

DRAFT
ENVIRONMENTAL IMPACT STATEMENT



Village at Po'ipū

Prepared By:



Prepared For:

Accepting Authority,
State of Hawai'i Land Use Commission
Docket No. A05-761
Eric A. Knudsen Trust

January 2006



**DRAFT ENVIRONMENTAL IMPACT STATEMENT
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- H Archaeological Data Recovery of a Portion of the Eric A. Knudsen Trust Lands
- I Data Recovery Plan for State Site 50-30-10-947 Railroad Berm
- J Interim Protection Plan for the Knudsen Trust Lands Phase I
- K Cultural Impact Assessment
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- N Air Quality Study
- O Market Study, Economic Impact Analysis and Public Costs/Benefits Assessment
- P Preliminary Engineering Report

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1.0 INTRODUCTION AND SUMMARY

This Draft Environmental Impact Statement (EIS) is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Administrative Rules, Department of Health, State of Hawai'i. The proposed project is an applicant action by the Eric A. Knudsen Trust (Knudsen Trust) for the development of the Village at Po'ipū residential community comprising approximately 203 acres in Po'ipū, near the southern coast of Kaua'i, Hawai'i. Figure 1 shows a regional location map of the project site.

The preparation of this EIS is being undertaken to address requirements under HRS Chapter 343, as triggered by the inclusion of the improvements to Hapa Road, an unimproved County roadway. The proposed improvements to Hapa Road are required by condition of the County of Kaua'i as part of the zoning amendments granted by Ordinance PM-31-79 and further detailed in Ordinances PM-200-90 and PM-201-90. It is also being prepared in support of a State Land Use District Boundary Amendment (SLUDBA) for a 127.4-acre portion of the project site (see Figure 2).

Figure 3 shows a conceptual master plan for the project. It includes a mix of residential densities as well as archaeological preserves, and parks. The Village at Po'ipū residential communities will be interlaced with landscaped streets and greenway networks that will allow residents to walk or bike between *mauka* and *makai* areas, including Po'ipū Beach, Kōloa Town and other nearby amenities such as the Kiahuna Tennis and Swim Club.

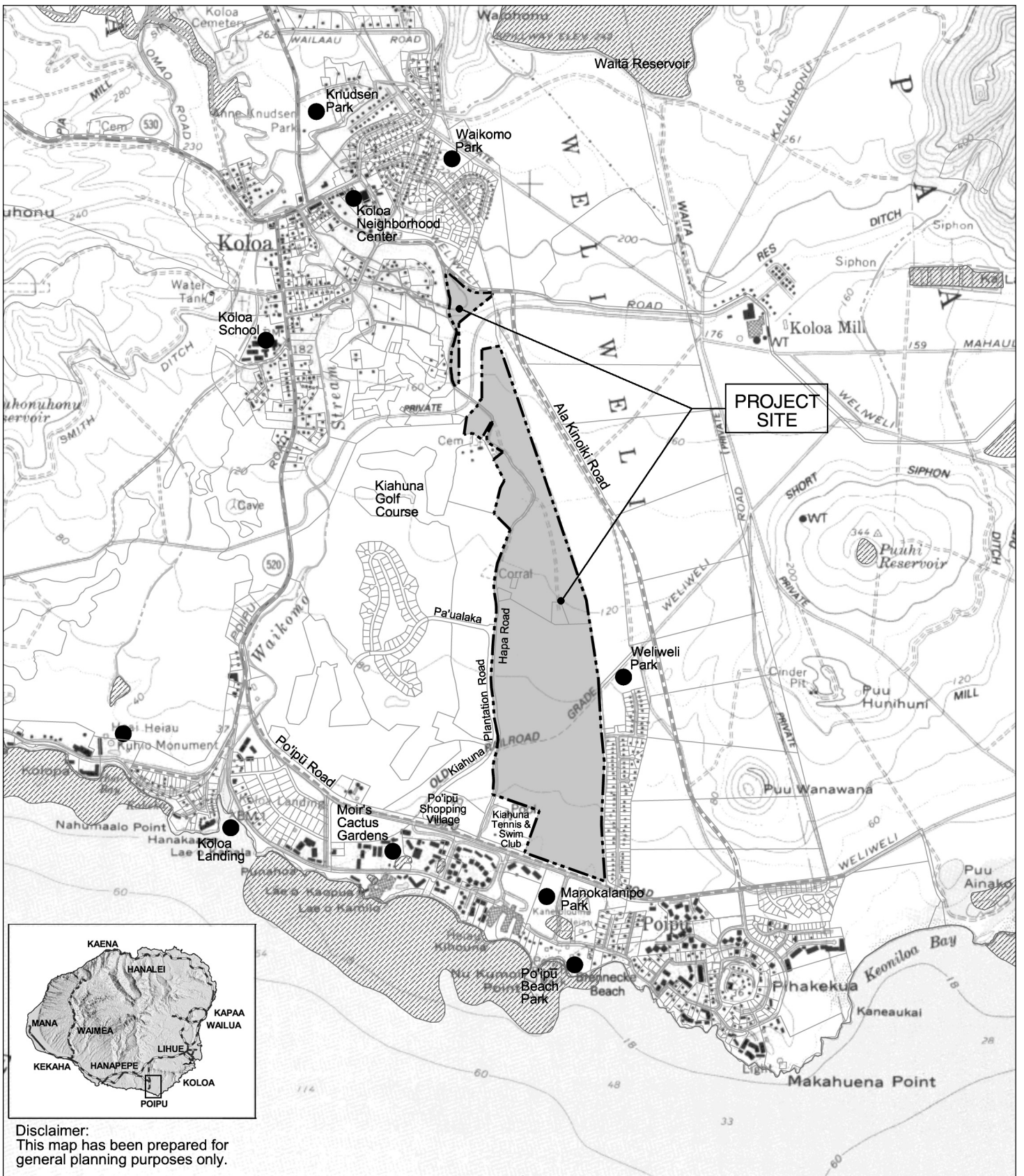
A historic railroad berm runs through the project site between Weliweli Park and Kiahuna Plantation Drive. The areas south of the railroad berm are located within the Urban State Land Use District and are fully entitled. Roughly fifteen acres north of the railroad berm are also entitled and classified as Urban. The remaining 127.4 acres north of the railroad berm are in the Agricultural District and will require approval by the State Land Use Commission (LUC) to reclassify the State Land Use District to the Urban District. This would be the first discretionary approval sought for the project and as a result, the LUC determined it is the appropriate approving authority for this EIS. The petition has been filed with the LUC and is identified as Docket No. A05-761.

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1.1 INTRODUCTION

1.1.1 Project Profile

Project Name:	Village at Po'ipū
Location:	Po'ipū, Kaua'i, Hawai'i
Judicial District:	Kōloa
Applicant:	Eric A. Knudsen Trust
Recorded Fee Owner:	Eric A. Knudsen Trust
Tax Map Keys:	TMK 2-8-13: 01, 2-8-14: 01, 2-8-14: 02, 2-8-14: 03, 2-8-14: 04, 2-8-14:19, 2-8-14:37, and Lot 19-B (Hapa Road)
Land Area:	203 acres (approx.)
Existing Use:	Cattle and horse ranching and undeveloped scrubland
Proposed Action:	Develop a master planned single-family and multi-family residential community that protects and preserves significant archaeological sites and is pedestrian and bicycle friendly.
State Land Use:	Urban and Agricultural Districts (A State Land Use District Boundary Amendment is concurrently being sought for the Agricultural District)
County General Plan:	Residential Community
County Zoning:	Residential (R-10), Residential (R-6), Residential (R-4) and Open (O)
Special Management Area:	Not within the SMA
Accepting Authority:	State of Hawai'i Land Use Commission



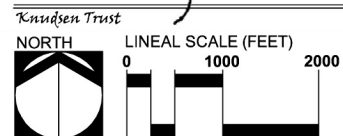
LEGEND

-  Park / Recreational Area
-  Project Site Boundary
-  TMK Boundary
-  Major Streets
-  Streams
-  Wetlands

Source:
 -U.S. Geological Survey (Koloa Quadrangle, 1995)
 -State of Hawaii GIS Database

Figure 1
 Regional Location Map

Village at Po'ipū



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1.1.2 Applicant

The applicant is Eric A. Knudsen Trust.

Contact: Stacey Wong, Trustee
Eric A. Knudsen Trust
P.O. Box 759
Kalāheo, Hawai'i 96741
Telephone: (808) 332-5676
Fax: (808) 332-5681

1.1.3 Planning Consultant

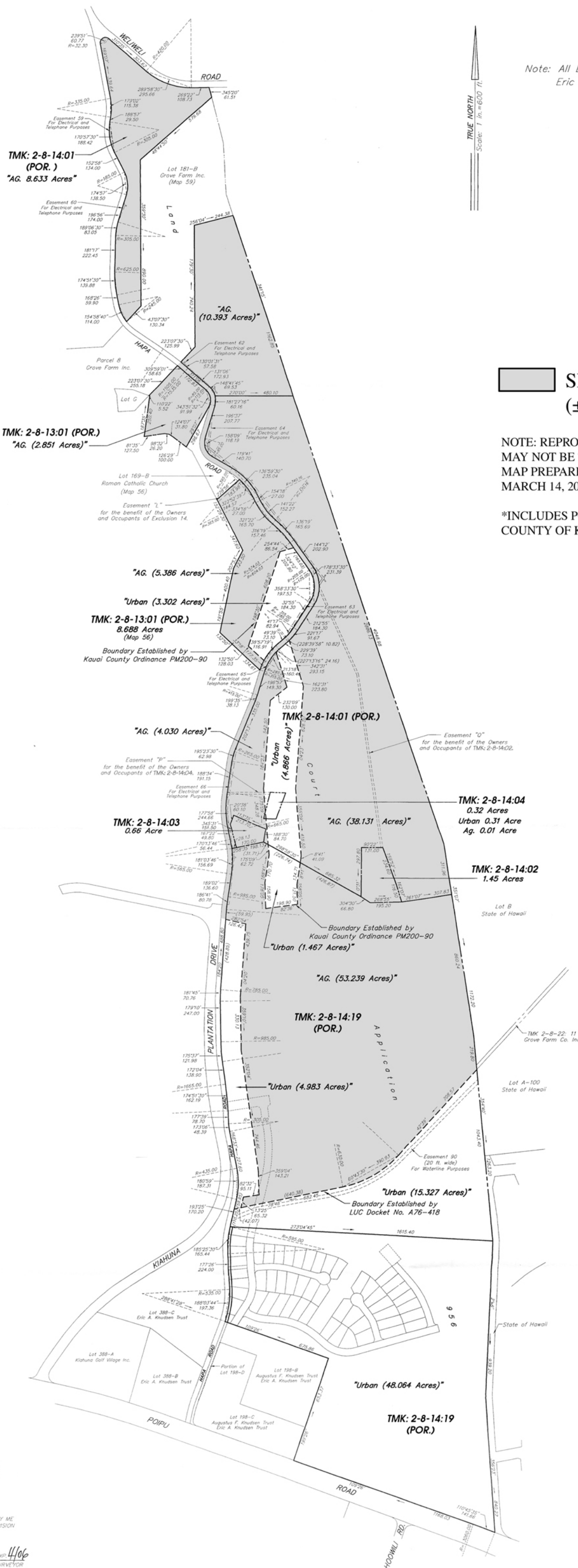
The Knudsen Trust's environmental and entitlement planning consultant for the Village at Po'ipū is PBR HAWAII.

Contact: Kimi Yuen
PBR HAWAII
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawai'i 96813
Telephone: (808) 521-5631
Fax: (808) 523-1402

1.1.4 Accepting Authority

In accordance with Chapter 343, HRS, privately initiated EIS documents must be accepted by the government agency empowered to issue permits for the project. In this instance, the State of Hawai'i Land Use Commission is the accepting authority since a State Land Use District Boundary Amendment (SLUDBA) is the first discretionary approval being sought for the project.

Contact: Anthony Ching, Executive Officer
State Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804
Telephone: (808) 587-3822
Fax: (808) 587-3827



Note: All Lots owned by Augustus F. Knudsen - 1/2
Eric A. Knudsen - 1/2 unless otherwise noted.

TRUE NORTH
Scale: 1 in. = 600 ft.

**SLUDBA PETITION AREA
(±127.4 ACRES)***

NOTE: REPRODUCTIONS OF THIS GRAPHIC
MAY NOT BE TO SCALE. GRAPHIC BASED ON SURVEY
MAP PREPARED BY KODANI & ASSOCIATES,
MARCH 14, 2005.

*INCLUDES PORTION OF HAPA ROAD (±2.7 ACRES),
COUNTY OF KAUA'I, IN PETITION AREA.



