

PETITION FOR INTERIM GENERAL PLAN AMENDMENT

In the Matter of

Petitioner: Nani Kahuku Āina, LLC

To Amend the LUPAG Map from Open Space, Conservation, and Extensive Agriculture to Open Space, Conservation, Extensive Agriculture, Resort, Rural, Industrial, Medium-Density Urban, and Urban Expansion

*For certain lands situate at Kahuku, Ka‘ū, Island and State of Hawai‘i
Consisting of approximately 16,456 acres, TMK (3) 9-2-001:072*

The County of Hawai‘i General Plan (February 2005, as amended) contains procedures to amend the General Plan. This Petition for Interim General Plan Amendment ("Petition") complies with the requirements set forth in section 16.2 of the General Plan.

A petition to amend a county General Plan, not initiated by the County, triggers an environmental review under Hawai‘i Revised Statutes section 343-5(a)(6). Nani Kahuku Āina, LLC (the "Petitioner", formerly known as Kahuku Āina Properties LLC) will prepare an Environmental Impact Statement ("EIS"), and has enclosed an EIS Preparation Notice ("EISPN") to document the basis for the EIS determination and initiate the EIS process (see Exhibit A). Planning Commission Rule 4-4(e) clarifies that the Planning Director would receive the petition with the EISPN, administer the processing of the EIS, and accept the petition as complete when the entire HRS 343 process has been complied with, i.e., when the Final EIS has been accepted. The Final EIS would replace the EISPN as Exhibit A to this Petition, and the Petition would be amended as necessary to incorporate the findings of the Final EIS.

1. FILING FEE

Petitioner has attached a check for the filing fee of \$500.00.

2. STATEMENT OF THE NATURE OF THE PROPOSED AMENDMENT

The General Plan may be amended either by a comprehensive review or an interim amendment. The Planning Director initiates a comprehensive review every 10 years pursuant to the General Plan section 16.1. At any time other than the 10-year comprehensive review, the County Council, Planning Director, or member of the General Public may initiate or request an interim amendment. Hawai‘i County Charter section 3-15 authorizes only the County Council or the Planning Director to initiate amendments to the General Plan. However, the General Plan section 16.2(3) authorizes a member of the general public to request the Planning Director to initiate an interim amendment. This Petition is by a member of the General Public pursuant to General Plan section 16.2(3).

2.1. IDENTIFICATION OF PETITIONER

The Petitioner is a Delaware limited liability company.

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2.2. PETITIONER'S PROPERTY INTEREST

Petitioner owns the subject property in fee simple and is in good standing on property tax payments, as evidenced by the attached Real Property Tax Clearance (Exhibit B).

2.3. PETITION AREA

The approximately 16,456.547 acres comprising the petition area is located in Kahuku, Ka'ū District, on the island and County of Hawai'i (the "Petition Area"). The Petition Area consists of one parcel, identified as TMK 3rd/9-2-001: 072, that extends from Māmalahoa Highway makai to the coast, between Hawaiian Ocean View Ranchos to the northwest and a large parcel owned by Kamehameha Schools to the southeast. See Exhibit C (location map and tax map).

The Petition Area had historically been used for ranching as part of Kahuku Ranch, but ranching was discontinued. Currently, there are no economic uses within the Petition Area, and nearly the entire Petition Area is vacant and undeveloped. Recreational and scientific uses are the only current existing uses. Portions of the Petition Area have been known to local fishermen for catching 'ahi, aku, ulua, mahimahi and 'ōpelu. Pōhue Bay has been part of the Hawksbill turtle (honu 'ea) recovery project.

The surrounding owners and uses are as follows:

- North (Mauka). Māmalahoa Highway (also known as "Hawai'i Belt Road") defines the northern boundary of the Petition Area. Mauka of the Highway, the Federal government purchased the Kahuku Ranch lands from the Damon Estates in 2004 to add to the Hawai'i National Volcanoes Park.
- East (towards South Point). To the east of the Petition Area are vacant lands owned by S.M. Damon Trust, M. Mallick, and Kamehameha Schools. These lands are presently undeveloped.
- West (towards Kona). To the west of the Petition Area are Hawaiian Ocean View Ranchos and an undeveloped parcel owned by P. Kawananakoa. Hawaiian Ocean View Ranchos, sometimes referred to as Hawaiian Ranchos, consists of 1,229 one- to three-acre lots makai of Māmalahoa Highway. Although subdivided in the 1950s, most of the lots have not been developed. The terrain varies from rugged lava fields to some lots containing 'ōhi'a trees and other vegetation. Water is by catchment only with power to some, but not all, of the lots. Directly mauka of Hawaiian Ranchos is Hawaiian Ocean View Estates.
- South (makai). Ocean.

The nearest town is Nā'ālehu located approximately 11 miles east of the Petition Area.

2.4. DESCRIPTION OF DEVELOPMENT PLAN

Project Objectives

Petitioner's objectives for the Petition Area are as follows:

- Confine development to clusters. In spite of the expansive project area, an objective of the project is to confine development to clusters in order to economize infrastructure costs and maximize the amount of land to stay in open space.
- Create job opportunities. Since C. Brewer's closing of the Ka'ū Sugar Company, there has been no significant replacement of jobs. Many of Ka'ū's residents must commute to Hilo or the resorts of Kona or South Kohala. Unemployment in Ka'ū is high. In recognition of the need for jobs in Ka'ū, an objective of this project is to provide job opportunities closer to home with a diversity of skill levels and a training program.
- Protect and steward the precious natural and cultural resources. With input from the community, kupuna, and scientists, an objective of the project is to develop a master plan that is sensitive to the natural and cultural resources, and establishes an ahupua'a stewardship program that integrates land and ocean management.
- Provide diverse housing opportunities. To attract a workforce, an objective of the project is to provide a diverse range of housing opportunities in terms of income, special needs (e.g., elderly), tenure (for-sale and rental), and type (e.g., single-family, multi-family) within a mixed use compact town.
- Increase basic services. In recognition of Ka'ū's remoteness and lack of basic services, an objective of the project is to create a critical concentrated population mass to support basic services such as medical, schools, retail, and emergency response.
- Incorporate sustainable principles and practices. To minimize environmental impacts, an objective of the project is to power the project with alternative energy, incorporate water conservation measures into the design, utilize the golf course as part of a green drainage system (sedimentation basin) and wastewater effluent reuse area, and encourage food gardens for home use, farmer's markets, and/or sale to the resort.
- Leverage a low-key, high-quality resort to subsidize community benefits. To generate income that could subsidize community benefits, the objective is to develop a limited area of the Petition Area into a high-quality resort. The resort would be designed to attract those who desire a remote, scenic, quiet get-away, and who may also appreciate learning about Hawaiian culture, rare natural phenomena such as the Hawksbill habitat, or subsistence activities such as fishing, gathering, or farming. Although there may be some transient accommodations of higher exclusivity, there will also be eco-lodges (e.g., tentalows or cabins) affordable to the general public.

Master Plan

The contemplated development will be primarily clustered in two Urban /Rural areas: a mauka mixed-use village, and a makai village (Exhibit D, overall master plan). Of the 16,457 acres which comprise the Petition Area, Petitioner only plans to develop about 26% of this area, which may be roughly allocated as follows: the residential resort areas (approximately 1,820 acres), the mauka mixed-use village – including the urban expansion area (approximately 1,090 acres), the resort areas – collectively comprised of three hotel sites, an eco-lodge and a resort village (approximately 600 acres), the airport (approximately 640 acres), and the eco-cabins at the Hawaiian Heritage Center (approximately 45 acres). The balance of the Petition Area (12,255 acres) would be left in open space in the form of archaeological preserves, agricultural and/or energy generation areas, parks, trails, golf courses and other open space.

The components of the proposed master plan are summarized below (see EISPN section 2.3 for more details).

- **Mauka Mixed-Use Village.** The mauka mixed-use village along Māmalahoa Highway is envisioned to be a walkable, pedestrian-friendly village organized around a village green. The village core area would consist of single-family and multi-family homes, "live-work" units (i.e., homes located over or adjoining retail or office spaces), and commercial areas. There will be a full-range of community support services, including medical, schools, VA facilities, fire, police, post office, bank, restaurants to serve residents and businesses. Light industrial areas will also be developed outside the village core to serve the residents and the communities immediately surrounding the Petition Area.
- **Makai Village.** The makai village would consist of three hotel sites, an eco-lodge, a resort village (commercial uses), and residential lots fronting one or two golf courses. The resort would be low-rise, designed to blend as much as possible into the landscape, and designed to meet sustainability standards. The golf course would be designed and operated to meet strict environmental standards to ensure minimal impact on the nearshore waters by complying with standards for chemical use reduction and safety, water conservation, and water quality management.
- **Heritage Center and Research/Education.** A proposed heritage center (encompassing the hawksbill turtle habitat at Pōhue Bay and Kanonone anchialine pond) would formalize, perpetuate, and expand the current scientific and cultural activities onsite. The concept is to learn and apply the pre-contact Hawaiian principles of ahupuaʻa management by fostering an integration of cultural practitioners' knowledge with scientific knowledge.
- **Agricultural Lots.** Between the mauka and makai villages, there would be agricultural and renewable energy production lots consisting of large 20+-acre lots restricted in use to agricultural or renewable energy production and, to the extent possible, preservation of the 1907 and 1887 lava flows.
- **Trails and Open Space.** An extensive network of trails and open space will connect the mauka and makai areas, as well as provide lateral shoreline access through the Petition Area. The lateral shoreline access, which will be part of the Ala Kahakai National Historic trail, will traverse through the shoreline setback area that will encompass significant geologic, cultural, and archaeological resources. The shoreline trail will connect with historic mauka-makai trails.

- **Airport and/or Helipad.** An airport and/or helipad would provide an alternative mode of access besides driving to this remote location. The Petitioner is considering possible arrangements whereby a privately owned helicopter would be available as a standby emergency responder to supplement the Fire Department or Civil Defense.
- **Infrastructure.** Infrastructure to support the proposed project include: intersection improvements along Māmalahoa to access the village, internal roadways, water system, drainage system, wastewater system with effluent reuse, trails/pathways, and possibly a private energy utility system using alternative energy sources.

3. DRAFT LANGUAGE OF THE PROPOSED AMENDMENT

The proposed interim General Plan amendment is to the Land Use Pattern Allocation Guide (LUPAG) Map, with associated updates to tables 14-4 and 14-5 that tabulate the acreage and urban uses from the LUPAG Map. There are no proposed amendments to the General Plan goals, objectives, or policies. The affected map is LUPAG Map 23, which currently designates the Petition Area as Extensive Agriculture, Conservation, and Open Space. The proposed amendment is as follows:

PROPOSED DESIGNATIONS	EXISTING DESIGNATIONS		
	Extensive Agriculture	Conservation	Open Area
	8,310	7,560	580
MAKAI VILLAGE			
Resort		520	80
Rural		2,420	10
Conservation			
Open Area		230	
Remaining in Existing Designation			490
SUBTOTAL		3,170	580
MAUKA VILLAGE			
Medium Density Urban	280		
Urban Expansion	810		
SUBTOTAL	1,090		
AGRICULTURAL LOTS			
Reclassified to Ext. Ag		3,750	
Remaining in Existing Designation	7,220		
AIRPORT			
Reclassified to Industrial		640	

As shown in the map attached to Exhibit E, the current Open Space boundary roughly follows the SMA boundary, except in the locations of the littoral cinder cones and Pōhue Bay where the Open Space boundary is further inland than the SMA. Only a few changes are proposed to the Open Space boundary-- reduction in areas that are not resource-sensitive but suitable for development, and expansion in other areas to better encompass the littoral cones or other resources. The sensitive areas along the coast, such as the anchialine ponds, Pōhue

Bay, littoral cinder cones, and sufficient setback for the Ala Kahakai lateral public access trail, are all encompassed and protected within the existing Open Space designation.

