Appendix V4D: Preferred Future Growth Patterns

Introduction

Overview

One of primary functions of a regional or community plan is to direct land use, growth, and development. Most fundamentally, this requires an assessment of historical, contemporary, and future human settlement patterns relative to a community's goals and objectives for resource management, community development, and economic development. This appendix summarizes that analysis for Kaʻū, which drove the development of Kaʻū's "preferred" future growth patterns.

First, Kaʻū's historic settlement patterns are assessed through a land use planning lens and through the CDP Steering Committee's ranking of existing villages, towns, and subdivisions. Next, alternative future growth patterns are assessed using criteria incorporating the assessment of historic patterns, existing General Plan policies, Kaʻū's Community Objectives, and Kaʻū's existing capacity for growth. This appendix concludes with a summary of Kaʻū's preferred future growth patterns and examples of tools available to achieve them.

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Learning from the Past: Assessing Regional Settlement Patterns

Ka‘ū’s Historic Settlement Patterns

Understanding land use in Ka‘ū began with an examination of human settlement patterns in the district. Various patterns were identified, beginning with the earliest organizations of society on the island.

Many of the ancient communities were vulnerable to natural hazards. Those along the shorelines were at risk because of hurricanes, tsunamis, and flooding. Others were threatened by lava flows.

Historically, settlement patterns in Ka‘ū were linked to the availability of water and soil. Three unique regions based on water availability and geology define the area. The Ka‘ū desert and the Kapāpala ahupua‘a dominate the northeastern region, most of which is within the Volcanoes National Historic Park or in State ownership. There are no existing villages and there will be no new growth in this region.

Moderate slopes, limited rainfall, extremely permeable soils, and relatively young lava flows characterize the southwestern region (Kahuku ahupua‘a) that extends westerly from the South Point Road to Manukā Natural Area Reserve. Until the subdivisions of Ocean View, settlement in this area was largely constrained by rainfall and lava hazards.

The central region has been an area of preferred settlement as it contains the wetter Kula lands within the Pāhala, Hīlea, and South Point watersheds. Because of their access to water and fertile soil to support agriculture, most of the region’s historic ahupua‘a and existing towns and villages are located in this area.

Wai‘ōhinu’s heritage as an agricultural center and crossroads extends to pre-contact Hawai‘i. Wai‘ōhinu and Wood Valley exemplify the community type planning professionals call Clustered Land Development (CLD), a compact organization on the scale of rural villages.

As the sugar industry in Ka‘ū grew in Ka‘ū’s central region, plantation camps were established in the vicinity of the mills. Later, the camps were consolidated into Nā‘ālehu and Pāhala, which planners consider “Traditional Neighborhood Development” (TND) community types. TNDs have a compact design that provides easy access to schools, restaurants, shopping, health care, entertainment, and other amenities of community life – often without having to drive a car. TNDs are typically flexible enough to support a variety of economic and social conditions while protecting the surrounding environment.

More recent communities are modeled after mid-20th century development on the mainland – a community type called Conventional Suburban Development (CSD), which depends upon a broader region supplying needs for employment, food, shopping, infrastructure, etc. Examples include subdivisions in the Ocean View and Discovery Harbour areas.

A more detailed analysis of Ka‘ū’s towns, villages, and subdivisions is included in Appendix V4B: Community Character.

To assess which settlement patterns are best aligned with community values and objectives, the Steering Committee was asked to review the district’s historic settlement patterns and affirm a preferred model for channeling future growth.

Steering Committee Assessment of Ka‘ū’s Historic Settlement Patterns

During its November 10, 2009 meeting, the Steering Committee reviewed consultants’ analysis of local development patterns and precedents. For the November 18, 2009 meeting, Steering Committee

members completed a "score card," rating each of the development precedents from Poor (0) to Excellent (4) relative to the following draft Community Objectives, which were based on the adopted Values and Vision Statement and findings from the Community Profile (see "Appendix V2: Planning Process" for more information about the Values and Vision Statement and Community Profile):

Local Economy

- Preserves and enhances the ʻohana economy
- Increases the number and diversity of income sources for local people
- Establishes or expands retail, service, dining, and entertainment centers in hamlets, villages, and towns

Natural Resources

- Protects and enhances ecosystems, including mauka forests and the shorelines, while assuring responsible access for locals and for visitors
- Preserves prime agricultural lands and preserve and enhances viewscapes that exemplify Kaʻū's rural character
- Encourages management plans to assure that human activity doesn't degrade the quality of Kaʻū's unique natural and cultural landscape

Community

- Protects and enhances Kaʻū's unique cultural assets, including archeological and historic sites and historic buildings
- Establishes and enforces standards for development and construction that reflect community values of architectural beauty and distinctiveness
- Encourages future settlement patterns that are safe, sustainable, and connected
- Protects people and community facilities from lava inundation and coastal hazards
- Concentrates new commercial and residential development in compact, walkable, mixed-use town/village centers and limits development in the rural lands and on shorelines outside those centers
- Identifies viable sites for critical community infrastructure
- Establishes/enhances a rural transportation network, including roadway alternatives to Highway 11, a regional trail system, and an expanded bus and para-transit system.
- The cumulative scores rank each precedent's overall performance within the region, as summarized in "Table 1: Summary of Steering Committee Ranking of Kaʻū's Development Patterns." Consultants prepared profiles of each precedent, which are summarized in "Figure 1: Historic Settlement Patterns, Part 1" and "Figure 2: Historic Settlement Patterns, Part 2" and outlined below for ease of reading.

Table 1: Summary of Steering Committee Ranking of Kaʻū's Development Patterns

	Nāʻālehu	Pāhala	Waiʻōhinu	Wood Valley	Punaluʻu	Ocean View	Discovery Harbour
Local Economy	46	39	21	23	25	33	10
Natural Resources	24	25	33	36	22	10	12
Community	74	68	44	34	35	35	33
Total	**144**	**132**	**98**	**93**	**82**	**78**	**55**

Nāʻālehu

Overall Score: 144 / Highest: 74 Community / Lowest: 24 Natural Resources

Community Type: Traditional Neighborhood Development (TND) gridiron pattern located on the main corridor, based on the 1930s Neighborhood Unit Model. TNDs occur in towns or neighborhoods historically built in Kaʻū as plantation towns. A well-connected street network and mix of uses provide opportunities for housing and jobs. TNDs provide a range of housing types, a network of small blocks, public spaces, and amenities such as stores, schools, and places of worship within walking distance of each residence.

