalu'u's rich natural and cultural resources. The communities  
14 that have flourished in Ka'u for generations should be honored through careful stewardship of ancient  
15 and historic cultural sites as well as the natural beauty, water quality, wetlands, ponds, springs, and  
16 native and threatened species and habitats in the area. Interpretative signage should be installed to  
17 educate residents and visitors about Punalu'u's special history and natural systems.

18 This also means taking care of Ka'u's people. Punalu'u should be a resource for keiki, kupuna, 'ohana,  
19 and community. It is already used as a formal and informal research and education site, and those uses  
20 could be expanded to include training for cultural practices, traditional and modern trades, recreation,  
21 eco-tourism, natural resource management, archaeology, and many other fields. It should also provide  
22 new economic opportunity and options for residents of Ka'u – providing security and stability for  
23 thriving families and communities.

24 **Can Do:** The people of Ka'u must have a stake in both planning and managing Punalu'u's future. They  
25 are committed to Ka'u and have significant wisdom, passion, talent, and resources to invest. Through  
26 time-tested local protocols, “talk story,” and aloha, they can agree on a balanced path forward.

### 27 **Variables for Future Scenarios**

28 Future uses of the Punalu'u area present a unique opportunity to realize the community's consensus  
29 vision and to achieve the Ka'u community's environmental, community, and economic objectives.  
30 However, for a range of reasons, the path forward is unclear. Variables for the Ka'u community to  
31 consider when deliberating about options for Punalu'u's future include:

32 **Collaboration:** In addition to the local home and condo owners, land in the area is currently owned by  
33 SM Investments, Kamehameha Schools, DHHL, and the State. Many other organizations have a stake in  
34 Punalu'u's future, including the County, the National Park Service, DOT, SHPD, and various community  
35 groups, nonprofit organizations, and educational institutions. A range of collaborations, including  
36 creative models of ownership and management, should be considered.

37 **Uses:** The current residential and recreational options in the area could be complemented with a wide  
38 range of other uses, including open space, wilderness, botanical gardens, agriculture, aquaculture,  
39 resort lodging, more housing, more recreation, dining, retail, education, training, and research. A  
40 variety of mixes of use, their impacts, and the “market” niche they fill should be considered.

1 **Scale:** Between the status quo and something that is “too big,” there is a spectrum of “footprint” sizes of  
 2 future potential uses. Several feasible scales for future improvements should be considered.

3 **Resource Protections:** There are many “tools” available to protect the coastline and cultural resources,  
 4 including acquisition, easements, infrastructure improvements, avoidance (e.g., setbacks, careful siting),  
 5 green building and landscaping, historic districts, design guidelines, education, and monitoring. A mix of  
 6 these tools should be considered.

7 **Hazard Mitigation:** Punalu’u is susceptible to tsunamis, flooding, earthquakes, wildfires, and sea level  
 8 rise. Appropriate mitigation measures should be considered.

9 **Infrastructure:** Options may be limited for maintaining/upgrading/replacing the current infrastructure,  
 10 particularly the water and wastewater systems. Rough estimates of options and costs should be  
 11 considered.

12 **Jobs and Businesses:** The nature, quantity, and quality of economic opportunity created for local  
 13 residents could vary significantly. Estimates of jobs and other economic opportunities should be  
 14 considered.

15 **Community Benefits:** The bottom line at the end of the day is: Who benefits? While reasonable return  
 16 on investments is expected, it is also appropriate to guarantee that the use of community resources  
 17 benefits the people of Ka’ū. A range of [community benefits](#), including shoreline access, shared  
 18 equity/revenue, affordable housing, “local hire first” policies, local business development, educational  
 19 and cultural facilities, and other community services, should be considered along with proven methods  
 20 for ensuring accountability.

21 **Alternative Future Scenarios**

22 The following analysis discusses six potential alternatives for the future development of Punalu’u. The  
 23 “no action” alternative and the Sea Mountain alternative, as introduced above and described in the  
 24 2006 Draft EIS, serve as “bookends” to the other four alternatives.

25 The purpose of the alternatives analysis is to describe a range of possibilities for Punalu’u and the  
 26 anticipated impacts and tradeoffs for each. Based on the analysis, a preferred alternative – or range of  
 27 alternatives – can be identified and pursued.

28 In the discussion of economic impacts of each scenario, the employment impact is assessed. There are  
 29 typically three types of employment impact: direct, indirect, and induced. **Direct** employment consists  
 30 of jobs created directly by the project. **Indirect** employment consists of jobs created indirectly, including  
 31 outside vendors, contractors, and others that provide goods and services to the project. **Induced**  
 32 employment consists of jobs created because of the increased income in the economy as a result of the  
 33 project. Induced employment would include hiring of additional workers throughout the economy to  
 34 supply goods and services to the directly and indirectly hired workers.

35 **1. No-Action**

36 The no-action alternative would see the Punalu’u area remain in its current condition as described  
 37 above. The existing Sea Mountain community developed by C. Brewer & Company, including the Colony  
 38 One condominiums, 18-hole golf course, Aspen Institute Center, Black Sands Beach Restaurant, and  
 39 water, wastewater and roadway infrastructure, would remain in their current state of disrepair.

1 Likewise, facilities and use levels and patterns at Punalu‘u Black Sand Beach Park would likely also  
2 remain in their current state with the no-action alternative.

3 However, under the no-action alternative there could be the opportunity to improve management of  
4 the beach park. This could be undertaken through a partnership between the County, SM Investment  
5 Partners, and community groups. The partnership could develop a management plan to lessen the  
6 impact of busses on the beach, educate visitors on the area’s natural and cultural resources, and ensure  
7 that the beach park remains an important resource for both residents and visitors regardless of the  
8 development future of the Punalu‘u area.

## 9 **2. Hawaiian Cultural & Education Center**

### 10 **Description**

11 As noted above, there is strong interest in establishing a Hawaiian Cultural and Education Facility at  
12 Punalu‘u, and several proposals have been developed. For the purpose of the impact analysis, the  
13 Hawaiian educational and cultural center will comprise 5,000 square feet of floor area together with an  
14 outdoor stage and traditional rock outdoor seating area. The Center will include indoor and outdoor  
15 classrooms, museum and interpretive center, gift shop and a botanical garden. The Center will host  
16 Hawaiian cultural and environmental activities and classes together with eco-tours to the Center’s  
17 botanical garden, Punalu‘u Black Sand Beach Park, and the area’s rich archaeological resources.

### 18 **Examples in Hawai‘i**

19 The Ka‘iwakīloumoku Hawaiian Cultural Center<sup>101</sup> will be constructed at Kamehameha Schools Kapālama  
20 in Honolulu. In the interim, the Ka‘iwakīloumoku Virtual Archive serves as its virtual counterpart, a  
21 multi-media haven for online cultural learning.

22 In 1998, the Kaua‘i Heritage Center of Hawaiian Culture & the Arts<sup>102</sup> was established in Kapa‘a, Kaua‘i to  
23 educate, create awareness, appreciation and respect of the Hawaiian culture. The Center offered  
24 classes in Hawaiian language, hula, lei and cordage making, the lunar calendar and chanting in a 1,200  
25 square feet facility in the Kaua‘i Village Shopping Center. The Center also provided training to the visitor  
26 industry in traditional Hawaiian values. Instruction covering subjects on healing with herbs, sacred  
27 offerings, massage, music, proverbs and poetry were offered. Video presentations focused on diverse  
28 subjects including legends, traditional arts and crafts, and the overthrow of the Hawaiian Monarchy.  
29 The Center also displayed museum quality exhibits including tapa, Hawaiian quilts, stone adzes and poi  
30 pounders, wooden calabashes, hand-carved fishing tools, shell and feather lei, hula implements and  
31 instruments, woven baskets, hats, fans and mats. The Center organized workshops, education programs  
32 and special events as well as excursions to archaeological, historical and cultural sites. Frommers and  
33 other travel guides promoted the center to visitors. Frommers wrote in its 2008 guidebook: “The Kaua‘i  
34 Heritage Center of Hawaiian Culture and the Arts makes it possible for visitors to escape the usual  
35 imitations, tourist traps, and cliché’s in favor of authentic encounters with the real thing: Hawaiian arts,  
36 Hawaiian cultural practices, and Hawaiian elders and artists. What else can you expect on Kaua‘i?”

37 For financial reasons, at the time of this writing, the Kaua‘i Heritage Center is no longer operating out of  
38 the Kaua‘i Village Shopping Center. However, the Center still conducts programs including offering free

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<sup>101</sup> <http://kaiwakiloumoku.ksbe.edu/>

<sup>102</sup> [http://www.kaieie.org/Kauai\\_Heritage\\_Center.html](http://www.kaieie.org/Kauai_Heritage_Center.html)

1 lectures on Hawaiian culture and providing educational training workshops and classes to Kaua'i  
 2 residents and visitors.

3 Other ethnic cultural centers in Hawai'i are located in the following densely populated communities that  
 4 provide strong constituent bases: Japanese Cultural Center (Moilili, Honolulu)<sup>103</sup>, Okinawan Cultural  
 5 Center (Waipio)<sup>104</sup>, and Filipino Community Center (Waipahu)<sup>105</sup>. A capital campaign to develop a  
 6 Korean Cultural Center (a previous Korean Cultural Center has closed) has been on-going for the last  
 7 four years with significant support from the South Korean government.

8 Ethnic cultural centers on the island of O'ahu have struggled over the years because of:

- 9 ▪ High initial capital investment costs, ranging from 9 to 14 million dollars
- 10 ▪ Lengthy development. The centers have taken 7 to 10 years or more to develop.
- 11 ▪ Ongoing high operating costs
- 12 ▪ Insufficient revenue generating sources. Sources have been primarily a mix of facilities, banquet,  
 13 and meeting space rentals; museum/gallery activities; and cultural and educational workshops and  
 14 events.
- 15 ▪ Inconsistent stream of grant funding support despite the diversity in activity, including social,  
 16 cultural, educational, and economic/workforce development programs and activities.
- 17 ▪ Insufficient broad based donor support.

18 In Hilo, the East Hawai'i Cultural Center<sup>106</sup> is operated by the East Hawai'i Cultural Council, a coalition  
 19 founded in 1967 with six charter organizations reflecting Hilo's multi-ethnic heritage. The Council is  
 20 dedicated to preserving cultural, creative and traditional arts in Hawai'i; to foster community  
 21 involvement with culture and the arts; and to coordinate activities and resources among East Hawai'i  
 22 arts and cultural community. The Center's facilities include three public galleries; gift Shop featuring  
 23 locally created art and artifacts; and a performance space that serves as a theater, an art studio, a  
 24 meeting room, and a dance floor.

25 **Challenges and Opportunities**

26 Despite Hawai'i being a premier international tourist destination with a host culture rich in history,  
 27 traditions, language and the arts, there are very few organizations that bring all of these elements  
 28 together for the education of residents and visitors. While the lack of an established Center would  
 29 appear to present an untapped opportunity, it may also place in question the economic viability of such  
 30 an organization. Together with high capital costs to develop facilities, a full-time staff to manage, run  
 31 and maintain the facility is necessary. Thus, prior to seeking funding, a rigorous business plan with  
 32 marketing plan and financial projections is justified.

33 From a location perspective, there are clear challenges and opportunities associated with developing a  
 34 Hawaiian heritage center in Punalu'u. The primary advantage to Punalu'u is that it is a natural

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<sup>103</sup> <http://www.jcch.com/>  
<sup>104</sup> <http://www.huoa.org/nuuzi/index.html>  
<sup>105</sup> <http://filcom.org/>  
<sup>106</sup> <http://www.ehcc.org/>

1 “gateway” to the south entrance of the Hawai’i Volcanoes National Park. The Park attracts over 2.5  
2 million visitors annually, and if only a small percentage of these visitors visit Punalu’u then a  
3 considerable revenue stream could be captured.

4 Punalu’u itself is a major visitor attraction – the stunning natural, historical and cultural environment at  
5 Punalu’u cannot be replicated anywhere else on the island. Currently, Roberts Hawai’i schedules regular  
6 stops for its tour buses at Punalu’u Black Sand Beach Park. Each day approximately 1,180 visitors arrive  
7 at Punalu’u Beach Park.<sup>107</sup> If those visiting the Beach Park were to stop at the Center then this would  
8 also create a significant revenue stream for the Center.

9 Moreover, the historic plantation-era towns of Pāhala and Nā’ālehu are only a short distance away, and  
10 each offers visitors a unique window into Hawai’i’s plantation history and rural agricultural lifestyle.  
11 Together, these qualities make Punalu’u an attractive location for education and eco-tourism activities  
12 centered on Hawaiian history and culture, nature, and the grace and beauty of Ka’ū.

13 The primary disadvantage is the site’s remoteness from the island’s primary population centers. Such a  
14 facility will demand a consistent stream of residents and visitors to ensure its viability. The remote  
15 location is further challenged by the limited number of visitor accommodations available in Ka’ū. There  
16 are approximately ten small-scale accommodations in Pāhala and Nā’ālehu including vacation rentals  
17 and B&B’s. Further away, approximately 35 minutes by car, are approximately 40 accommodations in  
18 Volcano and the historic 42-room Volcano House lodge in Hawaii Volcanoes National Park. If the Center  
19 is to offer multi-hour tours and/or multi-day educational programs visitors may need additional  
20 accommodations closer to the Center.

21 To reduce the Center’s reliance on visitor revenues, it could develop strategic partnerships with outside  
22 organizations. Potential partners might include Kamehameha Schools, the University of Hawai’i, the  
23 National Park Service, the Hawai’i Visitors Bureau, among others. Such strategic partnerships could  
24 provide an important source of funding for capital facilities and operations.

## 25 **Potential “Order of Magnitude” Impacts**

26 **Population:** The development of a modest Hawaiian educational and cultural center, without accessory  
27 lodging units, should not directly or indirectly increase the resident or non-resident population. It is  
28 assumed that current residents of Ka’ū will be employed at the Center and that the Center will not  
29 generate sufficient economic stimulus to induce population growth.

30 **Economic:** The Center will have a positive economic impact. During the short-term, construction related  
31 jobs will be created during the construction phase of the project. These will be direct jobs created at the  
32 construction site and indirect jobs created off-site by engineering and architectural firms, building  
33 material suppliers, shippers, etc.

34 During the operation phase, employment will be created as the Center will need staff to manage, run  
35 and maintain the facility. It can be expected that the facility will require the following types of  
36 employees: management, marketing, accounting, retail sales, Hawaiian agricultural specialists, Hawaiian  
37 cultural specialists, and building and landscape maintenance personnel. The project may also create  
38 opportunities for existing businesses and entrepreneurs in Ka’ū. The Center’s gift shop could sell fresh  
39 and value added agricultural products, handi-crafts, soaps, lotions and a variety of other products made  
40 in Ka’ū. Ka’ū residents could also work with the Center to produce traditional Hawaiian foods, handi-

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<sup>107</sup> Punalu’u Survey, March 6 through April 24, 2006.

1 crafts and medicinal products from the Center’s botanical gardens. If the Center were to offer  
 2 interpretive eco-tours to Punalu’u Black Sand Beach Park and the historical and cultural sites in  
 3 Punalu’u, then additional jobs could be created. Moreover, the Center could offer classes in the  
 4 Hawaiian language, traditional Hawaiian medicine and massage, craft making, hula, ukulele and other  
 5 cultural practices that could create opportunities for Hawaiian practitioners. To the extent that the  
 6 Center attracts additional visitors into Ka’u, then it can be expected that existing businesses in Pāhala  
 7 and Nā’ālehu could also benefit from increased economic activity.

- 8 ▪ **Construction phase employment.** Assuming the construction and on-site development cost for the  
 9 Center is \$1.75 million (\$1.25 million in construction costs at \$250/square foot and \$500,000 in site  
 10 improvements) then the project could generate 7.50 worker years of construction. This assumes  
 11 that a worker year is equivalent to 2080 hours of employment and one worker year per \$200,000 of  
 12 construction costs and one worker year per \$400,000 for infrastructure and site costs<sup>108</sup>.

13 Alternatively, using the State of Hawai’i, Department of Business Economic Development and  
 14 Tourism’s Input-Output Model (2005), the direct, indirect, and induced employment impact spread  
 15 over the construction phase of the development (1 year) is approximately 21 jobs. The direct and  
 16 indirect employment impact during this period is estimated to be approximately 14 jobs and the  
 17 direct impact is 9 jobs during the construction phase.

- 18 ▪ **Operation phase employment.** During the operation phase, it is estimated that there will be one  
 19 worker per 400 square feet of commercial space<sup>109</sup>, or 13 employees. This is an increase of just 2.6%  
 20 over the approximate 500 jobs that currently exist in Kau. However, in addition to the direct jobs  
 21 created at the Center, indirect and induced employment will be generated outside of the Center.  
 22 Using the State of Hawai’i, Department of Business Economic Development and Tourism’s Input-  
 23 Output Model (2005) Type I and Type II multipliers for the retail and accommodation industries, an  
 24 additional 7 indirect and induced jobs are created both within and outside of the Kau District. Thus,  
 25 the total number of jobs created during the operation phase is 20.