THIS WORK WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION

Ronald Casuga EXP. 4/06
LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 4332

Figure 2
State Land Use District
Boundary Amendment Petition Area
Village at Po'ipū

ERIC A. KNUDSEN TRUST ISLAND OF KAUAI

AREA SCALE: 1 Acre

GRAPHIC SCALE: 0 100 200 300 600

PBR HAWAII

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1.1.5 Compliance with State of Hawai'i and County of Kaua'i Environmental Laws

This Environmental Impact Statement is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Administrative Rules, Department of Health, State of Hawai'i. The proposed project is an applicant action by the Eric A. Knudsen Trust for the development of the Village at Po'ipū, comprising approximately 203 acres located in Po'ipū, Kaua'i, Hawai'i. As the proposed project involves the use of County lands (Hapa Road), the preparation of this EIS is being undertaken to address potential requirements under Chapter 343, HRS.

A 127.4-acre portion of the proposed development also requires approval by the State Land Use Commission (LUC) to reclassify the project from the Agricultural to the Urban district (Figure 2). This EIS is being submitted in support of the petition (Docket No. A05-761) filed pursuant to Section 205-4 of the Hawai'i Revised Statutes and Section 15-15-46 et seq. of the Title 15, Subtitle 3, Chapter 15 of the Hawai'i Administrative Rules (LUC Rules).

To provide a thorough environmental review of the Village at Po'ipū, the preparation of an EIS is being undertaken. This Draft EIS was preceded by *The Village at Po'ipū Environmental Impact Statement Preparation Notice* (EISPN). Notice of availability of the EISPN was published in the July 23, 2005 edition of OEQC's *The Environmental Notice*. Copies of the EISPN were provided to appropriate government agencies and other organizations. The public comment period for the EISPN ended on August 22, 2005. Comments on the EISPN have been incorporated into this EIS. Copies of the comment letters and responses are included in Section 11.0.

**1.2 STUDIES CONTRIBUTING TO THIS ENVIRONMENTAL
IMPACT STATEMENT**

A description of the environment, alternatives considered, impact determination, and proposed mitigation measures are provided in this EIS. The information contained in this report has been developed from site visits, technical consultant reports, public agencies, and generally available information regarding the characteristics of the site and surrounding areas. Consultant reports are included as appendices to this EIS.

Technical studies to assess the existing natural and physical conditions of the Village at Po'ipū site and the potential impacts of development of the property have been prepared.

The studies include:

- Archaeological Inventory Surveys

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- Archaeological Data Recovery and Preservation Plans
- Flora Survey
- Faunal Survey
- Cultural Impact Assessment
- Traffic Impact Assessment
- Environmental Noise Impact Assessment
- Air Quality Study
- Preliminary Engineering Studies
- Market Study, Economic Impact Analysis, and Public Cost/Benefit Assessment

1.3 EXECUTIVE SUMMARY

1.3.1 The Village at Po'ipū Summary Description

The Village at Po'ipū residential community comprises approximately 203 acres located in Po'ipū, near the southern coast of Kaua'i, Hawai'i (Figure 1). Figure 3 shows a conceptual master plan for the project. It includes a mix of residential communities as well as archaeological preserves and parks. The Village at Po'ipū residential communities will be interlaced with landscaped streets and greenway networks that will allow residents to walk or bike between *mauka* and *makai* areas, including Po'ipū Beach, Kōloa Town, and other nearby amenities such as the Kiahuna Tennis and Swim Club.

Portions of the 203 acres are used for grazing cattle and horses, and the majority of it consists of pastureland scrub. Areas that are not grazed are covered by dense koa haole thickets. A historic railroad berm runs through the project site between Weliweli Park and Kiahuna Plantation Drive. The areas south of the railroad berm are located within the Urban State Land Use District and are fully entitled. Roughly fifteen acres north of the railroad berm are also entitled and classified as Urban.

The remaining 127.4 acres north of the railroad berm are in the Agricultural District and will require approval by the State Land Use Commission (LUC) to reclassify the State Land Use District to the Urban District. Roughly 324 units and 190 additional dwelling units are allowed with the existing zoning. An additional 98 units would be allowed with the change to the Urban State Land Use District.

1.3.2 Summary of Potential Impacts and Proposed Mitigation Measures

Flora

No threatened or endangered plant species or species of concern have been found on the Village at Po'ipū site. The proposed conceptual master plan attempts to improve botanical resources by clearing the site of the existing alien and invasive species. Native

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plants will be installed within the archaeological sites and preserves. Native and non-invasive species also will be encouraged throughout the Village at Po'ipū project as part of the Landscape Master Plan and Design Guidelines.

Fauna

The proposed Village at Po'ipū is not expected to impact any endangered or threatened species as none were found within the project site during the avifaunal and feral mammal survey. Although none were observed on the site, the faunal survey concluded that the project might positively impact the migratory Pacific Golden Plover and endangered Hawaiian Hoary Bat.

Critical Habitat

There are two areas within the Village at Po'ipū project site designated as "critical habitats" by the United States Fish and Wildlife Service (USFWS) for the endangered Kaua'i Cave Wolf Spider and Kaua'i Cave Amphipod. However, at the time of their designation, it was not known whether either species inhabited the sites. The critical habitats center around two lava tubes and the conceptual master plan for the Village at Po'ipū protects these sites with a fifty-foot buffer within which no development will occur. These areas will be preserved as archaeological sites and will be planted with native plants to improve possible habitat conditions for the endangered Kaua'i Cave Wolf Spider and Amphipod should they exist on site.

Archaeological Resources

Extensive archaeological studies, as well as data recovery and preservation plans have been conducted for the entire property. All of the archaeological sites recommended for preservation by the State Historic Preservation Division (SHPD) as well as those recommended for possible preservation will be protected. Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. In total, the area set aside for archaeological sites and preserves encompasses over 23 acres.

The vehicular and pedestrian circulation networks will be designed to provide both visual connections and direct access to the sites. In most cases, roadways will run adjacent to the preservation sites so that cultural practitioners, researchers and other interested persons may easily access the sites. Appropriate interpretive signage will be provided at the archaeological preserves. In addition, the signs will instruct visitors of the care and respect required to preserve the sites for future generations. Native plants will be planted at the archaeological sites. Furthermore, should *iwi kupuna* or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease and the appropriate agencies will be contacted pursuant to applicable law.

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Cultural Resources

Based on interviews with people knowledgeable with the Kōloa-Po'ipū area and the Village at Po'ipū site, the primary cultural concerns pertain to the protection and preservation of culturally and historically significant archaeological sites and the protection of natural resources. In the past, potentially significant sites have been damaged or destroyed by stone robbers and other activities. As discussed above, the Village at Po'ipū will improve stewardship of cultural resources through the establishment of over 23 acres of archaeological preserves. The preserves will be accessible to the public and will allow continued access by cultural practitioners.

Traffic

The traffic impact analysis report conducted for this EIS concludes that the Village at Po'ipū will have a minimal impact on local and regional traffic. It recommends improvements to two intersections within the vicinity of the project to facilitate satisfactory traffic flow in the area. In addition, a network of pedestrian/bicycle paths, including a shared bike and pedestrian path in Hapa Road, will weave throughout the project site, linking the different neighborhoods and archaeological preserves to one another. This will encourage residents to walk or bike to various destinations around the area such as Po'ipū Beach, the Kiahuna Tennis and Swim Club, Po'ipū Spa and Fitness, the Po'ipū Shopping Village, and Kōloa Town as an alternative to driving.

Population

At full occupancy, the Village at Po'ipū is expected to have between 1,037 and 1,573 persons with approximately half anticipated to be full-time residents.

Employment

The Village at Po'ipū will generate jobs during construction and after its completion. During the first ten years of build-out and operation, the project will generate an average of 174 additional jobs per year which can easily be absorbed by the currently available employment pool. After the first ten years, the ongoing management of the site will generate approximately 29 on-site and 12 indirect or off-site positions.

Economic Impacts

The State of Hawai'i will receive nearly \$43.8 million in primary tax receipts during the first decade of development and operation, and a stabilized amount of \$4.8 million annually. The County of Kaua'i will receive \$10 million during the first ten years of the project, and \$1.3 million per year thereafter. In no year does the State or County suffer a revenue shortfall (costs exceeding receipts) relative to the project.

Public Services

The de facto population of the Village at Po'ipū is project to be 1,037 to 1,573. Because approximately half of this population is expected to be part-time residents/visitors, pressure on government services and funds will be less than a community of full-time

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residents, as visitors typically do not rely on the full range of government services that full-time residents require. Property owners at the Village at Po'ipū, even those that are not full-time residents, will pay property taxes on a full-time basis, and excise taxes when they purchase goods and services on the island.

A public cost/benefit analysis has been prepared and is included in Appendix O. Based on the analysis, in no year single year do aggregate public costs to the State or County exceed public income. In addition, County of Kaua'i and State of Hawai'i agencies providing public services have been contacted regarding the potential impact of the increase in population associated with the Village at Po'ipū. Their preliminary comments have been incorporated in this EIS and the Knudsen Trust will continue to work with the agencies to ensure implementation of proper mitigative measures required by the project.

Water

The County of Kaua'i Department of Water (DOW) will supply potable water to home sites in the Village at Po'ipū. The Knudsen Trust is entering a cost-sharing agreement with the DOW for any new facilities that must be installed to supply the project and will pay facilities reserve charges per the agreement. In addition, a separate irrigation system using non-potable water for all landscaping within common areas and the larger single-family lots will be developed. The non-potable water will be supplied by a private system, sourced from two on-site wells and Grove Farm's Waita Reservoir as needed.

Wastewater

Wastewater generated by the Village at Po'ipū project will be collected and routed to the privately owned and operated Po'ipū Water Reclamation Facility (PWRf) for treatment. An upgrade and expansion of the wastewater plant was initiated in 2004. The first phase of improvements has been completed and included a new biological process, capable of treating up to 1,000,000 gallons per day of wastewater. With the completion of this phase, the Po'ipū Reclamation Facility has sufficient capacity to treat all the wastewater that will be generated by the Village at Po'ipū.

The second phase of improvements is estimated for completion at the end of 2005 and includes tertiary filtration and ultraviolet (UV) disinfection. When the second phase of improvements is completed, the treatment plant will meet R-1 standards, which is the highest level of effluent quality regulated by the State of Hawai'i. It is expected that the effluent will be used by the neighboring Kiahuna Mauka Partners projects to irrigate the common areas of their development as well as the Kiahuna Golf Course. This will increase reuse of wastewater and reduce potable water requirements for irrigation in the region.

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Drainage

Although the Village at Po'ipū will result in the construction of impermeable areas such as roads and homes that will increase the amount of runoff generated, the proposed improvements planned for the Village at Po'ipū drainage system will meet County requirements to maintain or reduce peak discharge rates at pre-development levels. The onsite detention basins are expected to actually reduce the peak discharge rate compared with existing levels. The plan also proposes using a combination of bioswales, vegetated drainage filtration and detention basins, as well as engineered networks of drain inlets, manholes, and drainage pipes. The incorporation of bioswales into the drainage process will help filter and slow runoff, improving the water quality of the runoff before it reaches the drainage systems and eventually the ocean.

1.3.3 Relationship to Land Use Policies

State Land Use Law, Chapter 205, Hawaii Revised Statutes

Within the Village at Po'ipū project site, approximately 124.7 acres are within the Agricultural District and approximately 78.3 acres are within the Urban District. The proposed residential uses are permitted within the Urban District. A State Land Use District Boundary Amendment (SLUDBA) will be required to reclassify the Agricultural District. An additional 2.7-acre portion of Hapa Road is also within the Agricultural District and will be included in the SLUDBA petition per the LUC request and with permission of the County of Kaua'i.

Hawaii Coastal Zone Management Program, Chapter 205A, Hawaii Revised Statutes

The Coastal Zone Management Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the Village at Po'ipū is within the Coastal Zone Management Area. However, it is not located along a shoreline and is outside of the Special Management Area (SMA). Conformance with the Coastal Zone Management Program is further discussed in Section 5.1.3 of this Draft EIS.

Hawaii State Plan, Chapter 226, Hawaii Revised Statutes

The Hawaii State Plan (Chapter 226, HRS) establishes a set of goals, objectives, and policies that serve as long-range guidelines for the growth and development of the State. As proposed, the Village at Po'ipū is relevant to many of goals, objectives, and policies set forth by the Hawaii State Plan. The proposed project balances the provision of needed housing in South Kaua'i with the preservation of historic resources and implements environmentally-sensitive management of resources and wastes such as the use of non-potable water for irrigation and the biofiltration of runoff water. Conformance with specific elements of the Hawaii State Plan is discussed in detail in Section 5.1.4 of this Draft EIS.