Advantages:

- Well-connected grid-like street network
- Walkability to daily needs
- Compact development with a clear center and edge
- Creates a unique rural sense of place
- Preservation of open space and agricultural land
- Provides a range of housing types
- Supports economic activity
- Formal public gathering spaces

Disadvantages:

- Requires public facilities and services
- New patterns of development can easily disrupt character

Pāhala

Overall Score: 132 / Highest: 68 Community / Lowest: 39 Economy

Community Type: Traditional Neighborhood Development (TND) curvilinear pattern adjacent to main corridor. The plan is similar to the 1950s Urban Land Institute model. A rural TND pattern of development provides a range of housing types, public gathering spaces, and amenities such as stores, schools, and places of worship within walking distance of each residence. The main difference between the curvilinear and grid TND is the organic and more rural character of the streets and places, diverse range of lot/block sizes, and unique sense of place it creates with its informal, more rural pattern.

Advantages:

- Well-connected organic street network
- Walkability to daily needs
- Compact development with a clear center and edge

Figure 1: Historic Settlement Patterns, Part 1

Wai`ohinu

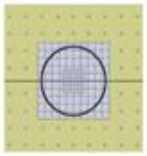
Community Type: Hamlet (CLD) Clustered Land Development (CLD) Pattern. A historic, free-standing, cross-roads neighborhood located in the countryside.

Hamlets are small clusters of rural development that is a neighborhood in the making. The open land around the hamlet is often used for the production of food and other economic crops that support the livelihoods of those living in the hamlet. Wai`ohinu is a long-standing development model initially established at a cross-roads for trading purposes.

Advantages:
Well-connected road network
Can evolve and change over time.
Compact development with clear center and edge
Creates a unique rural sense of place
Preservation of open space and agricultural land

Disadvantages:
Auto dependency due to limited services
Low population limits utility services or amenities
Long transportation times for daily needs
Cannot support public infrastructure or services
Cannot support meaningful economic activity

Na`alehu



Community Type: Traditional Neighborhood Development (TND) Gridiron pattern located on the main corridor. Based on the 1930's Neighborhood Unit Model.

TNDs occur in towns or neighborhoods historically built in Ka`u as plantation towns. A well-connected street network and mix of uses provide opportunities for housing and jobs. TNDs provide a range of housing types, a network of small blocks, public spaces, and amenities such as stores, schools, and places of worship within walking distance of each residence. Center on Main Corridor through the region.

Advantages:
Well-connected grid-like street network
Walkability to daily needs
Compact development with a clear center and edge
Creates a unique rural sense of place
Preservation of open space and agricultural land
Provides a range of housing types
Supports economic activity
Formal Public gathering spaces

Disadvantages:
Requires public facilities and services
New patterns of development can easily disrupt character

Pahala

Community Type: Traditional Neighborhood Development (TND) Curvilinear pattern adjacent to main corridor. Based on 1950's Urban Land Institute model.

A rural TND pattern of development provides a range of housing types, public gathering spaces, and amenities such as stores, schools, and places of worship within walking distance of each residence. The main difference between the curvilinear and grid TND is the organic and more rural character of the streets and places, diverse range of lot/block sizes, and unique sense of place it creates with its informal, more rural pattern. Edge of town on Main Corridor through the region.

Advantages:
Well-connected organic street network
Walkability to daily needs
Compact development with a clear center and edge
Creates a unique rural sense of place
Preservation of open space and agricultural land
Provides a range of housing types
Supports economic activity
Formal Public gathering spaces

Disadvantages:
Requires public facilities and services
New patterns of development can easily disrupt character

Figure 2: Historic Settlement Patterns, Part 2

Wood Valley

Community Type: Rural Farmsteads Clustered Land Development (CLD) Large lots on rural roads for ranches and agriculture. Based on historic rural patterns.

These Country farmsteads make up the majority of entitled housing sites in Ka`u. These are located in the Kula agriculture and ranching areas mauka of Highway 11 and towns and neighborhoods of Wai`ohinu, Na`alehu and Pahala. This regional pattern is appropriate in the region, however, these areas are at most risk to wild fire, drought, landslides, wind and VOG damage. County farmsteads provide housing and employment opportunities on large lots in the rural edge.

Advantages:
Maintains agricultural productivity
Provides economic activity
Uses exiting infrastructure
Maintains a sense of place

Disadvantages:
Increases Vehicle Miles Travelled (VMT) for every daily need
Necessitates intense use of water
Produces intense agricultural waste and by-products
Privatizes land and access mauka
No center or edge to limit growth expansion

Ocean View

Community Type: Conventional Suburban Development (CSD) Speculative for quick and efficient subdivision of land for profit. Based on a 1950's Florida model.

Speculative development occurs where developers buy tracts of land and then subdivide it into parcels that can be resold for an increased price based on the improvements the developer adds to the property. It most often occurs outside of existing towns were land prices are cheap and taxes are less. HOVE is the largest single subdivision in Hawaii and has limited public facilities or services.

Advantages:
Quick development of land
Uniform parcels
Attainable housing for low-income families

Disadvantages:
Built on cheap greenfield sites promoting sprawl
Auto dependency for daily needs
Loss of open space and agricultural land
Low density does not allow for utilities or amenities of place
Concentration of single housing type causes social separation
Not in context to regional built form heritage
Poor connectivity and no walkability
Long transportation and Vehicle Miles Travelled (VMT) for daily needs

Discovery Harbor

Community Type: Conventional Suburban Development (CSD) Spreading outward over rural or open land at low densities. Based on 1980's private resort model.

Suburban sprawl is the current legal pattern of development and built most often as single family homes and is neither rural nor urban pattern. The low density and segregation of uses creates a car dependent system necessitating land consumption and increased carbon footprint. Usually costly to maintain the expensive infrastructure required to adequately support the residents.

Advantages:
Legally enabled by current development regulations
Uniform parcels and buildings

Disadvantages:
Built on greenfield sites promoting sprawl.
High Vehicle Miles Traveled (VMT) and auto dependency
Low density does not allow for utilities or amenities of place
Single use development isolates home from work from school etc.
Concentration of single housing type causes social separation
Not in context to regional built heritage
Poor connectivity and no walkability
Difficult to change or sustain over time

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- Creates a unique rural sense of place
- Preservation of open space and agricultural land
- Provides a range of housing types
- Supports economic activity
- Formal public gathering spaces

Disadvantages:

- Requires public facilities and services
- New patterns of development can easily disrupt character

Waiʻōhinu

Overall Score: 98 / Highest Score: 44 Community / Lowest Score: 21 Economy

Community Type: Village/Clustered Land Development (CLD). An historic, free-standing, cross-roads, clustered rural development. The open land around the village is often used for the production of food and other economic crops that support the livelihoods of those living in the village. Waiʻōhinu is a long-standing development model initially established at a crossroads for trading purposes.