26 **Water:** Using the County of Hawai’i, Water System Standards, Table 100-18 – Domestic Consumption  
 27 Guidelines the project will use approximately 9,200 gallons per day (gpd) of potable water. This  
 28 assumes that the 5,000 square foot center will use 700 gpd, while the botanical garden and landscape  
 29 plantings on approximately 2.5 acres will require 8,500 gpd of irrigation water. This additional use  
 30 represents just 1.3% of the available capacity and would therefore have little impact on the capacity of  
 31 the existing system.

32 **Wastewater:** Using the above-referenced wastewater generation rates, the 5,000 sq. ft. center would  
 33 generate 550 gpd of wastewater. This additional volume, just .36% of available capacity, would have  
 34 little impact on the capacity of the reclamation plant.

35 **Recreational Impact at Black Sand Beach Park:** The Hawaiian Cultural and Education alternative would  
 36 have minimal impact on current users of the park. The Center could result in a small increase in usage if  
 37 tours are conducted to introduce visitors to Punalu’u’s unique coastal ecosystem and historical and

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<sup>108</sup> The Hallstrom Group, Inc. “Economic Impact Analysis and Public Costs/Benefits Assessment of the Proposed  
 Kahuku Village Community, Kahuku, Ka’u, Hawai’i.” in PBR Hawai’i, *Kahuku Village Draft Environmental  
 Impact Statement*, July 2011.  
<sup>109</sup> Ibid.

1 cultural sites. However, these tours would be managed by trained guides and would likely involve small  
2 groups with strict protocols regarding proper access and viewing of resources.

3 “Table 10: Hawaiian Cultural and Education Center -- Summary of “Order of Magnitude” Impacts”  
4 summarizes the impacts described above.

### 5 **3. Punalu‘u as a “Gateway” to Hawai‘i Volcanos National Park & Punalu‘u Beach Park with** 6 **small-scale eco-cultural resort accommodations of approximately 50 rooms**

#### 7 **Description**

8 Many rural communities have worked with the National Park Service to strengthen their economies by  
9 serving as a “gateway” to a National Park, or similarly designated area. These communities leverage  
10 their proximity to the park to offer lodging, dining, shopping, entertainment and other goods and  
11 services to the Park’s employees and visitors. Communities that pursue this type of economic  
12 development often become more active stakeholders in the Park’s success. Residents may also become  
13 more active stewards of their own community, paying greater attention to the health of their natural  
14 resources and quality of the built environment. Yellowstone National Park, with approximately three  
15 million visitors annually, has fourteen recognized gateway communities, each offering visitors a variety  
16 of activities, lodging, dining and shopping opportunities<sup>110</sup>.

17 Hawai‘i Volcanoes National Park is the largest visitor destination in Hawai‘i, drawing about 2.5 million  
18 visitors per year. The Park is 30 miles from Hilo and 100 miles from Kailua-Kona. The shortest commute  
19 to the Park is a 40 minute drive from Hilo through the Park’s north entrance at Volcano. However, the  
20 bulk of the Island’s visitors stay in Kona, and the Park is about an hour and a half drive from Kailua-Kona  
21 via Ka‘ū and Punalu‘u.

22 There is only limited lodging and services located within the Park. The 42 room Volcano House is the  
23 only lodge in the Park. It is a rather rustic lodge with modest accommodations. Outside of the Park, in  
24 the Village of Volcano, there are a number of B&B’s and transient vacation rentals.

25 The communities of Nā‘ālehu, Punalu‘u, and Pāhala are all well positioned to capture some level of  
26 additional economic activity from visitors of Hawai‘i Volcanoes National Park. Punalu‘u is just a 20  
27 minute drive from the south entrance of Hawai‘i Volcanoes National Park.

28 The types of uses that are common to gateway communities are the same uses that could be  
29 established at Punalu‘u. These include lodging, dining, retail, entertainment and education uses.

#### 30 **Examples in Hawai‘i**

31 Travaasa Hana and the Sheraton Moloka‘i Lodge and Beach Village are two Hawai‘i examples of small  
32 scale, eco-cultural resort accommodations that would be appropriate within a gateway community.

33 **Travaasa Hana**<sup>111</sup>: Travaasa Hana, more commonly known as Hana Ranch Hotel, is located in the heart  
34 of Hana Town in remote East Maui. The hotel was originally opened in 1947 as Kaiuiki Inn by Paul and  
35 Helene Fagan. The hotel is well established and accepted by the community and is the largest employer  
36 in the Hana region. The hotel currently has approximately 80 employees and many of its visitors have  
37 been repeat customers for a number of years. The hotel creates a visitor experience built on the quiet,  
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<sup>110</sup> <http://www.yellowstonegeotourism.org/>

<sup>111</sup> <http://travaasa.com/hana/>



1 **Table 10: Hawaiian Cultural and Education Center -- Summary of “Order of Magnitude” Impacts**

Hawaiian Cultural and Education Center					
Summary of “Order of Magnitude” Impacts					
Population	Employment		Water (gpd)	Wastewater (gpd)	Recreation
	Const. <sup>112</sup>	Operations			
None	9	13 direct 20 direct, indirect & induced	9,200 (1.3% of available capacity)	550 (.36% of available capacity)	Very small increase in usage; better management & education

2

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<sup>112</sup> Direct employment only

1 solitude, natural beauty, outdoor activities and Hawaiian culture offered by Hana. The town of Hana  
2 serves as a gateway community to the makai entrance of Haleakala National Park, approximately 10  
3 miles away. Other services and accommodations within the town include B&Bs, vacation rentals, cafes,  
4 a gas station, and a general store.

5 The Travaasa Hana hotel is located on 69 acres, and facilities include a main building, 70 plantation style  
6 cottages, and garden view bungalow suites, shops, art gallery, restaurant, spa, two pools and tennis  
7 courts. The hotel includes 5,638 square feet of restaurant space and 3,100 square feet of retail space.  
8 Activities offered by the hotel include horseback riding, cultural activities, and fitness and outdoor  
9 activities.

10 **Sheraton Molokai Lodge and Beach Village:** The Lodge and Beach Village are located on Moloka'i's  
11 west end at Moloka'i Ranch, which encompasses 60,000 acres. The Lodge is located in Maunaloa Town,  
12 and the Beach Village is located on the coast at Ka'ūpoa Beach. The Lodge and Beach Village are  
13 currently no longer in operation due to the 2008 shutdown of Moloka'i Ranch operations; however, they  
14 serve as a helpful case study of a unique remote eco-tourism facility. While in operation, the Lodge and  
15 Beach Village were advertised as an eco-adventure resort sharing the solitude, beauty, culture and  
16 outdoor adventure offered on Moloka'i's west end. The resort employed about 120 people, and  
17 facilities included the Maunaloa Lodge and two sleeping cottages with 22 rooms, two restaurants,  
18 fitness center, library, spa, pool, gift shop, 18-hole golf course at Kaluako'i, and 40 two-bedroom  
19 tentalows and a dining pavilion at the Beach Village. Activities offered at the resort included horseback  
20 riding, mountain biking, hiking, ropes challenge course, kayaking, Hawaiian arts and crafts and a  
21 children's program.

## 22 **Challenges & Opportunities**

23 There are a range of potential challenges and opportunities that would be associated with establishing  
24 Punalu'u as a gateway to Hawai'i Volcanoes National Park and opening a small-scale eco-cultural resort  
25 near Punalu'u Beach Park. Many of the 2.5 million visitors heading to the National Park each year are  
26 entering through the south entrance and traveling through Punalu'u. However, with limited existing  
27 services and lodging accommodations, the community is unable to capture much revenue from these  
28 visitors. Establishing a small-scale lodge and services for visitors represents a major opportunity for  
29 economic development for the surrounding community. A variety of jobs would be created along with  
30 increased services for local residents. The community would also be provided the opportunity to share  
31 their culture and natural environment with visitors.

32 Potential challenges with this scenario include maintaining the rural community character and sense of  
33 place that makes Punalu'u, and Ka'ū in general, so special. Providing visitor accommodations and  
34 services will increase visitation to the area's already crowded Punalu'u Beach Park, increase traffic on  
35 local roadways, and could also lead to a population increase as some visitors may decide to buy property  
36 and become full or part-time residents.

37 This scenario also presents challenges given the existing infrastructure problems in Punalu'u. Extensive  
38 repairs and upgrades are needed which will require significant investment by the developer. A small-  
39 scale eco-cultural resort may not generate enough revenue to feasibly remedy the infrastructure  
40 deficiencies.

## 41 **Potential "Order of Magnitude" Impacts**

1 The magnitude of impacts of the Gateway Community scenario is directly relational to the scale of  
 2 development. For the purpose of the alternatives analysis, the following development scenario is  
 3 analyzed:

- 4 ▪ Hawaiian education and cultural center as in Alternative 2;
- 5 ▪ 50-room boutique eco-lodge; and
- 6 ▪ 5,000 square feet of commercial space.

7 It is assumed that the impacts caused by the Hawaiian education and cultural center are the same as  
 8 described in Alternative 2. The impacts described below are the cumulative impact of each component  
 9 of the development.

10 **Population:** This alternative will result in a small increase in the de facto population due to the  
 11 introduction of visitor units into the development. At 80% occupancy and at 2.05 persons per hotel  
 12 unit<sup>113</sup>, the project will increase the de facto population by 82 persons.

13 **Economic:** The development of an up-scale 50-room boutique eco-lodge and accessory commercial  
 14 space will create both short-term construction phase and longer-term operation phase employment.

- 15 ▪ **Construction phase employment.** Assuming that the 50-room eco-lodge is an up-scale 4-star facility  
 16 comprising 32,000 square feet at a construction cost of \$375 per square foot and that the 5,000  
 17 square feet of commercial space is \$325 per square foot, then the cost of construction is \$13.5  
 18 million, which would generate 57 worker years of construction. This assumes that a worker year is  
 19 equivalent to 2080 hours of employment and one worker year per \$200,000 of construction costs  
 20 and one worker year per \$400,000 for infrastructure and site costs. It is assumed that 70% of the  
 21 total cost is for construction and 30% for infrastructure and site work.<sup>114</sup>

22 Alternatively, using the State of Hawai'i, Department of Business Economic Development and  
 23 Tourism's Input-Output Model (2005), the direct, indirect, and induced employment impact spread  
 24 over the construction phase of the development (1 year) is approximately 163 jobs. The direct and  
 25 indirect employment impact during this period is estimated to be approximately 109 jobs and the  
 26 direct impact is 67 jobs during the construction phase.

27 The economic impacts caused by the Hawaiian education and cultural center are described in  
 28 Alternative No. 2. As noted, 7.5 to 9 worker years of direct construction employment would be  
 29 created by the development of the Hawaiian cultural center.

- 30 ▪ **Operation phase employment.** During the operation phase, the following assumptions are used:  
 31 One worker per 400 square feet of commercial space, and 0.7 full-time equivalent positions per  
 32 guest room.<sup>115</sup>

33 The 50-room eco-lodge and accessory 5,000 square feet of commercial (retail, restaurant) space  
 34 would create 48 operation phase jobs. These together with the 13 jobs created at the Hawaiian

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<sup>113</sup> The Hallstrom Group, Inc.

<sup>114</sup> The Hallstrom Group, Inc.

<sup>115</sup> The Hallstrom Group, Inc.

1 education and cultural center would create 61 new jobs. This is a 12.2% increase over the  
2 approximate 500 jobs that currently exist in Ka'ū.

3 In addition to the direct employment created at the facility, indirect and induced jobs would be  
4 created by the project. Using the State of Hawai'i, Department of Business Economic Development  
5 and Tourism's Input-Output Model (2005) Type I and Type II multipliers for the retail and  
6 accommodation industries, an additional 52 indirect and induced jobs are created both within and  
7 outside of the Ka'ū District. Thus, the total number of jobs created during the operation phase is  
8 113.

9 **Water:** Using the County of Hawai'i, Water System Standards, Table 100-18 – Domestic Consumption  
10 Guidelines, the project will use approximately 41,650 gpd of potable water. This assumes that the 50-  
11 room eco-lodge will use 16,000 gpd, the 5,000 square feet of commercial will use 700 gpd, and  
12 landscape planting on 4.5 acres will require 15,750 gpd of irrigation water. In addition, the Hawaiian  
13 education and cultural center will use 9,200 gpd.

14 It is anticipated that 80% of wastewater generated on site will be used for irrigation. Since the project  
15 would generate approximately 13,900 gpd of wastewater, approximately 11,000 gpd would be available  
16 for irrigation. Thus, the total potable water requirement for the project is 30,650 gpd.

17 This additional use represents just 4.5% of the available capacity and would therefore have little impact  
18 on the available capacity of the existing system. However, further study is required to determine the  
19 available capacity of the existing storage tank and subsurface transmission lines.

20 **Wastewater:** Using the City and County of Honolulu's, Department of Wastewater Management's  
21 Wastewater Generation Rates, the project would generate 13,900 gpd of wastewater. This assumes  
22 that the 50-room eco-lodge would generate 12,800 gpd, the commercial would generate 550 gpd, and  
23 the Hawaiian cultural center would generate 550 gpd. The existing wastewater reclamation plant, with  
24 additional capacity of 150,000 gpd, can accommodate the increase in wastewater, which is just 9.3% of  
25 existing capacity.

26 **Recreational Impact at Black Sand Beach Park:** The 50-Room Boutique Hotel with Hawaiian Cultural  
27 Center would produce an increase in the use of the Black Sand Beach Park since the eco-lodge would  
28 result in a small increase in the de facto population. If we assume that from 60% to 80% of the project's  
29 population will visit the Beach Park each day then from 49 to 66 additional persons will visit the beach.  
30 In addition, as described in the Hawaiian cultural center alternative, the Hawaiian Center could result in  
31 a small increase in usage of the Park if tours are conducted. However, these tours would be managed by  
32 trained guides and would likely involve small groups with strict protocols regarding proper access and  
33 viewing of resources.

34 Given the above assumptions, this alternative would result in a relatively small increase (4.3% to 5.7%)  
35 in the total number of persons visiting the beach during the day. This alternative may have a small  
36 impact on the resident population's "sense of ownership" and recreational use of the Beach Park.

37 "Table 11: 50-Room Boutique Hotel + Hawaiian Cultural Center -- Summary of "Order of Magnitude"  
38 Impacts" summarizes the impacts described above.

#### 39 **4. Small boutique hotel of approximately 150 rooms**

##### 40 **Description**

41 Hawai'i's tourism industry is dominated by large-scale resorts offering a full array of accommodations  
42

1 **Table 11: 50-Room Boutique Hotel + Hawaiian Cultural Center -- Summary of “Order of Magnitude”**  
 2 **Impacts**

50-Room Boutique Hotel + Hawaiian Cultural Center					
Summary of “Order of Magnitude” Impacts					
Population	Employment		Water (gpd)	Wastewater (gpd)	Recreation
	Const. <sup>116</sup>	Operations			
82	67	61 direct  113 direct, indirect & induced	32,400 (4.5% of available capacity)	13,900 (9.3% of available capacity)	Increase in visitors to the beach of 4.3% to 5.7%  May have a small impact on resident’s “sense of ownership” and place

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<sup>116</sup> Direct employment only

1 and services to visitors. These resorts are most often located in populated urban areas, proximate to  
2 dining, entertainment and popular beaches. Nevertheless, smaller scale boutique hotels have also  
3 emerged in more remote locations. These boutique hotels offer visitors an “alternative” to the  
4 traditional resort destination area. The hotels are often marketed as providing visitors a unique  
5 opportunity to immerse themselves in the local culture, history and natural environment. The hotel and  
6 grounds and the activities provided are designed to complement the area’s sense of place and provide  
7 an authentic experience for visitors. The solitude offered by the remote location is also important in  
8 setting these hotels apart from the more common resort destination experience. The types of uses that  
9 are common to remote boutique hotels are the same uses that could be established at Punalu’u,  
10 including lodging, dining, retail, entertainment and education uses.

### 11 **Examples in Hawai’i**

12 The Kona Village Resort<sup>117</sup> is a Hawai’i example of a small boutique resort that could be developed in  
13 Punalu’u. The Kona Village Resort is located on the Big Island’s Kohala Bay on 82 acres, about seven  
14 miles from the Kona airport. The resort was originally opened in 1965 and advertised as an oceanside  
15 Polynesian village located on the site of an ancient fishing village. The resort caters to visitors seeking  
16 quiet, solitude and outdoor and cultural activities. Facilities include 125 luxury thatched huts, two  
17 restaurants, two bars, two pools, a beach, tennis courts, spa, fitness center, and general store. Activities  
18 offered included water sports, cultural and historic tours, cultural activities, children’s program, and luau  
19 banquet. The resort is currently closed due to major damage sustained during the 2011 Tsunami.