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State Functional Plans

The Hawaii State Plan directs State agencies to prepare functional plans for their respective program areas. There are 13 state functional plans that serve as the primary implementing vehicle for the goals, objective, and policies of the Hawaii State Plan. The functional plans applicable to the Village at Po'ipū are discussed in Section 5.1.5 of this Draft EIS.

County of Kaua'i General Plan

The General Plan of the County of Kaua'i is a policy document that is intended to help guide development for the enhancement and improvement of life on Kaua'i. The document provides the County's vision for Kaua'i and establishes the strategies to help achieve that vision. The General Plan includes land use maps for planning districts on Kaua'i. The Kōloa-Po'ipū-Kalāheo Planning District Land Use Map designates the entire Village at Po'ipū site as "Residential Community." The residential uses proposed in the Village at Po'ipū master plan are consistent with this designation.

County of Kaua'i Zoning

Similar to the State Land Use Districts, the Comprehensive Zoning Ordinance for the County of Kaua'i regulates the type and location of development permitted on the island. The existing Kaua'i County zoning for the Village at Po'ipū community includes a mix of Residential zoning R-4, R-6 and R-10 and the Open District. The proposed residential development will conform to existing zoning.

1.3.4 Required Permits and Approvals

A preliminary list of permits and approvals required for the Village at Po'ipū is presented in Table 1 below.

Table 1: List of Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY
Chapter 343, HRS compliance	State Land Use Commission Office of Environmental Quality Control
State Land Use District Boundary Amendment	State Land Use Commission
National Pollutant Discharge Elimination System (NPDES)	State Department of Health
Archaeological Data Recovery and Preservation Plan, Compliance with Chapter 6E, HRS	State Historic Preservation Division
Grading/Building Permits	Kaua'i County Department of Public Works
Subdivision Approval	Kaua'i County Planning Department

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1.3.5 Alternatives to the Proposed Action

The alternatives that have been considered are:

- 1) No action;
- 2) Other uses of the property (including agriculture, park/open space, or other urban uses); and
- 3) Postponing action pending further study.

1.3.6 Probable Adverse Environmental Effects That Cannot Be Avoided

Potential adverse environmental effects that cannot be avoided include the change in character and visual appearance of the site from scrub and rangeland to a residential community, impacts from increased traffic, solid waste generation and electrical power demand. Potential short-term impacts include impacts to air quality and noise levels during construction. These impacts are more fully discussed in Section 4.0 of this EIS.

1.3.7 Cumulative and Secondary Impacts

The cumulative and secondary impacts generated by the Village at Po'ipū are assessed based on the context and vision for the Kōloa-Po'ipū-Kalāheo area as provided by the Kaua'i General Plan. As part of the Residential Community designated in the General Plan, the Village at Po'ipū community in conjunction with neighboring developments anticipated for the area will increase much needed housing supply in South Kaua'i in order to support the expected increase in population and to keep growth focused in and around existing towns and communities. As described in the General Plan, area traffic will increase as will the demand for public infrastructure and services. These impacts are more fully discussed in Section 7.2 of this EIS.

1.3.8 Rationale for Proceeding with the Village at Po'ipū Notwithstanding Unavoidable Effects

In light of the above mentioned unavoidable effects, the creation of the Village at Po'ipū should proceed because relatively minor negative impacts will be offset by substantial positive impacts, including: 1) the expansion and diversification of the Kōloa-Po'ipū area housing stock; 2) conformance with the County of Kaua'i General Plan; 3) creation of public amenities including parks, bike and pedestrian paths, and archaeological preserves; 4) clearing of invasive species and planting of native plants that may improve habitats of endangered species; and 5) the wages, taxes, and overall positive economic impacts of the Village at Po'ipū for the State and County.

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1.3.9 Unresolved Issues

The Knudsen Trust is currently working with the County of Kaua'i Housing Agency to meet its remaining affordable housing requirements for the Village at Po'ipū project. Please note that in satisfaction of the original 1977 State Land Use Boundary Amendment (Docket A76-418) which reclassified the lands *makai* of the railroad berm as well as lands to the west from the Agricultural District to the Urban District, a \$2,000,000 payment was made to the County of Kaua'i to fulfill its affordable housing obligation. This condition was confirmed as being satisfied by the LUC on October 16, 1995. Phase 1 and 2 of the Village at Po'ipū project are located in this area *makai* of the railroad berm and therefore do not have any affordable housing requirements to fulfill.

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2.0 PROJECT DESCRIPTION

This section provides background information and a general description of the proposed Village at Po'ipū community and discusses the estimated development timetable and preliminary development costs.

2.1 BACKGROUND INFORMATION

2.1.1 Location

The proposed Village at Po'ipū community is located in the Kōloa District of the southern part of Kaua'i and encompasses approximately 203 acres (Figure 3). Located *mauka* of Po'ipū Beach and Po'ipū Road, the project site is bordered on the west by Hapa Road and Kiahuna Plantation Drive and on the east by Weliweli Tract Subdivision, Weliweli Park, and Grove Farm and State of Hawai'i lands. The project site stretches north to Weliweli Road and south to Po'ipū Road.

2.1.2 Land Ownership

Eric A. Knudsen is the recorded fee owner of the parcels identified by the following Tax Map Key Numbers (see Figure 4):

Table 2: Project TMKs

TMK	Approximate Acreage
2-8-13: 01	11.539
2-8-14: 01	66.053
2-8-14: 02	1.45
2-8-14: 03	0.66
2-8-14: 04	0.32
2-8-14: 19	123.08
2-8-14: 37	0.196
TOTAL	203.298

The County of Kaua'i is the owner of Lot 19-B (Hapa Road), which will be improved as a bicycle/pedestrian path as part of the project. The County of Kaua'i required its improvement as a condition of approval for the zoning amendments granted by Ordinance PM-31-79 and further amended by Ordinances PM-200-90 and PM-201-90. There are no known TMKs for Hapa Road but it is identified as Lot 19-B by State Land Court Map 28 of Land Court Application 956.

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2.1.3 State Land Use District

Within the Village at Po'ipū project site, approximately 124.7 acres are within the Agricultural District and approximately 78.3 acres are within the Urban District (see Figure 5). The proposed residential uses are permitted within the Urban district. A State Land Use District Boundary Amendment (SLUDBA) is being sought to reclassify the areas within the Agricultural District and the petition has been filed with the LUC as Docket No. A05-761. An additional 2.7-acre portion of Hapa Road is also within the Agricultural District and will be included in the SLUDBA petition per the LUC request and with permission of the County of Kaua'i.

2.1.4 County of Kaua'i General Plan

The General Plan Kōloa-Po'ipū-Kalāheo Planning District Land Use Map designates the entire Village at Po'ipū site as "Residential Community" (see Figure 6). The land uses proposed in the Village at Po'ipū master plan are consistent with this designation and the General Plan's vision for this area of Po'ipū as a residential community.

2.1.5 County of Kaua'i Zoning

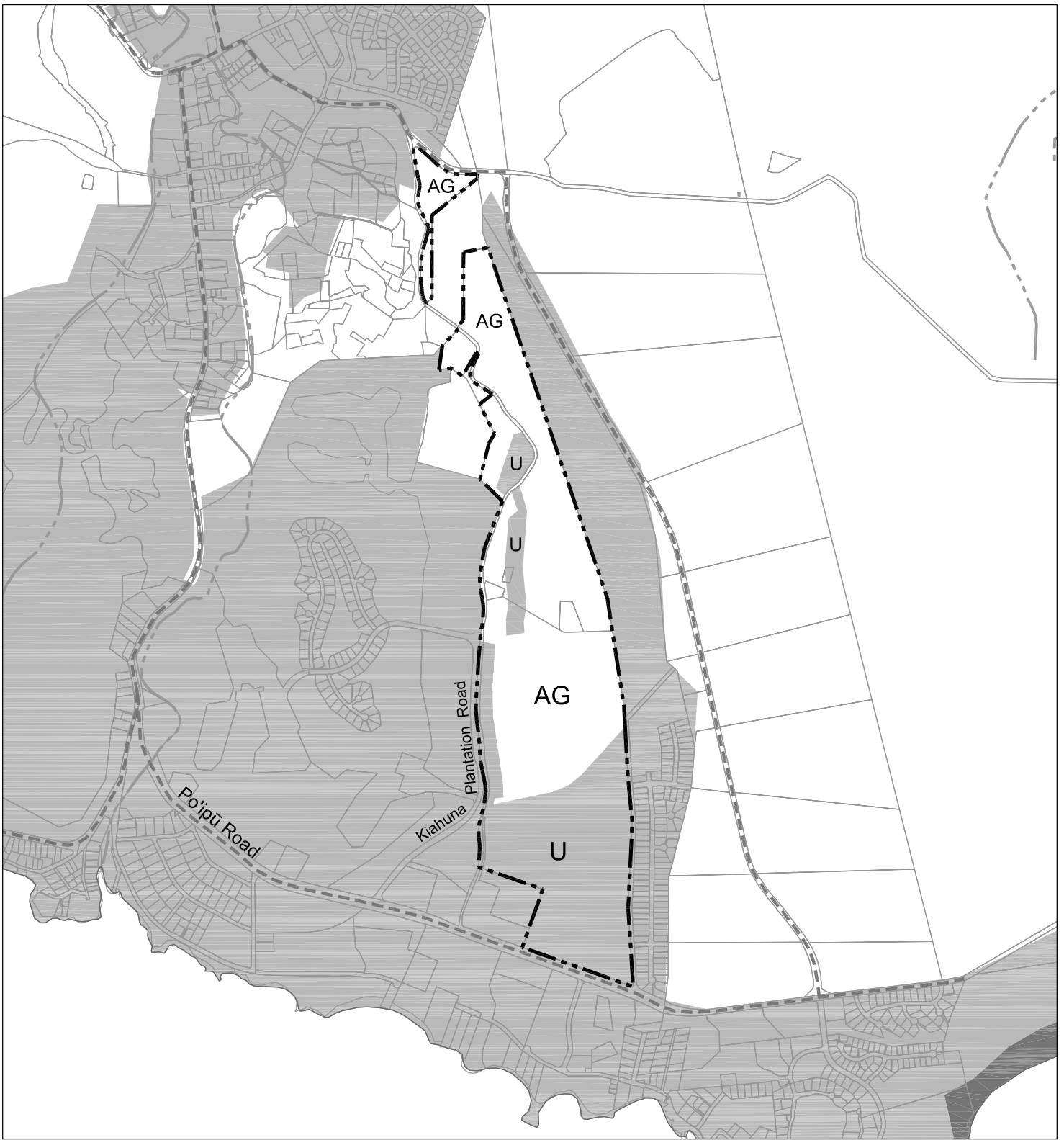
The existing Kaua'i County zoning for the Village at Po'ipū community includes a mix of Residential zoning R-4, R-6 and R-10 and the Open District (see Figure 7). The proposed residential development will conform to existing zoning.

2.1.6 Special Management Area

The Village at Po'ipū is not within the Special Management Area (SMA) (see Figure 8). As a result, it will not require a SMA Permit from the County.

2.1.7 Surrounding Uses

Surrounding land uses to the south include various resorts such as the Marriott Waiohai, Kiahuna Plantation, and the Sheraton Kaua'i as well as the Kiahuna Swim and Tennis Club, Po'ipū Spa and Fitness, and the Po'ipū Shopping Village. Also *makai* of the project site are Po'ipū Beach Park and Manokalanipo Park. To the east are the Weliweli subdivision, Weliweli Park, and undeveloped lands owned by Grove Farm and the State of Hawai'i. Kōloa Town and its residential areas are to the north and northwest. To the west, the project site is bordered by St. Raphael Roman Catholic Church, Kiahuna Golf Course and Golf Village, and the urban classified properties of Kiahuna Mauka Partners, which will be developed into a mix of single family and multi-family residential units. Over three-quarter miles to the west, west of Po'ipū Road, is Kukui'ula, a new luxury residential development.