Advantages:

- Well-connected road network
- Can evolve and change over time
- Compact development with clear center and edge
- Creates a unique rural sense of place
- Preservation of open space and agricultural land

Disadvantages:

- Auto dependency due to limited services
- Low population limits utility services or amenities
- Long transportation times for daily needs
- Cannot support public infrastructure or services
- Cannot support significant economic activity

Wood Valley

Overall Score: 93 / Highest: 36 Natural Resources / Lowest: 23 Economy

Community Type: Rural Farmsteads Clustered Land Development (CLD). Large lots on rural roads for ranches and agriculture, based on historic rural patterns. These are located in the Kula agriculture and ranching areas mauka of Highway 11 and towns and neighborhoods of Waiʻōhinu, Nāʻālehu, and Pāhala. This pattern is appropriate in the region; however, these areas are at most risk to wild fire, drought, landslides, wind, and VOG damage. Country farmsteads provide housing and employment opportunities on large lots in the rural edge.

Advantages:

- Maintains agricultural productivity
- Provides economic activity
- Uses existing infrastructure
- Maintains a sense of place

Disadvantages:

- Increases Vehicle Miles Travelled (VMT) for daily needs
- Necessitates intense use of water
- Produces intense agricultural waste and by-products
- Privatizes land and access mauka
- No center or edge to limit growth expansion

Punaluʻu

Overall Score: 82 / Highest: 35 Community / Lowest: 22 Natural Resources

Community Type: Conventional Suburban Development (CSD) Resort. This community was added at the Steering Committee meeting and did not receive the same level of analysis because its settlement is limited to visitor-oriented condominiums.

Ocean View

Overall Score: 78 / Highest: 35 Community / Lowest: 10 Natural Resources

Community Type: Conventional Suburban Development (CSD). Speculative for quick and efficient subdivision of land for profit, based on a 1950s Florida model. Speculative development occurs where developers buy tracts of land and then subdivide it into parcels that can be resold for an increased price based on the improvements the developer adds to the property. It most often occurs outside of existing towns were land prices are cheap and taxes are lower. Ocean View is the largest single subdivision in Hawaiʻi and has limited public facilities or services.

Advantages:

- Quick development of land

- Uniform parcels
- Attainable housing for low-income families

Disadvantages:

- Built on cheap greenfield sites promoting sprawl
- Auto dependency for daily needs
- Loss of open space and agricultural land
- Concentration of single housing type causes social separation
- Not in context to regional built form heritage
- Poor connectivity and no walkability
- Long transportation and Vehicle Miles Travelled (VMT) for daily needs

Discovery Harbour (including Green Sands and Mark Twain Estates)

Overall Score: 55 / Highest: 33 Community / Lowest: 10 Natural Resources

Community Type: Conventional Suburban Development (CSD), spreading outward over rural or open land at low densities, similar to the 1980s private resort model. Suburban sprawl is the current legal pattern of development and built most often as single-family homes and is neither rural nor urban pattern. The low density and segregation of uses creates a car dependent system necessitating land consumption and increased carbon footprint. It is often costly to maintain the expensive infrastructure required to adequately support the residents.

Advantages:

- Legally enabled by current development regulations
- Uniform parcels and buildings

Disadvantages:

- Built on greenfield sites promoting sprawl
- High Vehicle Miles Traveled (VMT) and auto dependency
- Single use development isolates home from work, school, etc.
- Concentration of single housing type causes social separation
- Not in context to regional built form heritage
- Poor connectivity and no walkability
- Difficult to change or sustain over time

Summary: Keys to Success

Planning for the future should be informed in part by an understanding of the advantages and disadvantages of local settlement patterns. Summarizing from the above analysis, the settlement patterns most aligned with community vision and objectives have the following advantages:

- Well-connected street network
- Walkability to daily needs
- Compact development with a clear center and edge
- Creates a unique rural sense of place
- Preservation of open space and agricultural land
- Provides a range of housing types
- Supports economic activity
- Formal public gathering spaces
- Uses existing infrastructure
- Can evolve and change over time.

Likewise, those settlement patterns least aligned with community vision and objectives have the following disadvantages:

- Loss of open space and agricultural land
- Not in context to regional built form heritage
- Poor connectivity and no walkability
- Auto dependency for daily needs
- No center or edge to limit growth expansion.

Experience from Other Communities: The relative success of Kaʻū's community types is broadly shared. A recent EPA study, "Smart Growth & Conventional Suburban Development: Which Costs More?," indicates compact infrastructure is from 32% to 47% less expensive than conventional development patterns. Similarly, a May 2013 report aggregates studies of costs savings associated with "smart growth" – the more efficient use of land; a mixture of homes, businesses and services located closer together; and better connections between streets and neighborhood. When compared to "conventional suburban development," with less efficient use of land, homes, schools and businesses separated, and areas designed primarily for driving, smart growth costs 1/3 less for upfront

infrastructure, saves 10% on ongoing delivery of services, and generates 10 times more tax revenue per acre[1].

Calgary, Alberta, in "The Implications of Alternative Growth Patterns on Infrastructure Costs,"[2] estimated compact development will save them $11 billion in infrastructure costs, making it 33% less costly to build the roads, transit, water, recreation facilities, fire stations and schools it expects to need over the next 60 years. Additionally, Calgary determined reducing greenfield growth and prioritizing infill will result in a 55% cost savings for water and wastewater systems over the same timeframe.

Residents and homeowners save money and value, too. The *New Republic* reported that urban households spend 16% less of their income on transportation than to suburban households.[3] When comparing a classic TND with a CSD in Florida, the National Resources Defense Council and PBS found that housing values in the TND weathered the recession and real estate bust much better than the CSD, which had high foreclosure rates.[4] A University of Virginia researcher also found that the real estate market is shifting significantly in favor of TNDs. Much of the current housing demand is from homeowners over age 55 who want to sell their homes in the suburbs and downsize to more convenient places.[5] For municipalities, the higher values coupled with cost savings translates into an improved bottom line, which can mean tax savings or improved services and facilities for residents.

[1] http://www.smartgrowthamerica.org/2013/05/21/building-better-budgets-quantifies-average-savings-and-revenue-of-smart-growth-development/

[2] http://www.reconnectingamerica.org/resource-center/browse-research/2009/implications-of-alternative-growth-patterns-on-infrastructure-costs/

[3] Christopher Leinberger, "Has Sprawl Recovered Enough for the National Economy?" http://www.newrepublic.com/blog/the-avenue/has-sprawl-recovered-enough-the-national-economy#

[4] Kaid Benfield, "A tale of two cities in Florida, where walkability trumps sprawl – again" (http://switchboard.nrdc.org/blogs/kbenfield/a_tale_of_two_cities_in_florid.html) and PBS series "Imagining a New Florida" (http://video.wpbt2.org/video/2291949955/)

[5] http://www.virginia.edu/uvatoday/newsRelease.php?id=12963

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Looking Ahead: Assessing Alternative Future Growth Patterns

Potential settlement patterns available to Kaʻū for development over the next 20 years should be considered against objective criteria based on the Steering Committee's ranking of historical precedents and patterns, Kaʻū's excess capacity for growth, the General Plan, and Community Objectives.