The current Conservation boundary roughly follows the existing State Land Use Conservation District boundary. The Petitioner will seek an amendment to the State Land Use Commission to conform the State Land Use Conservation district boundary with the proposed LUPAG Map amendment. This application to the State Land Use Commission will follow and depend on the County's General Plan amendment decision. Petitioner proposes to redefine the State Conservation District boundary to correlate with the LUPAG Open Space boundary.

The proposed Resort designation is for smaller pods of Resort equivalent in the aggregate to an Intermediate Resort, which General Plan section 14.7.4(c) (Land Use Resort Standards) limits to 1,500 maximum number of visitor units. For the proposed development plan, such visitor units include hotel units, eco-lodge or eco-cabin units, condominium units, and resort residential lots. An example of a Major Resort is Ka'ūpūlehu- Kūki'o. The only other Intermediate Resort in the County is Waiākea Peninsula-Reeds Bay in Hilo. In the Ka'ū District, the only Resort designation is for a Minor Resort at Nīnole- Punalu'u. Besides the visitor units, the proposed Resort area includes a commercial retail area. Mauka of the Resort accommodations would be large-lot residential fronting one or two golf courses designated Rural. The area of the proposed airport, also in the current Conservation area, would be redesignated to Industrial.

The proposed amendment to the Extensive Agriculture is primarily to accommodate the Kahuku Village land use plan. To allow the proposed mix of residential, commercial, institutional, civic, and light industrial uses, the proposed amendment is to Medium Density Urban and Urban Expansion. An area between the proposed Kahuku Village and Ranchos is also proposed as Urban Expansion should there be a desire in the future to expand the Village to connect with Ranchos.

See Exhibit E for draft ordinance.

4. STATEMENT OF THE REASONS FOR GRANTING THE PROPOSED CHANGE, SUPPORTED BY A WRITTEN, DOCUMENTED ASSESSMENT OF THE RELATIONSHIP OF THE PROPOSED CHANGE WITH PERTINENT ELEMENTS OF THE GENERAL PLAN

The General Plan is organized into thirteen elements: Economic, Energy, Environmental Quality, Flooding and Other Natural Hazards, Historic Sites, Natural Beauty, Natural Resources and Shoreline, Housing, Public Facilities, Public Utilities, Recreation, Transportation, and Land Use. All thirteen elements are pertinent to the proposed amendment as discussed below.

4.1. ECONOMIC

The proposed General Plan amendment would provide a diversity of employment opportunities to improve the economic climate of the Ka'ū area, an area with currently high unemployment that has struggled since the closure of C. Brewer's sugar plantation. Many of the Ka'ū residents who are employed commute long distances to South Kohala, North Kona,

or Hilo. To balance economic development with the physical and cultural assets of the Petition Area, the proposed boundaries for the Conservation and Open Space designations provide an extensive shoreline setback and encompass the sensitive natural and cultural features. The project concept for a Hawaiian Heritage Center is an innovative concept to integrate scientific research, cultural research, and edu-tourism. The Center would provide a learning opportunity for visitors, scientists, cultural practitioners, schools and local residents (i) to train the resort employees to be stewards of the land; (ii) to "enforce" an adapted konohiki system to manage public fishing; and (iii) to manage public recreational access to Pōhue Bay in a manner that would protect the turtle nesting habitat. An EIS will assess, identify, and suggest mitigation measures for significant environmental, cultural, and social impacts to enable further balancing of economic development with the physical, social, and cultural environment. The EISPN section 4.6 provides more details on the Project's potential economic impacts and the proposed scope of analysis of the Draft EIS. The General Plan's Economic Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

2.2 GOALS

- (a) Provide residents with opportunities to improve their quality of life through economic development that enhances the County's natural and social environments.*
- (b) Economic development and improvement shall be in balance with the physical, social, and cultural environments of the island of Hawai'i.*
- (c) Strive for diversity and stability in the economic system.*
- (d) Provide an economic environment that allows new, expanded, or improved economic opportunities that are compatible with the County's cultural, natural and social environment.*
- (e) Strive for an economic climate that provides its residents an opportunity for choice of occupation.*
- (f) Strive for diversification of the economy by strengthening existing industries and attracting new endeavors.*
- (g) Strive for full employment.*
- (h) Promote and develop the island of Hawai'i into a unique scientific and cultural model, where economic gains are in balance with social and physical amenities. Development should be reviewed on the basis of total impact on the residents of the County, not only in terms of immediate short run economic benefits.*

2.3 POLICIES

- (a) Assist in the expansion of the agricultural industry through the protection of important agricultural lands, development of marketing plans and programs, capital improvements and continued cooperation with appropriate State and Federal agencies.*
- (b) Encourage the expansion of the research and development industry by working with and supporting the University of Hawai'i at Hilo and West Hawai'i, the Natural Energy Laboratory at Hawai'i Authority and other agencies' programs that support sustainable economic development in the County of Hawai'i.*
- (c) Encourage the development of a visitor industry that is in harmony with the social, physical, and economic goals of the residents of the County.*
- (d) Require a study of the significant cultural, social and physical impacts of large developments prior to approval.*
- (e) Encourage the sustainable development of the fishing industry, various forms of*

aquaculture, and other fresh and sea water-based activities.

(f) Support all levels of educational, employment and training opportunities and institutions.

(g) Capital improvements program shall improve the quality of existing commercial and industrial areas.

(h) The land, water, air, sea, and people shall be considered as essential resources for present and future generations and should be protected and enhanced through the use of economic incentives.

(i) Continue to encourage the research, development and implementation of advanced technologies and processes.

(j) Support the development of high technology industries.

(k) Continue to encourage development and utilization of by-products from alternate energy conversion projects.

(l) Identify and encourage primary industries that are consistent with the social, physical, and economic goals of the residents of the County.

(m) Encourage active liaison with the private sector with respect to the County's requirements for establishing businesses on the island.

(n) Encourage the development of the retirement industry.

(o) Promote a distinctive identity for the island of Hawai'i to enable government, business and travel industries to promote the County of Hawai'i as an entity unique within the State of Hawai'i.

(p) Identify the needs of the business community and take actions that are necessary to improve the business climate.

(q) Support research and development that would lead to the removal of marketing restrictions on Hawaiian fruits and other perishables.

(r) Assist in the development of a film and video industry program to market Big Island sites and coordinate film and video activities on the Big Island.

(s) Assist the further development of agriculture through the protection of important agricultural lands.

(t) Assist in the promotion of the agriculture industry whose products are recognized as being produced on the island of Hawai'i.

(u) Encourage the establishment of open farmers markets to allow local agricultural producers to market their products.

(v) Assist in cooperative marketing and distribution endeavors to expand opportunities for local agricultural products for export as well as to the local market.

(w) Encourage the further development of the overseas capacity of Hilo International Airport for the exportation of agricultural crops.

(x) Encourage the health/wellness industry.

(y) Encourage new industries that provide favorable benefit-cost relationships to the people of the County. Benefit-cost relationships include more than fiscal considerations.

2.4.9.2 Courses of Action (Ka'u District)

(a) Balance development with the social and physical environment of the area. Provisions for orderly development, housing, and pollution controls shall be implemented.

(b) Assist the fishing industry, other ocean based industries, and aquaculture through a cooperative effort with State and Federal agencies.

(c) Recognize the natural beauty of the area as a major economic and social asset. Protect this resource through appropriate review processes when development is proposed.

4.2. ENERGY

The General Plan amendment would encourage research and development of alternative energy sources. The Petitioner has engaged a study to identify feasible alternatives including solar, wind, geothermal, and other technologies that can take advantage of the natural assets of the Petition Area (e.g., high insolation, expansive land area for biodiesel crops), and also assess the feasibility to tie into the grid through net metering. The EISPN section 4.7.5 provides more details on the Project's energy infrastructure requirements and the proposed scope of analysis of the Draft EIS. The General Plan's Energy Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

3.2 GOALS

(a) Strive towards energy self-sufficiency.

(b) Establish the Big Island as a demonstration community for the development and use of natural energy resources.

3.3 POLICIES

(a) Encourage the development of alternate energy resources.

(b) Encourage the development and use of agricultural products and by-products as sources of alternate fuel.

(c) Encourage the expansion of energy research industry.

(d) Strive to educate the public on new energy technologies and foster attitudes and activities conducive to energy conservation.

(e) Ensure a proper balance between the development of alternative energy resources and the preservation of environmental fitness and ecologically significant areas.

(f) Strive to assure a sufficient supply of energy to support present and future demands.

(g) Provide incentives that will encourage the use of new energy sources and promote energy conservation.

(h) Seek funding from both government and private sources for research and development of alternative energy resources.

(i) Coordinate energy research and development efforts of both the government and private sectors.

(j) Encourage the continuation of studies concerning the development of power that can be distributed at lower costs to consumers.

(k) Strive to diversify the energy supply and minimize the environmental impacts associated with energy usage.

(l) Continue to encourage the development of geothermal resources to meet the energy needs of the County of Hawai'i.

(m) Encourage the use of solar water heating through the continuation of state tax credit programs, through the Building Code, and in County construction.

(n) Encourage energy-saving design in the construction of buildings.

(o) Support net-metering and other incentives for independent power producers.

4.3. ENVIRONMENTAL QUALITY

Amending the General Plan to allow the proposed development can and should recognize the need to impose controls to maintain the quality of the environment. The EIS would assist in identifying pertinent controls. Examples of such controls include standards on the design, construction, and operation of the golf course to prevent sediment runoff, nutrient enrichment, and pesticide impacts; construction best practices to prevent sediment runoff; a

solid waste plan to minimize solid waste disposal; anchialine pond and nearshore water quality monitoring; and the restoration of dryland forest, coastal strand, and anchialine pond environments. The EISPN sections 4.3 and 4.4 provide more details on the Project's potential air and noise impacts and the proposed scope of analysis of the Draft EIS. The General Plan's Environmental Quality Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

4.2 GOALS

(a) Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.

(b) Maintain and, if feasible, improve the existing environmental quality of the island.

(c) Control pollution.

4.3 POLICIES

(a) Take positive action to further maintain the quality of the environment.

(b) Reinforce and strengthen established standards where it is necessary, principally by initiating, recommending, and adopting ordinances pertaining to the control of pollutants that affect the environment.

(c) Advise the public of environmental conditions and research undertaken on the island's environment.

(d) Encourage the concept of recycling agricultural, industrial, and municipal waste material.

(e) Encourage the State to establish air and water quality monitoring stations in areas of existing and potential urban growth.

(f) Encourage the State to continue aircraft noise abatement strategies at Hilo International Airport and the Kona International Airport at Keahole.

(g) Participate in watershed management projects to improve stream and coastal water quality and encourage local communities to develop such projects.

(h) Work with the appropriate agencies to adopt appropriate measures and provide incentives to control point and nonpoint sources of pollution.

(i) Support programs to prevent harmful alien species from becoming established.