LEGEND

Land Use Districts	Other Features
Agricultural	Project Site Boundary
Urban	TMK Boundary
	Major Streets
	Streams

Source:
 -State Land Use Commission (2000)
 -State of Hawaii GIS Database
 -LUC Boundary Interpretation (2005)

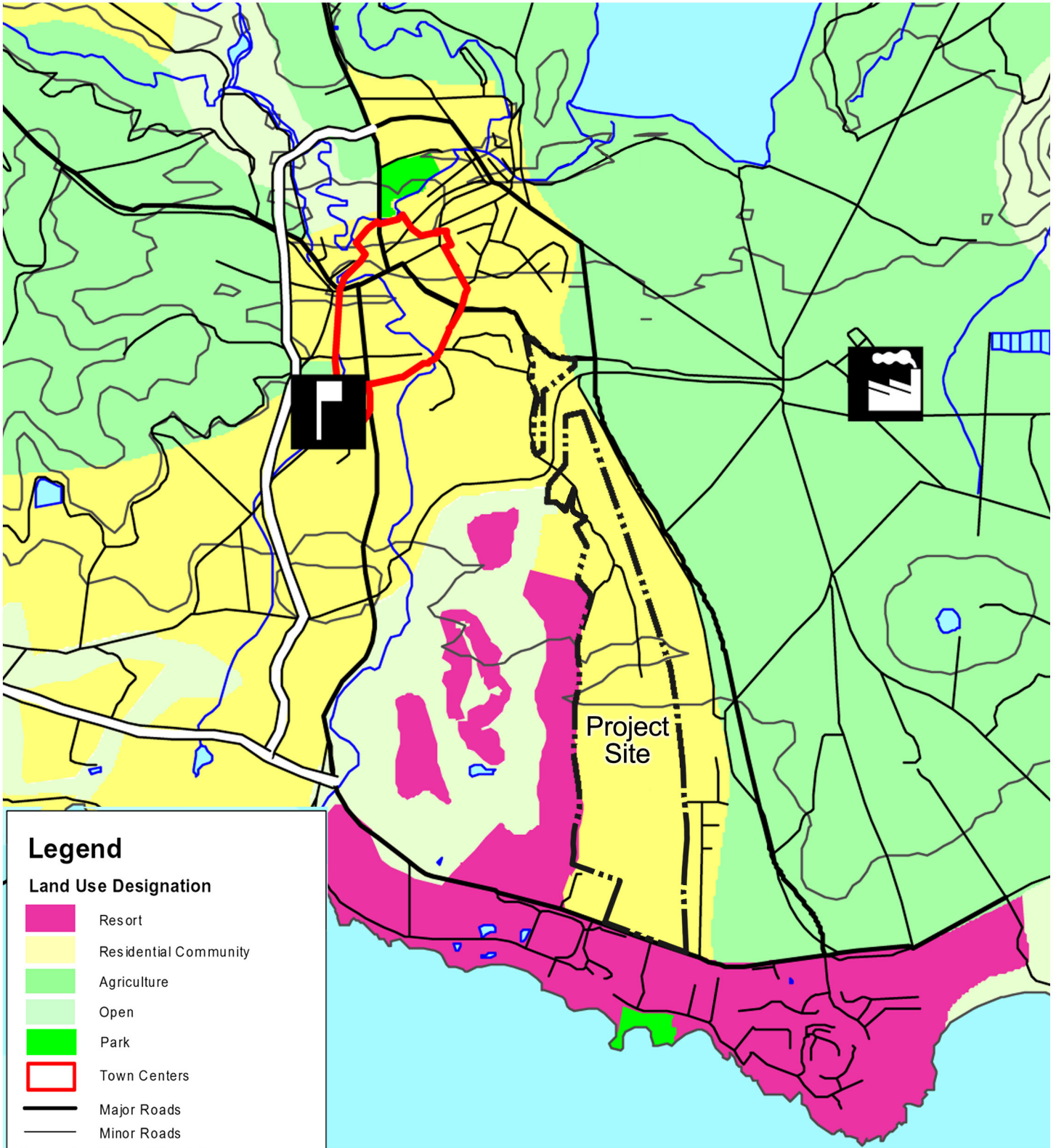
Disclaimer:
 This map has been prepared for general planning purposes only.

Figure 5
 State Land Use Districts

Village at Po'ipū

NORTH
 LINEAL SCALE (FEET)
 0 750 1500

Knuudsen Trust South Kana'i
 PBR HAWAII



Legend

Land Use Designation

- Resort
- Residential Community
- Agriculture
- Open
- Park
- Town Centers

Public Facilities

- E Elementary School
- M Sugar Mill

Roads

- Major Roads
- Minor Roads
- Planned Roads*

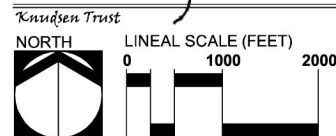
* actual alignment to be determined

Figure 6
 Kaua'i General Plan
 Kōloa - Po'ipū - Kalāheo Planning District
 Land Use Map

Village at Po'ipū

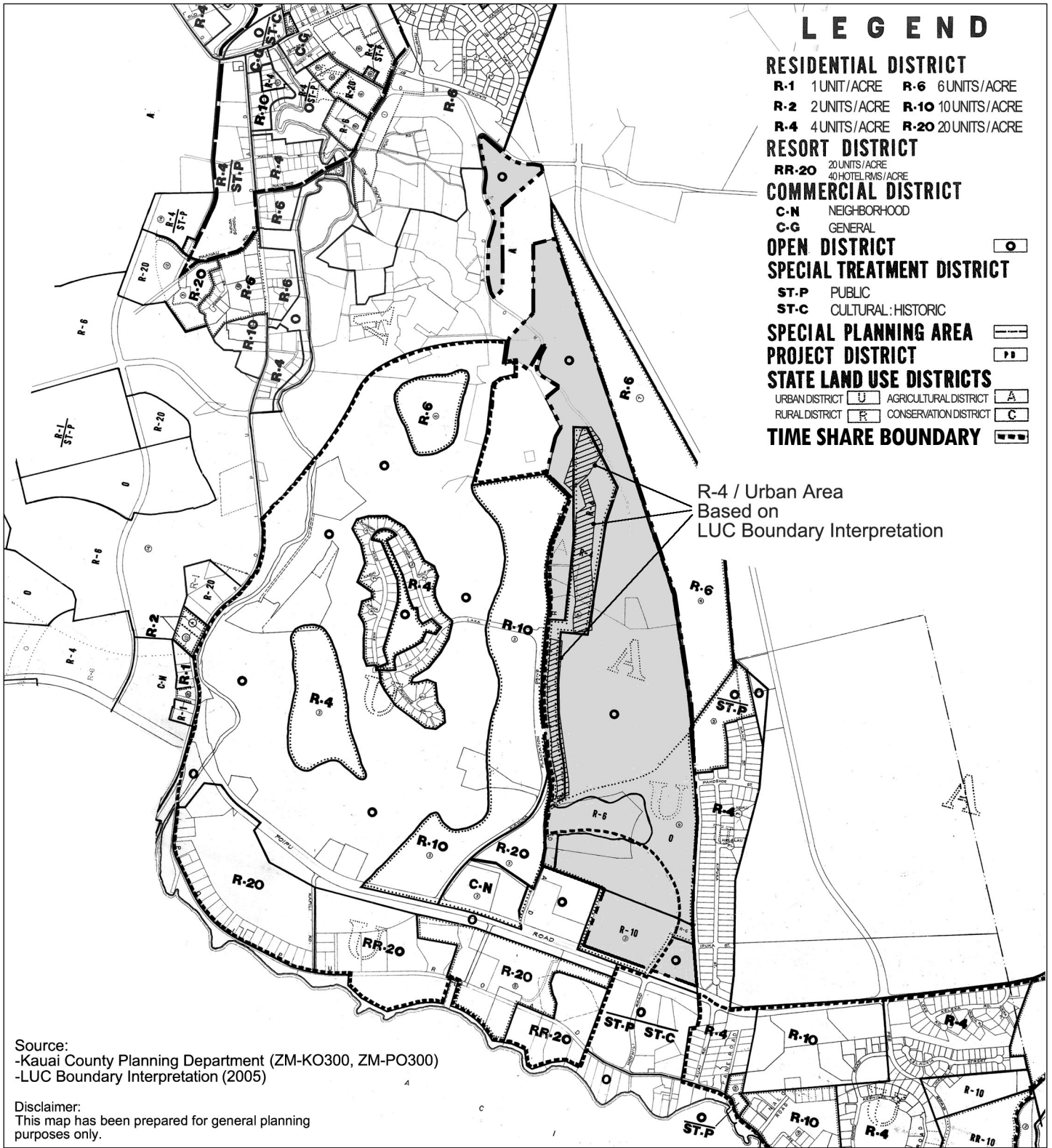
Source:
 Kaua'i General Plan, 2000
www.kauai.hawaii.gov/Portals/0/planning/flu-koloa.pdf

Disclaimer:
 This map has been prepared for general planning
 purposes only.



South Kaua'i





LEGEND


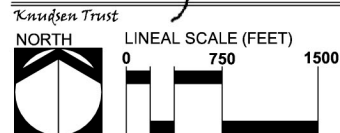
-  Village at Po'ipū Project Site
-  R-4 / Urban Area Based on LUC Boundary Interpretation (2005)






Figure 7
Kaua'i County Zoning

Village at Po'ipū





LEGEND

-  Special Management Area
-  Project Site Boundary
-  TMK Boundary
-  Major Streets
-  Streams

Source:
 -Kauai County Planning Department
 -State of Hawaii GIS Database (1998)

Disclaimer:
 This map has been prepared for general planning purposes only.

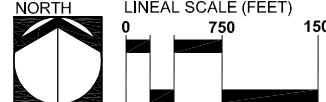

Figure 8
 Special Management Area (SMA)

Village at Po'ipū

Knudsen Trust *South KAUAI*

NORTH LINEAL SCALE (FEET)

0 750 1500

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2.1.8 Description of the Property

Portions of the project site are currently used for grazing cattle and horses, and the majority of it consists of pastureland scrub. Areas that are not grazed are covered by dense koa haole thickets. There are no wetlands on the site. Figure 9 contains oblique aerial photographs of the project site.

The site has a depth of approximately 4,000 lineal feet and varies in width from 1,700 feet along Po'ipū Road to 700 feet in the central/upper portion of the property. The topography of the site is generally flat with slope averaging 4-5 percent across the site. The terrain ranges from level to slightly undulating and rocky. Elevations run from 18 feet above mean sea level (msl) at the *makai* boundary along Po'ipū Road to approximately 200 feet above msl along its *mauka* border near the intersection of Hapa Road and Weliweli Road.

2.1.9 History of the Property

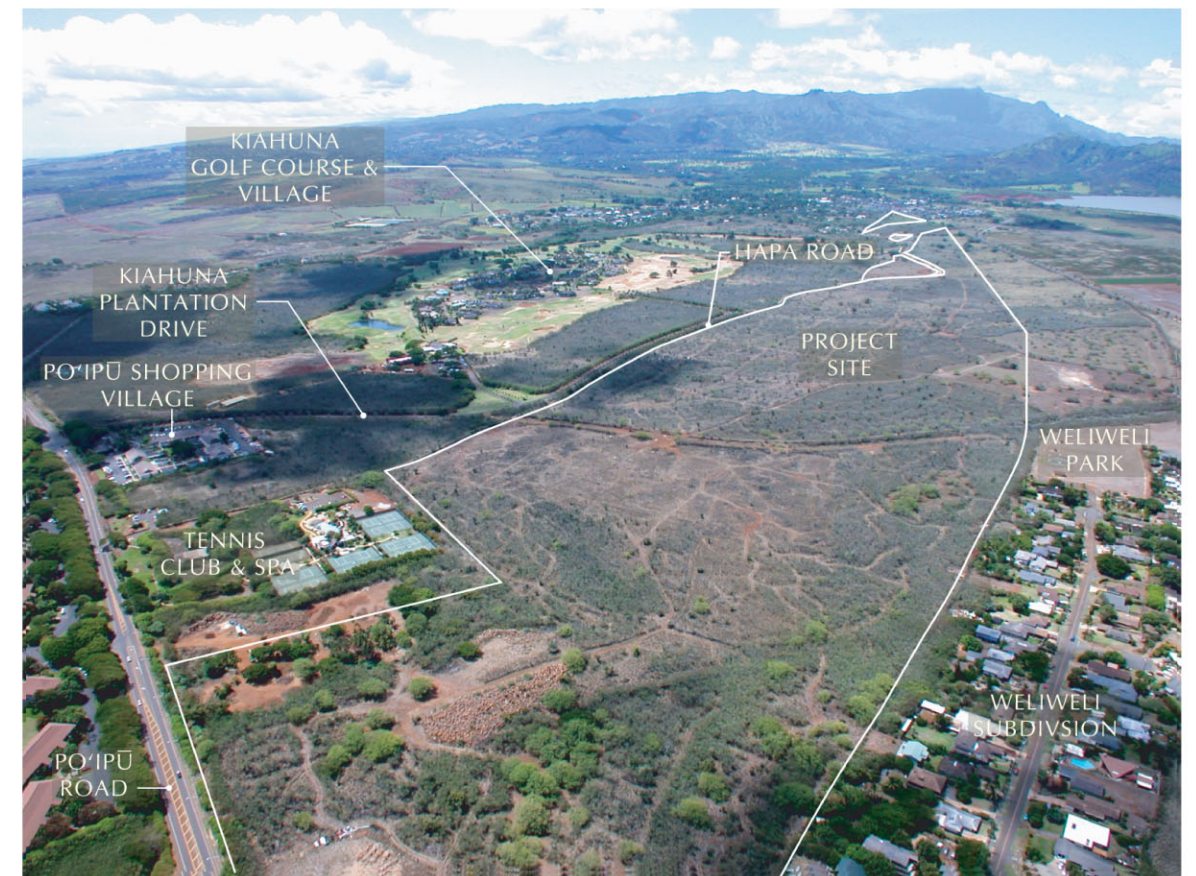
Historic documents suggest that the uses within and around the Village at Po'ipū project area included agricultural and grazing activities. As late as the mid- to late-nineteenth century, the area was used for habitation and taro cultivation as part of the extensive Kōloa Field System which stretched between Lāwa'i and Weliweli. By the first decades of the twentieth century, cane fields spanned the landscape of Kōloa. However, sugar company field maps from the early 1900s indicate only small incursions of sugarcane within the present project area due to the rockiness of the terrain.