Trends Impacting Future Growth

Population Growth

According to the Census Bureau, Kaʻū grew by 45% between 2000 and 2010 (see "Table 2: Population Growth in Kaʻū"). The vast majority of that growth was in Ocean View, with small declines in population in Pāhala and Nāʻālehu. In fact, Ocean View's population doubled in ten years, and there are now more people in Ocean View than elsewhere in Kaʻū.

According to the Ocean View Community Development Corporation, the population in Ocean View is even greater, based on actual counts of dwellings. It estimates a 2010 population of 6,873 and the addition of 500 people every year since 2006.

Because of the range of factors that influence population growth, it is difficult to predict whether these trends will continue. However, given its relative affordability and proximity to Kona, Ocean View is likely to continue to grow at a quicker pace than other areas in Kaʻū and across the island. On the conservative side, the State of Hawaiʻi Department of Business, Economic Development and Tourism expects the County's population to increase at an average annual growth rate of 1.3 percent. Assuming Kaʻū's proportion of the County's population continues at 4.6%, Kaʻū's estimated 2030 resident population would be 11,952 persons. Projections based on OVCDC studies bring that number closer to 20,000.

Infill Potential

Considering the number of existing buildable lots, Kaʻū – and Ocean View specifically – already has significant room for growth. Based on 2007 Real Property Tax data, over 80% of the lots in Ocean View are vacant, 70-87% in the Discovery Harbour area, and 17% and 9% in Nāʻālehu and Pāhala, respectively. That translates into over 12,573 lots out of 15,234, or an 82.5% vacancy rate (see "Table 3: Vacant Lots in Kaʻū").

Importantly, this analysis does not include:

- The significant acreage of land already zoned for residential development in Pāhala, Punaluʻu, and Nāʻālehu that is not yet subdivided
- The 100 lots in the Moaʻula coffee subdivision
- The Hester agricultural project district
- The nearly 150 pre-existing lots of record in the Nāʻālehu/Honuʻapo area
- The many small-acreage, agriculturally-zoned lots that could be subdivided in the future, particularly in the Discovery Harbour area.

In short, Kaʻū already has significant capacity to absorb growth. And assuming even the most explosive growth in the next 20 years and a conservative 2.2 people per household, there are already more than enough buildable lots in Kaʻū and additional entitlements in place to absorb that growth.

Table 2: Population Growth in Kaʻū

Town or Subdivision	2010 Census	2000-2010 % Change	% of Kaʻū Population
Pāhala	1,356	-2%	16.0%
Nāʻālehu	866	-6%	10.2%
Waiʻōhinu	213	No 2000 data	2.5%
Discovery Harbour	949	No 2000 data	11.2%
Ocean View	4,437	104%	52.5%
Other	630		7.5%
Total	8,451	45%	

1 **Table 3: Vacant Lots in Kaʻū**

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Town or Subdivision	Number of Lots	Number Vacant	% Vacant
Pāhala	502	46	9%
Nāʻālehu	366	64	17%
Discovery Harbour	837	583	70%
Mark Twain	704	571	81%
Green Sands	470	409	87%
Ocean View	12,355	10,900	88%
Total	15,234	12,573	82.5%

Existing Policy Framework

CDPs are to implement the broad goals within the County's General Plan on a regional basis and translate the broad General Plan statements to specific actions. It is important, therefore, to consider General Plan policies specific to regional settlement patterns and courses of action specific to Kaʻū:

Policies

- 5.3(r): Discourage intensive development in areas of high volcanic hazard.
- 14.1.3(j): Encourage urban development within existing zoned areas already served by basic infrastructure, or close to such areas, instead of scattered development.
- 11.1.3(e): Encourage the clustering of development in order to reduce the cost of providing utilities.
- 14.1.3(b): Promote and encourage the rehabilitation and use of urban areas that are serviced by basic community facilities and utilities.
- 14.3.3(d): Convert existing strip development to more appropriate uses when and where it is feasible.
- 14.7.3(c): Utilize for resort development lands currently designated Resort before allowing new resorts in undeveloped coastal areas.

Kaʻū Courses of Action

- 14.3.5.9.2(a): Centralization of commercial activity in the communities of Pāhala, Nāʻālehu and Ocean View and the area of the Volcanoes National Park shall be encouraged.
- 14.3.5.9.2(b): Do not allow strip or spot commercial development on the highway outside of the designated urban areas.

Kaʻū's Community Objectives

In November 2009, the Kaʻū CDP Steering Committee adopted the following Community Objectives, based on extensive community input into core values, a 20-year vision, and a Community Profile of baseline information about the area (see "Appendix V2: Planning Process" for more information about the development of the Community Objectives). Many of these objectives inform planning for future growth patterns.

MANAGE AND CONSERVE NATURAL RESOURCES

- Protect, restore, and enhance ecosystems, including mauka forests and the shorelines, while assuring responsible access for residents and for visitors.
- Preserve prime and other viable agricultural lands and preserve and enhance viewscapes that exemplify Kaʻū's rural character.
- Encourage community-based management plans to assure that human activity doesn't degrade the quality of Kaʻū's unique natural and cultural landscape.

BUILD A RESILIENT, SUSTAINABLE LOCAL ECONOMY

- Preserve and greatly enhance nā ʻohana economy.

- Increase the number and diversity of income sources for residents, including jobs and entrepreneurial opportunities that complement Ka‘ū’s ecology, culture and evolving demographics.
- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns capable of supporting Ka‘ū-appropriate growth.
- Encourage and enhance agriculture, ranching, and related economic infrastructure.

PRESERVE AND STRENGTHEN COMMUNITY CHARACTER

- 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.
- 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.
- 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.

Criteria for Assessing Alternative Growth Patterns

As noted above, potential settlement patterns available to Ka‘ū for development over the next 20 years should be considered against objective criteria based on the Steering Committee’s ranking of historical precedents and patterns, Ka‘ū’s excess capacity for growth, the General Plan, and Community Objectives. These can be integrated and summarized as follows:

Protect Natural, Cultural, and Agricultural Resources

- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Protect archeological sites, historic sites and buildings, and Ka‘ū’s architectural distinctiveness and rural sense of place
- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands

Preserve and Replicate Safe, Connected Settlement Patterns

- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nā‘ālehu, and Ocean View

- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities

Build a Resilient, Sustainable Local Economy

- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns
- Encourage and enhance agriculture, ranching, and related economic infrastructure
- Repair Punaluʻu in character with rural Kaʻū before allowing new resorts in undeveloped coastal areas.

Alternative Future Growth Patterns

The following diagrams depict potential settlement patterns available to Kaʻū for new development over the next 20 years. They were considered during the November 2009 "charrette" planning workshop, and their advantages and disadvantages are summarized below relative to the above criteria.