(j) Require golf courses to implement best management practices to limit leaching of nutrients to groundwater in areas where they may affect streams or coastal ecosystems.

(k) Require implementation of the management measures contained in Hawai'i's Coastal Nonpoint Pollution Control Program as a condition of land use permitting.

(l) Review the County grading and grubbing ordinances to ensure that they adequately address potential erosion and runoff problems.

4.4. FLOODING AND OTHER NATURAL HAZARDS

Amending the General Plan to allow the proposed development can and should recognize the need to mitigate hazard risks. The Petition Area is subject to hazards common to other coastal areas around the island, although the extent of such exposure needs to be further quantified. The one significant hazard that the Petition Area is exposed to is volcanic lava hazard.

- **Flooding.** The Federal Emergency Management Agency ("FEMA") has not conducted a flood study for the area. Therefore, the Petition Area is not included in any Flood Insurance Rate Map ("FIRM"). Flood studies would need to be done as a condition of development approvals to appropriately amend the applicable FIRM.

- **Tsunami Evacuation Zone.** The existing tsunami evacuation zones are mapped for populated areas or popular recreational coastal areas, neither of which apply to the existing Petition Area. Both the 1946 and 1960 tsunamis generated waves that caused localized inundation and damage in the district of Ka'ū, east of Ka Lae, South Point. There are, however, no records of inundation in the Kahuku ahupua'a during any of the recorded tsunamis. A tsunami evacuation zone would need to be established for the Petition Area as a condition of development approvals.
- **Hurricane.** While the island of Hawai'i has not been in the direct path of a hurricane since recordation began in 1950, hurricane probability models indicate that the island has a long-term hurricane hazard higher than any of the other islands. The design of any structure would conform to updated building codes to ensure hurricane resistance. The addition of shelters in the area would benefit the surrounding community.
- **Volcanic Lava Flow.** The Petition Area is in lava flow hazard zone 2. General Plan policy 5.3(r) discourages intensive development in areas of high volcanic hazard. Petitioner will implement necessary mitigation measures, warning and evacuation systems, provide full disclosure to buyers, and obtain the necessary insurance to meet financing requirements.

The EISPN section 3.4 provides more details on the Project's potential exposure to natural hazards and the proposed scope of analysis of the Draft EIS. The General Plan's Natural Hazards Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

5.2 GOALS

- (a) *Protect human life.*
- (b) *Prevent damage to man-made improvements.*
- (c) *Control pollution.*
- (d) *Prevent damage from inundation.*
- (e) *Reduce surface water and sediment runoff.*
- (f) *Maximize soil and water conservation.*

5.3 POLICIES

- (a) *Enact restrictive land use and building structure regulations in areas vulnerable to severe damage due to the impact of wave action. Only uses that cannot be located elsewhere due to public necessity and character, such as maritime activities and the necessary public facilities and utilities, shall be allowed in these areas.*
- (b) *Review land use policy as it relates to flood plain, high surf, and tsunami hazard areas.*
- (c) *Update and improve the Flood Insurance Rate Maps and other flood maps in compliance with the National Flood Insurance Program (NFIP) as needed.*
- (d) *Any development within the Federal Emergency Management Agency designated flood plain must be in compliance with Chapter 27.*
- (e) *Promote and provide incentives for participation in the Soil and Water Conservation Districts' conservation programs for developments on agricultural and conservation lands.*
- (f) *The "Drainage Master Plan for the County of Hawai'i" shall be reviewed and updated to incorporate new studies and reflect newly identified priorities.*
- (g) *Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.*

- (h) Develop a comprehensive program for the coordinated construction of a drainage network along a single drainage system.*
 - (i) Explore new methods of funding for the provision of adequate drainage systems and regulating potential flood inundation areas.*
 - (j) The County and the private sector shall be responsible for maintaining and improving existing drainage systems and constructing new drainage facilities.*
 - (k) Develop an integrated shoreline erosion management plan that ensures the preservation of sandy beaches and public access to and along the shoreline, and the protection of private and public property from flood hazards and wave damage.*
 - (l) Continue to promote public education programs on tsunamis, hurricane, storm surge, and flood hazards.*
 - (m) Encourage grassed shoulder and swale roadway design where climate and grade are conducive.*
 - (n) Develop drainage master plans from a watershed perspective that considers nonstructural alternatives, minimizes channelization, protects wetlands that serve drainage functions, coordinates the regulation of construction and agricultural operation, and encourages the establishment of floodplains as public green ways.*
 - (o) Encourage and provide incentives for agricultural operators to participate in Soil and Water Conservation District Programs.*
 - (p) Where applicable, natural drainage channels shall be improved to increase their capacity with special consideration for the practices of proper soil conservation, and grassland and forestry management.*
 - (q) Consider natural hazards in all land use planning and permitting.*
 - (r) Discourage intensive development in areas of high volcanic hazard.*
- 5.5.9.2 Courses of Action (Ka'u District)*
- (a) Improve and upgrade existing flood control measures as necessary.*
 - (b) Continue proper soil conservation measures to complement the existing systems.*
 - (c) Investigate potential solutions to prevent the closure of the Hawai'i Belt Road due to flooding.*
 - (d) Ensure that purchasers of homes and other real property are fully informed of hazards from lava flows and other volcanic emissions.*

4.5. HISTORIC SITES

Amending the General Plan would provide public access and educational opportunities to the historic and cultural resources within the Petition Area. The proposed Hawaiian Heritage Center is a key to provide appropriate access, management, and interpretation of these resources. A 1987 archaeological survey summarized previous archaeological work and conducted a reconnaissance-level field survey of an area that included the Petition Area. Uses and functions of the sites probably included habitation, temporary habitation, quarry, transportation (trails), water source (ponds), storage, tool preparation, recreation, religious, and rock art (petroglyphs). A majority of the sites are believed to be temporary habitation sites. Most of the sites were concentrated along the coast near anchialine ponds, Pōhue Bay, Kipuka Kanohina, or trails. Of the 298 sites, the study recommended 103 to be significant as preserved sites. Many of the cultural assets found here are similar to those found in other areas on the island of Hawai'i, but there are several that are rare or unique to the Kahuku ahupua'a. These features include a large collection of petroglyphs, a village site at Pōhue that is built vertically up a pu'u rather than the traditional method spreading out along the coast, and an expansive pre-contact stone quarry. These archaeological features along with

the iwi discovered at two burial sites, and several traditional trails such as the Ala Loa and Alanui Aupuni, will continue to be protected through the proposed Open Space and Conservation designations to limit the encroachment of development. The Petition Area will also include the Ala Kahakai trail that furthers the General Plan course of action for a Hawaiian Heritage Corridor. The EISPN sections 4.1 and 4.2 provide additional details on the available information and the proposed scope of analysis of the archaeological inventory and cultural impact studies to be conducted for the Draft EIS. The General Plan's Historic Sites Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

6.2 GOALS

(a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawai'i.

(b) Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.

(c) Enhance the understanding of man's place on the landscape by understanding the system of ahupua'a.

6.3 POLICIES

(a) Agencies and organizations, either public or private, pursuing knowledge about historic sites should keep the public apprised of projects.

(b) Amend appropriate ordinances to incorporate the stewardship and protection of historic sites, buildings and objects.

(c) Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.

(d) Public access to significant historic sites and objects shall be acquired, where appropriate.

(e) Embark on a program of restoring significant historic sites on County lands.

Assure the protection and restoration of sites on other public lands through a joint effort with the State.

(f) Encourage the restoration of significant sites on private lands.

(g) Collect and distribute historic sites information of public interest and keep an inventory of sites.

(h) Aid in the development of a program of public education concerning historic sites.

(i) Signs explaining historic sites, buildings and objects shall be in keeping with the character of the area or the cultural aspects of the feature.

(j) Develop a continuing program to evaluate the significance of historic sites.

(k) Develop policies to protect Hawaiian rights as identified under judicial decisions.

(l) Support the establishment of Hawaiian Heritage Corridors.

(m) All new historic sites placed on the State or Federal Register after the adoption of the general plan shall be included in the General Plan.

(n) Consider requiring Cultural Assessments for certain developments as part of the rezoning process.

(o) Recognize the importance of certain natural features in Hawaiian culture by incorporating the concept of "cultural landscapes" in land use planning.

6.5.6.2 Course of Action (Ka'u District)

(a) Support the establishment of Hawaiian Heritage Corridors

4.6. NATURAL BEAUTY

Amending the General Plan will increase public access opportunities to the scenic resources of the Petition Area. Mauna Loa is the dominant scenic vista looking mauka from the Petition Area. Along the coastline, scenic landmarks are the littoral cones, the anchialine ponds, Pōhue Bay, and the barren openness along the desolate coastline. The General Plan (Table 7-14, Natural Beauty Sites, District of Ka‘ū) identifies the following areas as natural beauty sites: Pōhue Bay, the Volcano National Park area mauka of the Petition Area, and the lava flows of 1868, 1887, and 1907 that traverse through portions of the Petition Area. The EISPN section 4.5 provides additional details on the available information and the proposed scope of analysis to be conducted for the Draft EIS. The General Plan's Natural Beauty Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

7.2 GOALS

- (a) *Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.*
- (b) *Protect scenic vistas and view planes from becoming obstructed.*
- (c) *Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.*

7.3 POLICIES

- (a) *Increase public pedestrian access opportunities to scenic places and vistas.*
- (b) *Develop and establish view plane regulations to preserve and enhance views of scenic or prominent landscapes from specific locations, and coastal aesthetic values.*
- (c) *Maintain a continuing program to identify, acquire and develop viewing sites on the island.*
- (d) *Access easement to public or private lands that have natural or scenic value shall be provided or acquired for the public.*
- (e) *Develop standard criteria for natural and scenic beauty as part of design plans.*
- (f) *Consider structural setback from major thoroughfares and highways and establish development and design guidelines to protect important viewplanes.*
- (g) *Maintain a continuing program to identify exceptional trees or tree masses.*
- (h) *Protect the views of areas endowed with natural beauty by carefully considering the effects of proposed construction during all land use reviews.*
- (i) *Do not allow incompatible construction in areas of natural beauty.*

Table 7-14. Natural Beauty Sites, District of Ka‘ū

Site	Tax MapKey	Ahupua‘a or Region
Manukā Bay	9-1-01:3	Manukā
Pōhue Bay	9-2-01:1	Kahuku
Volcano area including National Park	9-2-01:4;9-9-01	Kahuku, Keauhou
South Point (Ka Lae)	9-3-01:1-3, 7, 9	Pakini Iki, Kamaoa
Mahana Bay	9-3-01:2	Kamaoa
Waiakukini	9-3-01:6	Pakini Nui
Kaalualu Bay	9-4-01: 12, 14	Kiolakaa
Honuapo	9-5-14:1, 7	Honuapo
Kawa (Kawaa) Bay and Spring	9-5-16:20; 9-5-17:7	Kaalaiki, Hilea Nui
Ninole Cove & Springs	9-5-19:12	Ninole
Punalu‘u Black Sand Beach	9-6-01	Punalu‘u
Lava Flows of 1868, 1887, & 1907	Various	Various

<i>View of Mauna Loa from Volcano-Ka'u Highway</i>	<i>Various</i>	<i>Various</i>
<i>Scenic view of shoreline between Pahala and Punalu'u</i>	<i>Various</i>	<i>Various</i>
<i>Wai'ōhinu Park</i>	<i>Various</i>	<i>Various</i>
<i>Na puu: Enuhe, Makanau, Kaiholena and One</i>	<i>Various</i>	<i>Various</i>

4.7. NATURAL RESOURCES AND SHORELINE

The proposed amendment to the Conservation designation will continue to encompass and protect the significant natural resources within the Petition Area. The Open Space designation encompasses the Special Management Area. No improvements are planned within the Special Management Area, however, some of the lots therein may be subdivided.