By the mid-twentieth century, the project area was comprised of open pasture, with sugar cane extending into small portions. An aerial photograph taken on April 30, 2000 indicates that, at the end of the twentieth century, the project area continued to comprise open and brush-covered pastureland with now-discontinued sugar cane fields also present.

The Knudsen family has owned the project site since 1872, when the Sinclair family purchased a 6,500-acre property that included the project area. The Sinclair's youngest daughter, Anne, inherited the area as part of her dowry to Valdemar Knudsen. She later gave most of the lands including all of Village at Po'ipū site to her two sons, Eric A. and August Knudsen, in the early 1920s to hold in trust. Most of the project site has been used for cattle grazing or left as open scrub land.



A. View looking north from makai areas (approximate location of parcel boundaries).



B. View looking northwest, makai portion of property (approximate location of parcel boundaries).



C. View looking northwest, mauka parcels (approximate location of parcel boundaries).

Figure 9
Aerial Site Photographs
Village at Po'ipū

Knausen Trust

South Kona, HI



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2.2 STATEMENT OF PURPOSE AND NEED FOR THE PROJECT

The County of Kaua'i's 2000 General Plan describes the Po'ipū area as part of one of Kaua'i's largest resort and residential areas. The Village at Po'ipū site is designated as "Residential Community" on the General Plan's Land Use Map for the Kōloa-Po'ipū-Kalāheo Planning District and is envisioned to fill a large portion of Kaua'i's south shore residential growth requirements.

In addition, the market study prepared for the Village at Po'ipū by The Hallstrom Group reports that the Po'ipū/Kōloa housing market is in a moderately to strongly undersupplied condition. Development in the area has been limited since the 1980s, despite very low vacancy rates, high market demand, and rapidly appreciating prices over the last several years. Due to the extremely limited inventory available in the region, the number of sales has remained relatively static, resulting in rapidly escalating per unit prices.

The market study estimates that over 4,000 dwelling units will be required by the year 2025 (The Hallstrom Group 2005). Even if all known major projects with residential units planned for development during this period are built (which is unlikely), housing supply will fall short of projected demand by at least 1,000 housing units during the next two decades (The Hallstrom Group 2005). The proposed Village at Po'ipū master-planned community will provide a variety of housing options and opportunities, thereby increasing housing supply on the island and filling a portion of this projected need.

The Village at Po'ipū property is well-suited for the proposed development because of its physical traits (size, shape, topography), direct access to main arterials, proximity to the central Po'ipū vacation community and expanding regional resident population, access to nearby existing utility systems, existing land use entitlements for much of the property, and proximity to primary retail, restaurant, and services, as well as regional recreational amenities.

Complete market absorption of the single-family lots/homes will require an estimated six to seven years from the commencement of presale offerings. The multi-family units are estimated to require approximately seven years to achieve complete sell-out.

2.3 GENERAL DESCRIPTION OF THE VILLAGE AT PO'IPŪ

2.3.1 Objectives

The objectives of the Village at Po'ipū are to:

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- Create a high-quality residential community in an appropriate location in South Kaua'i to provide much-needed housing;
- Preserve and protect cultural and historic archaeological resources for present and future generations of Hawai'i residents and visitors;
- Expand regional recreational opportunities by creating pedestrian and bicycle greenway networks, parks, open spaces, and archaeological preserves; and
- Provide for the logical and long-planned in-fill of urban expansion in the Po'ipū area.

2.3.2 The Village at Po'ipū Description

The Village at Po'ipū is envisioned as a community that will include a mix of residential densities, as well as public amenities such as archaeological preserves, parks, and bicycle and pedestrian paths. Although final subdivision layouts have not been determined, an estimated 134 multi-family, 216 single-family, and up to 153 additional dwelling units will be included in the community. Development densities will vary to provide a diverse product inventory, with higher densities located closer to the commercial areas of Po'ipū and lower densities stretching mauka to blend with existing neighborhoods.

The residential neighborhoods will be interlaced with landscaped streets and greenway networks, including the development of Hapa Road as a bicycle/pedestrian path. These improvements will allow residents and visitors to walk or bike between *mauka* and *makai* areas such as Po'ipū Beach and Kōloa Town, and to other nearby amenities such as the Po'ipū Shopping Village, Po'ipū Spa and Fitness, and the Kiahuna Tennis and Swim Club.

A new internal roadway connecting Po'ipū Road with Hapa Road near the Roman Catholic Church will provide an additional *mauka-makai* connection for the area. This road will have secondary connections into abutting existing and future projects to further improve circulation and connectivity in the area by dispersing traffic.

2.3.3 Land Use Summary

The proposed project consists of single-family residential, multi-family residential, parks, and archaeological preserves. Bicycle and pedestrian paths will also be built to connect *mauka* and *makai* areas, including a route along Hapa Road per condition of the County of Kaua'i. Although final subdivision layouts have not been determined, the following table shows an estimated breakdown of proposed uses and an estimated number of developable units.

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Table 3: Proposed Land Uses

	Estimated Acreages	Estimated Units
SF Residential	153.2	216-369*
MF Residential	9.4	134
Archaeological Preserves**	16.5	--
Parks	12.0	--
Collector Roads	12.2	--
TOTAL	±203.3	350-503
Notes:		
*Includes Additional Dwelling Units (ADUs).		
**In addition to the 16.5 acres of larger, contiguous archaeological preserves, another 7.3 acres will be preserved within the residential areas for the smaller, isolated archaeological sites.		

2.4 DEVELOPMENT TIMETABLE AND PRELIMINARY COSTS

According to the market study, the Village at Po'ipū is estimated to be absorbed within six to seven years of presale offerings (The Hallstrom Group 2005). Therefore, the development timetable for the Village at Po'ipū is estimated to be ten years including the entitlement process.

Portions of the Village at Po'ipū project site located *makai* of the railroad berm are fully entitled and could be developed at any time. Construction of the first fifty lots is expected to start in 2006. In order to develop the areas *mauka* of the railroad berm per the conceptual master plan, a State Land Use Boundary Amendment will be required. This process is expected to take two years from commencement. Once land use entitlements are obtained, the remaining development will occur subject to market conditions.

Order-of-Magnitude Infrastructure Cost Estimates

Kodani & Associates prepared preliminary order-of-magnitude cost estimates for the Village at Po'ipū. It includes infrastructure improvements such as grading, roadway construction, drainage, water, wastewater, and electrical. The costs are summarized below as offsite and onsite improvements.

Offsite

The estimated cost for offsite wastewater improvements for the Village at Po'ipū project is roughly \$2.0 million (2005 dollars). Offsite water system improvements are estimated to be between \$2.5 and \$3.0 million (2005 dollars).

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Onsite

Onsite infrastructure and civil costs for the Village at Po'ipū project were estimated for the project in early 2005. The total order-of-magnitude cost estimate is \$34.4 million. These costs are summarized in Table 4.

Table 4: Onsite Infrastructure Order-of-Magnitude Cost Estimates

ONSITE WORK	COST ESTIMATE
Grading	\$12,069,200
Roadways	\$3,998,405
Water	\$2,041,875
Wastewater	\$4,360,800
Drainage	\$5,128,410
Electrical	\$3,331,720
Engineering Design (~1.1%) & Contingency (10%)	\$3,426,213
TOTAL	\$34,356,623

These estimates are subject to change based on final designs and the ultimate phasing or timing of development.

2.5 SUSTAINABLE BUILDING DESIGN

The Office of Environmental Quality Control (OEQC) issued "Guidelines for Sustainable Building Design in Hawai'i: A Planner's Checklist" (OEQC 1999) has requested that consideration be made in applying sustainable building techniques to projects. The OEQC Guidelines state, "[a] sustainable building is built to minimize energy use, expense, waste and impact on the environment. It seeks to improve the region's sustainability by meeting the needs of Hawai'i's residents and visitors today without compromising the needs of future generations."

Techniques from "Guidelines for Sustainable Building Design in Hawai'i: A Planner's Checklist" considered in the Village at Po'ipū community design include:

Site Selection and Site Design:

1. Select a site with short connections to existing municipal infrastructure (sewer lines, water, waste water treatment plant, roads, gas, electricity, telephone, data communication lines and services). Select a site close to mass transportation, bicycle routes and pedestrian access.

Discussion: A site was selected that is surrounded by existing development, and is located within close proximity to existing utilities and municipal infrastructure. The

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project is located near existing parks, retail, and other community amenities and will connect to them through a network of pedestrian and bicycle greenways.

Site Preparation and Design:

1. Prepare a thorough existing conditions topographic site plan depicting topography, natural and built features, vegetation, location of site utilities and include solar information, rainfall data and direction of prevailing winds. Preserve existing resources and natural features to enhance the design and add aesthetic, economic and practical value. Design to minimize the environmental impact of the development on vegetation and topography.

Discussion: The existing resources and natural features of the Village at Po'ipū site and the surrounding areas are discussed and shown in various sections and figures contained in this document. Aerial photographs are also provided in Figure 9. All of the archaeological sites recommended for preservation as well as those recommended for possible preservation to date by the State of Hawai'i Department of Land and Natural Resources, Historic Preservation Division (SHPD) have been protected in the master plan (see Figure 16). The sites will be preserved with fifty-foot buffers surrounding them, landscaped with native plants, and integrated into the master plan. They will remain accessible to the public via the proposed street and pedestrian pathway networks. None of the existing vegetation is endangered and much of it consists of invasive alien species. Other site features are detailed in Section 3.0.

2. Locate building(s) to encourage bicycle and pedestrian access and pedestrian oriented uses. Provide bicycle and pedestrian paths, bicycle racks, etc. Racks should be visible and accessible to promote and encourage bicycle commuting.

Discussion: The conceptual master plan for the project includes a network of bicycle and pedestrian paths. Based on Design Guidelines prepared for the project, buildings will be located close to the street to provide a comfortable environment for pedestrians and bicyclists. An extensive network of pedestrian/bicycle paths will weave throughout the project site, linking the different neighborhoods and archaeological preserves to one another.

The streets within the Village at Po'ipū will be designed to encourage pedestrian use. Street design includes: narrow lanes designed for slow travel speeds; slight bends in the roads to allow for natural traffic calming (long, straight segments of neighborhood through-streets are avoided); and sidewalks and street trees to provide a comfortable pedestrian environment.

Building Design:

1. For natural cooling, use: reflective or light colored roofing, radiant barrier and/or insulation, roof vents; light colored paving (concrete) and building

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surfaces; tree planting to shade buildings and paved areas; and building orientation and design that captures trade winds and/or provides for convective cooling of interior spaces when there is no wind.

Discussion: Natural cooling elements such as street trees, covered porches and verandas will be included within the Village at Po'ipū community. These elements are required by the Design Guidelines developed for the Village at Po'ipū.

Energy Use:

1. Use renewable energy. Use solar water heaters and consider the use of photovoltaics and Building Integrated Photovoltaics (BIPV).

Discussion: The use of renewable energy devices will be encouraged through the use of solar design features.

Landscape and Irrigation:

1. Incorporate water efficient landscaping (xeriscaping) using the following principles:
 - a. Soil analysis/improvement: Use (locally made) soil amendments and compost for plan nourishment, improved water absorption and holding capacity.
 - b. Appropriate plant selection: Use drought tolerant and/or slow growing hardy grasses, native and indigenous plants, shrubs, ground covers, trees, appropriate for local conditions, to minimize the need for irrigation.
 - c. Mulches: Use mulches to minimize evaporation, reduce weed growth and retard erosion.