### 20 **Challenges & Opportunities**

21 Developing an economically viable resort development at Punalu’u will be a challenging endeavor.  
22 Punalu’u is remote, located many miles from Hilo and Kailua-Kona, which requires long commutes to  
23 many of the island’s major attractions. Most visitors to the neighbor islands prefer to stay within  
24 established resort destination areas such as Ka’anapali and Wailea on Maui, Kona and the Kohala Coast  
25 on Hawai’i, and Poipu Beach on Kaua’i. These destinations offer superb beaches and a great diversity of  
26 dining and entertainment options. They may also be close to established beach side communities, such  
27 as Lahaina, Kihei, and Kona that are themselves major attractions. Resort developments in more  
28 isolated rural areas of Hawai’i have met with mixed results. Many of these resorts have struggled to be  
29 profitable, and some have failed.

30 Another potential challenge with this scenario includes maintaining the rural community character and  
31 sense of place that makes Punalu’u, and Ka’u in general, so special. Providing visitor accommodations  
32 and services will increase visitation to the area’s already crowded Punalu’u Beach Park, increase traffic  
33 on local roadways, and could also lead to a population increase as some visitors may decide to buy  
34 property and become full or part-time residents.

35 This scenario also presents challenges given the existing infrastructure problems in Punalu’u. Extensive  
36 repairs and upgrades are needed which will require significant investment by the developer. A small-  
37 scale boutique hotel may not generate enough revenue to feasibly remedy the infrastructure  
38 deficiencies.

39 Although there are significant challenges to establishing a successful resort in a remote location in  
40 Hawai’i there are also considerable opportunities that this type of economic development activity could  
41 provide Ka’u residents. The hotel and associated commercial services would provide a significant

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<sup>117</sup> <http://www.konavillage.com/index.html>

1 increase in jobs in the Ka’ū region, thus helping to balance the current job-housing imbalance. The  
 2 increased economic activity would also likely provide a catalyst for entrepreneurial growth from within  
 3 the surrounding communities.

4 **Potential “Order of Magnitude” Impacts**

5 The magnitude of impacts of development at Punalu’u is directly relational to the scale of development.  
 6 For the purpose of the alternatives analysis, the following development scenario will be analyzed:

- 7     ▪ Hawaiian education and cultural center as in Alternative 2;
- 8     ▪ 150-room boutique eco-lodge; and
- 9     ▪ 7, 500 square feet of commercial space.

10 It is assumed that the impacts caused by the Hawaiian education and cultural center are the same as  
 11 described in Alternative 2. The impacts described below are the cumulative impact of each component  
 12 of the development.

13 **Population:** This alternative will increase the de facto population of the region due to the introduction  
 14 of 150 visitor units into the development. It is not anticipated that the Hawaiian education and cultural  
 15 center or commercial space will increase population. At 80% occupancy and at 2.05 persons per hotel<sup>118</sup>  
 16 unit, the project will increase the de facto population by 246 persons.

17 **Economic:** The development of an up-scale 150-room boutique hotel and accessory commercial space  
 18 will create both short-term construction phase and longer-term operation phase employment.

- 19     ▪ **Construction phase employment.** Assuming that the 150-room hotel is an up-scale 4-star facility  
 20 comprising 101,500 square feet at a construction cost of \$375 per square feet and that the 7,500  
 21 square feet of commercial space is \$325 per square feet, then the cost of construction is \$37.7  
 22 million, which would generate 160 worker years of construction. This assumes that a worker year is  
 23 equivalent to 2080 hours of employment and one worker year per \$200,000 of construction costs  
 24 and one worker year per \$400,000 for infrastructure and site costs. It is assumed that 70% of the  
 25 total cost is for construction and 30% for infrastructure and site work.<sup>119</sup>

26 Alternatively, using the State of Hawai’i, Department of Business Economic Development and  
 27 Tourism’s Input-Output Model (2005), the direct, indirect, and induced employment impact spread  
 28 over the construction phase of the development (1 year) is approximately 457 jobs. The direct and  
 29 indirect employment impact during this period is estimated to be approximately 305 jobs and the  
 30 direct impact is 188 jobs during the construction phase.

31 The economic impacts caused by the Hawaiian education and cultural center are described in  
 32 Alternative No. 2. As noted, 7.5 to 9 worker years of direct construction employment would be  
 33 created by the development of the Hawaiian cultural center.

- 34     ▪ **Operation phase employment.** During the operation phase, the following assumptions are used:  
 35         ○ One worker per 400 square feet of commercial space;

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<sup>118</sup> The Hallstrom Group, Inc.

<sup>119</sup> The Hallstrom Group, Inc.

- 1           ○ 0.7 full-time equivalent positions per guest room; and
- 2           ○ 4 full-time landscape and maintenance jobs for common areas.

3           The 150-room hotel and accessory 7,500 square feet of commercial (retail, restaurant) space would  
4           create 124 operation phase jobs. These together with the 13 jobs at the Hawaiian education and  
5           cultural center would produce 137 new jobs. This is an increase of 27.4% over the approximate 500  
6           jobs that exist in Ka'ū

7           In addition to the direct employment created at the facility, additional indirect and induced jobs  
8           would be created by the project. Using the State of Hawai'i, Department of Business Economic  
9           Development and Tourism's Input-Output Model (2005) Type I and Type II multipliers for the retail  
10          and accommodation industries, an additional 132 indirect and induced jobs are created both within  
11          and outside of the Ka'ū District. Thus, the total number of jobs created during the operation phase  
12          is 269.

13          **Water:** Using the County of Hawai'i, Water System Standards, Table 100-18 – Domestic Consumption  
14          Guidelines, the project will use approximately 110,750 gpd of potable water. This assumes that the 150-  
15          room hotel will use 48,000 gpd, the 7,500 square feet of commercial will use 1,050 gpd, and landscape  
16          planting on 15 acres will require 52,500 gpd of irrigation water. In addition, the Hawaiian education and  
17          cultural center will use 9,200 gpd.

18          It is anticipated that 80% of wastewater generated on site will be used for irrigation. Since the project  
19          would generate approximately 39,775 gpd of wastewater, approximately 31,820 gpd would be available  
20          for irrigation. Thus, the total potable water requirement for the project is 78,930 gpd.

21          This additional use represents just 11.6% of the available capacity and would therefore have little impact  
22          on the available capacity of the existing system. However, further study is required to determine the  
23          additional capacity of the storage tank and subsurface transmission lines.

24          **Wastewater:** Using the City and County of Honolulu's, Department of Wastewater Management's  
25          Wastewater Generation Rates the project would generate 39,775 gpd of wastewater. This assumes that  
26          the 150-room hotel would generate 38,400 gpd, the commercial would generate 825 gpd, and the  
27          Hawaiian cultural center would generate 550 gpd. The existing wastewater reclamation plant, with  
28          additional capacity of 150,000 gpd, can accommodate the increase in wastewater, which is 26.5% of  
29          available capacity.

30          **Recreational Impact at Black Sand Beach Park:** The 150-room hotel with Hawaiian Cultural Center will  
31          produce a modest increase in the use of the Black Sand Beach Park since the hotel would result in an  
32          increase in the de facto population. If we assume that from 60% to 80% of the project's population will  
33          visit the Beach Park each day then from 148 to 197 additional persons will visit the beach. In addition, as  
34          described in the Hawaiian cultural center alternative, the Hawaiian Center could result in a small  
35          increase in usage of the Park if tours are conducted. However, these tours would be managed by  
36          trained guides and would likely involve small groups with strict protocols regarding proper access and  
37          viewing of resources.

38          Given the assumptions described above, this alternative would result in an increase from 12.9% to  
39          17.2% in the total number of persons visiting the beach. This alternative may impact on residents  
40          "sense of ownership" and recreational use of the Beach Park.



1 “Table 12: 150-Room Boutique Hotel + Hawaiian Cultural Center -- Summary of “Order of Magnitude”  
 2 Impacts” summarizes the impacts described above.

3 **5. Small to mid-size hotel of approximately 300 rooms with 400 second home residences**

4 **Description**

5 This scenario provides an alternative that is somewhat midway between the traditional large-scale  
 6 resort destination area and the previously described small boutique hotel. Mid-sized hotels of  
 7 approximately 300 rooms in remote locations have many of the same features and characteristics as  
 8 boutique hotels in remote locations such as a connection with the local culture and environment,  
 9 solitude and beauty, and an array of cultural and outdoor activities. However, this scenario presents a  
 10 hotel of twice the size and the associated commercial services would also be at a larger scale. In  
 11 addition, limited second home real estate development is also presented with this scenario. The size of  
 12 the second home real estate development could range up to 400 units and would be located proximate  
 13 to the hotel to facilitate the sale of units.

14 **Examples in Hawai‘i**

15 The Turtle Bay Resort<sup>120</sup> is a Hawai‘i example of a mid-sized hotel with associated second home real  
 16 estate development that could be established in Punalu‘u. Turtle Bay Resort is located on Oahu’s North  
 17 Shore between Haleiwa and Kahuku on 858 acres. The resort was originally opened in 1972 as Del  
 18 Webb’s Kuilima Resort Hotel and Country Club. Turtle Bay Resort identifies itself as offering an outer  
 19 island experience without leaving Oahu. Resort facilities include 375 guest rooms, 31 suites, 42 beach  
 20 cottages and ocean villas, 7 restaurants, shops, fitness center, spa, conference rooms, and two golf  
 21 courses. The resort employs approximately 500 to 520 people. Activities offered at Turtle Bay Resort  
 22 include helicopter tours, golfing, horseback riding, surfing, kayaking and five miles of beach front hiking  
 23 trails. The resort has a second home real estate component including 425 condo units.

24 **Challenges & Opportunities**

25 Challenges and opportunities of establishing a mid-sized hotel with limited second home real estate  
 26 development in remote Punalu‘u would be similar to that of the previous boutique hotel scenario. Due  
 27 to the remote location, establishing an economically viable resort development will be a challenging  
 28 endeavor. However, the addition of limited second home real estate development will increase the  
 29 chances that the hotel will be economically viable. Maintaining the rural community character and  
 30 sense of place that makes Punalu‘u, and Ka‘ū in general, so special will also be a significant challenge.  
 31 Providing visitor accommodations and services will increase visitation to the area’s already crowded  
 32 Punalu‘u Beach Park and increase traffic on local roadways. Given the presence of second home  
 33 development, this scenario would lead to a population increase as some visitors decide to buy property  
 34 and become full or part-time residents. This influx of new residents could impact the social makeup and  
 35 community character of the region.

36 As with the previous boutique hotel scenario, although there are significant challenges to establishing a  
 37 successful resort in a remote location in Hawai‘i, there are also considerable opportunities that this type  
 38 of economic development activity could provide Ka‘ū residents. The hotel and associated commercial  
 39 services would provide a significant increase in jobs in the Ka‘ū region, thus helping to balance the  
 40 current job-housing imbalance. The increased economic activity would also likely provide a catalyst for  
 41 entrepreneurial growth from within the surrounding communities.

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<sup>120</sup> <http://www.turtlebayresort.com/>

1 **Table 12: 150-Room Boutique Hotel + Hawaiian Cultural Center -- Summary of “Order of**  
 2 **Magnitude” Impacts**

150-Room Boutique Hotel + Hawaiian Cultural Center					
Summary of “Order of Magnitude” Impacts					
Population	Employment		Water (gpd)	Wastewater (gpd)	Recreation
	Const. <sup>121</sup>	Operations			
246	188	137 direct 269 direct, indirect & induced	110,700 (11.6% of available capacity)	39,775 (26.5% of available capacity)	Increase in visitors to the beach of 12.9% to 17.2%  May impact on resident’s “sense of ownership” and place

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<sup>121</sup> Direct employment only

1 **Potential “Order of Magnitude” Impacts**

2 The magnitude of impacts of development at Punalu‘u is directly relational to the scale of development.  
 3 For the purpose of the alternatives analysis, the following development scenario will be analyzed:

- 4 ▪ Hawaiian education and cultural center as in Alternative 2;
- 5 ▪ 300-room boutique eco-lodge;
- 6 ▪ 15,000 square feet of commercial space; and
- 7 ▪ 400 residential units.

8 It is assumed that the impacts caused by the Hawaiian education and cultural center are the same as  
 9 described in Alternative 2. The impacts described below are the cumulative impact of each component  
 10 of the development.

11 **Population:** This alternative will increase the de facto population of the region due to the introduction  
 12 of 300 visitor units and 400 second home residences into the development. It is not anticipated that the  
 13 Hawaiian education and cultural center or commercial space will directly induce population growth.

14 The following assumptions were used to calculate the project’s population impacts:

- 15 ▪ The 300 hotel units would be 80% occupied with 2.05 persons per unit;
- 16 ▪ Twenty-one percent of the 400 residential units would be transient vacation rentals occupied 60% of  
 17 the time at 3.5 persons per unit; and
- 18 ▪ Seventy-nine percent of the 400 residential units would be second homes for part-time residents  
 19 and occupied 25% of the time.<sup>122</sup>

20 Using these assumptions, the subject project would increase the de facto population by 900 persons.

21 **Economic:** The development of an up-scale 300-room hotel, accessory commercial space, and 400  
 22 residences will create both short-term construction phase and longer-term operation phase  
 23 employment.

- 24 ▪ **Construction phase employment.** Assuming that the 300-room hotel is an up-scale 4-star facility  
 25 comprising 173,000 square feet at a construction cost of \$375 per square feet; the 15,000 square  
 26 feet of commercial space is \$325 per square feet; and the 400 residential multi- and single-family  
 27 residential units comprise 932,500 square feet at a cost of \$240 per square feet, then the cost of  
 28 construction is \$293.5 million, which would generate 1,247 worker years of construction. This  
 29 assumes that a worker year is equivalent to 2080 hours of employment and one worker year per  
 30 \$200,000 of construction costs and one worker year per \$400,000 for infrastructure and site costs.  
 31 It is assumed that 70% of the total cost is for construction and 30% for infrastructure and site  
 32 work.<sup>123</sup>

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<sup>122</sup> The Hallstrom Group, Inc.

<sup>123</sup> The Hallstrom Group, Inc.

1 Alternatively, using the State of Hawai'i, Department of Business Economic Development and  
2 Tourism's Input-Output Model (2005), the direct, indirect, and induced employment impact spread  
3 over the construction phase of the development (1 year) is approximately 3,562 jobs. The direct  
4 and indirect employment impact during this period is estimated to be approximately 2,374 jobs and  
5 the direct impact is 1,466 jobs during the construction phase.

6 The economic impacts caused by the Hawaiian education and cultural center are described in  
7 Alternative No. 2. As noted, 7.5 to 9 worker years of direct construction employment would be  
8 created by the development of the Hawaiian cultural center.

9 ▪ **Operation phase employment.** During the operation phase, the following assumptions are used:

- 10 ○ One worker per 400 square feet of commercial space;
- 11 ○ 0.7 full-time equivalent positions per guest room;
- 12 ○ 7 full-time common area landscape and maintenance staff; and
- 13 ○ 2 full-time landscape and maintenance staff per 15 second home and TVR units.<sup>124</sup>

14 The 300-room hotel, accessory 15,000 square feet of commercial (retail, restaurant) space, and  
15 maintenance and landscaping jobs for the second homes would create 308 operation phase jobs.  
16 These together with the 13 jobs at the Hawaiian education and cultural center would produce 321  
17 jobs. This is an increase of 64.2% over the approximate 500 jobs that exist in Ka'ū.

18 In addition to the direct employment created at the facility, additional indirect and induced jobs  
19 would be created by the project. Using the State of Hawai'i, Department of Business Economic  
20 Development and Tourism's Input-Output Model (2005) Type I and Type II multipliers for the retail,  
21 repair and maintenance, and accommodation industries, an additional 285 indirect and induced jobs  
22 are created both within and outside of the Ka'ū District. Thus, the total number of jobs created  
23 during the operation phase is 607.

24 **Water:** Using the County of Hawaii, Water System Standards, Table 100-18 – Domestic Consumption  
25 Guidelines, the project will use approximately 354,800 gpd of potable water. This assumes that the 300-  
26 room hotel will use 96,000 gpd, the 15,000 square feet of commercial will use 2,100 gpd, the 400  
27 residential units will use 160,000 gpd, and landscape planting on 25 acres will require 87,500 gpd of  
28 irrigation water. In addition, the Hawaiian education and cultural center will use 9,200 gpd.

29 It is anticipated that 80% of wastewater generated on site will be used for irrigation. Since the project  
30 would generate approximately 120,408 gpd of wastewater, approximately 96,326 gpd would be  
31 available for irrigation. Thus, the total potable water requirement for the project is 258,474 gpd.

32 This additional use represents just 38% of the available capacity of the existing system. However,  
33 further study is required to determine the additional capacity of the storage tank and subsurface  
34 transmission lines.

35 **Wastewater:** Using the City and County of Honolulu's, Department of Wastewater Management's  
36 Wastewater Generation Rates the project would generate 120,408 gpd of wastewater. This assumes

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<sup>124</sup> The Hallstrom Group, Inc.