The proposed amendment would provide opportunities for recreational, economic, and educational needs without despoiling or endangering natural resources, and protect the natural resources from undue encroachment. The natural resources within the Petition Area are as follows:

- **Terrestrial Flora and Fauna.** The Petition Area has six known plant communities: flora found in and around the anchialine ponds, coastal plant communities, cinderland vegetation, lava field vegetation, 'ōhi'a communities (from pioneer to developed forests), and grassland-scrub communities. Of these six communities, the anchialine ponds and the 'ōhi'a forest have particular significance. The anchialine ponds are significant for the unique faunal species that live in that habitat (e.g., 'ōpae'ula (*Halocaridina rubra*), *Metabetaeus lohena*, 'ōpae huna (*Paleaemon debilis*), and 'ōpae 'oeha'a (*Macrobrachium grandimanus*); snails such as the *Assimineia sp.*, *Melania sp.*, *Theodoxus cariosa*; and fish such as the predaceous goby *Eleotris sandwicensis* and 'aholehole (*Kuhlia sandwicensis*)). In the 'ōhi'a forest located in the mauka northeast portion of the Petition Area, a 1987 botanical survey found an endangered species, the hala pepe (*Pleomele hawaiiensis*). The anchialine ponds are within the coastal setback preserve area and the dryland forest in the mauka portion of the Petition Area will be in a dryland forest preserve area to be better defined by a botanical survey conducted for the Draft EIS.
- **Marine Environment.** The shoreline within the Petition Area is predominantly rocky cliffs exposed to wave action. Pōhue Bay is one of the few protected areas along this southwest coast. During calm seas, this sandy beach is one of the safest swimming areas in Ka'ū; however, the moderately steep slope of the sand is a good indication that dangerous water conditions sometime occur during high surf. The substrate of the narrow shelf is primarily rock and boulders with scattered coral at a coverage of 10% to 50%. Due to the location of pockets of very deep water that is accessible from the shore, Kahuku ahupua'a has been known for its great fishing. This area has been known to local fishermen as their "ice box" for fish like 'ahi, aku, ulua, mahimahi, and 'ōpelu, especially the fishing grounds off of flat-topped sea cliffs fronting Pu'u Kī. The diversity of benthic organisms and fish species is typical of nearshore Hawaiian reef habitats; however, for a remote area, there was surprising evidence of fishing pressure according to a 1987 study.

Pōhue Bay is the nesting ground for two native sea turtle species, the green sea turtle, honu (*Chelonia mydas*), and the Hawksbill sea turtle, honu 'ea (*Eretmochelys imbricate*). Both of these turtles are endangered. Pōhue Bay is one of four sites that have been intensively monitored under the Hawai'i Island Hawksbill Turtle Recovery Project. Ten other sites are also frequently monitored for nesting activity under this program but to a lesser degree than the four sites. Of all the sites, the highest numbers of nesting turtles, newly tagged adult females, nests, and hatchlings were documented at Pōhue Bay. Nesting activity has increased since stricter public access controls were imposed in 2004. The nesting season may run from late March or early April to late November. Pōhue Bay and the surrounding areas will be within the Open Space or Conservation designations.

Public access to Pōhue Bay must be managed to protect the turtles' nesting habitat. The proposed means to manage the access is through the proposed Hawaiian Heritage Center educational programs. For an area known for its fishing grounds but historically difficult to access, suddenly opening up the area for easy public access may exacerbate the already evident overfishing. The Hawaiian Heritage Center could also establish a modernized konohiki program to "enforce" controlled fishing (e.g., seasonal restrictions, bag limits) through education.

The General Plan's Natural Resources and Shoreline goals and policies applicable to the Petitioner's contemplated development are highlighted below.

8.2 GOALS

(a) Protect and conserve the natural resources from undue exploitation, encroachment and damage.

(b) Provide opportunities for recreational, economic, and educational needs without despoiling or endangering natural resources.

(c) Protect and promote the prudent use of Hawai'i's unique, fragile, and significant environmental and natural resources.

(d) Protect rare or endangered species and habitats native to Hawai'i.

(e) Protect and effectively manage Hawai'i's open space, watersheds, shoreline, and natural areas.

(f) Ensure that alterations to existing land forms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake.

8.3 POLICIES

(a) Require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.

(b) Encourage a program of collection and dissemination of basic data concerning natural resources.

(c) Maintain the shoreline for recreational, cultural, educational, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public.

(d) Protect the shoreline from the encroachment of man-made improvements and structures.

(e) Coordinate programs to protect natural resources with other government agencies.

- (f) Investigate methods of beach replenishment and sand erosion control.
- (g) Promote sound management and development of Hawai'i's land and marine resources for potential economic benefit.
- (h) Encourage public and private agencies to manage the natural resources in a manner that avoids or minimizes adverse effects on the environment and depletion of energy and natural resources to the fullest extent.
- (i) Encourage an overall conservation ethic in the use of Hawai'i's resources by protecting, preserving, and conserving the critical and significant natural resources of the County of Hawai'i.
- (j) Encourage the protection of watersheds, forest, brush, and grassland from destructive agents and uses.
- (k) An identification and inventory of forest lands suitable for watershed purposes should be conducted jointly by County, appropriate State and Federal agencies, and private landowners.
- (l) Work with the appropriate State, Federal agencies, and private landowners to establish a program to manage and protect identified watersheds.
- (m) Encourage appropriate State agencies to review and designate forest and watershed areas into the conservation district during State land use boundary comprehensive reviews.
- (n) The installation of utility facilities, highways and related public improvements in natural and wildland areas should avoid the contamination or despoilment of natural resources where feasible by design review, conservation principles, and by mutual agreement between the County and affected agencies.
- (o) Encourage the continued identification and inclusion of unique wildlife habitat areas of native Hawaiian flora and fauna within the Natural Area Reserve System.
- (p) Encourage the use of native plants for screening and landscaping.
- (q) Develop policies by which native Hawaiian gathering rights will be protected as identified under judicial decisions.
- (r) Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate.
- (s) Establish a system of pedestrian access trails to places of scenic, historic, cultural, natural, or recreational values.
- (t) Preserve and protect significant lava tube caves.
- (u) Ensure that activities authorized or funded by the County do not damage important natural resources.
- (v) Within the Kona high rainfall/fog-drip belt, ground disturbing activities such as excessive soil compaction and excessive removal of vegetative cover should be minimized and mitigated consistent with management strategies that encourage the retention of existing forested and pasture areas, reforestation, minimal coverage by impervious surfaces and other strategies that encourage effective infiltration to groundwater.
- (w) Implement Council Resolution Nos. 330-96 and 58-97 in land use approvals.
- (x) Create incentives for landowners to retain and re-establish forest cover in upland watershed areas with emphasis on native forest species.

8.4 STANDARDS

The following shall be considered for the protection and conservation of natural resources.

- (a) Areas necessary for the protection and propagation of specified endangered native wildlife, and conservation for natural ecosystems of endemic plants, fish and wildlife.
- (b) Lands necessary for the preservation of forests, park lands, wilderness and beach

areas.

(c) Lands with a general slope of 20 per cent or more that provide open space amenities or possess unusual scenic qualities.

(d) Lands necessary for the protection of watersheds, water sources and water supplies.

(e) Lands with topographic, locational, soils, climate or other environmental factors that may not be normally adaptable or required for urban, rural, agricultural or public use.

(f) The Coastal Zone and Special Management Area as defined by statute and in accordance with the adopted objectives and guidelines.

4.8. HOUSING

The amendment of the General Plan to allow the proposed mauka mixed-use village will diversify the affordable housing choices in the area in terms of lot sizes, rental opportunities, and proximity to services and employment that distinguishes this affordable housing supply from the low-cost substandard vacant lots available in the surrounding area. Petitioner will meet or exceed the County affordable housing requirements and tailor to the income and design preferences of the housing demand particular to the Ka'ū area. The EISPN section 2.3 provides additional details on the mauka mixed-use village and section 4.6 describes the proposed scope of analysis in terms of affordability to be conducted for the Draft EIS. The General Plan's Housing Element goals and policies applicable to the Petitioner's contemplated development are highlighted below .

9.2 GOALS

(a) Attain safe, sanitary, and livable housing for the residents of the County of Hawai'i.

(b) Attain a diversity of socio-economic housing mix throughout the different parts of the County.

(c) Maintain a housing supply that allows a variety of choices.

(d) Create viable communities with affordable housing and suitable living environments.

(e) Improve and maintain the quality and affordability of the existing housing inventory.

(f) Seek sufficient production of new affordable rental and fee-simple housing in the County in a variety of sizes to satisfactorily accommodate the needs and desires of families and individuals.

(g) Ensure that housing is available to all persons regardless of age, sex, marital status, ethnic background, and income.

(h) Make affordable housing available in reasonable proximity to employment centers.

(i) Encourage and expand home ownership opportunities for residents.

9.3 POLICIES

(a) Encourage a volume of construction and rehabilitation of housing sufficient to meet growth needs and correct existing deficiencies.

(b) Encourage the construction of specially designed facilities or communities for elderly persons needing institutional care and small home care units for active elderly persons.

(c) Encourage corporations and nonprofit organizations to participate in Federal, State and private programs to provide new and rehabilitated housing for low and moderate income families.

(d) Support the construction of housing for minimum wage and agricultural workers.

- (e) Continue to review codes and ordinances for overly stringent restrictions that may impose unnecessary hardship and adopt amendments if warranted.
- (f) Continue to study and implement appropriate measures to curb property speculative practices that result in increased housing costs.
- (g) Large industries or developments that create a demand for housing shall provide employee housing based upon a ratio to be determined by an analysis of the locality's needs.
- (h) Formulate a program for housing that identifies specific mechanisms to implement the housing goals.
- (i) Utilize housing powers and programs to accomplish housing goals and seek out new programs and resources to address the housing needs of the residents.
- (j) Initiate and participate in activities with the private sector including the provision of leadership and expertise to neighborhoods and nonprofit organizations in the development of housing and community development projects.
- (k) Increase rental opportunities and choices in terms of quality, cost, amenity, style and size of housing, especially for low and moderate income households.
- (l) Support programs that improve, maintain, and rehabilitate the existing housing inventory to maintain the viability of existing communities.
- (m) Accommodate the housing requirements of special need groups including the elderly, handicapped, homeless and those residents in rural areas.
- (n) Investigate, develop, and promote the creation of new innovative and timely financing techniques and programs to reduce the cost of housing.
- (o) Encourage the use of suitable public lands for housing purposes in fee or lease.
- (p) Encourage the construction of homes for lease or lease with option to purchase.
- (q) Promote research and development of methods, programs, and activities including the review of regulatory requirements and procedures as they affect housing, to reduce the costs consistent with the public health, safety and welfare.
- (r) Adopt appropriate ordinances and rules as necessary to implement its housing programs and activities.
- (s) Utilize financing techniques that reduce the cost of housing, including the issuance of tax-exempt bonds and the implementation of interim financing programs.
- (t) Ensure that adequate infrastructure is available in appropriate locations to support the timely development of affordable housing.
- (u) Investigate the use of the County's taxing powers as a possible means to increase the supply of affordable housing.
- (v) Work with, encourage and support private sector efforts in the provision of affordable housing.
- (w) Encourage the development of affordable retirement communities.
- (x) Vacant lands in urban areas and urban expansion areas should be made available for residential uses before additional agricultural lands are converted into residential uses.
- (y) Aid and encourage the development of a wide variety of housing to achieve a diversity of socio-economic housing mix.
- 9.5.9.2 Course of Action (Ka'u District)
- (a) Require developments that create a demand for employee housing provide for that need.