Discussion: Where feasible, landscaping will include the use of locally made soil amendments and compost; use of drought tolerant and/or slow growing vegetation; and the use of mulches. The Landscape Design Guidelines that were developed for the Village at Po'ipū specify the use of native and indigenous plants.

2. Irrigate with non-potable water or reclaimed water when feasible. Collect rainwater from the roof for irrigation.

Discussion: The project will use non-potable water for irrigating common areas and the multi-family neighborhood and will provide connections to the non-potable system for any single-family lot larger than 20,000 SF for their irrigation needs.

3. Use pervious paving instead of concrete or asphalt paving. Use natural and man-made berms, hills and swales to control water runoff.

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Discussion: Road sections through non-urbanized areas (not fronted by development) will use landscaped or grassed swales for drainage. Drainage designs that encourage biofiltration, or the slowing and filtering of settlement of runoff waters will be implemented wherever possible.

Further efforts to minimize energy consumption may include incorporating select items from the County of Kaua'i's Building Energy Code and the *Field Guide for Energy Performance, Comfort, and Value in Hawaii Homes* (DBEDT) into the Village at Po'ipū design guidelines.

3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

This section describes the existing conditions of the physical or natural environment, potential impacts of the Village at Po'ipū on the environment, and mitigative measures to minimize any impact.

3.1 CLIMATE

Existing Conditions

The semi-arid climate of Po'ipū and Kōloa is typically dry and sunny. The climate of the Po'ipū area is very much affected by the topography of the island and its coastal situation. Winds are predominantly trade winds from the east or northeast. Wind speeds average about 11 to 12 miles per hour providing relatively good ventilation much of the time. Occasional storms may generate strong winds from the south (Kona winds) for brief periods. Landbreeze-seabreeze circulations may develop when trade winds are weak. Temperatures in the area are generally very moderate with average daily temperatures ranging from about 68°F to 81°F. Average annual rainfall in the Po'ipū area amounts to about 40 to 45 inches with summer months being the driest.

Potential Impacts and Mitigative Measures

The Village at Po'ipū is not expected to have an impact on climatic conditions and no mitigative measures are planned. Street trees and landscaping in common areas will be planted to provide shade and comfort for pedestrians and bicyclists.

3.2 GEOLOGY AND TOPOGRAPHY

Existing Conditions

The Village at Po'ipū site has a depth of approximately 4,000 lineal feet and varies in width from 1,700 feet along Po'ipū Road to 700 feet in the central/upper portion of the property. The slope over the length of the site averages 4 to 5 percent, with the terrain being level to undulating and rocky in areas. Elevations run from 18 feet above mean sea level (msl) at the *makai* boundary along Po'ipū Road to approximately 200 feet above msl along its *mauka* border near the intersection of Hapa Road and Weliweli Road.

DRAFT ENVIRONMENTAL IMPACT STATEMENT VILLAGE AT PO'IPŪ

The Village at Po'ipū site is located on the Kōloa Plain, which formed over lava flows from the post-erosional Kōloa volcanic series. Kaua'i consists of a single great shield volcano, which is eroded and partly veneered with much later volcanics. The rocks of the Kaua'i shield volcano are named the Waimea Canyon Volcanic Series; the portion that built the main mass of the shield outside the caldera is called the Nāpali formation. Presumably the Kōloa eruptions were fed by dikes, but very few have been found, probably because erosion has not yet cut deeply enough to expose them (MacDonald, Abbott, & Peterson 1983).

Potential Impacts and Mitigative Measures

The Village at Po'ipū project is a residential development that will employ standard construction methods including minor grading. Pier and post construction is recommended in the Design Guidelines for single-family residential development to reduce the amount of grading required and minimize the impervious footprint of houses. Because the proposed improvements are relatively insignificant compared to the overall geologic character of the site and region, it is not expected to have an effect on geologic conditions and no extensive mitigative measures are planned.

Appropriate engineering, design, and construction measures will be undertaken to minimize potential erosion due to grading of soils during construction. Further information on soils and grading is provided in Section 3.3. Information on drainage conditions and improvements is provided in Section 4.8.3.

3.3 SOILS

Existing Conditions

There are three soil suitability studies prepared for lands in Hawai'i whose principal focus has been to describe the physical attributes of land and the relative productivity of different land types for agricultural production. These are: 1) the U.S. Department of Agriculture Soil Conservation Services Soil Survey (SCS); 2) the University of Hawai'i Land Study Bureau (LSB) Detailed Land Classification; and 3) the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH).

3.3.1 Soil Conservation Survey

The SCS Soil Survey shows that the majority of the project site contains Waikomo Series soils, specifically the Waikomo very rocky silty clay soils (Wt) and Waikomo extremely rocky silty clay soils (Wu) (see Figure 10). These soils are well drained, gently sloping, stony and rocky. Permeability is moderate and runoff is slow. Bedrock is typically at a

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VILLAGE AT PO'IPŪ

depth of less than 20 inches. Waikomo soils have low shrink-swell potential and have low corrosivity to uncoated steel and concrete.

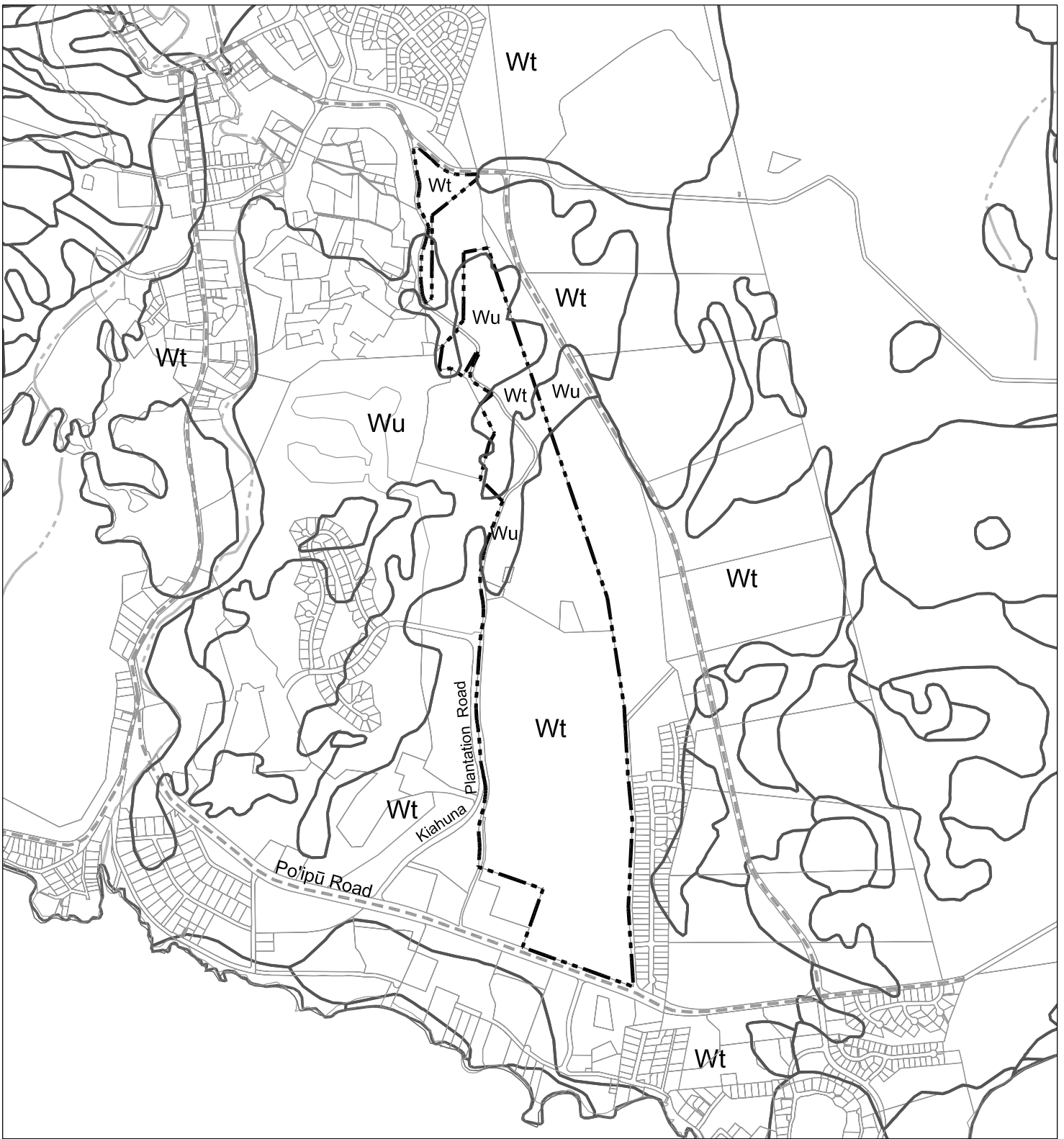
The SCS Survey also includes a Land Capability Grouping, which rates soil types according to eight levels of productivity for commercial cultivation, ranging from the highest classification level, I, to the lowest level, VIII. Class I soils have few limitations that restrict their use. Class VIII soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to esthetic purposes. The two soil types within the project site are of Class VI and VII. Class VI soils have severe limitations that make them generally unsuitable for cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat. Class VII soils also have very severe limitations that make them unsuitable for cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat. The following is a brief description of the project site's two soil types.

Waikomo very rocky silty clay (Wt). This soil is similar to other Waikomo soils, except that rock outcrops cover 3 to 25 percent of the surface. This soil is used for pasture, wildlife habitat, and homesites. Some small areas are irrigated. The capability classification is VIs, irrigated or nonirrigated. Subclass VIs has very severe limitations because of stoniness or unfavorable texture. The soils are very stony, very rocky, extremely stony, or extremely rocky, and have slopes of 0 to 35 percent.






Waikomo extremely rocky silty clay (Wu). This soil is similar to other Waikomo soils except that rock outcrops cover 25 to 50 percent of the surface. This soil is used for pasture, wildlife habitat, and homesites. The capability classification is VIIs, nonirrigated. Subclass VIIs soils have very severe soil limitations because of unfavorable texture, or because they are extremely rocky or stony. Also included are land types that are steep, rocky, or stony.

3.3.2 Land Study Bureau Detailed Land Classification

The University of Hawai'i Land Study Bureau document titled "Detailed Land Classification, Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lāna'i" classifies non-urban land based on a five-class productivity rating system using the letters A, B, C, D, and E, where A represents the highest class of productivity and E the lowest. The LSB ratings for the Village at Po'ipū project site are either E, the lowest productivity rating, or are not classified (see Figure 11).



LEGEND

- | | |
|--|---|
|  Soil Boundary |  Project Site Boundary |
| Wt: Waikomo very rocky silty clay |  TMK Boundary |
| Wu: Waikomo extremely rocky silty clay |  Major Streets |
| |  Streams |

Source:
-USDA Soil Conservation Service (1972)

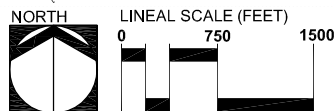
Disclaimer:
This map has been prepared for general planning purposes only.