1 that the 300-room hotel would generate 76,800 gpd, the commercial would generate 1,650 gpd, the 400  
 2 residential units would generate 41,408 gpd, and the Hawaiian cultural center would generate 550 gpd.  
 3 The existing wastewater reclamation plant, with additional capacity of 150,000 gpd, can accommodate  
 4 the increase in wastewater, which is 80.2% of available capacity.

5 **Recreational Impact at Black Sand Beach Park:** This scenario would produce a more significant increase  
 6 in the use of the Black Sand Beach Park since the hotel would result in a rather large increase in the de  
 7 facto population. If we assume that from 60% to 80% of the project’s population at any given time is at  
 8 the Beach Park, then from 540 to 720 additional persons would visit the beach each day. In addition, as  
 9 described in the Hawaiian cultural center alternative, the Hawaiian Center could result in a small  
 10 increase in usage of the Park if tours are conducted. However, these tours would be managed by  
 11 trained guides and would likely involve small groups with strict protocols regarding proper access and  
 12 viewing of resources.

13 Given the assumptions described above, this alternative would result in a relatively large increase, from  
 14 47% to 63%, in the total number of persons using the beach. Given the significant increase in the  
 15 number of tourists using the beach, it is likely that this alternative would impact the resident  
 16 population’s “sense of ownership” and recreational use of the Beach Park.

17 “Table 13: 300-Room Hotel + 400 second homes + Hawaiian Cultural Center -- Summary of “Order of  
 18 Magnitude” Impacts” summarizes the impacts described above.

19 **Sea Mountain at Punalu’u**

20 In 2006, Sea Mountain Five completed a Draft EIS (Group 70, October 2006) to support the development  
 21 of Sea Mountain at Punalu’u. The proposed development includes up to 1,523 residential units, up to  
 22 300 hotel units on one or two hotel sites, a championship 18-hole golf course, cultural/marine center,  
 23 upgraded wastewater treatment facility, water reservoir and other supporting infrastructure. The  
 24 following is a description of the proposed development as presented in the 2006 DEIS:

25 **Resort Component:** Within the project site there are two makai areas zoned for resort development.  
 26 The project proposes a maximum of 300 hotel units to be provided on one or both hotel sites.  
 27 Potentially one of the sites may be designated for an eco-hotel. The resort complex includes a lobby,  
 28 restaurant, grill, accessory shopping and recreational facilities.

29 **Residential Component:** The residential component consists of up to 1,523 units with a mixture of  
 30 housing types including single-family, townhouse, condominium and apartment units. Residential units  
 31 are proposed mauka of the Hawai’i Belt Highway as well as in low-rise residential enclaves surrounded  
 32 by golf course fairways makai of the highway.

33 **Retail-Commercial Component:** The commercial components of Sea Mountain consist of retail uses that  
 34 will provide shopping and services for residents and guests. A total of 73,000 square feet of retail space  
 35 is proposed.

36 **Recreational Amenities:** Recreational amenities include an 18-hole golf course, driving range, tennis  
 37 complex, passive and active park spaces, bike paths and walking paths. The existing deteriorating golf  
 38 course and club house will be redeveloped. The existing Punalu’u Beach Park, which is in a month to  
 39 month lease to the County, is proposed to be transferred to the County in fee.

1 **Table 13: 300-Room Hotel + 400 second homes + Hawaiian Cultural Center -- Summary of “Order**  
 2 **of Magnitude” Impacts**

300-Room Hotel + 400 second homes + Hawaiian Cultural Center					
Summary of “Order of Magnitude” Impacts					
Population	Employment		Water (gpd)	Wastewater (gpd)	Recreation
	Const.	Operations			
900	1466 <sup>125</sup>	321 direct  607 direct, indirect, induced	345,699 (38% of available capacity)	120,408 (80.2% of available capacity)	Increase in visitors to the beach of 47% to 63%  May have a significant impact on resident’s “sense of ownership” and place

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<sup>125</sup> Direct employment only

1 **Infrastructure:** Infrastructure facilities to support the development include access and internal  
2 circulation roadway networks, a wastewater treatment and disposal system, a potable water supply and  
3 water protection system, a non-potable water irrigation system and other utility systems.

4 The Sea Mountain development, as proposed in the 2006 DEIS, received a broad array of community  
5 reaction ranging from support for the project, to support for a scaled down resort development, to no  
6 support for any type of resort development at Punalu'u. Many residents within the community were  
7 concerned with the scale of the proposed resort development and its potential impacts on the rural  
8 character of the region, natural and cultural resources, and increased crowding at Punalu'u Beach Park.  
9 However, some community members considered the proposed development as an opportunity to  
10 promote economic growth within the region. The mix of reactions to the proposed project generated a  
11 great amount of community conflict, and the development never proceeded.

12 **Summary of "Order of Magnitude" Impacts**

13 "Table 14: Summary of "Order of Magnitude" Impacts" summarizes the impacts for each of the  
14 alternative scenarios described above.

15

1 **Table 14: Summary of “Order of Magnitude” Impacts**

	No Action	Hawaiian Cultural Center	50-Room Hotel + Cultural Center	150-Room Hotel + Cultural Center	300-Room Hotel + 400 2 <sup>nd</sup> Homes + Cultural Center
<b>Population</b>	No Change	No Change	+ 82	+ 246	+ 900
<b>Employment</b>					
<b>Construction Phase Jobs</b>	N/A				
<b>Direct</b>		9	67	188	1466
<b>Indirect</b>		5	42	117	908
<b>Induced</b>		7	54	152	1188
<b>Operations Phase Jobs</b>	N/A	13 direct 20 direct, indirect & induced	61 direct 113 direct, indirect & induced	137 direct 269 direct, indirect & induced	321 direct 607 direct, indirect & induced
<b>Water (gpd)</b>	No Change	9,200 (1.3% of available capacity)	32,400 (4.5% of available capacity)	110,700 (11.6% of available capacity)	345,699 (38% of available capacity)
<b>Wastewater (gpd)</b>	No Change	550 (.36% of available capacity)	13,900 (9.3% of available capacity)	39,755 (26.5% of available capacity)	120,408 (80.2% of available capacity)
<b>Recreation at Black Sand Beach Park</b>	No Change	Very small increase in usage; better management & education	Increase in visitors to the beach of 4.3% to 5.7%; may have a small impact on resident’s “sense of ownership” and place	Increase in visitors to the beach of 12.9% to 17.2%; may impact on resident’s “sense of ownership” and place	Increase in visitors to the beach of 47% to 63%; may have a significant impact on resident’s “sense of ownership” and place

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**Ocean View**

Mōhala i ka wai ka maka o ka pua.  
*Unfolded by the water are the faces of the flowers.*  
 (Flowers thrive where there is water as thriving people are found where living conditions are good.)  
 ‘ōlelo no‘eau, 2178

This is the third of four sections of this appendix that focus on specific regions in Ka’ū. It begins with a summary of Ka’ū’s values, priorities, and objectives related to the Ocean View subdivisions and a brief overview of the area’s history. It then introduces Ocean View’s assets and challenges related to land use, development, and infrastructure. Next, the appendix lists General Plan policies and courses of action related to Ocean View and summarizes past planning for the area. Finally, tools and alternative strategies are introduced that supplement those at the beginning of the appendix and address challenges specific to communities like Ocean View.

**Community Values, Priorities, and Objectives**

The core **values** and community **vision** in Ocean View are consistent with those [identified during initial community input](#) in the rest of Ka’ū, with the exception of the localized concern for **schools, water**, and other **infrastructure** (see Appendix V2).

Initial input from the Ocean View **Micronesian** community was also consistent with the values and vision identified across the community, with emphases on **family, people, schools, health care, recreation, and transportation**.

Ka’ū community **values** related to the area include:

- ‘Āina or Natural Resources: **natural beauty, open space, beaches, coastline, access, ocean, outdoor recreation**
- ‘Ohana: **people, community, family, schools, safety, aloha, diversity, church**
- Country or Rural Lifestyle: **quiet, lifestyle, country, small, agriculture, isolation, little traffic, culture, uncrowded, history, freedom, pace.**

Likewise, community **priorities** related to the area include:

- Local Economy: **jobs, retail, services, dining, entertainment, agriculture, renewable energy, housing, tourism, local business**
- Recreation: **facilities, youth recreation, parks, programs**
- Education: **more schools, improved schools, adult/vocational/higher education**
- Health Care: **hospital, other medical facilities, services**
- ‘Āina: **access, natural resource protection, coastline, natural beauty**
- Public Services: **water, roads, mass transit, public safety, solid waste/ recycling.**

1 Based on the community’s values and priorities as well as findings from the Community Profile, the  
2 Steering Committee adopted the following Community Objectives related to strengthening the Ocean  
3 View community:

4 ▪ Encourage future settlement patterns that are safe, sustainable, and connected. They should  
5 **protect people and community facilities from natural hazards**, and they should honor the best of  
6 Ka’ū’s historic precedents: **concentrating new commercial and residential development in**  
7 **compact, walkable, mixed-use town/village centers**, allowing rural development in the rural lands,  
8 and **limiting development on shorelines**.

9 ▪ Increase the number and diversity of **income sources for residents**, including jobs and  
10 entrepreneurial opportunities that complement Ka’ū’s ecology, culture and evolving demographics.

11 ▪ **Establish or expand retail, service, dining, and entertainment centers in rural villages and towns**  
12 capable of supporting Ka’ū-appropriate growth.

13 ▪ **Encourage and enhance agriculture**, ranching, and related economic infrastructure.

14 ▪ **Identify viable sites for critical community infrastructure**, including water, emergency services and  
15 educational facilities to serve both youth and adults.

16 ▪ **Establish a rural transportation network**, including roadway alternatives to Highway 11, a regional  
17 trail system, and an interconnected transit system.

18 **Ocean View History**<sup>126</sup>

19 Ethnographic and early historic accounts clearly indicate that Kahuku (Ocean View) was once an active  
20 and settled area. Its coastline was noted as a fine fishing ground and even attracted Kamehameha I  
21 (Silva 1987:D-4). Fishermen and their families once inhabited the coastal region in significant numbers.  
22 Inland and upslope areas were utilized for dispersed dry-land agriculture and habitation. Planting or  
23 clearing mounds, trails, house platforms, ahu and walls are present in places. However, the far upland  
24 areas of Kahuku were apparently not inhabited on a permanent basis. Hawaiians born in the early  
25 1800s report that upland areas were used for bird hunting, wood procurement (sandalwood and koa),  
26 goat hunting, and gathering fern pulu (Silva 1987).

27 According to the Ala Kahakai National Historic Trail Comprehensive Management Plan (CMP), the Pohue  
28 Bay area contains a concentration of pre- and post-contact petroglyphs. Along the mauka-makai trail to  
29 the bay are fascinating geological features as well as petroglyphs. From Pohue Bay to Ka Lae (South  
30 Point), there are discontinuous pieces of trail. Over ‘a‘a, the trail is visible as a crushed path with  
31 steppingstones. On pahoehoe, the trail is sometimes apparent as a worn path and sometimes left no  
32 remains except for stone cairns and pieces of coral.

33 Following the Māhele, Kahuku ahupua‘a was awarded to W. P. Leleiohoku (LCAw. 9971). His holdings  
34 passed to Ruth Ke‘elikolani and thence to Pauahi Bishop. The government subsequently designated  
35 Kahuku as School Lands – i.e., lands to be used for educational purposes as dictated by the Department  
36 of Public Instruction. The next record of transaction was to C.C. Harris, who purchased 184,298 acres of  
37 Kahuku lands under Patent 279. Although there were several kuleana claims in Kahuku, few were

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<sup>126</sup> Geometrician Associates. *Final Environmental Impact Statement: Ocean View Recycling Point and Convenience Center/Transfer Station*. April 2008; PBR Hawai‘i. *Kahuku Village Draft Environmental Impact Statement*. July 2011.

1 actually awarded (Silva 1987). Likewise, there were a few kuleana Land Commission Awards within  
 2 Kahuku near the coast and near the ala loa (the King’s Trail).

3 During the late nineteenth century, improvements to the ala loa were undertaken to establish a good  
 4 road from Kona to Ka’ū. Portions of this old road parallel the current Māmalahoa Highway and consist  
 5 of both single and two-track paths and improved graveled/cindered roadways.

6 The Pohue shoreline is known to some local residents as Glover’s Beach, for James W. Glover, a former  
 7 owner of Kahuku Ranch, who founded the general construction firm, James W. Glover, Ltd. After  
 8 Glover’s death, the Glover’s executor sold the ranch under court order to pay estate debts to the  
 9 Samuel Damon Estate, the successful bidders in 1958 for the 158,000-acre ranch (Clark 1985).

10 Most of the land surrounding Ocean View is publicly owned, including the Manuka Natural Area Reserve  
 11 to the west and Hawai’i Volcanoes National Park to the north and east. In addition, the shoreline area  
 12 to a considerable distance inland is in the State Conservation district.

13 Between 1960 and 1990, [over 12,000 lots were created](#), covering 32 square miles. Ocean View has  
 14 experienced steady [growth](#) that has accelerated during boom times. Although it is a community in its  
 15 own right, Ocean View also functions as a working class “bedroom community” for Kona, which has  
 16 increased traffic and demand for services<sup>127</sup>.

17 The largest privately-owned, unsubdivided parcel in the area (TMK 3-9-001:072) has previously been  
 18 planned for development. In the late 1980s, Palace Development Corporation proposed the Hawaiian  
 19 Riviera Resort project. The project, encompassing roughly 3,245 acres, was envisioned to create a major  
 20 visitor destination area with a luxury hotel, various resort condominium structures, residential home  
 21 sites, commercial space, three 18-hole golf courses, and recreational facilities. In addition, a marina,  
 22 cruise ship docking facility, petroglyph park, and cultural center were planned. In 1991, the LUC  
 23 reclassified approximately 732 acres of the Site and an adjacent parcel from the Conservation District  
 24 and 440 acres from the Agricultural District to the Urban District. However, in 1995, the LUC rescinded  
 25 the reclassification through a “constructive withdrawal” of Docket No. A88-630<sup>128</sup>.

26 That parcel’s current owner, Nani Kahuku Aina, filed a petition with the County Planning Department for  
 27 an interim amendment to the General Plan to allow the development of a cultural center, resort, and  
 28 mixed-use town near the shoreline. Before finishing the Final Environmental Impact Assessment  
 29 required to complete the petition, Nani Kahuku Aina abandoned the project and initiated talks with The  
 30 Trust for Public Land, the National Park, and the County about the acquisition of the parcel or a portion  
 31 thereof.

32 **Community Assets and Challenges**

33 “Figure 27: Ocean View Community Base Map,” “Figure 28: County Zoning in Ocean View,” and “Figure  
 34 29: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Ocean View” include many of  
 35 the features referenced below.

36 **Land Use**

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<sup>127</sup> Geometrician Associates. *Final Environmental Impact Statement: Ocean View Recycling Point and Convenience Center Transfer Station*. April 2008.

<sup>128</sup> PBR Hawai’i. *Kahuku Village Draft Environmental Impact Statement*. July 2011.

1 The Ocean View area is made up of a number of subdivisions. Almost 11,000 mostly 1-acre lots make up  
2 Hawaiian Ocean View Estates (HOVE) mauka of the highway.

3 There are several subdivisions makai of the highway, which were created from 1965 to 1990. There are  
4 approximately 1,733 lots over 12 square miles, most of which are 3 acres. There are also about 100, 20-  
5 21 acre lots. About 8% of the lots (138/1,733) are built-out for residential use.

6 With the exception of the 26 lots straddling Leilani Makai Road directly makai of the highway, all of the  
7 subdivisions pre-date 1976, when restrictions were added to the zoning code to limit farm dwellings.

8 “Table 15: Ocean View Land Use Designations “ summarizes current land use designations for the area.

### 9 **Community Facilities and Infrastructure**

10 Conditions on the original subdivision were very limited, so there is no designated commercial area, no  
11 water system, no wastewater system, no public facilities, and private roads. Public facilities like [Kahuku](#)  
12 [Park](#), [transfer stations](#), [police and fire facilities](#), and [water facilities](#) have had to be developed after-the-  
13 fact and are describe in the infrastructure section above. The State [Department of Health](#) requires  
14 septic systems mauka of the highway and permits cesspools makai. There is no [public school](#) or library,  
15 and the only [health care](#) facility in the area is a small clinic. As noted in the discussion of [education](#)  
16 above, the DOE estimates that the current schools in Ka’ū will be able to accommodate projected  
17 growth in the school-age population.

18 Ocean View has several, active community-based organizations and related facilities. The Ocean View  
19 Community Association (OVCA) built and manages a community center and related activities<sup>129</sup>. The  
20 center includes a kitchen, meeting rooms, and a library. Ocean View also has a volunteer fire unit.

21 **Roads:** The private [roads in Ocean View](#) are maintained by nonprofit road maintenance corporations<sup>130</sup>.  
22 All lot owners are members of the corporation. The members pay an annual road maintenance fee and  
23 elect a board of directors. In 2009, the fees were \$95/year/lot for the HOVE Road Maintenance  
24 Corporation and \$110/year/lot for the Ranchos Road Maintenance Corporation. The fees can increase  
25 but not without a vote of the membership. The Ocean View Road Corporation bylaws indicate that  
26 property owners may not opt-out of road maintenance, and the OVRC puts liens on the property of  
27 delinquent land owners and forecloses as necessary.