4.9. PUBLIC FACILITIES

The amendment of the General Plan to allow the proposed mauka mixed-use village will be the first step necessary to put the Petitioner in a position to provide the sites and/or facilities for public facilities to contribute toward meeting existing regional needs, as well as the critical mass with the future resident and visitor population to justify upgraded services. Within the mauka village, the Petitioner plans to reserve sites for a K-8 school that could be co-located with a park and a library, joint fire/police station to supplement or replace the unmanned police substation and volunteer fire station in Ocean View. An area is also being reserved for a medical clinic that would service veterans in the region but be also open to the public; the Petitioner is currently discussing this idea with the Veteran's Administration . The Petitioner is also studying the idea of having privately-owned helicopters on standby for back-up emergency response. The EISPN section 2.3 provides additional details on the mauka mixed-use village and section 4.8 describes the proposed scope of analysis for the public facility impacts to be conducted for the Draft EIS. The General Plan's Public Facilities Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

Overview

10.1.2 Goal

(a) Encourage the provision of public facilities that effectively service community and visitor needs and seek ways of improving public service through better and more functional facilities in keeping with the environmental and aesthetic concerns of the community.

10.1.3 Policies

(a) Continue to seek ways of improving public service through the coordination of service and maximizing the use of personnel and facilities.

(b) Coordinate with appropriate State agencies for the provision of public facilities to serve the needs of the community.

(c) Develop short and long-range capital improvement programs and operating budgets for public facilities and services.

(d) Develop and adopt an Impact Fees Ordinance.

(e) Capital Improvement and Operating budgets shall reflect the goals and policies of the County General Plan.

(f) Require a six-year, long-term, capital improvements budget by County Departments and agencies that shall be reviewed for consistency with the General Plan.

Education

10.2.2 Policies

Educational policies relate to the provision of facilities rather than programs, which are the province of the State. It is nevertheless recognized that the facilities and programs are the tools necessary to improve total educational service.

(a) Encourage continuous joint pre-planning of schools with the Department of Education and the University of Hawai'i to ensure coordination with roads, water, and other support facilities and considerations such as traffic and safety, and access for vehicle, bicycle, and pedestrian. Encourage master planning of present and proposed public and private institutions.

(b) Encourage combining schoolyards with county parks and allow school facilities for afterschool use by the community for recreational, cultural, and other compatible uses.

(c) Encourage joint community-school library facilities, where a separate community library may not be feasible, in proximity to other community facilities, affording both pedestrian and vehicular access.

(d) Encourage implementation of the Department of Education's 'Educational Specifications and Standards for Facilities.'

(e) Encourage the Hawai'i State Library System to seek alternate sites for public libraries located on the campuses of public schools.

10.2.3 Standards

(a) In proposed communities, sufficient acreage shall be reserved for school facilities. Sites shall be free from flooding and drainage problems, excessive slope and shall incorporate appropriate street and driveway design and location to minimize traffic interference, pedestrian hazard, and enable safe and easy access for vehicles, bicycles and pedestrians.

10.2.4.6.2 Courses of Action (Ka'u District)

(a) Encourage continual improvements to existing educational facilities.

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

Protective Services

10.3.2 Policies

(a) Development of police and fire facilities should entail joint use structures whenever feasible.

(b) The establishment of a fire/police facility shall consider site size and locations that permit quick and efficient vehicular access.

(c) Development of volunteer fire facilities with proper planning to be replaced or to co-exist with full time Fire/EMS personnel.

(d) Police headquarters shall be near the geographic center of the service area and near concentrations of commercial and industrial use.

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

(f) Correctional facilities should emphasize rehabilitation. Establish additional rehabilitation

and counseling centers, including drug and behavioral treatment facilities in secure settings, when necessary.

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

(h) The County of Hawai'i Emergency Operations Center shall be improved to meet the requirements set forth by federal and State regulations.

(i) Maintain an appropriate number and type of emergency helicopters, including appropriate aero medical capabilities.

(j) Mitigate hazards through the preparation of disaster assessment reports and appropriate follow-up on the assessment recommendations.

(k) Educate the public regarding disaster preparedness and response, especially proper responses for sudden impact hazards.

(l) Encourage the State to evaluate the disaster shelters' ability to withstand various natural disasters.

(m) Consider the proximity to fire stations in approving any rezoning to permit urban development.

(n) The Fire Department, in cooperation with other related governmental agencies and

the involved land owners, shall prepare a fire protection and prevention plan for forest reserves and other natural areas.

10.3.3 Standards

(a) 2.5 police officers per 1,000 resident population.

(b) Fire stations within five miles of concentrated settlement areas.

(c) First response emergency medical service within eight minutes of concentrated settlement areas (alternative means, such as training police officers or volunteer fire personnel, could be available to provide first response).

10.3.4.8.2 Courses of Action (Ka'u District)

(a) Fire protection and emergency medical services for Ocean View, Nā'ālehu and Pahala shall be encouraged.

(b) Consideration shall be given to a joint police-fire facility.

Health and Sanitation

10.5.2 Policies

(a) Encourage the development of new health care facilities or the improvement of existing health care facilities to serve the needs of Hāmākua, North and South Kohala, and North and South Kona.

(b) Develop and implement a cemeteries master plan for the siting of future cemeteries.

(c) Appropriately designed and cost-effective solid waste transfer station sites shall be located in areas of convenience and easy access to the public.

(d) Encourage the State to continue operation of the rural hospitals.

(e) Encourage the establishment or expansion of community health centers and rural health clinics.

(f) Continue to encourage programs such as recycling to reduce the flow of refuse deposited in landfills.

(g) Investigate the possibility of developing new landfill sites on the island.

(h) Encourage the full development and implementation of a green waste recycling program.

10.5.3 Standards

(a) Sanitary landfill sites for refuse disposal shall be established in accordance with the needs of communities and the State Department of Health and U.S. Environmental Protection Agency's rules and regulations.

(b) Hospitals should be on sites capable of handling moderate expansion of facilities. Quiet surroundings, convenient and adequate access, and compatibility with adjoining uses shall be required.

(c) Hospitals shall be served by a public sewerage system or have self-contained sewerage systems.

(d) Hospital solid waste shall be disposed of in accordance with all Federal, State, and County laws and regulations.

(e) Private and public cemeteries shall be compatible with surrounding land uses and provided with adequate access and drainage systems.

10.5.4.8.2 Course of Action (Ka'u District)

(a) A solid waste transfer station should be established for Ocean View.

4.10. PUBLIC UTILITIES

Infrastructure capacity is available or would be contributed to by the Petitioner to facilitate the development contemplated by the proposed amendment to the General Plan. The proposed layout of the mauka and makai villages are clustered to economize the

infrastructure costs. The project's supporting public utility infrastructure requirements are proposed to be met as follows:

- Water. Currently, the Hawai'i County Department of Water Supply's (DWS) system ends 25 miles away at Ho'okena in South Kona, and 10 miles away at Wai'ōhinu. The nearby residential communities of Hawaiian Ocean View Estates and Hawaiian Ocean View Ranchos primarily rely on roof catchment systems. During drought periods, residents pay truckers to haul water to fill their water tanks. To reduce the hauling cost, the DWS has informed the Petitioner that the DWS will soon place in service a spigot with water from a well located in Hawai'i Ocean View Estates. The Draft EIS will identify the source of water to serve the project, whether it be potable groundwater from a mauka well or treated brackish groundwater. Depending on the capacity, the water system will either be dedicated to the County to be able to serve areas beyond the Project, or a private system limiting service to the Project. See EISPN section 4.7.2 for more details and scope of studies to be conducted for the Draft EIS.
- Sewer. There is no County wastewater system in Ka'ū. The project will have its own wastewater treatment plant with the effluent treated for irrigation reuse. The wastewater treatment plant will be sited to minimize potential visual and odor problems. See EISPN section 4.7.3 for more details and scope of studies to be conducted for the Draft EIS.
- Electrical and Telecommunications. Preliminary engineering reports to be conducted for the Draft EIS will explore the feasibility of undergrounding the utilities. The EIS will include mitigation measures to locate utilities so that they do not impair or obstruct scenic vistas. See EISPN section 4.7.5 for more details and scope of studies to be conducted for the Draft EIS.

The General Plan's Public Utilities Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

Overview

11.1.2 Goals

(a) Ensure that properly regulated, adequate, efficient and dependable public and private utility services are available to users.

(b) Maximize efficiency and economy in the provision of public utility services.

(c) Design public utility facilities to fit into their surroundings or concealed from public view.

11.1.3 Policies

(a) Public utility facilities shall be designed to complement adjacent land uses and shall be operated to minimize pollution or disturbance.

(b) Provide utilities and service facilities that minimize total cost to the public and effectively service the needs of the community.

(c) Utility facilities shall be designed to minimize conflict with the natural environment and natural resources.

(d) Improvement of existing utility services shall be encouraged to meet the needs of users.

(e) Encourage the clustering of developments in order to reduce the cost of providing utilities.

(f) Develop short and long range capital improvement programs and plans for public utilities within its jurisdiction that are consistent with the General Plan.

(g) Water, sewerage, electricity, gas, and telecommunication services are treated individually in this section to clarify the factors that comprise the public utilities element.

Water

11.2.2 Policies

(a) Water system improvements shall correlate with the County's desired land use development pattern.

(b) All water systems shall be designed and built to Department of Water Supply standards.

(c) Improve and replace inadequate systems.

(d) Water sources shall be adequately protected to prevent depletion and contamination from natural and man-made occurrences or events.

(e) Water system improvements should be first installed in areas that have established needs and characteristics, such as occupied dwellings, agricultural operations and other uses, or in areas adjacent to them if there is need for urban expansion.

(f) A coordinated effort by County, State and private interests shall be developed to identify sources of additional water supply and be implemented to ensure the development of sufficient quantities of water for existing and future needs of high growth areas and agricultural production.

(g) The fire prevention systems shall be coordinated with water distribution systems in order to ensure water supplies for fire protection purposes.

(h) Develop and adopt standards for individual water catchment units.

(i) Cooperate with the State Department of Health to develop standards and/or guidelines for the construction and use of rainwater catchment systems to minimize the intrusion of any chemical and microbiological contaminants.

(j) Cooperate with appropriate State and Federal agencies and the private sector to develop, improve and expand agricultural water systems in appropriate areas on the island.

(k) Promote the use of ground water sources to meet State Department of Health water quality standards.

(l) Continue to participate in the United States Geological Survey's exploratory well drilling program.

(m) Seek State and Federal funds to assist in financing projects to bring the County into compliance with the Safe Drinking Water Act.

(n) Develop and adopt a water master plan that will consider water yield, present and future demand, alternative sources of water, guidelines and policies for the issuing of water commitments.

(o) Expand programs to provide for agricultural irrigation water.