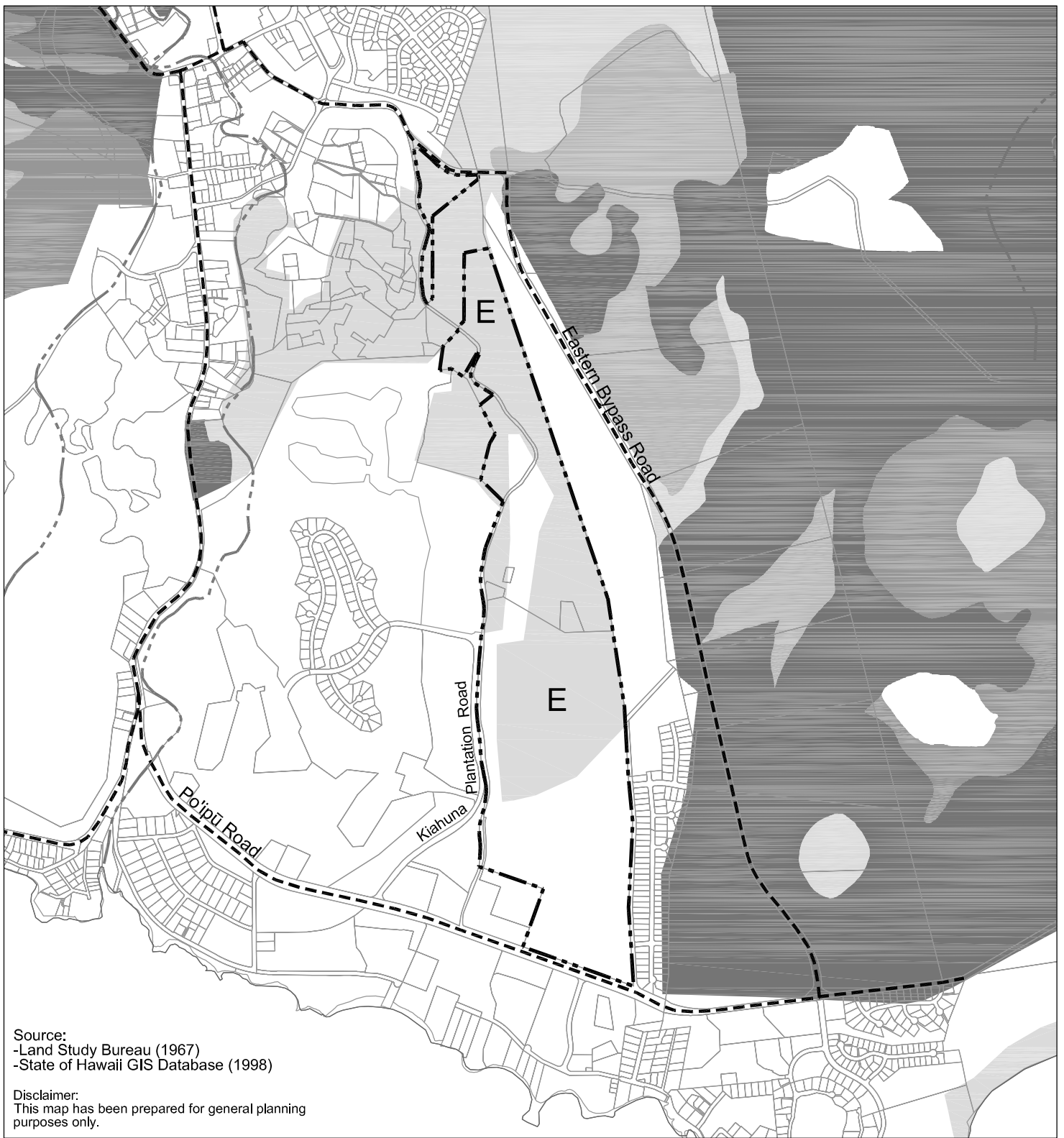
Figure 10
Soil Conservation Service - Soil Survey Map

Village at Po'ipū

Kaunohiwi Trust

South Kāua'i





LEGEND

Agricultural Land Productivity Ratings	Other Features
B	Project Site Boundary
C	TMK Boundary
D	Major Streets
E	Streams
Not classified	

* A (highest) to E (lowest)

Figure 11
 Land Study Bureau (LSB)
 Agricultural Classifications

Village at Po'ipū

Knudsen Trust South Kana'i

NORTH

LINEAL SCALE (FEET)
 0 750 1500

PBR
HAWAII

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VILLAGE AT PO'IPŪ**

3.3.3 Agricultural Lands of Importance to the State of Hawai'i

The State of Hawai'i Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH) system rates agricultural land as Prime, Unique or Other Lands. The rest of the lands are not classified.

Prime Agricultural Land is land best suited for the production of food, feed, forage, and fiber crops. The land has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to modern farming methods.

Unique Agricultural Land is land other than Prime Agricultural Land that can be used for specific high-value food crops. The land has a special combination of soil quality, growing season, temperature, humidity, sunlight, air drainage, elevation, aspect, moisture supply, or other conditions that favor the production of a specific crop of high quality and/or high yield when the land is treated and managed according to modern farming methods. In Hawai'i, some examples of such crops are coffee, taro, rice, watercress and non-irrigated pineapple.

Other Agricultural Land is land other than Prime or Unique Agricultural Land that is also of statewide or local importance for the production of food, feed, fiber, and forage crops. The lands in this classification are important to agriculture in Hawai'i yet they exhibit properties, such as seasonal wetness, erosion, limited rooting zone, slope, flooding, or drought, that exclude them from the Prime or Unique Agricultural classifications. These lands can be farmed satisfactorily by applying greater inputs of fertilizer and other soil amendments, drainage improvement, erosion control practices, flood protection and produce fair to good crop yields when managed properly.

The project site is not classified under the ALISH system and is therefore not considered important for agriculture (see Figure 12).

Potential Impacts

Impacts to the soils of the site include the potential for soil erosion and the generation of dust during construction. Land disturbing activities include removal of existing vegetation (clearing and grubbing) and grading and will expose soils to erosion forces. Some wind erosion of soils could occur without a proper watering and re-grassing program. Heavy rainfall could also cause erosion of soils within disturbed areas of land.



LEGEND

ALISH Types	Other Features
Prime ALISH Lands	Project Site Boundary
Other ALISH Lands	TMK Boundary
Not classified	Major Streets
	Streams

Source:
 -State Department of Agriculture (1977)
 -State of Hawaii GIS Database (2002)

Disclaimer:
 This map has been prepared for general planning purposes only.

Figure 12
 Agricultural Lands of Importance
 to the State of Hawai'i (ALISH)

Village at Po'ipū

Knudsen Trust South Kana'i

NORTH LINEAL SCALE (FEET)

0 750 1500

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VILLAGE AT PO'IPŪ

Mitigative Measures

The Village at Po'ipū will be constructed in phases, minimizing the amount of areas exposed to earthwork during any one time. The plan also includes considerable open space, thus limiting the need to grade all areas. To the extent possible, improvements will conform to the contours of the land, further limiting the need for extensive grading of the site.

Site grading will be segmented and exposed areas will be immediately grassed or landscaped before commencement of grading in the next phase. Measures to control erosion during the site development period could include:

- Minimizing the duration of construction periods;
- Retaining existing ground cover as long as possible;
- Constructing drainage control features early;
- Using temporary area sprinklers in non-active construction areas when ground cover is removed;
- Providing a water truck on site during the construction period to provide for immediate sprinkling as needed;
- Using temporary berms and cut-off ditches, where needed, for control of erosion;
- Watering graded areas when construction activity for each day has ceased;
- Grassing or planting all cut-and-fill slopes immediately after grading work has been completed; and
- Installing dust and silt screens.

All construction activities will comply with all applicable Federal, State, and County regulations and rules for erosion control. Before issuance of a grading permit by Kaua'i County, an erosion control plan and Best Management Practices (BMPs) required for the National Pollutant Discharge Elimination Control (NPDES) permit will be prepared describing the implementation of appropriate erosion control measures.

All construction activities will also comply with the provisions of Chapter 11-60.1, Hawai'i Administrative Rules, Section 11-60.1-33 on Fugitive Dust. Measures to control dust from road areas during various phases of construction include:

- Planning phases of construction to minimize the amount of dust-generating materials and activities, centralize on-site vehicular traffic routes, and locate potential dust-generating equipment in areas of the least impact;
- Providing an adequate water source at the site prior to start-up construction activities;
- Landscaping and rapidly covering bare areas, including slopes, starting from the initial grading phase;
- Minimizing dust from shoulder and access roads;
- Providing adequate dust control measures during weekends, after hours, and before daily start-up construction activities; and

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ**

- Controlling dust from debris being hauled away from the project site.

After construction, establishment of permanent landscaping will provide long-term erosion control.

Because the soils at the project site are not well suited for agricultural cultivation or production, nor are they considered to be lands of agricultural importance to the State, the proposed development is not expected to impact the availability of any significant agricultural lands.

3.4 NATURAL HAZARDS

Existing Conditions

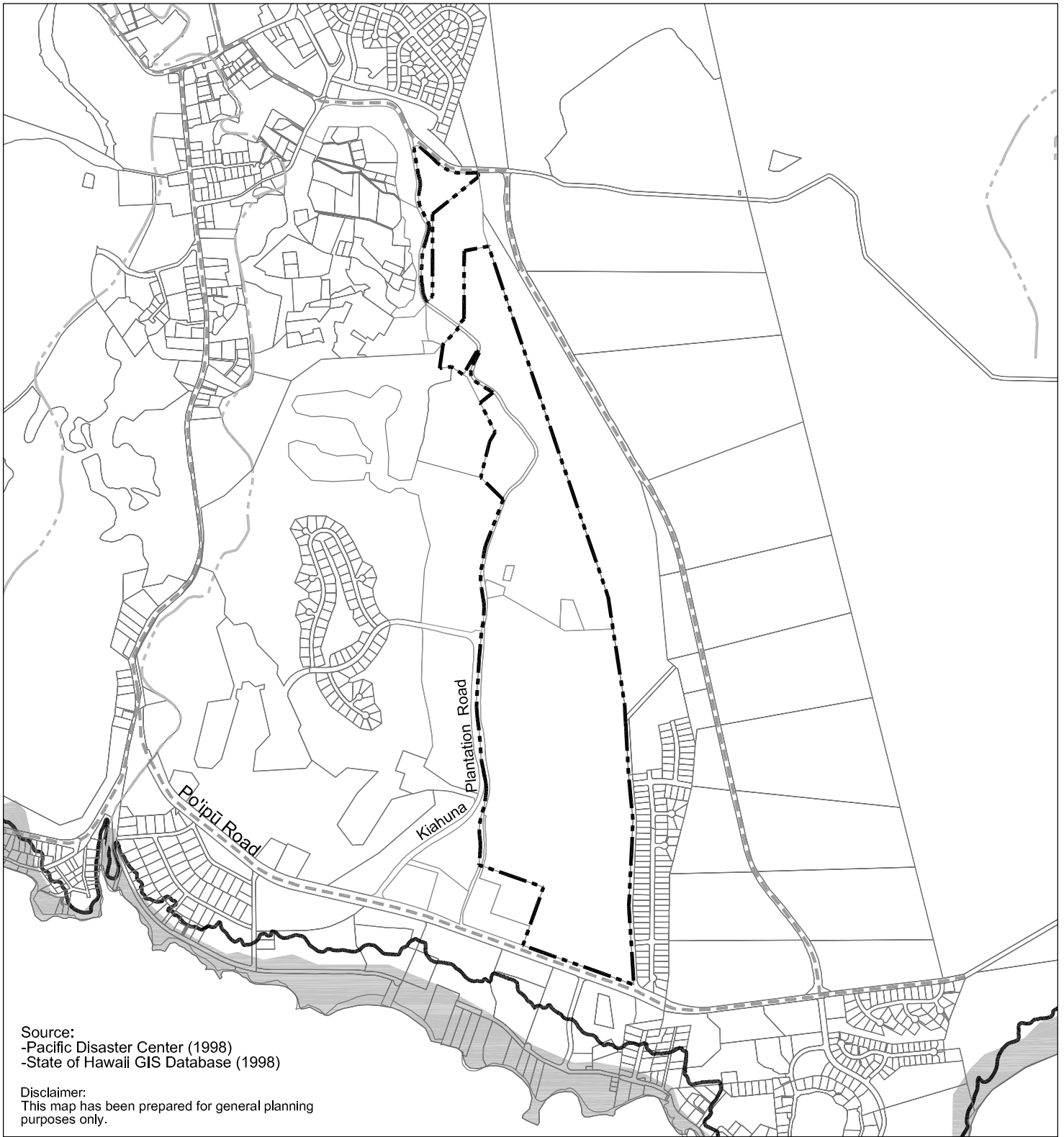
Natural hazards impacting the Hawaiian Islands include hurricanes, volcanic eruptions, earthquakes, tsunamis, and floods.

Volcanic hazards in the area of the Village at Po'ipū are considered minimal due to the dormant status of the Wai'ale'ale volcano comprising all of Kaua'i. The island of Kaua'i has a Zone 1 Seismic Probability Rating and volcanic eruption is unlikely. (In comparison, Hawai'i Island is in Zone 3.)

In Hawai'i, most earthquakes are linked to volcanic activity, unlike other areas where a shift in tectonic plates is the cause of an earthquake. Each year, thousands of earthquakes occur in Hawai'i; the vast majority of them so small they are detectable only with highly sensitive instruments.

The State of Hawai'i and especially Kaua'i has been affected by devastating hurricanes, 'Iwa in 1982 and 'Iniki in 1992. While it is difficult to predict these natural occurrences, it is reasonable to assume that future events could be likely given the recent record. The project area, as the rest of the island or state, is no more or less vulnerable to the destructive winds and torrential rains associated with hurricanes. For reference, Figure 13 shows the overwash boundary from Hurricane 'Iniki in 1992 and the project site is well *mauka* of this boundary.

Tsunamis are large, rapidly moving ocean waves triggered by a major disturbance of the ocean floor, which is usually caused by an earthquake but sometimes can be produced by a submarine landslide or volcanic eruption. About 50 tsunamis have been reported in the Hawaiian Islands since the early 1800s. Seven caused major damage, and two of these were locally generated. The tsunami evacuation zone is located *makai* of the Village at Po'ipū project site (see Figure 13).