28 The streets in Ocean View are largely structured in a grid pattern of large blocks, which offers  
29 reasonable connectivity but limited options for pedestrians or bicyclists. Characteristics of the current  
30 circulation pattern in HOVE include<sup>131</sup>:

- 31 ▪ All boulevards are built wider and stronger to support truck use and more traffic.
- 32 ▪ Aloha Blvd. traffic begins around 5:30am going toward Kona and is used heavily throughout the day  
33 picking up in volume around 5:00pm coming from Kona.
- 34 ▪ The upper portion of HOVE uses Trade Wind Blvd. to Aloha or Princess Kaiulani Blvd. to King  
35 Kamehameha Blvd. or Tiki to go to Hilo.

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<sup>129</sup> <http://ovca.alohabroadband.com/>

<sup>130</sup> <http://www.hoveroad.com/>; <http://ranchos-roads.org/>

<sup>131</sup> Personal communication with Steering Committee members Loren Heck and Patti Barry.

1 **Table 15: Ocean View Land Use Designations**

	SLU	Zoning	LUPAG
<b>HOVE</b>	Ag	<p>Mostly <b>Ag-1a</b></p> <p>Large parcel at eastern edge (9-2-001:069): <b>Ag-3a</b></p> <p>Western mauka eighth: <b>Ag-20a</b></p>	<p><b>Rural</b> (from extensive agriculture, per ORD 05-25)</p> <p>NW corner and east parcel: <b>extensive agriculture</b></p> <p><b>Urban expansion</b> added with ORD 06-153 (and interpreted to be the same width mauka and makai of the highway)</p>
<b>Ocean View Makai</b>	Ag	<b>Ag-3a</b>	<p><b>Extensive agriculture</b></p> <p><b>Urban expansion</b> added with ORD 06-153</p>

2

Figure 27: Ocean View Community Base Map

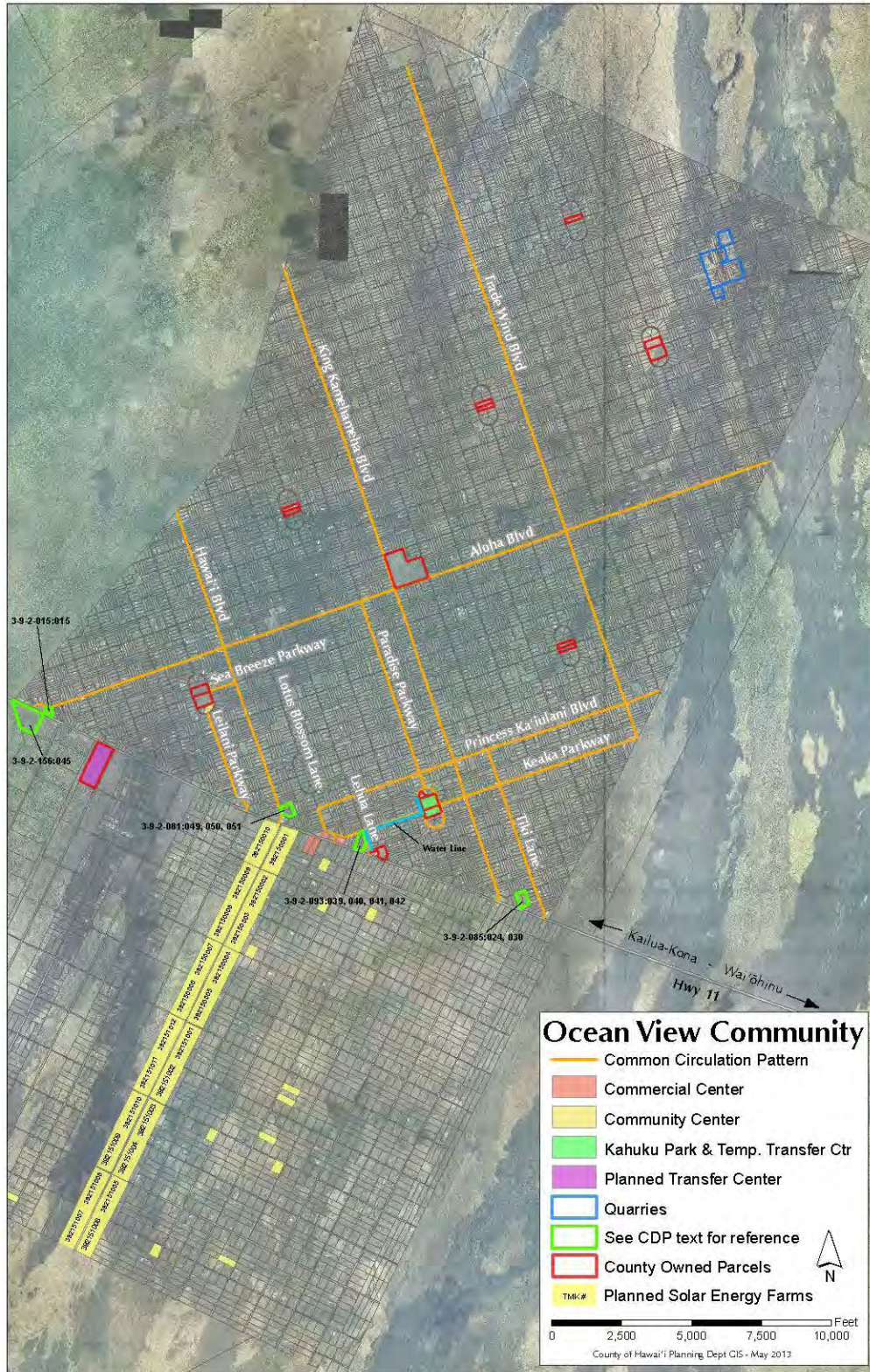


Figure 28: County Zoning in Ocean View



1 **Figure 29: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Ocean View**



2



1 Hawai'i Blvd. is used heavily to go to Ocean View market and the Post Office. Likewise, Princess  
 2 Kaiulani Blvd. to the last block of Lotus Blossom Lane are very heavily traveled.

3 ▪ Lotus Blossom Lane is very heavily used due to its connection at the highway in close proximity to  
 4 the shopping centers. The last block of Lotus Blossom Lane below Princess Kaiulani Blvd. is the  
 5 busiest block in Ocean View. This is the main street used to cross the highway to Ranchos. Heavy  
 6 traffic comes and goes at all times of the day and early evening.

7 ▪ The Ocean View Community Center attracts traffic from Hwy 11 on Leilani Parkway and some  
 8 additional traffic on Sea Breeze Parkway from Hawai'i Blvd.

9 ▪ Kahuku Park on Paradise Parkway and Keaka Parkway increases traffic on both of those streets. In  
 10 addition, school busses let off and pick up as many as 90 children at that location, attracting many  
 11 cars waiting to pick up children.

12 ▪ Another location in Ocean View that is used to drop many children after school is at Princess  
 13 Kaiulani Blvd. and Lotus Blossom Lane. This location already has heavy traffic throughout the day  
 14 because of the shopping centers.

15 ▪ The corner of Lehua Lane and Hwy. 11 is a dangerous corner. Water trucks and overloaded private  
 16 vehicles slow faster traffic on the main highway.

17 **Water:** There is no community-wide public or private water system serving Ocean View subdivisions.  
 18 Individual property owners collect limited rainfall in catchment systems and supplement with water  
 19 hauled and delivered by commercial haulers. Ocean View typically receives on average 20-22" annual  
 20 rainfall.

21 Total water needs for the Ocean View area by the year 2020 were estimated at over 1.0 million gallons  
 22 per day (mgd), based on a per person water use rate of 60 gallons per day and population projections  
 23 calculated in the 2004 water plan. In 2003, the 24 acres of commercial land in the HOVE Town Center  
 24 required 72,000 gallons per day (gpd). If commercial/urban area expanded, as envisioned in the Hawai'i  
 25 County General Plan, water demand could rise to over 100,000 gpd<sup>132</sup>.

26 More information about HOVE Water System, which was activated for public use on July 5, 2012, is  
 27 available in the discussion of [potable water](#) above.

28 An effort initiated by the OVDC in the early 2000s to establish a water improvement district was not  
 29 able to obtain 25 percent of the signatures needed to form a CFD.



30 **Electrical Power:** Electrical power is brought in by HELCO through a customer request, though there is  
 31 no guarantee that a line extension will go in just because the customer requests it. HELCO's "SSPP" is a  
 32 shared-cost program, but depending on the originating point of the line extension, SSPP may not be  
 33 available, and if there are not enough customers in a given area willing to share the cost, then the line  
 34 extension is cancelled. When the shared cost for SSPP is greater than \$2,000, financing is available.  
 35 Otherwise, financing is not available.

36 **County Land in Ocean View**

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<sup>132</sup> Townscape, Inc. *Ka'ū to South Kona Water Master Plan*. pp. 1-12. September 2004.

1 During the original subdivision (SUB 1912 and 2053), and in the 1965 dedication deed to the County, 76  
2 acres of land in HOVE were dedicated to the County for future park, playground, and school purposes.  
3 The lots are in all but two of the “ovals” dispersed throughout the subdivision, plus a 30 acre parcel near  
4 the center of the subdivision (see “Table 16: County Land in Ocean View” and “Figure 27: Ocean View  
5 Community Base Map”).

## 6 **Non-Residential Development**

7 **Commercial:** Prior to the General Plan revision in 2005, commercial uses in this area, including the  
8 principal commercial hubs, were established by [Special Permits](#). The Planning Department is now  
9 requiring changes in zone.



10 In the 2005 General Plan revision, courses of action listed in the Land Use-Commercial element of the  
11 General Plan specifically encouraged that commercial activity to be centralized in Ocean View and not to  
12 allow strip or spot commercial development on the highway outside of the designated urban areas.

13 In 2007, the County Council adopted [concurrency standards](#) for roads and water that apply when an  
14 applicant submits a zoning amendment application or an application for extension of time to perform a  
15 condition of the zoning amendment. Pursuant that ordinance, zoning code amendments are not  
16 granted unless: (1) the Department of Water Supply has determined that it can meet the water  
17 requirements of the project and issue water commitments using its existing system; or (2) specific  
18 improvements to the existing public water system, or a private water system equivalent to the  
19 requirements of the Department of Water Supply, will be provided to meet the water needs of the  
20 project.

21 For rural areas such as Ocean View, where County water was not available, a change of zone is  
22 permitted without meeting the water concurrency requirements for commercial or light industrial uses  
23 in areas that are (1) designated as an “urban and rural center” or “industrial area” on table 14-5 of the  
24 general plan and (2) designated for urban use on the land use pattern allocation guide map of the  
25 general plan.

26 The bulk of the commercial development is at Ocean View Town Center and Pohue Plaza, directly mauka  
27 and makai of the highway at TMK (3)9-2-083:003 (2 acres mauka, access off of Lotus Blossom) and TMKs  
28 (3)9-2-185:094, 095, 096 and Portions of 92 and 93 (14.75 acres makai, access off of Prince Kuhio). Also  
29 off of Lotus Blossom is the new gas station, post office, commercial center, and grocery on TMK (3)9-2-  
30 093:047. The water line runs to these developments to provide fire protection.

31 A State Land Use Boundary Amendment (SLU 12-000036, from Agricultural to Urban) and Change of  
32 Zone (REZ 12-000160, from Ag-1a to CV-40) application has been submitted for the “Lehua Court”  
33 development on TMKs (3)9-2-093:039, 040, 041, and 042, makai of the intersection of Lehua Land and  
34 Keaka Pkwy, and is pending before the County Planning Commissions (see “Figure 27: Ocean View  
35 Community Base Map”).

36 A quarter mile down the highway toward Kona, at Hawai‘i Blvd. (which heads mauka to the OVCA  
37 community center) on TMK (3)9-2-083:021, is the Lava Tube Restaurant and offices. That same Special  
38 Permit permitted a motel on TMKs 9-2-081: 49, 50, and 51, directly mauka of the restaurant (see “Figure  
39 27: Ocean View Community Base Map”).

40

1 **Table 16: County Land in Ocean View**

Location	TMK and Acreage
<b>Bottom west oval</b>	9-2-013:032 (4 acres) 9-2-009:052 (6 acres)
<b>Bottom east oval</b>	9-2-101:032 (6 acres, site of Kahuku Park) 9-2-094:036 (4 acres) 9-2-101:037 (site of water well and tank)
<b>Middle west oval</b>	9-2-031:019 (2 acres) 9-2-030:054 (2 acres)
<b>Middle east oval</b>	9-2-111:032 (2 acres) 9-2-107:054 (2 acres)
<b>Middle "L"</b>	9-2-070:037 (30 acres)
<b>Middle oval</b>	9-2-059:001 (2 acres) 9-2-063:036 (2 acres)
<b>Upper east oval</b>	9-2-143:032 (4 acres) 9-2-136:035 (6 acres)
<b>Upper middle oval</b>	9-2-044:068 (2 acres) 9-2-047:037 (2 acres)

2 The County also owns TMK 9-2-093:009 for the water standpipes and TMK 9-2-150:060 for the transfer  
 3 station.

4

1 In 2012, the Planning Commission denied an application for a Special Permit (SPP 12-000136) from  
2 Mutant LLC to allow the establishment of a café-coffee shop, storage-garage facility, and park and sell  
3 lot on the mauka side of the Hawai'i Belt Road (Highway 11) on the northeast corner of the Highway 11  
4 – Aloha Boulevard intersection (TMK (3)9-2-015:015) (see "Figure 27: Ocean View Community Base  
5 Map").

6 **Mixed Commercial-Industrial:** Across Hawai'i Blvd. from the Lava Tube Restaurant, the County recently  
7 rezoned TMK (3)9-2-082:002 to MCX-3a. Conditions included: develop sufficient water storage to meet  
8 the requirements of the Department of Health and the Fire Department for sanitation and fire fighting  
9 purposes for the proposed development and improvements recommended by DOT if additional uses  
10 beyond self-storage are proposed.

11 **Mixed Commercial-Lodging:** In 2005, a Special Permit was partially approved on four acres for TMKs  
12 (3)9-2-085:24, 29, 30, & 31 for a mixed use project with residential and agricultural facilities for  
13 wholesale/retail and office rental space, a hostel with overnight camping, and gathering places for  
14 organizations and community groups (see "Figure 27: Ocean View Community Base Map"). The  
15 property is located along the mauka side of Hawai'i Belt Road, between Highway 11 and Moana Drive  
16 and approximately 790 feet west of the Highway 11 - King Kamehameha Boulevard intersection. The  
17 project proposes three buildings: one 5,000 square feet, another 7,500 square feet, and a third 8,000  
18 square feet and limited to four (4) suites and twenty (20) beds for the hostel. The total amount of  
19 rented beds on site shall not exceed forty. No commercial retail store is permitted other than the sale  
20 of items produced on the premises, sale of second hand furniture, second hand household goods and  
21 collectibles as represented in the application and arts and crafts produced in the Ka'ū District.

22 **Proposed Heritage Center:** Ho'omalū Ka'ū, a tax-exempt nonprofit organization located in Nā'ālehu, is  
23 planning a Heritage Center on 15 acres of dry-land native forest at border of Manukā Forest and the  
24 makai Ocean View subdivisions, near the Road to the Sea (TMK (3)9-2-156:045, between Mile Markers  
25 79 and 80) (see "Figure 27: Ocean View Community Base Map").

26 The Center is slated to include a state-of-the-art archival center that will house Ka'ū family photos,  
27 maps, letters, books, papers, collected stories, oral histories, maps, and artifacts and serve as a  
28 community educational and gathering place as well as a gateway welcome center for visitors. Planned  
29 facilities include a museum, classrooms, study cubicles, conference and meeting rooms; a commercial  
30 kitchen, and a gift shop.

31 The mission of Ho'omalū Ka'ū is to perpetuate, protect, and conserve the lands, health, knowledge,  
32 cultures, and history of Ka'ū and its people. Its Heritage Center Committee is led by members of the  
33 Hawaiian Civic Club of Ka'ū. The Committee has initiated a ten-year capital campaign to raise \$3 million  
34 dollars to build and furnish The Heritage Center.

35 **Quarries:** There have also been special permits issued for quarrying far mauka in HOVE, in the vicinity of  
36 Mahimahi Drive, Lurline Lane, Kailua Blvd., and Liliana Lane (see "Figure 27: Ocean View Community  
37 Base Map").

38 **Solar Energy Facilities:** In April 2012, building permits were issued to install solar photovoltaic (PV)  
39 systems on 22, ~21-acre parcels makai of the highway between at Hawai'i Blvd. (abutting the  
40 commercial center), on TMKS (3)9-2-150:001-110 and 151:001-012. Around the same time, building  
41 permits for a similar solar farm project were issued to install PV systems on 12, 3-acre lots scattered  
42 throughout the subdivisions makai of the highway (see "Figure 27: Ocean View Community Base Map").