#1 Continuation of Existing Trends (Status Quo)

Scenario Ranking (0 = Poor / 4 = Excellent): .5

"Figure 3: Scenario 1: Continuation of Existing Trends" depicts the suburban settlement pattern that characterizes new development in Kaʻū since the 1960s.

Scenario #1 may partially support these criteria:

- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise.

But it doesn't appear to support these criteria:

- Protect archeological sites, historic sites and buildings, and Kaʻū's architectural distinctiveness and rural sense of place
- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands
- Encourage and enhance agriculture, ranching, and related economic infrastructure
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nāʻālehu, and Ocean View
- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities
- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns
- Repair Punaluʻu in character with rural Kaʻū before allowing new resorts in undeveloped coastal areas.

#2 No Growth (Moratorium)

Scenario Ranking (0 = Poor / 4 = Excellent): 2.5

"Figure 4: Scenario 2: No Growth" illustrates existing conditions. This scenario was based on limited public suggestions for a no-growth moratorium throughout the district.

Scenario #2 appears to support the following criteria:

- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Protect archeological sites, historic sites and buildings, and Kaʻū's architectural distinctiveness and rural sense of place
- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands
- Encourage and enhance agriculture, ranching, and related economic infrastructure.

Moreover, it appears to partially support these criteria:

- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nāʻālehu, and Ocean View
- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities.

But it doesn't appear to support these criteria:

- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns
- Repair Punaluʻu in character with rural Kaʻū before allowing new resorts in undeveloped coastal areas.

#3 Intensification of Existing Settlements (Infill)

Scenario Ranking (0 = Poor / 4 = Excellent): 3.5

The pattern depicted in "Figure 5: Scenario 3: Intensification of Existing Settlements" would direct new growth in previously developed areas and entitled but unbuilt areas through repair of existing sites no longer in use, infill, and redevelopment. This has the ecological and economic advantage of using existing infrastructure and the potential to complete services and facilities missing from existing towns, villages, and suburban developments. The higher, concentrated densities will likely create new economic opportunities but may impact the rural character of existing places.

Scenario #3 appears to support the following criteria:

- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands
- Encourage and enhance agriculture, ranching, and related economic infrastructure
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nāʻālehu, and Ocean View

Figure 3: Scenario 1: Continuation of Existing Trends

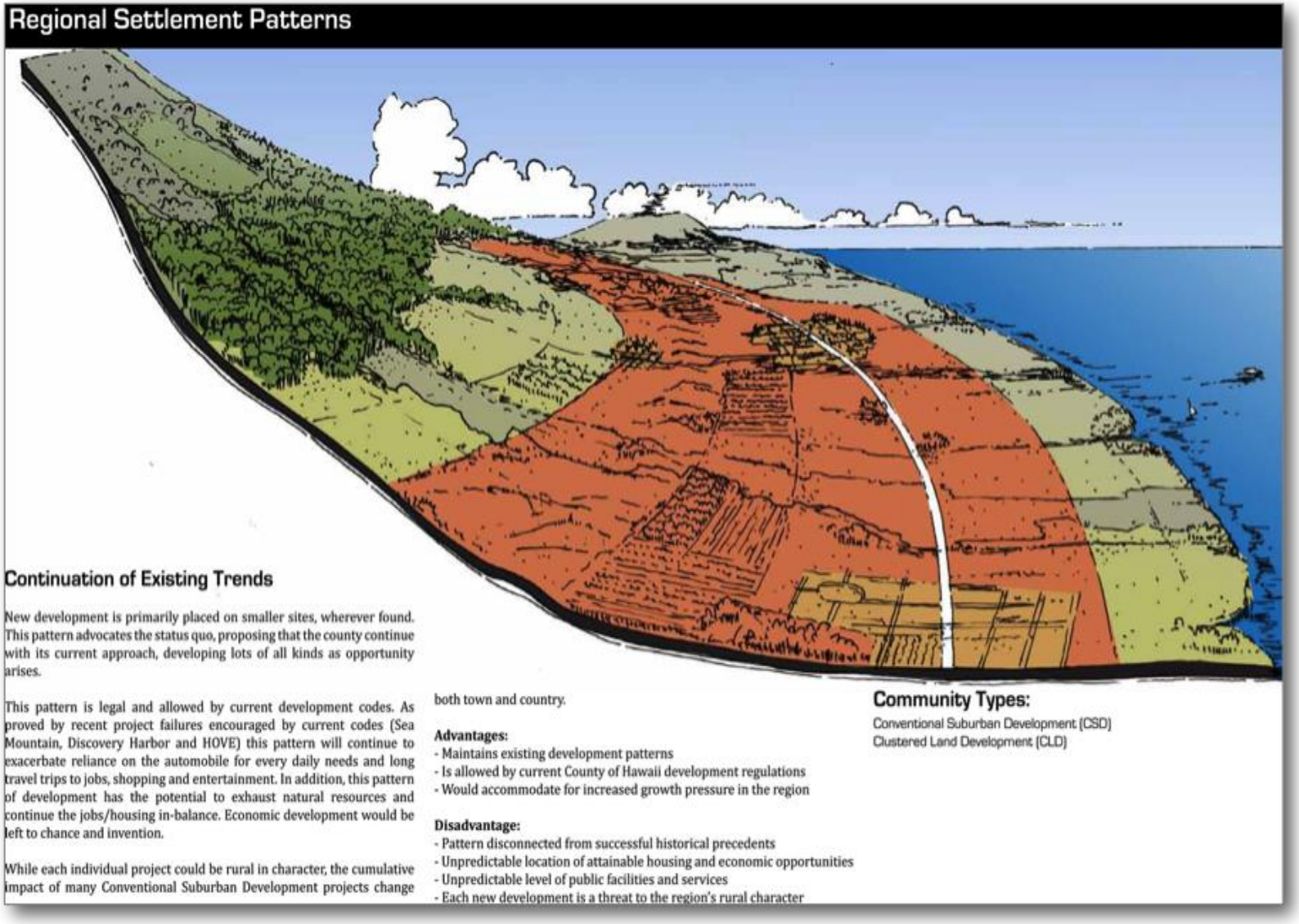
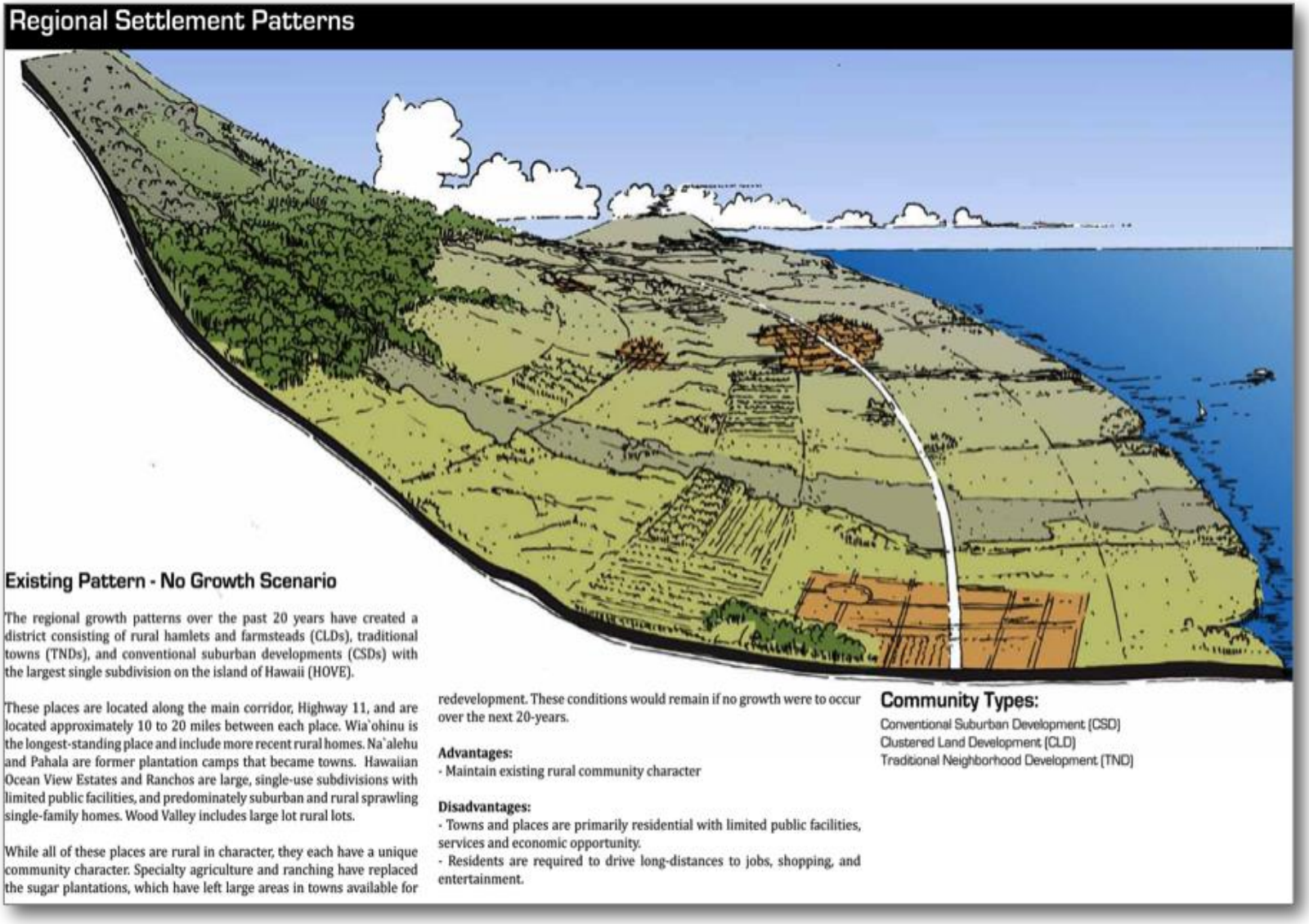