11.2.3 Standard

(a) Public and private water systems shall meet the requirements of the Department of Water Supply and the Subdivision Control Code.

11.2.4.8.2 Courses of Action (Ka'u District)

a) Provide additional water system improvements for the currently serviced areas of Nā'ālehu, Wai'ōhinu, and Pahala.

(b) Pursue groundwater source investigation, exploration and well development at Ocean View, Pahala, and Wai'ōhinu.

(c) Continue to evaluate growth conditions to coordinate improvements as required to the existing water system.

(d) Investigate alternative means to finance the extension of water systems to subdivisions that rely on catchment.

Telecommunications

11.3.2 Policies

(a) Encourage underground telephone lines where they are economically and technically feasible.

(b) Work with the telecommunications industry to increase the availability of emergency telephones throughout the island.

(c) Develop standards for the construction of wireless telecommunication facilities.

(d) Work closely with the telephone company to provide all users with efficient service.

11.3.3 Standard

(a) In the development and placement of telephone facilities, such as lines, telecommunications and cellular towers, poles, and substations, the design of the facilities shall consider the existing environment, and scenic view and vistas shall be considered and preserved where possible.

Electricity

11.4.2 Policies

(a) Power distribution shall be placed underground when and where practical. Encourage developers of new urban areas to place utilities underground.

(b) Route selection for high voltage transmission lines should include consideration for setbacks from major thoroughfares and residential areas. Where feasible, delineate energy corridors for such high voltage transmission lines.

(c) Continue to advise the electrical utility companies on the future revisions of their comprehensive Integrated Resource Plans.

(d) Conform to safety standards as established by appropriate regulatory authorities.

11.4.3 Standards

(a) There shall be minimal obstruction of scenic views and vistas by electrical facilities.

(b) Facilities such as substations shall mitigate and minimize any aesthetic impacts to surrounding properties and scenic vistas.

Gas (not applicable)

Sewer

11.6.2 Policies

(a) The "Sewerage Study for All Urban and Urbanizing Areas of the County of Hawai'i, State of Hawai'i," December 1970, and the "Water Quality Management Plan for the County of Hawai'i," December 1980, shall be updated and used as guides for the general planning of sewerage disposal systems.

(b) Private systems shall be installed by land developers for major resort and other developments along shorelines and sensitive higher inland areas, except where connection to nearby treatment facilities is feasible and compatible with the County's long-range plans, and in conformance with State and County requirements.

(c) Immediate steps should be taken to designate treatment plant sites, sewerage pump station sites, and sewer easements according to the facility plans to facilitate their acquisition.

(d) Continue to seek State and Federal funds to finance the construction of proposed sewer systems and improve existing systems.

(e) Plans for wastewater reclamation and reuse for irrigation and biosolids composting (remaining solids from the treatment of wastewater is processed into a reusable organic material) shall be utilized where feasible and needed.

(f) Require major developments to connect to existing sewer treatment facilities or build their own.

11.6.3 Standards

(a) Incorporate sewage works standards proposed in the "Sewerage Study for All Urban and Urbanizing Areas of the County of Hawai'i" and the "Water Quality Management Plan for the County of Hawai'i."

(b) Sewerage systems shall be designed for a particular area, depending on topography, geology, density of population, costs, and other considerations of the specific area.

(c) There shall be a minimum of visual and odor pollution emanating from sewerage treatment facilities.

11.6.4.9.2 Course of Action (Ka'u District)

(a) Work closely with landowners to insure the development of adequate sewerage treatment facilities.

4.11. RECREATION

The proposed General Plan amendment would open public access to the natural beauty of several of the makai portions of the Petition Area for recreational use by residents and visitors. However, this public access needs to be managed to avoid disturbance to the turtle nesting habitat, engendering respect and appreciation for the archaeological features, restoring the anchialine pond habitats, and preventing overfishing. The entire shoreline area within the Petition Area would be accessible by the Ala Kahakai trail, which would connect to historic mauka-makai trails. The Petitioner's proposed Hawaiian Heritage Center is the intended means to manage the public access. The programs of the Hawaiian Heritage Center would be directed to all age groups. The makai village will also include one or two golf courses, designed with best management practices, that would provide additional recreational opportunities. The proposed General Plan amendment for the mauka village would be the first step necessary to establish the active recreation facilities proposed by the Petitioner including a district park and community center. The mauka village would be designed to include pedestrian-friendly streets and pathways. Petitioner is also open to reserving land for a rodeo for the community to revive the historic ranching tradition connected to the region. The EISP section 2.3 provides additional details on the Hawaiian Heritage Center and mauka village recreation facilities and section 4.8.2 describes the proposed scope of analysis of the recreational impacts to be conducted for the Draft EIS. The General Plan's Recreation Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

12.2 GOALS

(a) Provide a wide variety of recreational opportunities for the residents and visitors of the County.

(b) Maintain the natural beauty of recreation areas.

(c) Provide a diversity of environments for active and passive pursuits.

12.3 POLICIES

(a) Strive to equitably allocate facility-based parks among the districts relative to population,

with public input to determine the locations and types of facilities.

(b) Improve existing public facilities for optimum usage.

(c) Recreational facilities shall reflect the natural, historic, and cultural character of the area.

(d) The use of land adjoining recreation areas shall be compatible with community

values, physical resources, and recreation potential.

(e) Develop short and long range capital improvement programs and plans for recreational facilities that are consistent with the General Plan.

(f) The "County of Hawai'i Recreation Plan" shall be updated to reflect newly identified recreational priorities.

(g) Facilities for compatible multiple uses shall be provided.

(h) Provide facilities and a broad recreational program for all age groups, with special considerations for the handicapped, the elderly, and young children.

(i) Coordinate recreational programs and facilities with governmental and private agencies and organizations. Innovative ideas for improving recreational facilities and opportunities shall be considered.

(j) Develop local citizen leadership and participation in recreation planning, maintenance, and programming.

(k) Adopt an on-going program of identification, designation, and acquisition of areas with existing or potential recreational resources, such as land with sandy beaches and other prime areas for shoreline recreation in cooperation with appropriate governmental agencies.

(l) Public access to the shoreline shall be provided in accordance with an adopted program of the County of Hawai'i.

(m) Develop a network of pedestrian access trails to places of scenic, historic, natural or recreational values. This system of trails shall provide, at a minimum, an islandwide route connecting major parks and destinations.

(n) Establish a program to inventory ancient trails, cart roads and old government roads on the island in coordination with appropriate State agencies.

(o) Develop facilities and safe pathway systems for walking, jogging, and biking activities.

(p) Develop a recreation information dissemination system for the public's use.

(q) Revise the ordinance requiring subdivisions to provide land area for park and recreational use or pay a fee in lieu thereof.

(r) Develop and adopt an Impact Fees Ordinance.

(s) Consider alternative sources of funding for recreational facilities.

(t) Develop best management practices for the development of golf courses in coordination with developers, State Department of Health, and other government agencies.

(u) Provide access to public hunting areas.

12.5.9.2 Courses of Action (Ka'u District)

(a) Encourage the development of a swimming facility in Nā'ālehu.

(b) Develop parks in Ocean View, commensurate with population growth.

(c) Encourage the establishment of the Punalu'u-Ninole Springs region as a recreation area.

(d) Encourage the State Department of Hawaiian Homes Lands to develop the South Point area for recreational opportunities.

(e) Recommend the development of Kaalualu Bay as a remote camping-beach park.

(f) Encourage the State Department of Land and Natural Resources to develop wilderness recreation uses of the Kapua-Manukā Forest Reserve.

(g) Encourage the restoration of Ninole Pond as a recreation area.

(h) Encourage land acquisition surrounding Whittington Beach Park to allow for its expansion and the construction of a parking area.

4.12. TRANSPORTATION

The proposed amendment to the General Plan would not increase the supply of new roads outside of Ka'ū; rather, the proposed amendment would reduce the demand for such roads by creating employment opportunities within Ka'ū and providing residential opportunities to live close to the place of employment. The proposed amendment for the mauka village would enable the development of a park and ride transit facility to serve the region for those who would have to commute. The proposed airport or helipad would provide an alternative to driving to and from the Petition Area. The EISPN section 4.7.1 describes the proposed scope of analysis of the transportation impacts, including a traffic impact analysis report ("TIAR") to be conducted for the Draft EIS. The General Plan's Transportation Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

Overview

13.1.2 Goals

- (a) Provide a transportation system whereby people and goods can move efficiently, safely, comfortably and economically.*
- (b) Make available a variety of modes of transportation that best meets the needs of the County.*

13.1.3 Policies

- (a) A framework of transportation facilities that will promote and influence desired land use shall be established by concerned agencies.*
- (b) The agencies concerned with transportation systems shall provide for present traffic and future demands, including the programmed development of mass transit programs for high growth areas by both the private and public sectors.*
- (c) The improvement of transportation service shall be encouraged.*
- (d) Consider the provision of adequate transportation systems to enhance the economic viability of a given area.*
- (e) Develop a comprehensive, islandwide multi-modal transportation plan that identifies the location and operation of automobile, mass transit, bicycle and pedestrian systems, in coordination with appropriate Federal and State agencies.*
- (f) Work with various non-profit agencies to coordinate transportation opportunities.*

Roadways

13.2.2 Goals

- (a) Provide a system of roadways for the safe, efficient and comfortable movement of people and goods.*
- (b) Provide an integrated State and County transportation system so that new major routes will complement and encourage proposed land policies.*

13.2.3 Policies

- (a) Encourage the programmed improvement of existing roadways by both public and private sectors.*
- (b) Investigate various methods of funding road improvements, including private sector participation, to meet the growing transportation needs of the island.*
- (c) Encourage the State to establish a continuous State highway system connecting the County's major airports and harbors.*
- (d) Support the development of programs to identify and improve hazardous and substandard sections of roadway and drainage problems.*

(e) Coordinate with appropriate Federal and State agencies for the funding of transportation projects for areas of anticipated growth.

(f) Consider the development of alternative means of transportation, such as mass transit, bicycle and pedestrian systems, as a means to increase arterial capacity.

(g) There shall be coordinated planning of Federal, State, and County street systems to meet program goals of the other elements such as historic, recreational, environmental quality, and land use.

(h) Provisions for on-street parking shall be incorporated into the design of street systems.

(i) Encourage the State Department of Transportation to establish special scenic routes within and between communities.

(j) Transportation and drainage systems shall be integrated where feasible.

(k) Support the development of an efficient transit route between east and west Hawai'i.

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

(m) Develop minimum street standards for homestead and other currently substandard roadways that are offered for dedication to the County to ensure minimal levels of public safety.

(n) Encourage the development of walkways, jogging, and bicycle paths within designated areas of the community.

(o) Explore means and opportunities to enhance the shared use of the island's roadways by pedestrians and bicyclists, in coordination with appropriate government agencies and organizations.

(p) The Bikeway Plan for the County of Hawai'i (1979) shall be updated to include the development of a safe and usable bikeway system throughout the island.

(q) Work in conjunction with the State to establish a clear agreement of the ownership and maintenance of the old homestead roads.

(r) Develop short and long range capital improvement programs and plans for transportation that are consistent with the General Plan.

13.2.5.9.2 Courses of Action (Ka'u District)

(a) Continue to improve Māmalahoa Highway, realigning where necessary.

(b) Install culverts and construct drainage channels and other related improvements.

(c) Encourage the improvement of substandard subdivision roads.