1 Pursuant HRS section 205-2(d)(6), solar energy facilities are a permitted use on SLU Agricultural land  
 2 with soil classified by the land study bureau’s (LSB) detailed land classification as overall (master)  
 3 productivity rating class D or E (recently amended to also include B and C). All of Ocean View is in the  
 4 SLU Agricultural district, and the LSB in this area is E, so solar energy facilities are a permitted use. Solar  
 5 farms are not addressed in the County code, so the project is permitted without any planning or other  
 6 land use permits.

7 The State Clean Energy Initiative has developed permitting guidebooks for clean energy projects,  
 8 including one specific to solar energy<sup>133</sup>.

9 **Brownfields:** The County Department of Environmental Management (DEM) has identified illegal  
 10 dumping and mining sites in Ocean View as *potential* [brownfield](#) sites.

11 **Build-Out Projections** 

12 According to 2007 property tax records, Ocean View was at 12% built-out. 88% of the over 12,000 lots  
 13 were vacant. According to the census, all of the 45% growth in population in Ka’ū between 2000 and  
 14 2010 was in Ocean View and Discovery Harbour (Pāhala and Nā’ālehu lost population). There were  
 15 4,437 residents in Ocean View in 2010, and in 10 years (2000-2010), the population in Ocean View more  
 16 than doubled – adding 2,259 people.

17 The 2010 OVCDC dwelling survey counted 2,646 dwellings (a 79% vacancy rate) and estimated a  
 18 population of 6,873. Since the OVCDC began the survey in 2006, it estimates an average population  
 19 increase of about 500 people per year.

20 Based on current economic, land use and regulatory trends, Kona will continue to lack affordable  
 21 housing, and Ocean View will continue to grow. If Ocean View continues to add 5,000 residents every  
 22 decade, the population of Ocean View could exceed 15,000 by 2030.

23 This projection implies an increase of more than 3,500 dwellings (assuming 2.3 people per dwelling) by  
 24 2030, which is about 50% build-out.

25 According to the 2010 dwelling survey, the greatest percentage growth occurred in the upper elevations  
 26 of Hawaiian Ocean View Estates, which has long been sparsely populated but where lots are less  
 27 expensive.

28 **Hazards**

29 Ocean View mauka is prone to two significant hazards – earthquakes and lava flow from Mauna Loa, one  
 30 of Hawai’i Island’s active volcanoes.

31 Lava flows present potential threats to homes, infrastructure, natural and historic resources, and entire  
 32 communities. The areas at highest risk from lava flows are areas located downslope and in close  
 33 proximity to the active rift zones of Mauna Loa and Kīlauea. Steep slopes can cause lava flows to move  
 34 quickly from the summit to the ocean in a matter of hours. Lava flows may cut across a community’s  
 35 only escape route, limiting the amount of time for evacuation.

36 Ocean View is in close proximity to a Mauna Loa rift zone, and Mauna Loa has erupted 33 times since  
 37 1843. Mauna Loa is more dangerous than Kilauea because it produces greater amounts of lava, has  
 38 steep slopes, and its large, fast-moving flows can reach the ocean in hours. Vulcanologists with decades

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<sup>133</sup> [http://www.hawaiicleanenergyinitiative.org/storage/solar\\_guidebook.pdf](http://www.hawaiicleanenergyinitiative.org/storage/solar_guidebook.pdf)

1 of experience studying Mauna Loa indicate that Mauna Loa will erupt again, likely within our lifetimes.  
2 Past volcanic eruptions on Mauna Loa in the Ka'ū district have begun with less than two hours warning  
3 and reached the coastline between 3.5 hours and 15 days.

- 4 ▪ The subdivisions in Ocean View are in Lava Flow Hazard Zones 1 (mauka east corner) and 2  
5 (everywhere else) (see "Table 17: Hazard Zones for Lava Flows").

6 After Kīlauea's 1990 flow that destroyed Kalapana, private insurers suffered millions of dollars in losses,  
7 and many companies stopped offering coverage in Zones 1 and 2. Banks and mortgage companies  
8 require insurance, so the state Legislature in 1991 created the Hawai'i Property Insurance Association  
9 (HPIA) to help. As of 2008, HPIA provided more than 2,400 policies to homes that private insurers won't  
10 cover in the highest risk lava zones of Puna and Ka'ū.

### 11 **Premature and Obsolete Subdivisions**<sup>134</sup>

12 Planning professionals consider the subdivisions in Ocean View "premature, obsolete" subdivisions.  
13 Locally, they're considered "nonconforming" because they were permitted before the current zoning  
14 and subdivision codes and regulations were in place and don't conform to the associated standards.

15 Premature land subdivisions occur when a landowner divides a parcel of land into lots for sale far in  
16 advance of the market for those lots. In many cases, the landowner does not intend to actually build  
17 anything on the subdivided lots, but merely to enhance the value of the land and then sell the lots to a  
18 land developer or to individual lot buyers. Premature subdivisions come in two flavors: Those that  
19 generally meet modern subdivision standards and those that do not. Those that do not are called  
20 obsolete subdivisions, which are a subset of premature subdivisions.

21 Premature subdivisions are of concern to local governments for several related reasons.

- 22 ▪ Land Use Commitments. Premature subdivisions tend to commit land to residential development  
23 patterns long before those decisions can or should be made. Later, municipalities have to address  
24 unforeseen infrastructure constraints, environmental challenges, and other issues, but the location  
25 of premature subdivisions may limit their ability to do so. Moreover, the legal subdivision and sale  
26 of lots make it difficult to later address those challenges and/or pursue other priorities, like  
27 conservation.
- 28 ▪ Changing Standards. Municipalities often end up issuing building permits for good, safe, well  
29 designed homes on lots that the elected officials feel are neither good nor well designed due to the  
30 passage of time and improvements in the art of land development.
- 31 ▪ Servicing Costs. Even when subdividers commit to building all of the on-site infrastructure, the cost  
32 of off-site infrastructure, maintaining that infrastructure, and providing police, fire, emergency  
33 medical, and social services to distant areas fall on the local government. As lots are developed,  
34 particularly in areas with limited infrastructure, an increasing number of residents expect improved  
35 infrastructure. Yet, retrofitting infrastructure is expensive, and the added taxes collected on new

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<sup>134</sup> Donald Elliott. "Premature Subdivisions and What to Do About Them." Sonoran Institute and Lincoln Institute of Land Policy. 2010; <http://www.hawaiicountycdp.info/public-planning-resources/planpacific/challenge-of-non-conforming-subdivisions.pdf/view>

1 **Table 17: Hazard Zones for Lava Flows**

Zone	Percent of area covered by lava since 1800	Percent of area covered by lava in last 750 years	Explanation
<b>Zone 1</b>	greater than 25%	greater than 65%	Includes the summits and rift zones of Kīlauea and Mauna Loa where vents have been repeatedly active in historic time.
<b>Zone 2</b>	15 - 25%	25 - 75%	Areas adjacent to and down slope of active rift zones.

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- 1     ▪   development often do not cover those costs. Moreover, not all residents are willing to either bear  
2     the cost or accept the transition from a “rural” setting to one that is more suburban.
- 3     ▪   Leap frog development: When subdivision lots are sold in their undeveloped state rather than with  
4     dwellings, development often occurs in an uneven, “leap-frog” pattern, so residents often must  
5     make long trips to employment, schools, shopping and other destinations to meet daily needs.  
6     These obsolesces plats can also cause additional leap-frog development because developers must  
7     look to other tracts of land to meet potential demands for other kinds of housing as well as  
8     commercial and industrial development. Leap from development often results in auto-dependency,  
9     long travel times for daily needs and employment, and loss of open space and regionally-scaled  
10    agriculture.

11    Obsolete subdivisions create at least three additional negative consequences:

- 12    ▪   Public Safety. Lots that were approved before subdivision standards were in place are more likely to  
13    be far away from fire protection and emergency medical services or laid out on steep slopes and  
14    unstable soil types that can make them unsafe for building and unreachable by emergency  
15    equipment.
- 16    ▪   Community Quality. Building new houses on lots that are poorly buffered or inappropriately located  
17    tends to decrease the perceived quality of the community and upset residents of neighboring  
18    subdivisions that meet current quality standards.
- 19    ▪   Environmental Damage. Because soils and grades were often not considered in the layout and  
20    design of the older lots, construction on the lots can cause erosion, subsidence, and water pollution  
21    that the local government may then be obligated to mitigate or that raise the possibility of lawsuits.

22    Advantages of this type of development include affordable housing and the ability to develop small-  
23    scale, specialty farms. Based on sales data in July 2011, Ocean View offers some of the most affordable  
24    housing in the County (averaging ~\$100,000 for a single family dwelling).

## 25    General Plan Policies and Courses of Action

26    The following elements of the County’s General Plan speak directly to Ocean View and related  
27    community values, priorities, and objectives:

- 28    ▪   5.3(r): **Discourage intensive development in areas of high volcanic hazard.**
- 29    ▪   13.2.5.9.2(d): Explore alternatives and means to **establish an evacuation route through Hawaiian**  
30    **Ocean View Estates Subdivision** to Highway 11, in cooperation with the residents of Ocean View.
- 31    ▪   10.3.4.8.2(a): **Fire protection and emergency medical services for Ocean View**, Naalehu and Pahala  
32    shall be encouraged.
- 33    ▪   10.3.4.8.2 (b): Consideration shall be given to a joint police-fire facility.
- 34    ▪   14.3.5.9.2(a): **Centralization of commercial activity in the communities of Pahala, Naalehu, and**  
35    **Ocean View** and the area of the Volcanoes National Park shall be encouraged.
- 36    ▪   14.3.5.9.2(b): **Do not allow strip or spot commercial development on the highway** outside of the  
37    designated urban areas.



- 1   ▪ 11.2.4.8.2(b): **Pursue groundwater source investigation, exploration and well development at**  
2   **Ocean View**, Pāhala, and Wai’ōhinu.
- 3   ▪ 11.2.4.8.2(c): Continue to evaluate growth conditions to coordinate improvements as required to  
4   the existing water system.
- 5   ▪ 11.2.4.8.2(d): **Investigate alternative means to finance the extension of water systems** to subdivi-  
6   sions that rely on catchment.
- 7   ▪ 10.5.4.8.2(a): A solid waste transfer station should be established for Ocean View.
- 8   ▪ 10.2.4.6.2(b): Encourage the State Department of Education to **plan a K-8 School at Ocean View**.
- 9   ▪ 12.5.9.2(b): **Develop parks in Ocean View**, commensurate with population growth.

10 Table 14-5 lists urban and rural centers, industrial areas, and resort areas of the County by district.  
11 Ocean View is considered an Urban and Rural Center as well as an Industrial Center.

12 Table 7-14 of the General Plan also identifies Pohue Bay as a Natural Beauty Site.

### 13 **Previous Planning**

14 **Past Community Planning:** The 2004 Draft Strategic Plan for the District of Ka’ū identified the following  
15 Courses of Action related to Ocean View:

- 16   ▪ **Open bypass roads** that can be used as diversions during closure of the Belt Road.
- 17   ▪ Provide buses for evening trips from Ka’ū to Hilo and Kona.
- 18   ▪ As the population of Ocean View grows, **provide a mini-bus service circulating around HOVE**.
- 19   ▪ **A staffed ambulance and fire station in Ocean View**.
- 20   ▪ Develop and implement plans for a **clinic in Ocean View**.
- 21   ▪ As the population of Ocean View grows, **develop and implement plans for K-12 schools** located  
22   within that community. The school might **share a community library**, as in Pāhala.
- 23   ▪ Provide **County staffing for Kahuku Park**.
- 24   ▪ Help the community build a **swimming pool at Kahuku Park**.
- 25   ▪ Provide funds for **Youth Centers or Youth Programs** in Nā’ālehu, Ocean View and Pāhala.

26 **County Capital Improvements:** Planned County capital improvements in Ocean View include:

- 27   ▪ [The Ocean View Transfer Station](#). The land allocation process is complete, and right-of-way access  
28   is being secured through the State Department of Transportation. Design work is expected to begin  
29   soon, and construction is expected to begin in fall of 2013. \$500,000 has so far been allotted for this  
30   project. In the interim, the County is providing a temporary rubbish transfer station for household  
31   trash at Kahuku Park.
- 32   ▪ [Kahuku Park Community and Senior Center and Gym](#): \$8,500,000 has been appropriated in  
33   Ordinances 06-80, 08-133, and 12-87. \$400,000 has been allotted, and more than \$380,000 has  
34   been encumbered for design and planning. The project is on hold, however, while determining

1 whether FEMA will collaborate to design the center as an emergency shelter. \$8,000,000 will lapse  
2 if not encumbered by June 30, 2015.

- 3 ▪ [Ocean View Business District Water Infrastructure Improvements](#). \$5,760,000 were appropriated in  
4 Ordinance 12-152 and will lapse on June 30, 2015. This project would create the redundant source  
5 required to dedicate a water system to DWS, which would allow for the installation of service to lots  
6 abutting the water line.

7 As part of its [Innovative Readiness Training](#) (ANG IRT), the Air National Guard may be in a position to  
8 assist with some of these projects.

9 **State Capital Improvements:** \$476,296 in facility improvements, including comfort station, parking,  
10 landscape and picnic area improvements, are underway for Manukā State Wayside Park.

11 **Ala Kahakai National Historic Trail (AKNHT):** The AKNHT and the community-based, collaborative  
12 process for establishing and managing trail segments are explained in Appendix V4A.

### 13 **Tools and Alternative Strategies**

14 There is a range of tools to address obsolete subdivisions<sup>135</sup>. Those potentially applicable to subdivisions  
15 in Kaʻū include:

#### 16 **Land Readjustment<sup>136</sup>**

- 17 ▪ **Transfer of Development Rights (TDR):** As discussed in Appendix V4A, TDR programs allow or require  
18 the owners of land in some areas to sell or transfer their right to build structures to the owners of  
19 other sites where development is more appropriate. Systems that are mandatory for landowners in  
20 the sending area prohibit them from using their zoned density to build units on their own land but  
21 offer them the ability to sell the development rights as a form of compensation for the restriction on  
22 their land. Landowners can choose whether or not to try to sell the TDRs, but they cannot build  
23 structures on their own land even if they decide not to sell the TDRs.

24 In the Florida Keys, a TDR program is one of several incentives given property owners not to develop  
25 in obsolete subdivisions in high hazard zones.

- 26 ▪ **Land Pooling:** Land pooling could be used to achieve community goals like new public facilities or  
27 preservation of open space or agriculture land. To create a conservation subdivision, for instance,  
28 adjoining landowners who want a larger permanent open space could pool their lots (consolidate  
29 and resubdivide) to form smaller clustered lots with one commonly-owned large lot encumbered  
30 with a conservation easement. A similar process can be used to finance infrastructure  
31 improvements.

32 The process of land readjustment goes as follows: Determinations are made of land pooling and  
33 infrastructure needs and costs. The percentage of land necessary to complete the readjustment –  
34 that which will be needed to build public facilities (or preserve land) and the land to be sold to cover  
35 the costs associated with this process – is determined. Land in an area is pooled together, and each

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<sup>135</sup> Donald Elliott. “Premature Subdivisions and What to Do About Them.” Sonoran Institute and Lincoln Institute of Land Policy. 2010.

<sup>136</sup> John Whalen. “Elements of a Growth Management Strategy.” Working Paper No. 1. Puna Community Development Plan.

1 owner accepts this percentage as a “land reduction.” Owners are willing to give up this land  
 2 because the value of the remaining land increases substantially.

3 In the land readjustment process, landowners often join together to form an association and initiate  
 4 the process, resulting in greater authority over the whole process. Jurisdictions can provide  
 5 technical assistance to support land pooling, including legal and financial advice that is related to  
 6 County or State legal requirements and tax policies.

- 7 ■ Land Swaps: A local government, nonprofit organization, or realtor could broker a land swap  
 8 between the owners of land in premature subdivisions and owners of land located in easier-to-serve  
 9 locations consistent with their growth plans.

10 In post-Katrina New Orleans, Project Home Again<sup>137</sup> brokers property swaps that give families a new  
 11 house in return for the home or lot they already own in a high hazard area. Project Home Again  
 12 extends to the families a mortgage equal to the difference between the appraised value of their old  
 13 house and the appraised value of their new home, and that mortgage is reduced by 20% for each  
 14 year the family remains in the house and is forgiven entirely after five years.

- 15 ■ Land Bank: Jurisdictions can acquire lots for non-payment of property taxes, remove or transfer  
 16 development rights, and use a “land bank” to offer tax-delinquent properties to neighbors. Such  
 17 lots can also be used for relocation purposes when other properties are acquired for future rights-  
 18 of-way, public facilities, or land assembly. State legislation is necessary to enable land banks<sup>138</sup>.