Figure 4: Scenario 2: No Growth



- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities
- Repair Punaluʻu in character with rural Kaʻū before allowing new resorts in undeveloped coastal areas

Moreover, it appears to partially support these criteria:

- Protect archeological sites, historic sites and buildings, and Kaʻū's architectural distinctiveness and rural sense of place
- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise
- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns

#4 Extension of Existing Towns (Town Extension)

Scenario Ranking (0 = Poor / 4 = Excellent): 2.5

In the scenario depicted in "Figure 6: Scenario 4: Extension of Existing Towns", new development would be directed to the edges of existing villages and towns. These types of sites would benefit from being developed as increments towards complete, compact, and connected neighborhoods. This pattern will not repair existing town and neighborhood deficiencies but will provide new opportunities for housing and services in proximity to existing towns.

Scenario #4 appears to support the following criteria:

- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands
- Encourage and enhance agriculture, ranching, and related economic infrastructure.

Moreover, it appears to partially support these criteria:

- Protect archeological sites, historic sites and buildings, and Kaʻū's architectural distinctiveness and rural sense of place
- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nāʻālehu, and Ocean View
- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities

Establish or expand retail, service, dining, and entertainment centers in rural villages and towns.

But it doesn't appear to support these criteria:

- Repair Punalu'u in character with rural Ka'ū before allowing new resorts in undeveloped coastal areas.

#5 New Stand-Alone Town (New Communities)

Scenario Ranking (0 = Poor / 4 = Excellent): 1.5

The pattern depicted in "Figure 7: Scenario 5: New Stand-Alone Town" will allow for a new stand-alone rural town that would accommodate much of the new growth in the region. The development would require a large, well-drained site, safely located from national hazards, with the potential for transit to connect to the region. This new town pattern performs best if it maintains existing rural character, includes necessary infrastructure and facilities, provides economic opportunities and allows for appropriately scaled new development that will not adversely affect natural resources and existing regional amenities. Nevertheless, a new town would likely compete with the existing towns that are struggling to maintain their population, viability and value.

Scenario #5 has the potential to partially support these criteria:

- Protect mauka and shoreline ecosystems and access to them, limiting development on shorelines
- Preserve viable agricultural lands, open space, and viewscapes, allowing only rural development in rural lands
- Protect archeological sites, historic sites and buildings, and Ka'ū's architectural distinctiveness and rural sense of place
- Protect people and facilities from natural hazards, including lava and coastal tsunamis, flooding, storm surge, and sea level rise
- Encourage and enhance agriculture, ranching, and related economic infrastructure
- Establish or expand retail, service, dining, and entertainment centers in rural villages and towns.

But it doesn't appear to support these criteria:

- Maximize the use of existing and planned infrastructure, especially expensive public investments like roads, water, wastewater, health, and educational facilities
- Concentrate new commercial and residential development in compact, walkable, mixed-use town/village centers (e.g., TNDs and CLDs) in Pāhala, Nā'ālehu, and Ocean View
- Repair Punalu'u in character with rural Ka'ū before allowing new resorts in undeveloped coastal areas.