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

Transportation Terminals: Airports and Harbors

13.3.2 Goal

(a) Provide transportation terminals and related facilities for the safe, efficient and comfortable movement of people and goods.

13.3.3 Policies

(a) Encourage the programmed improvement of existing terminals, including adequate provisions for control of pollution and appropriate and adequate covered storage facilities for agricultural products.

(b) The State Department of Transportation should continue to implement its plans for transportation terminals and related facilities to promote and influence desired land use policies.

(c) Transportation terminals should be developed in conjunction with the different

elements of the overall transportation system.

(d) Encourage maximum use of the island's airport and harbor facilities.

(e) Encourage the development, maintenance, and enhancement of Hilo and Kawaihae Harbors as detailed within the State's Hawai'i Commercial Harbors 2020 Master Plan.

(f) Support the State's objectives to acquire rights within the runway clear-zones, limit heights within approach zones, and restrict noise-sensitive uses within designated noise contours determined by the State.

13.3.4 Standards

(a) Requirements of the State Department of Transportation.

(b) Federal Aviation Administration standards for airport design, runway clear zones, and noise compatibility.

13.3.5.7.2 Course of Action (Ka'u District)

(a) Provide for general aviation and small boat harbor facilities and launching activities as the need arises.

Transit

13.4.2 Goal

(a) Provide residents with a variety of public transportation systems that are affordable, efficient, accessible, safe, environmentally friendly, and reliable.

13.4.3 Policies

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

(b) Support and encourage the development of alternative modes of transportation, such as enhanced bus services and bicycle paths.

(c) Incorporate, where appropriate, bicycle routes, lanes, and paths within road rights-of-way in conformance with The Bikeway Plan for the County of Hawai'i.

(d) Provisions to enhance the mobility of minors, non-licensed adults, low-income, elderly, and people with disabilities shall be made.

4.13. LAND USE

Before the County amended the General Plan in 2005, the Petition Area had similar designations that are being requested in this Petition, but at a more extensive scale and in more sensitive areas (see Exhibit F, 1989 General Plan LUPAG Map). The differences between the 1989 LUPAG and this Petition are as follows:

- **Makai area.** Where the Resort designation in the 1989 LUPAG totalled approximately 2,180 acres centered around Pōhue Bay (including the area extending west outside the Petition Area of which 890 acres is within the Petition Area), the proposed designation in this Petition is for five smaller pockets of Resort away from Pōhue Bay totaling 607 acres. Rather than developing around Pōhue Bay, this Petition proposes to expand the Open Space or Conservation designation away from Pōhue Bay. This Petition includes a Rural designation mauka of the proposed Resort areas for the planned golf course(s) and large residential lots. While this type of upscale large-lot golf course residential concept would be appropriate for a Resort designation, the Rural designation reduces the range of permitted uses and densities for this area compared to a Resort designation.
- **Industrial area for airport.** Where the 1989 LUPAG had an Industrial designation in the middle of the Petition Area for a planned airport, this Petition seeks the proposed

Industrial designation to the south where it would reduce intrusion onto the 1887 lava flow with more favorable topographic conditions.

- Mauka area. Where the 1989 LUPAG had medium- and low-density urban for a mauka village at the northeast corner of the Petition Area, this Petition reduces the extent of the urban designation for a more compact village, and moves the location to the northwest corner of the Petition Area where it can potentially tie into an existing settlement area (HOVE Ranchos) and avoid a potentially sensitive dryland forest limited to the northeast corner of the Petition Area.

Compared to the 1989 LUPAG designation, the designations proposed in this Petition are more in keeping with the social, cultural, historic, economic, and physical environment in furtherance of the General Plan policies.

Policy 14.7.3(c) states, "Lands currently designated Resort should be utilized before new resorts are allowed in undeveloped coastal areas." On the other hand, Policy 14.7.3(j) states, "Re-evaluate existing undeveloped resort designated and/or zoned areas and reallocate these lands in appropriate locations." The existing Resort designations are as follows (from General Plan, Table 14-5, see Exhibit G for map):

- Puna District—none;
- South Hilo District—Waiākea Peninsula-Reeds Bay (Intermediate); Keaukaha (Minor); Wainaku (Minor);
- North Hilo District—none;
- Hāmākua District—none;
- North Kohala District—Mahukona (Minor);
- South Kohala District—‘Anaeho‘omalua (Major); Kauna‘oia Bay-Hāpuna Bay (Major); Pauoa Bay-Honoka‘oia Bay (Major);
- North Kona District—Kailua (Major); Keauhou-Kahalu‘u (Major); Ka‘ūpūlehu-Kūki‘o (Major);
- South Kona District-- Ke‘eke‘e-Kalukalu (Retreat);
- Ka‘ū District-- Nīnole-Punalu‘u (Minor).

There are no important agricultural lands within the Petition Area; however agriculture suitable to the site conditions would be encouraged through market demands created by the resort and mauka village farmer’s market, and availability of irrigation water. The policies for industrial, residential (multiple family and single family), and commercial would be met through the mixed-use, pedestrian-friendly, compact design of the mauka village.

The relationship of this Petition’s request to other land use controls are addressed in the EISPN chapter 5 and summarized below:

- State Land Use Districts
 - The proposed LUPAG Open Space and Conservation designations would correspond with the proposed redefined Conservation District;
 - The proposed LUPAG Resort designations would correspond with a proposed new Urban District;
 - The proposed Urban District would also include the airport (LUPAG Industrial) and the mauka village (LUPAG medium-density urban and urban expansion);

- The proposed LUPAG Rural would correspond to a new Rural District;
- The balance of the Petition Area would be in the Agricultural District encompassing an area in the existing Agricultural District and a portion of the Conservation District proposed to be reclassified to Agricultural.
- Special Management Area—the entire Special Management Area would be within the LUPAG Open Space designation;
- Zoning—the entire Petition Area, currently zoned Extensive Agriculture and Open Space, would be proposed for rezoning to a Project District.

The General Plan's Land Use Element goals and policies applicable to the Petitioner's contemplated development are highlighted below.

Overview

14.1.2 Goals

(a) Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.

(b) Protect and encourage the intensive and extensive utilization of the County's important agricultural lands.

(c) Protect and preserve forest, water, natural and scientific reserves and open areas.

14.1.3 Policies

(a) Zone urban- types of uses in areas with ease of access to community services and employment centers and with adequate public utilities and facilities.

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

(c) Allocate appropriate requested zoning in accordance with the existing or projected needs of neighborhood, community, region and County.

(d) Conduct a review and re-evaluation of the real property tax structure to assure compatibility with land use goals and policies.

(e) Incorporate innovations such as the "zone of mix" and "mixed use zones" into the Zoning Code.

(f) Encourage the development and maintenance of communities meeting the needs of its residents in balance with the physical and social environment.

(g) Establish a program of continuing review of the Zoning Code in light of emerging new industries and technologies and incorporate revisions to land use regulations as necessary.

(h) Develop community development or regional plans for all of the districts or combinations of districts in cooperation with community residents and periodically review and amend these documents as necessary or as mandated.

(i) Ensure that condominium property regimes (CPR) comply with the requirements of the Zoning Code, Subdivision Control Code and other applicable rules and regulations.

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

14.1.4 Standards

(a) The designated land uses will be delineated on the General Plan Land Use Pattern Allocation Guide Map. The broad-brush boundaries indicated are graphic expressions of the General Plan policies, particularly those relating to land uses. They are long-range guides to general location and will be subject to: a) existing zoning; and b) State Land Use District. Similarly, the acreages allocated represent alternatives for the various levels of

economic activity and supporting functions, such as resort, residential, commercial and industrial activities. Land required for community and governmental services and programs as well as new towns and resort centers may be accommodated within the allocated acreages.

(b) Zoning requests shall be reviewed with respect to General Plan designation, district goals, regional plans, State Land Use District, compatibility with adjacent zoned uses, availability of public services and utilities, access, and public need.

(c) Zoning may be recommended on an incremental basis depending upon construction schedule, development of supporting services and facilities, and other pertinent factors bearing upon the performance of the petitioner.

(d) The establishment of urban-types of zoning may include additional acreages to account for acreages utilized for public benefit, such as historic sites, public access and parks.

Agriculture

14.2.2 Goals

(a) Identify, protect and maintain important agriculture lands on the island of Hawai‘i.

(b) Preserve the agricultural character of the island.

(c) Preserve and enhance opportunities for the expansion of Hawai‘i’s Agricultural Industry.

14.2.3 Policies

(a) Implement new approaches to preserve important agricultural land.

(b) Assist in the development of basic resources such as water, roads, transportation and distribution facilities for the agricultural industry.

(c) Assist other State agencies, such as the University of Hawai‘i, College of Tropical Agriculture and Human Resources, University of Hawai‘i at Hilo, College of Agriculture, Forestry and Natural Resources Management, Department of Business, Economic Development and Tourism, Office of Planning, Department of Land and Natural Resources and Department of Agriculture, on programs that aid agriculture.

(d) Agricultural land may be used as one form of open space or as green belt.

(e) Coordinate and encourage efforts to solve the problems of the agricultural industry in the County of Hawai‘i.

(f) In order to minimize the potential conflicts between agricultural and non-agricultural uses, standards and guidelines for the establishment of well defined buffer areas as part of new, non-agricultural developments that are located adjacent to important agricultural lands shall be developed.

(g) Land zoned for use in the Rural District shall be expanded, where appropriate.

(h) Develop subdivision standards that make a distinction between agricultural and urban land uses.

(i) Designate, protect and maintain important agricultural lands from urban encroachment.

(j) Ensure that development of important agricultural land be primarily for agricultural use.

(k) Support the development of private and State agricultural parks to make agricultural land available for agricultural activities.

(l) Assist in the development of agriculture.

(m) Assist in the development of water for agricultural purposes.

(n) Investigate possibilities to prevent non-agricultural uses that could interfere with potential or existing agricultural activities on important agricultural lands.

(o) Support efforts to provide tax relief and other incentives to enhance competitive capabilities of commercial farms and ranches, thereby insuring long-term preservation,

enhancement, and expansion of viable agricultural lands.

(p) Ensure that condominium property regimes (CPR) on agricultural-designated lands comply with the requirements of the Zoning Code and other applicable laws, rules and regulations.

(q) Farm labor housing projects shall be developed in a manner that minimizes the use of important agricultural lands and is consistent with the character of surrounding land uses.

(r) Encourage, where appropriate, the establishment of visitor-related uses and facilities that directly promote the agriculture industry.

(s) Important agricultural lands shall not be rezoned to parcels too small to support economically viable farming units.

(t) Discourage speculative residential development on agricultural lands.

(u) Encourage other compatible economic uses that complement existing agricultural and pastoral activities.

14.2.4.7.2 Course of Action (Ka'u District)

(a) Encourage and support the expansion of agriculture, including forestry and the macadamia nut industry.

Commercial

14.3.2 Goals

(a) Provide for commercial developments that maximize convenience to users.

(b) Provide commercial developments that complement the overall pattern of transportation and land usage within the island's regions, communities, and neighborhoods.

14.3.3 Policies

(a) Urban renewal, rehabilitation, and/or redevelopment programs shall be undertaken in cooperation with communities, businesses and governmental agencies.

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

(c) Distribution of commercial areas shall meet the demands of neighborhood, community and regional needs.

(d) Existing strip development shall be converted to more appropriate uses when and where it is feasible.