19 **Incentives**

- 20 ■ Facilitation of Redesign or Consolidation: As development markets evolve, certain premature  
 21 subdivisions may be able to obtain a higher value if they are redesigned. Local government could  
 22 work with landowners to make them aware of such opportunities help develop or maintain  
 23 databases of property owners and facilitate interactions between them to consolidate substandard  
 24 lots or to revise lot patterns within their phase of the subdivision.

- 25 ■ Financial Support: Jurisdictions can provide loan guarantees, assist in securing loan guarantees, or  
 26 make outright grants to community associations or partnerships to support land pooling or for the  
 27 development of necessary infrastructure. Alternatively, the Federal government can make loans  
 28 and loan guarantees available to incorporated subdivision owners’ associations through the [U.S.  
 29 Department of Agriculture](http://www.usda.gov).

30 In Scottsdale, Arizona, for example, the city offers owners’ associations of obsolete subdivisions  
 31 loans or grants of up to \$20,000 per lot to fund improvements<sup>139</sup>.

- 32 ■ Replatting Fee/Cost Waivers: If they clearly identify the public purpose, jurisdictions may waive  
 33 application fees, processing fees, and surveying costs for property owners who want to consolidate  
 34 two or more adjacent parcels into a single lot, or for bulk property owners who would like to replat  
 35 an entire portion of the subdivision as part of a land pooling or readjustment process.

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<sup>137</sup> <http://www.projecthomeagain.net/>

<sup>138</sup> John Whalen. “Elements of a Growth Management Strategy.” Working Paper No. 1. Puna Community Development Plan.

<sup>139</sup> Ibid.

- 1     ▪ Streamlined Voluntary Replatting Process: Where a property owner(s) wants to voluntarily replat a  
2     phase or portion of a premature subdivision in ways that will reduce its negative impacts, the local  
3     government can offer a streamlined replatting process.

#### 4     **Infrastructure Improvements**

- 5     ▪ Targeted Infrastructure Investments: The local government could discourage build-out by declining  
6     to develop infrastructure in obsolete subdivisions. It could also target infrastructure investments in  
7     obsolete subdivisions to areas closer to existing amenities and/or complementary development like  
8     commercial facilities.

- 9     ▪ Impact Fees: Development impact fees are per-dwelling-unit or per-commercial-square-foot charges  
10    imposed on new development to offset the additional infrastructure and facility costs incurred by  
11    local government to serve that development. Fees that are collected must be spent on a specific  
12    type of facility in a location that will benefit the fee payer and within a reasonable period of time  
13    after payment.

14    The example of Cape Coral, Florida shows how costly this process is. In the 1950s, a New York real  
15    estate firm subdivided 114 square miles of land into approximately 250,000 lots, making almost the  
16    entire city a subdivision. The 5,000 square-foot lots were marketed and sold all over the world with  
17    many buyers never seeing the property. In 1994, in order to supply just 14 square miles with  
18    municipal water and sewer systems, the city committed \$100 million to build 250 miles of sewer  
19    pipe, 100 miles of irrigations mains, 22 miles of storm drainage improvements, and 90 sewage  
20    pumping stations. In order to pay for these improvements, Cape Coral assessed owners of each lot  
21    \$10,000, which was approximately twice the worth of the property. Many owners decided to  
22    abandon the property rather than pay the assessment, leaving the city with over 100 lots.

- 23    ▪ [Improvement Districts](#): As discussed above, infrastructure improvement districts can also be used to  
24    make up for deficiencies.

#### 25    **Acquisition of the Land or Property Rights**

26    Depending on the circumstances, it may be cheaper to purchase land or development rights than  
27    provide amenities and services.

- 28    ▪ Voluntary Sales: The ideal situation is where a local government or conservancy wants to purchase  
29    land from some or all of the property owners in a premature subdivision and those owners are  
30    willing to sell.

31    Many conservation groups see these obsolete subdivisions as an opportunity to gain open space. In  
32    Golden Gate Estates, Florida, 42,000 acres were targeted for purchase in 1985 by the State under its  
33    Conservation and Recreational Lands Program. Similarly, The Tahoe Conservancy purchases lots for  
34    conservation purposes using funds acquired by state bond issue approved by voters. Also in  
35    California, the Coastal Conservancy acquires scattered lots of obsolete subdivisions along the coast,  
36    sets some aside for open space, aggregates others into larger homesites, and then sells them. These  
37    monies then fund other projects of the organization<sup>140</sup>.

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<sup>140</sup> John Whalen. “The Challenge of Nonconforming (“Antiquated”) Subdivisions.” Working Paper. Puna Community Development Plan.

1     ▪ Conservation Easements: Some property owners might be willing to donate a conservation  
 2     easement (see Appendix V4A) on all or a portion of a premature subdivision in order to receive a tax  
 3     deduction. Conservation easements may be a viable alternative where an agreement to vacate and  
 4     replat and/or redesign cannot be achieved among all of the various lot owners.

5     The Mountains Restoration Trust in Santa Monica encourages landowners in antiquated subdivisions  
 6     to contribute easements or to take part in a program that allows the transfer of development rights  
 7     from a lot designated for retirement to another lot<sup>141</sup>.

8     ▪ Eminent Domain or Condemnation: Local governments have the power of eminent domain – the  
 9     power to force private parties to sell their land to the government for a public purpose in return for  
 10    payment of fair market value (see Appendix V4A). In the case of obsolete subdivisions, the public  
 11    purpose could be avoidance of the high costs of allowing further development, hazard mitigation, or  
 12    implementation of official plans. The major drawback of this approach is that the local government  
 13    ends up owning lots it doesn't need to, removing them from the tax rolls.

14    **Hazard Preparation**

15    **Community Emergency Response Team (CERT)**<sup>142</sup>: To support localized preparation and response, Civil  
 16    Defense trains and supports Community Emergency Response Teams (CERT). Hawaiian Ocean View  
 17    Estates has an active CERT, which provides residents and businesses with information about how to  
 18    properly prepare for and respond to an emergency at home, at work, or in the community.

19    **Evacuation Clearance Rates**: Coastal communities elsewhere in the United States that are impacted by  
 20    hurricanes have established density caps based on evacuation clearance rates in high hazard areas.  
 21    Florida, for instance, enables local governments to make hurricane evacuation capacity a concurrency  
 22    requirement<sup>143</sup>.

23    In some communities, if development is proposed that would result in density in excess of those caps,  
 24    mitigation is required, possibly including improved evacuation routes and/or the transfer of  
 25    development rights to keep the area’s density below the cap. In Walton County, the Comprehensive  
 26    Plan requires that, for development within any hurricane evacuation zone, a 12-hour clearance time  
 27    needs to be maintained for a Category 3 storm (Policy C-4.2.5). Development projects of 400 or more  
 28    dwellings are required to submit an analysis of hurricane evacuation impacts to determine whether the  
 29    adopted standard would be met. Similarly, the Indian Shores Comprehensive Plan (Objective 2.2)  
 30    specifies that any proposed development shall not increase the clearance time established by the  
 31    Tampa Bay Regional Planning Council and the State of Florida<sup>144</sup>.

32    Monroe County established a Rate of Growth Ordinance (ROGO) based on the ability to safely evacuate  
 33    the Florida Keys. The state- approved Comprehensive Plan determined that 2,550 new residential units  
 34    could be allocated while maintaining the 24 hour evacuation standard adopted in the plan. Monroe

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<sup>141</sup> Ibid.

<sup>142</sup> [www.hawaiicounty.gov/civil-defense-cert](http://www.hawaiicounty.gov/civil-defense-cert)

<sup>143</sup> <http://www.floridajobs.org/community-planning-and-development/programs/technical-assistance/community-resiliency/hazard-mitigation-planning>, p. 64

<sup>144</sup>

<http://www.myindianshores.com/ordinances/2011%20Indian%20Shores%20Comprehensive%20Plan%20Final.pdf>

1 County set a 10-year allocation of 255 units per year and established a building permit allocation  
2 system<sup>145</sup>.

3 As noted above, in the case of a Mauna Loa eruption, the Ocean View community may have to evacuate  
4 on very short notice – possibly within 2-3 hours. It is also possible that at least one evacuation route out  
5 of the area along Highway 11 will be blocked, and because emergency vehicles have to *enter* the area,  
6 two-lane contra-flow may not be possible. During drills in Keaukaha, Civil Defense is able to move 300  
7 vehicles on two lanes in two hours at a walking pace<sup>146</sup> -- that is a 150 vehicle per hour (vph) pace.

8 In the draft Environmental Impact Statement for Kahuku Village, it is assumed that, during an  
9 evacuation, the highway becomes two-lane, one way and operates under “force flow” conditions with a  
10 3,000 vph capacity. Assuming there may be as little as two hours evacuation time, only 6,000 vehicles  
11 may be evacuated from Ocean View during a major eruption, not factoring in travel time from the  
12 subdivision interiors to the highway. Assuming an average of one vehicle per household would  
13 evacuate, 6,000 households could be evacuated safely. That’s equivalent to about 50% build-out of the  
14 current, buildable lots in Ocean View. If only one lane is open, only 3,000 households could evacuate,  
15 which is not much more than the number of dwellings counted by the OVDCD in 2010.

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<sup>145</sup> [http://www.duckkeyonline.com/duck\\_key\\_community/duck\\_key\\_archives/rogo.pdf](http://www.duckkeyonline.com/duck_key_community/duck_key_archives/rogo.pdf)

<sup>146</sup> Civil Defense agency phone conversation, August 14, 2012.

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**Discovery Harbour Area**

Ho ‘omoe wai kahi ke kao ‘o.  
*Let all travel together like water flowing in one direction.*  
‘Ōlelo no‘eau, 1102

This is the fourth of four sections of this appendix that focus on specific regions in Ka‘ū. It begins with a summary of Ka‘ū’s values, priorities, and objectives related to the subdivisions in the Discovery Harbour area, including the Mark Twain and Green Sands subdivisions. It then introduces the area’s assets and challenges related to land use, development, and infrastructure. Next, the appendix lists General Plan policies and courses of action related to the Discovery Harbour area and summarizes past planning for the area. The tools and alternative strategies applicable to the Discovery Harbour area are similar to those introduced for Ocean View and at the beginning of this appendix.

**Community Values, Priorities, and Objectives**

The core values and community vision in the Discovery Harbour area are consistent with those identified during initial community input in the rest of Ka‘ū (see Appendix V2).

Community **values** related to the area include:

- ‘Āina or Natural Resources: **natural beauty, open space, beaches, coastline, access, ocean, outdoor recreation**
- ‘Ohana: **people, community, family, schools, safety, aloha, diversity, church**
- Country or Rural Lifestyle: **quiet, lifestyle, country, small, agriculture, isolation, little traffic, culture, uncrowded, history, freedom, pace.**

Likewise, community **priorities** related to the area include:

- Local Economy: **jobs, retail, services, dining, entertainment, agriculture, renewable energy, housing, tourism, local business**
- Recreation: **facilities, youth recreation, parks, programs**
- Education: **more schools, improved schools, adult/vocational/higher education**
- Health Care: **hospital, other medical facilities, services**
- ‘Āina: **access, natural resource protection, coastline, natural beauty**
- Public Services: **water, roads, mass transit, public safety, solid waste/ recycling.**

Based on the community’s values and priorities as well as findings from the Community Profile, the Steering Committee adopted the following Community Objectives related to strengthening the Discovery Harbour, Mark Twain, and Green Sands communities:

- **Preserve prime and other viable agriculture lands and preserve and enhance viewscapes** that exemplify Ka‘ū’s natural and cultural landscape.

- 1   ▪ Encourage future settlement patterns that are safe, sustainable, and connected. They should  
2   **protect people and community facilities from natural hazards**, and they should honor the best of  
3   Ka'ū's historic precedents: **concentrating new commercial and residential development in**  
4   **compact, walkable, mixed-use town/village centers**, allowing rural development in the rural lands,  
5   and limiting development on shorelines.
- 6   ▪ **Establish or expand retail, service, dining, and entertainment centers in rural villages and towns**  
7   capable of supporting Ka'ū-appropriate growth.
- 8   ▪ **Identify viable sites for critical community infrastructure**, including water, emergency services and  
9   educational facilities to serve both youth and adults.
- 10  ▪ **Establish a rural transportation network**, including roadway alternatives to Highway 11, a regional  
11  trail system, and an interconnected transit system.

## 12 **Community Assets and Challenges**

13 “Figure 30: Discovery Harbour, Mark Twain & Green Sands Communities Base Map,” “Figure 31: County  
14 Zoning in Discovery Harbour, Mark Twain & Green Sands,” and “Figure 32: County General Plan Land  
15 Use Pattern Allocation Guide (LUPAG) for Discovery Harbour, Mark Twain & Green Sands” include many  
16 of the features referenced below.

### 17 **Land Use**

18 The Mark Twain Estates subdivision was approved in 1962 (SUB 1846), creating over 700, mostly  
19 ~20,000 square foot lots. The Green Sands subdivision was approved in two increments (mauka and  
20 makai of Ka'alu'alu Road) in 1967 (SUB 2561), creating over 450, mostly ~12,000 square foot lots. The  
21 Discovery Harbour subdivision was approved in 1972 (SUB 3122), creating over 800, mostly ~15,000  
22 square foot lots. All of the subdivisions pre-date 1976, when restrictions were added to the zoning code  
23 to limit farm dwellings.

24 For the recent 174, 1-acre lot Fruitland subdivision application (TMKs 9-4-002:001 & 021 and 9-4-  
25 001:018, SUB 09-938), the Planning Department is requiring an archaeological inventory survey, a park  
26 dedication, a private water system, a traffic impact study and related improvements, and a private  
27 wastewater system.

28 “Table 18: Land Use Designations in the Discovery Harbour Area” and “Table 19: Land Use Designations  
29 for Select Parcels in the Discovery Harbour Area” summarize current land use designations for the area  
30 and for parcels of past or recent community interest.

31 Like the Ocean View subdivisions, the Discovery Harbour, Mark Twain, and Green Sands subdivisions are  
32 considered [premature, obsolete subdivisions](#). Discovery Harbour is a conventional suburban  
33 development (CSD) based on the private golf course resort model.

34 The Department of Hawaiian Home Lands owns 40 residential lots in Discovery Harbour.

35



1 **Table 18: Land Use Designations in the Discovery Harbour Area**

	SLU	Zoning	LUPAG
<b>Mark Twain</b>	Ag	Ag-1a	Rural (pursuant ORD 05-25)
<b>Green Sands</b>	Ag	Ag-20a	Rural (pursuant ORD 05-25)
<b>Discovery Harbour</b>	Ag	Ag-1a for house lots; Open for golf course	Rural (pursuant ORD 05-25)
<b>Fruitland</b>	Ag	Ag-1a	Extensive agriculture

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1 **Table 19: Land Use Designations for Select Parcels in the Discovery Harbour Area**

TMK	Use	Acreage	SLU	Zoning	LUPAG
9-4-001:021	Golf course makai	79.8	Ag	Open	Rural
9-4-001:022	Golf course mauka	90.4	Ag	Open	Rural
9-4-024:025	Makai parcel at Kahiki & Wakea	18.3	Ag	Open	Rural
9-4-001:020	Mauka parcel at Kahiki & Wakea	11.75	Ag	Open	Rural
9-4-001:005	Makai of Discovery Harbour	527.9	Ag	Ag-1a	Extensive Agriculture

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Figure 30: Discovery Harbour, Mark Twain & Green Sands Communities Base Map