Preferred Future Growth Patterns

Based on the above analysis, the preferred settlement pattern is to **prioritize infill residential and commercial development in Pāhala, Punalu'u, Nā'ālehu, Discovery Harbour, and Ocean View,**…

- Maximizing the use of existing and planned infrastructure

Figure 5: Scenario 3: Intensification of Existing Settlements

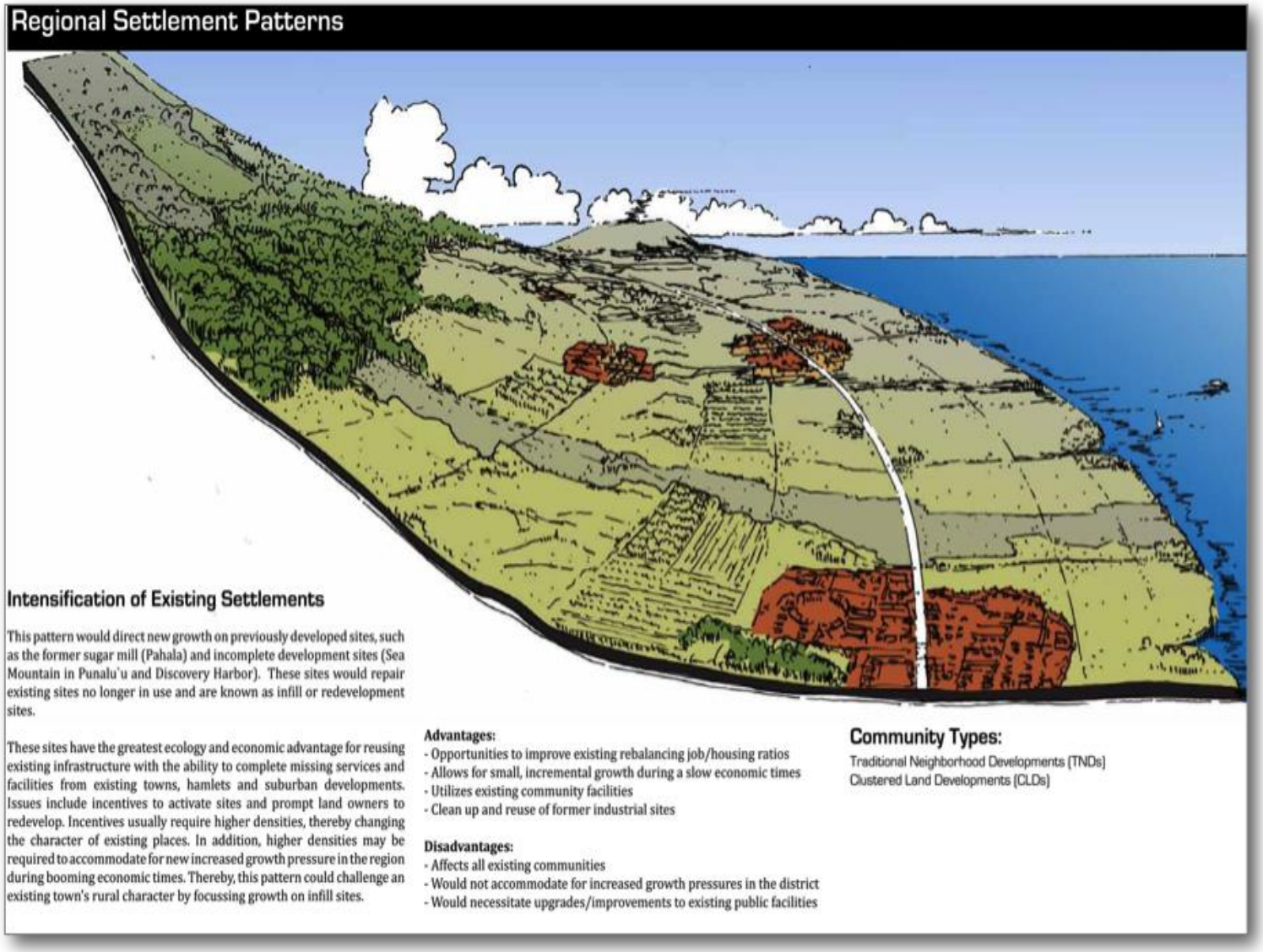


Figure 6: Scenario 4: Extension of Existing Towns

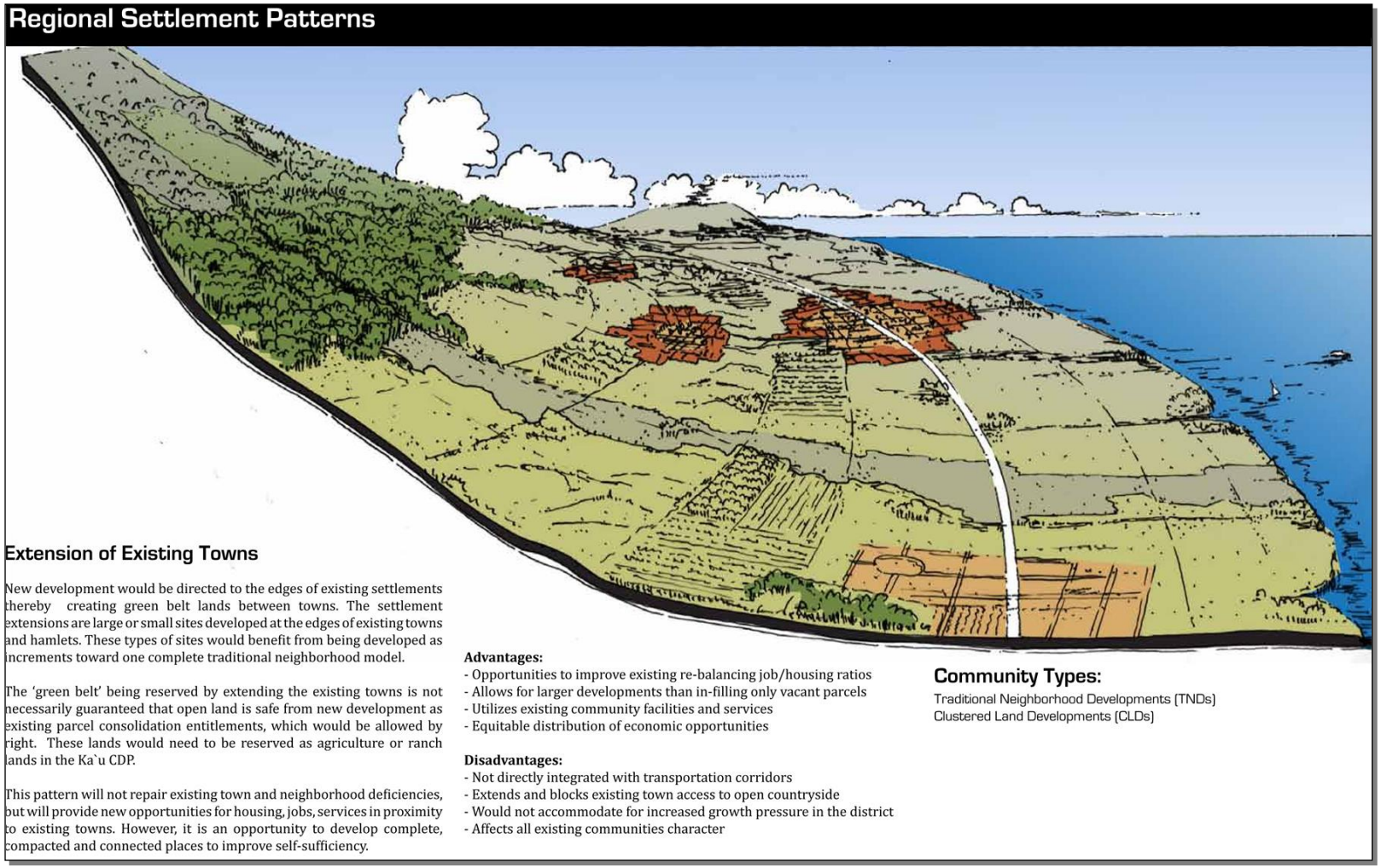


Figure 7: Scenario 5: New Stand-Alone Town

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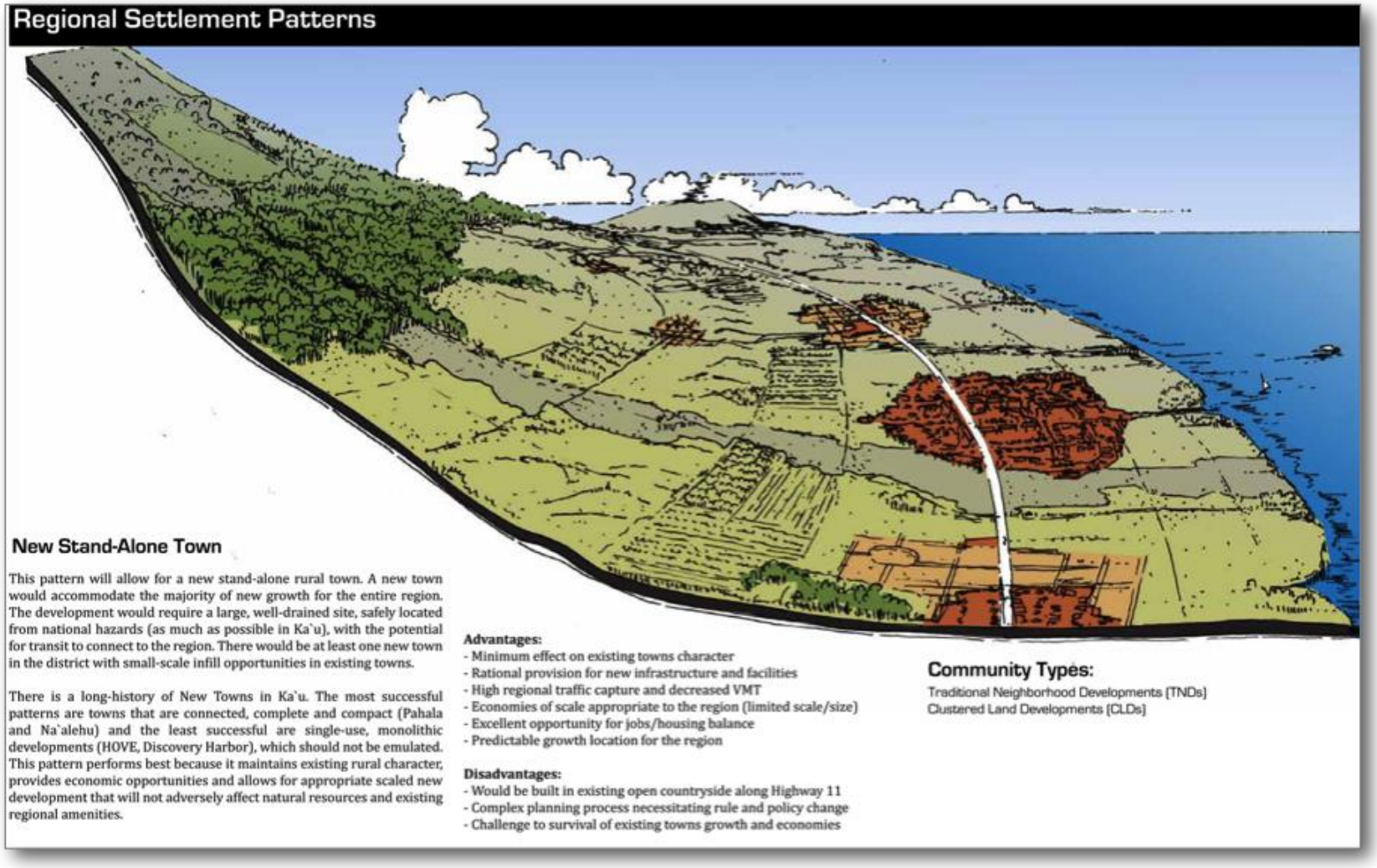

- Limiting development on shorelines to protect ecological resources, archeological sites, people, and facilities (from coastal hazards)

- Preserving viable agricultural lands, open space, and viewscapes, allowing only agriculture, ranching, and related economic infrastructure and rural development in rural lands

- Preserving historic sites and buildings and encouraging the construction of new buildings in character with Kaʻū's architectural distinctiveness and rural sense of place

- Managing growth in Ocean view to protect people and facilities from lava hazards.

Once the existing infill potential is largely met, existing settlements could be expanded in ways that maximize use of existing infrastructure and facilities and that create compact, walkable, mixed-use town/village centers.

1

Tools for Achieving Preferred Growth Patterns

A variety of tools will be considered in the CDP for achieving the preferred future growth patterns, including:

- Establishing urban growth boundaries