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

(f) The development of commercial facilities should be designed to fit into the locale with minimal intrusion while providing the desired services. Appropriate infrastructure and design concerns shall be incorporated into the review of such developments.

(g) Applicable ordinances shall be reviewed and amended as necessary to include considerations for urban design, aesthetic quality and the protection of amenities in adjacent areas through landscaping, open space and buffer areas.

(h) Require developers to provide basic infrastructure necessary for development.

(i) Encourage commercial areas to develop on an axis perpendicular to the highway.

14.3.5.9.2 Courses of Action (Ka'u District)

(a) Centralization of commercial activity in the communities of Pahala, Nā'ālehu and Ocean View and the area of the Volcanoes National Park shall be encouraged.

(b) Do not allow strip or spot commercial development on the highway outside of the designated urban areas.

Industrial

14.4.2 Goals

- (a) Designate and allocate industrial areas in appropriate proportions and in keeping with the social, cultural, and physical environments of the County.
- (b) Promote and encourage the rehabilitation of industrial areas that are serviced by basic community facilities and utilities.

14.4.3 Policies

- (a) Support the creation of industrial parks in appropriate locations as an alternative to strip development.
- (b) Achieve a broader diversification of local industries by providing opportunities for new industries and strengthening existing industries.
- (c) Locate industrial areas convenient to transportation facilities, and provide a variety of industrial zoned districts and lot sizes, depending on the needs of the industries and the communities.
- (d) Improve the aesthetic quality of industrial sites and protect amenities of adjacent areas by requiring landscaping, open spaces, buffer zones, and design guidelines.
- (e) Industrial development shall be located in areas adequately served by transportation, utilities, and other essential infrastructure.
- (f) Provide flexibility within the Zoning Code to accommodate emerging new industries.
- (g) Industrial-commercial mixed use districts shall be provided in appropriate locations.
- (h) Require developers to provide basic infrastructure necessary for development.

14.4.4 Standards

- (a) Industrial development shall maintain or improve the quality of the present environment.
- (b) Industrial activities may be located close to raw materials or key resources.
- (c) Topography of industrial land shall be reasonably level.
- (d) Industrial development shall be conveniently located to its labor resource.
- (e) Buffer zones shall be established between industrial and adjacent incompatible uses of land.
- (f) The direction of wind patterns and the absence of tradewinds shall be considered in the siting of industrial areas.

Multiple Residential

14.5.2 Goals

- (a) To provide for multiple residential developments that maximize convenience for its occupants.
- (b) To provide for suitable living environments that accommodate the physical, social and economic needs of the island residents.
- (c) To enhance the overall quality of life in our residential communities.

14.5.3 Policies

- (a) Appropriately zoned lands shall be allocated as the demand for multiple residential dwellings increases. These areas shall be allocated with respect to places of employment, shopping facilities, educational, recreational and cultural facilities, and public facilities and utilities.
- (b) Incorporate reasonable flexibility in applicable codes and ordinances to achieve a diversity of socio-economic housing mix.
- (c) Encourage flexibility in the design of residential sites, buildings and related facilities to achieve a diversity of socio-economic housing mix and innovative means of meeting the market requirements.
- (d) The rehabilitation and/or utilization of multiple residential areas shall be encouraged.
- (e) To assure the use of multiple residential zoned areas and to curb speculation and

resale of undeveloped lots only, the County may impose incremental and conditional zoning, which shall be based on performance requirements.

(f) Applicable codes and ordinances shall be reviewed and amended as necessary to include consideration for urban design, and aesthetic quality through landscaping, open space, and buffer areas.

(g) Support the rezoning of those multiple residentially zoned lands that are used for other purposes to a more appropriate zoning designation.

(h) Require developers to provide basic infrastructure necessary for development.

14.5.4 Standards

(a) Areas shall be located in such a manner that traffic generated by high density development will not be required to travel through areas of lesser density en route to principal community facilities.

(b) Areas shall be protected from incompatible uses by transition zones.

(c) Provide adequate access to arterial streets, shopping facilities, schools, employment centers, and other services.

(d) Development shall not be permitted in natural hazard areas unless proper on-site improvements are provided.

(e) Development shall be located in areas where public utilities can be economically provided at a level adequate to meet the demand for the concentrated service.

(f) Recreational area and/or facilities shall be considered in multiple residential development.

14.5.5.8.2 Course of Action (Ka'u District)

(a) Appropriately zoned lands shall be allocated as the need for multiple residential development increases.

Single-Family Residential

14.6.2 Goals

(a) To maximize choices of single-family residential lots and/or housing for residents of the County.

(b) To ensure compatible uses within and adjacent to single-family residential zoned areas.

(c) To rehabilitate and/or rebuild deteriorating single-family residential areas.

(d) To provide single-family residential areas conveniently located to public and private services, shopping, other community activities and convenient access to employment centers that takes natural beauty into consideration.

(e) To enhance the overall quality of life in our residential communities.

14.6.3 Policies

(a) To assure the orderly use of single-family residential zoned areas and to curb speculation and resale of undeveloped lots, the County may impose incremental and conditional zoning, which would be based on performance requirements. This is to assure that a certain percentage of buildings will be constructed.

(b) Encourage innovative uses of land with respect to geologic and topographic conditions through the use of residential cluster and planned unit developments.

(c) Encourage and coordinate with the State in providing fee simple and leasehold single-family residential lots to the residents through State and/or County Housing Programs.

(d) Incorporate reasonable flexibility in codes and ordinances to achieve a diversity of socio-economic housing mix and to permit aesthetic balance between single-family residential structures and open spaces.

(e) Re-evaluate existing undeveloped single-family residential zoned areas and reallocate

zoned lands in appropriate locations.

(f) Designate and allocate single-family residential zoned lands at varying densities for future use in accordance with the needs of the communities and the stated goals, policies, and standards.

(g) Rural-style residential-agricultural developments, such as new small scale rural communities or extensions of existing rural communities, shall be encouraged in appropriate locations.

(h) Review and amend land use ordinances and codes to include considerations for rural-style residential subdivisions in appropriate locations. Standards and criteria for the establishment of these areas shall be developed.

(i) Require developers to provide basic infrastructure necessary for development.

14.6.4 Standards

(a) There shall be a transitional area between single-family residential areas and incompatible uses.

(b) Major traffic routes shall not be located through single-family residential areas.

(c) Areas shall have basic improvements and amenities necessary for immediate use.

14.6.5.8.2 Course of Action (Ka'u District)

(a) Aid and encourage major landowners to make available residential lands in the area for employee housing and the private market.

Resort

14.7.2 Goals

(a) Maintain an orderly development of the visitor industry.

(b) Provide for resort development that maximizes conveniences to its users and optimizes the benefits derived by the residents of the County.

(c) Ensure that resort developments maintain the cultural and historic, social, economic, and physical environments of Hawai'i and its people.

14.7.3 Policies

(a) The County may impose incremental and conditional zoning that would be based on performance requirements.

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

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

(d) Zoning of resort areas shall be granted when the proposed development is consistent with and incorporates the stated goals, policies and standards of the General Plan.

(e) Continue to seek funds from the State Capital Improvement Program to help develop visitor destination areas in accordance with the County's General Plan.

(f) Designate and allocate future resort areas in appropriate proportions and in keeping with the social, economic, and physical environments of the County.

(g) Evaluate resort areas and the areas surrounding existing resorts to insure that viable quality resorts are developed and that the surrounding area contributes to the quality, ambience and character of the existing resorts.

(h) Encourage the visitor industry to provide resort facilities that offer an educational experience of Hawai'i as well as recreational activities.

(i) Coastal resort developments shall provide public access to and parking for beach and shoreline areas.

(j) Re-evaluate existing undeveloped resort designated and/or zoned areas and reallocate these lands in appropriate locations.

(k) Require developers to provide the basic infrastructure necessary for development.

14.7.4 Standards

The following established standards shall guide the development of resort areas.

(a) Major Resort Area

A major resort area is a self-contained resort destination area that provides basic and support facilities for the needs of the entire development. Such facilities shall include sewer, water, roads, employee housing and recreational facilities, etc. A major resort area is designated as a Resort node or part of a Resort node on the Land Use Pattern Allocation Guide Map.

- Maximum visitor units: 3,000 units.
- Resort acreage: 90 acres minimum.
- Active and passive recreation areas: 50 acres minimum.
- Either participate in an off-site housing program or a maximum of 640 acres for residential use when other zoned lands are not available in close proximity for support use.
- The required employee housing ratio and method of provision shall be determined by an analysis of housing needs of each district or relative area and with the adoption of the resort zoning; provided that the ratio shall not exceed one employee unit for every two visitor units built.

(b) Intermediate Resort Area

An intermediate resort area is a self-contained resort destination area that provides basic and support facilities for the needs of the entire development on a smaller scale than a major resort area. Such facilities shall include sewer, water, roads, employee housing and recreational facilities, etc.

- Maximum visitor units: 1,500 units.
- Resort acreage: 45 acres minimum.
- Active and passive recreation area: 25 acres minimum.
- Either participate in an off-site housing program or a maximum of 320 acres for residential use when other zoned lands are not available in close proximity for support use.
- The required employee housing ratio and method of provision shall be determined by an analysis of housing needs of each district or relative area and with the adoption of the resort zoning; provided that the ratio shall not exceed one employee unit for every two visitor units built.

(c) Minor Resort

A minor resort area shall not exceed the density of an intermediate resort area.

- Maximum visitor units: 500 units.
- Provide active and passive recreation area commensurate with the scale of development.
- The required employee housing ratio and method of provision shall be determined by an analysis of housing needs of each district or relative area and with the adoption of the resort zoning; provided that the ratio shall not exceed one employee unit for every two visitor units built.

(d) Retreat Resort Area

A retreat resort area is generally an area that provides the user with rest, quiet and isolation for an environmental experience. It shall have sewer, water, roads, employee housing, and recreational facilities, etc.

- Maximum visitor units: 50 units.
- Resort acreage: 15 acres minimum.
- Provide active and passive recreation area commensurate with the scale of development.
- The required employee housing ratio and method of provision shall be determined

by an analysis of housing needs of each district or relative area and with the adoption of the resort zoning; provided that the ratio shall not exceed one employee unit for every two visitor units built.

5. RELATIONSHIP TO PENDING KA'Ū COMMUNITY DEVELOPMENT PLAN

The timetable to prepare the Ka'ū Community Development Plan may run roughly concurrently with the Petition's EIS process. By tracking concurrently, the community will have an opportunity to review the Petition's request in the context of the community's regional vision for the future. The EIS would provide a means to receive input and provide information on the proposed plans. If both processes stay on schedule, the Ka'ū Community Development Plan and this Petition could be reviewed together at the Planning Commission and County Council. See Exhibit H for a diagram of the suggested interrelated process.

6. MAPS, GRAPHS, PLOT PLAN, AND OTHER SUPPORTIVE INFORMATION

Attached to this Petition and incorporated by reference are the following supportive information:

- Exhibit A EIS Preparation Notice (to be replaced with the Final EIS)
- Exhibit B Real Property Tax Clearance
- Exhibit C Location Map and Tax Map
- Exhibit D Overall Master Plan
- Exhibit E Draft Ordinance for an Interim Amendment to the General Plan for the Petition Area
- Exhibit F 1989 LUPAG Map for the Petition Area
- Exhibit G LUPAG Resort Designations Map
- Exhibit H Proposed Petition Review Process as Related to the EIS and Ka'ū CDP