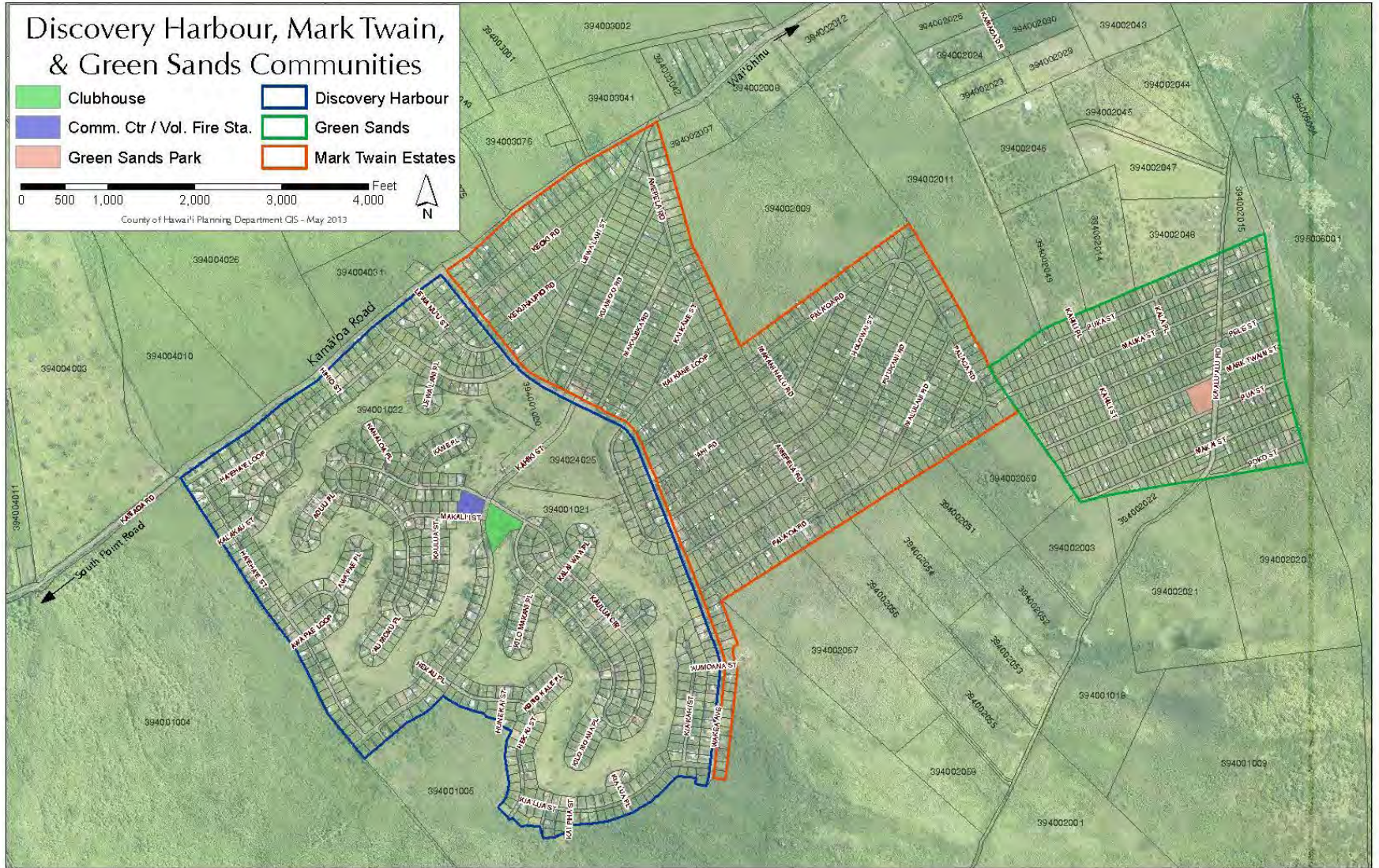
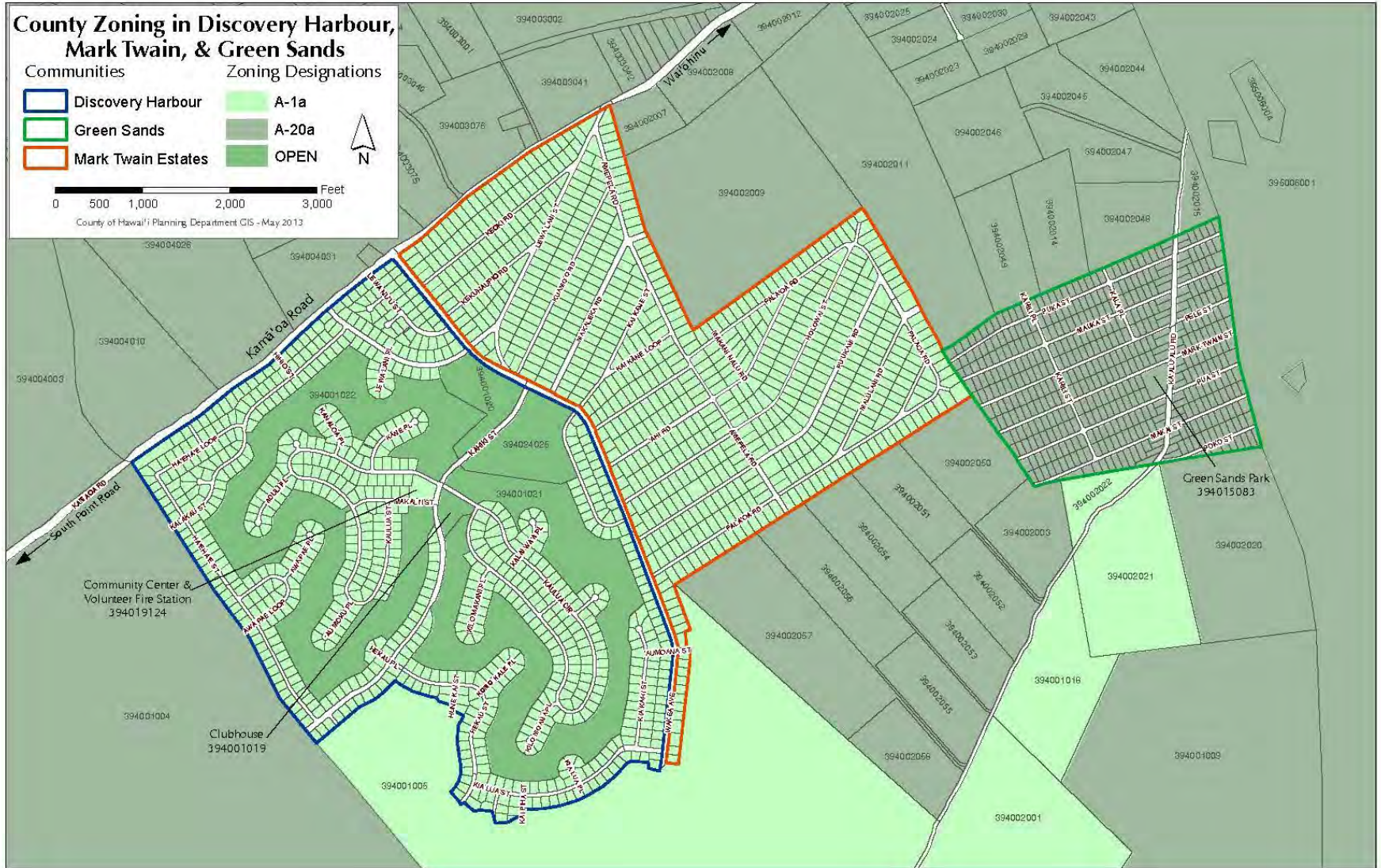
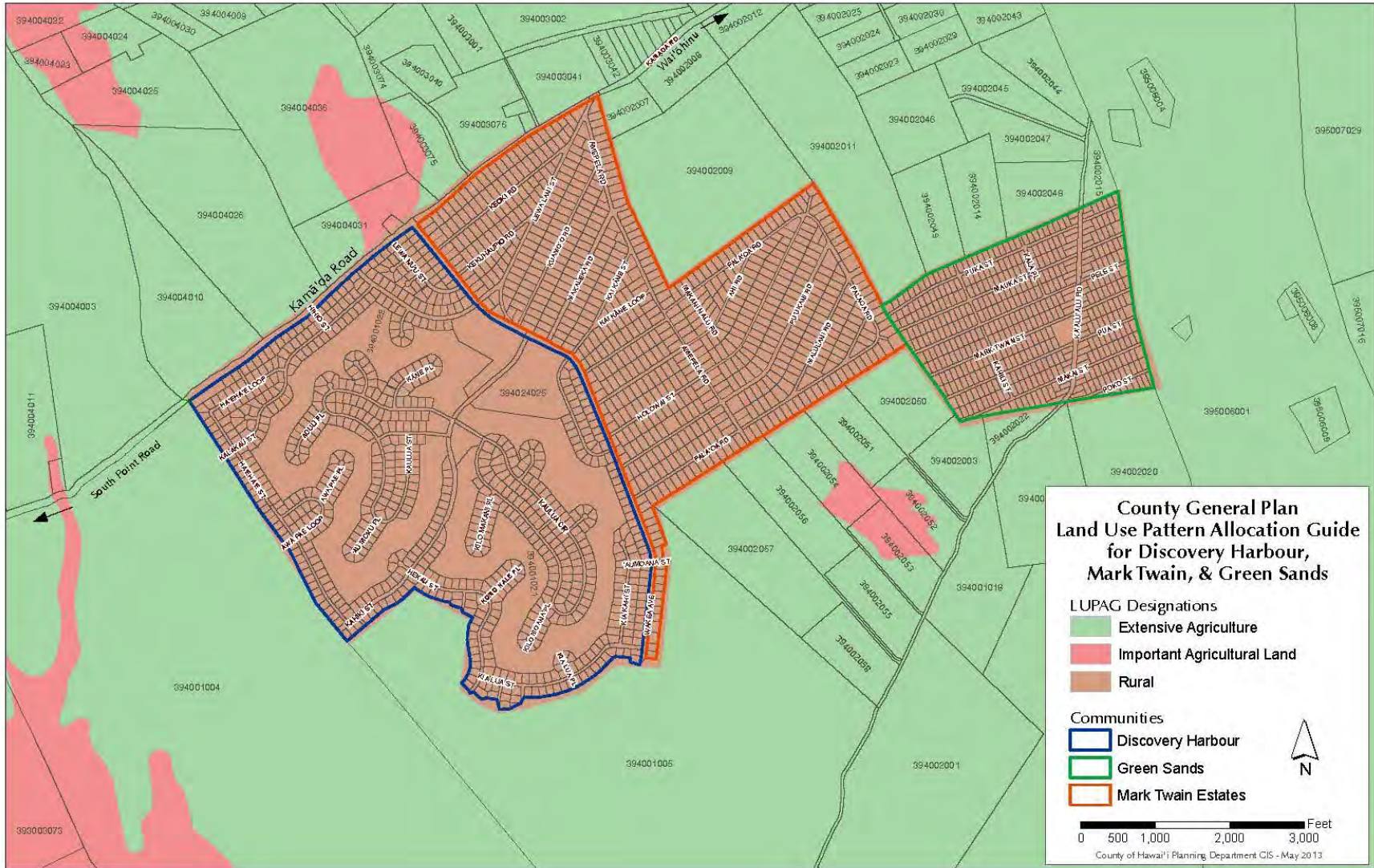


Figure 31: County Zoning in Discovery Harbour, Mark Twain & Green Sands



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Figure 32: County General Plan Land Use Pattern Allocation Guide (LUPAG) for Discovery Harbour, Mark Twain & Green Sands



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1 **Roads, Parks, and Water**

2 **Roads:** All three subdivisions required [private roads](#) and road maintenance. The Discovery Harbour  
3 roads have been dedicated to the County. As noted above, Discovery Harbour features many cul-de-  
4 sacs and large, looping blocks, making it difficult to travel from one part of the neighborhood to another.  
5 Likewise, Mark Twain and Green Sands consist of a series of parallel routes roughly perpendicular to the  
6 nearest minor collector road, with limited opportunities for connection between interior subdivisions  
7 roads. Moreover, because the Mark Twain and Green Sands roads are private and lack an organized  
8 road corporation, many of the roads are overgrown and impassable.

9 **Parks:** The Green Sands subdivision required two acres set aside for a playground (TMK (3)9-4-015:083).  
10 For many years, the original Green Sands subdivider, the lot owners, and the County have made efforts  
11 to resolve responsibilities for park and road maintenance. The covenant allows the developer to convey  
12 the park site to the property owners' association or sell it if the County doesn't acquire it. The County  
13 has recommended that the community organize an association with the capacity to manage the park  
14 and road maintenance, at which point it can transfer to the association funds held in escrow for road  
15 maintenance. Title for the park is held by Title Garanty.

16 **Water:** Improvement District No 11-Discovery Harbor was adopted by Ordinance No. 432 in 1971 for  
17 road construction, street lighting, and water improvements, and the water system was dedicated to the  
18 Department of Water Supply and is part of its [Nā'ālehu-Wai'ōhinu system](#). Residential lots within  
19 Discovery Harbour were each provided water service and are entitled to one service each, even if the  
20 land is not currently occupied. Water is not available for further subdivision or for more than one  
21 dwelling unit per lot.

22 The water system's service area does not include Mark Twain or Green Sands, but some residents have  
23 secured meters (sometimes at a considerable distance from their homes) and run and maintain surface  
24 water lines. In Mark Twain, water service is typically available for up to two dwelling units per existing  
25 lot for properties fronting existing waterlines based on existing zoning. Properties not fronting  
26 waterlines as of 7/13/12 are limited to one unit even if waterlines are newly extended to front  
27 properties. Unserved parcels in Mark Twain may not be able to get service from Wakea Avenue  
28 depending on the crowding of meters at the intersections from which the customer would need to run a  
29 private waterline.

30 The only possibility for new water services in Green Sands is to come off the highway somewhere near  
31 but not at the Ka'alu'alu Road intersection. The potential customer must either secure an easement  
32 from a landowner abutting the highway allowing the installation of a meter and a private line across the  
33 property. In addition, if the private line will run along the Ka'alu'alu Road right-of-way, the customer  
34 must secure a County permit. Likewise, if the private line will run alongside private property, legal  
35 easements are required from those property owners.

36 In the areas south of the existing Discovery Harbour, Mark Twain, and Green Sands subdivision,  
37 subdivision is allowed for existing zoning but changes of zone are not. Only two dwellings units are  
38 available to new subdivisions unless the developer enters into an agreement with DWS to provide the  
39 necessary source, storage, and transmission facilities for the subdivision.

40 The area typically receives less than 60" annual rainfall, making it ineligible for water variances.

41 **Non-Residential Development**

1 Non-residential development in the area is limited to the Green Sands park, the Discovery Harbour golf  
 2 course, the Discovery Harbour clubhouse (TMK (3)9-4-001:019), and the Discovery Harbour community  
 3 center and fire house (TMK (3)9-4-019:124). Discovery Harbour has an active community association<sup>147</sup>,  
 4 volunteer fire unit, and neighborhood watch.

5 A 1999 letter from the Planning Director indicates that the clubhouse is considered “non-conforming”  
 6 because it was established prior to when the zoning code was adopted (see HCC section 25-4-60ff) and  
 7 therefore can be re-established if it was part of the original golf complex. That determination was re-  
 8 affirmed in May 2011. However, pursuant HCC section 25-4-62, “If any nonconforming use ceases for  
 9 any reason for a continuous period of twelve calendar months, or for one season if the use be seasonal,  
 10 then such use shall not be resumed and any use of the land or building or both thereafter shall be in full  
 11 conformity with the provisions of this chapter.” In 2011, renovations were initiated on the clubhouse.

12 **Build-Out Projections**

13 According to 2007 property tax records, Discovery Harbour, Mark Twain, and Green Sands were built-  
 14 out 30% (254 homes), 19% (133 homes), and 13% (61 homes), respectively. 77% of the over 2,000 lots  
 15 were vacant. According to the census, all of the 45% growth in population in Ka’ū between 2000 and  
 16 2010 was in Ocean View and Discovery Harbour (Pāhala and Nā’ālehu lost population). In 2010, there  
 17 were 949 residents in Discovery Harbour, Mark Twain, and Green Sands and approximately 438  
 18 households (~2.1 people/household). Assuming a 45% growth rate over ten years, ~450 people (and  
 19 ~215 homes) will be added every 10 years, so the population of the Discovery Harbour area could grow  
 20 to ~1,850 by 2030, at ~44% build-out.

21 Based on sales data in July 2011, Green Sands offers some of the most affordable housing in Ka’ū,  
 22 (averaging ~\$100,000 for a single family dwelling). Homes in Mark Twain tend to be more expensive  
 23 (~\$225,000). Home prices in Discovery Harbour show wide variation depending on location and the  
 24 quality of the housing.

25 **Cultural Sites**

26 Residents report that there are burial sites and heiau on privately-owned lots in the Discovery Harbour  
 27 area.

28 **General Plan Courses of Action**

29 The following courses of action in the County’s General Plan speak directly to the Discovery Harbour  
 30 area and related community values, priorities, and objectives:

- 31 ▪ 14.3.5.9.2(a): **Centralization of commercial activity in the communities of Pahala, Naalehu, and**  
 32 **Ocean View** and the area of the Volcanoes National Park shall be encouraged.
- 33 ▪ 11.2.4.8.2(c): **Continue to evaluate growth conditions to coordinate improvements as required to**  
 34 **the existing water system.**
- 35 ▪ 11.2.4.8.2(d): **Investigate alternative means to finance the extension of water systems** to subdivi-  
 36 **sions that rely on catchment.**

37 **Previous Planning**

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<sup>147</sup> [www.discoveryharbour.net](http://www.discoveryharbour.net)

- 1 **Past Community Planning:** The 2004 Draft Strategic Plan for the District of Ka'ū identified the following  
2 Courses of Action related to the Discovery Harbour area:
- 3 ▪ **Provide newer fire trucks** for Nā'ālehu and Discovery Harbour Volunteer fire crews.
  - 4 ▪ Include in the Ka'ū Water Plan provision for **fire hydrants** in Green Sands, Mark Twain and Ocean  
5 View subdivisions.
  - 6 ▪ **Eliminate the unsightly and vulnerable "spaghetti lines" to Green Sands subdivision.**
  - 7 ▪ **Improve Ka'alu'alu Road** to Green Sands subdivision to reduce accident dangers.
- 8 **County Capital Improvements:** \$1,545,000 were appropriated with Ordinance 12-153 for [Green Sands](#)  
9 [Subdivision Water Infrastructure Improvements](#). The funds will lapse on June 30, 2015 if not  
10 encumbered.