- Establishing policies to protect the shoreline
- Using community-based, collaborative strategies for managing Kaʻū's natural, cultural, and recreational resources
- Creating incentives for preserving Kaʻū's historic properties and for new construction to be in character with Kaʻū's architectural heritage
- Encouraging infill development in Kaʻū's existing villages and towns
- Assessing alternatives scenarios for repairing Punaluʻu
- Encouraging neighborhood commercial development in Discovery Harbour
- Proposing strategies for retaining open space in Ocean View and enhancing its infrastructure and facilities
- Protecting and improving existing infrastructure and building new infrastructure and facilities as needed
- Building roads to maximize intra-community connectivity and to mimic existing rural road standards
- Proposing strategies for expanding Kaʻū's agriculture sector and local businesses.

Most importantly and foundationally, however, the CDP can establish land use policy for the region that guides the direction and quality of future developments in a coordinated and rational manner.

The General Plan Land Use Pattern Allocation Guide (LUPAG) map indicates the general location of various land uses in relation to each other. The CDP can recommend amendments to the LUPAG map so that it is consistent with preferred future growth patterns. Corresponding land use policies that are designed to encourage the preferred future settlement patterns can also be included in the CDP.

These and other tools for achieving Kaʻū's Community Objectives are introduced in the other three appendices in Appendix V4.