LEGEND







-  Tsunami Evacuation Zone
-  Overwash Boundary
-  Project Site Boundary
-  TMK Boundary
-  Major Streets
-  Streams

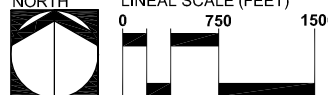

Figure 13
 Tsunami Evacuation Zone and
 Overwash from Hurricane Iniki 1992

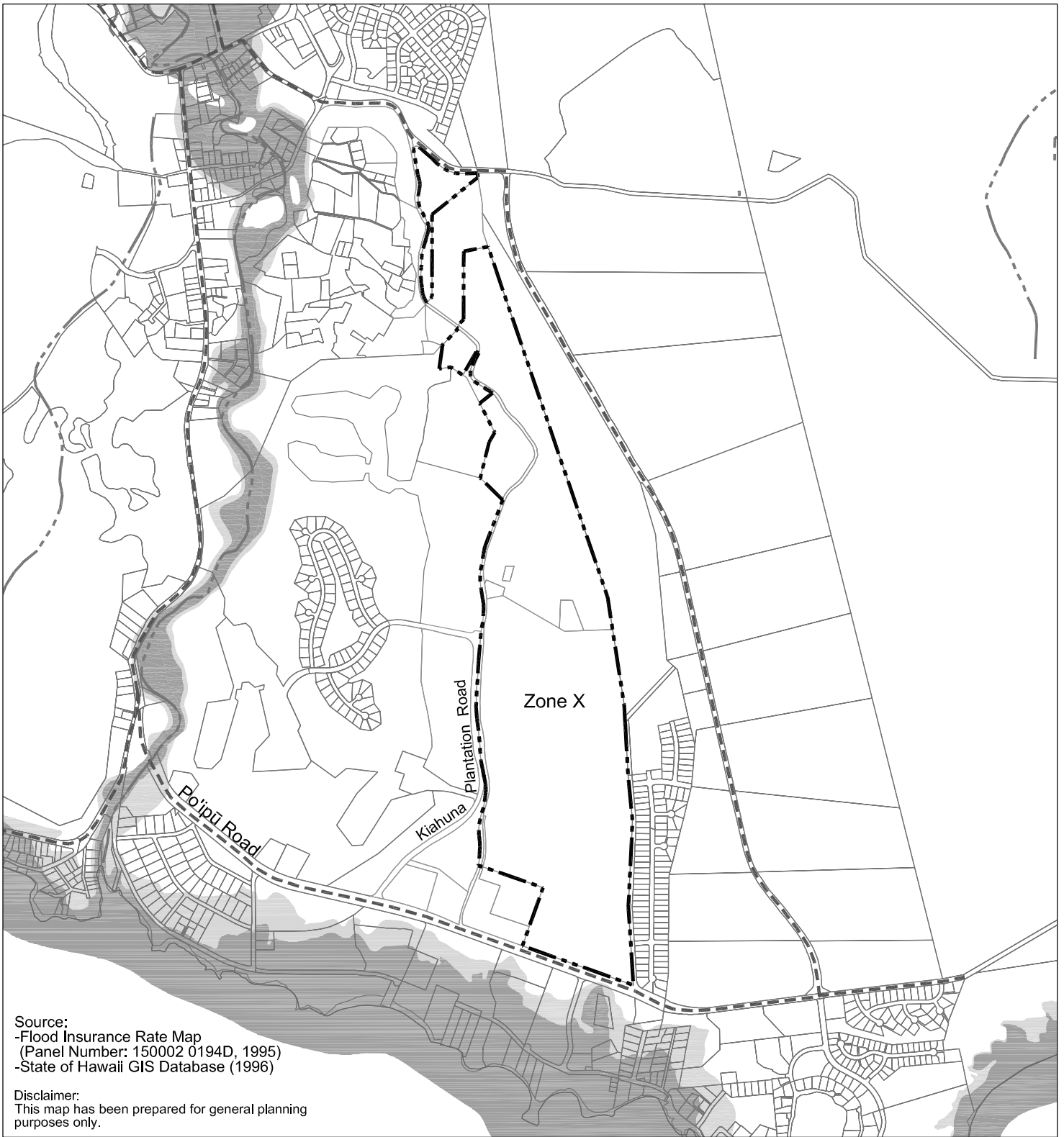
Village at Po'ipū

Knudsen Trust *South Kaula'i*

NORTH LINEAL SCALE (FEET)

0 750 1500



LEGEND

Flood Zones	Other Features
Zone A	Project Site Boundary
Zone X (shaded)	TMK Boundary
Zone X (no shade)	Major Streets
	Streams

Zone A: Areas of 100-year flood
 Zone X (shaded): Areas of 500-year flood
 Zone X (no shade): Areas outside the floodplains

Figure 14
 Flood Insurance Rate Map

Village at Po'ipū

Kauaʻi Trust South KAUAI

NORTH LINEAL SCALE (FEET)

0 750 1500

PBR
HAWAII

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VILLAGE AT PO'IPŪ

The project site is relatively free from flood hazards and coastal restrictions. It is located outside the 100-year floodplain (Zone X) according to the Flood Insurance Rate Map (FIRM) (see Figure 14). The Village at Po'ipū community is also located *mauka* of the Special Management Area (SMA) (see Figure 8) and therefore will not require an SMA permit for development.

Potential Impacts and Mitigation Measures

The Village at Po'ipū will not exacerbate any natural hazard conditions. Volcanic impacts to the area are considered unlikely. Seismic hazards in the area are no greater than other locations on Kaua'i. It is located outside of the floodplain and *mauka* of known coastal hazards. The Village at Po'ipū, as the rest of Kaua'i or the State, is no more or less vulnerable to the destructive winds and torrential rains and associated with hurricanes.

The potential impact of destructive winds and torrential rainfall of hurricanes will be mitigated by compliance with the Kaua'i County Building Code. Likewise, all structures will be constructed for protection from earthquakes in compliance with the requirements of the Uniform Building Code and detention basins will be built for the project site to hold onsite any net increases in peak runoff generated by the project.

3.5 FLORA

Existing Conditions

A flora survey was conducted for the entire 203-acre Village at Po'ipū project site in 2002. The flora survey, conducted by Char & Associates, did not find any threatened or endangered species or species of concern as listed by the U.S. Fish and Wildlife Service (USFWS). Most of the site is used for grazing cattle and horses and is covered with pastureland scrub or koa haole thickets. All of the plants found on site are similar to those found in disturbed lowland habitats throughout the Hawaiian Islands. Development as proposed in this EIS is not expected to have a significant negative impact on the botanical resources. The study also recommends that portions of the site be set aside to preserve archaeological sites or cave/lava tube systems which may harbor rare Hawaiian arthropods. The flora study is included in Appendix A.

Potential Impacts and Mitigation Measures

No threatened or endangered plant species or species of concern have been found on the Village at Po'ipū property. Given this finding, the proposed development is not expected to have a significant negative impact on botanical resources. The proposed conceptual master plan attempts to improve botanical resources by clearing the site of

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VILLAGE AT PO'IPŪ

the existing alien and invasive species and sets aside land for archaeological preserves (23.8 acres), parks (12.0 acres), bicycle and pedestrian paths and landscaped house lots and roadways. Native plants will be installed within the archaeological sites and preserves.

Native and non-invasive species also will be encouraged throughout the Village at Po'ipū project as part of the Landscape Master Plan developed for the project and have been required as part of the Design Guidelines by which all-future homeowners must abide. As a result, native and non-invasive flora populations will thrive and replace the existing alien species. In addition, the archaeological preserves will be landscaped with native plants. This should improve potential habitat conditions for the arthropods that may exist on site. It will also include native plants that are currently found onsite that may have cultural importance to Native Hawaiians. The report recommends that landscaping be installed as soon as possible to prevent problems with dust.

3.6 FAUNA

3.6.1 Fauna Study

Existing Conditions

The faunal survey, conducted by Phillip L. Bruner in 2002, did not find any endangered or threatened species at the Village at Po'ipū project site. The only native species recorded on the site during the survey was the Hawaiian Owl or Pueo (*Asio flammeus sandwichensis*). It is endangered on O'ahu but not elsewhere in the state. There were several introduced species of birds and feral mammals recorded on the site as well as the migratory Pacific Golden Plover or *kolea* (*Pluvialis fulva*). Furthermore, Bruner found that very little has changed in terms of bird and mammal composition based on a comparison of a faunal survey he had performed in 1990. The 2002 fauna study is included in its entirety as Appendix B.

Potential Impacts and Mitigative Measures

The proposed Village at Po'ipū is not expected to impact any endangered or threatened species as none were found within the project site. Other findings from the Bruner faunal survey concluded that the proposed Village at Po'ipū may positively impact the migratory Pacific Golden Plover and the endangered Hawaiian Hoary Bat since they have been observed to frequent similar urban environments. However, the native Pueo (Hawaiian Owl) will less likely utilize the area once the tall grasses are cleared.

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VILLAGE AT PO'IPŪ**

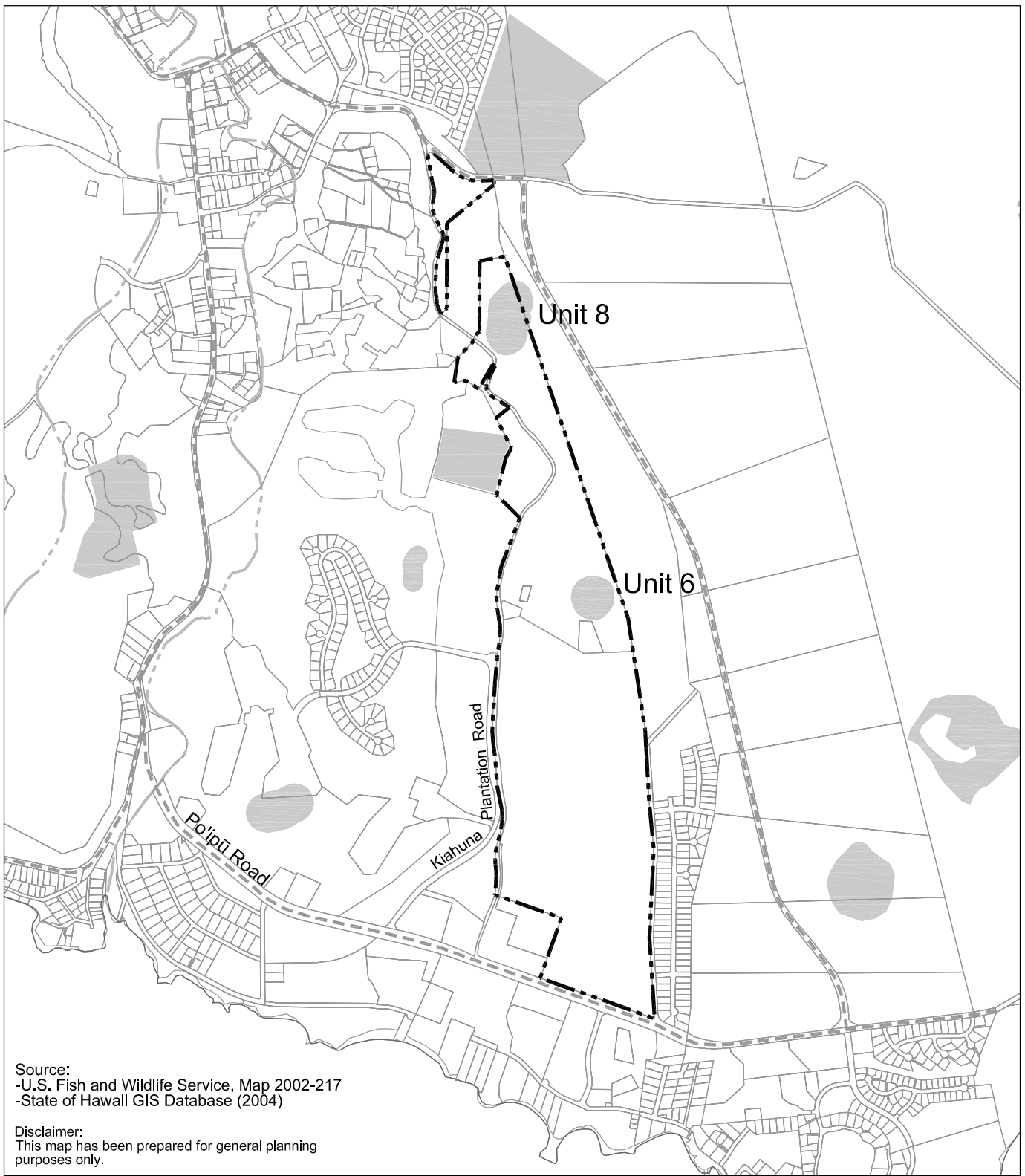
3.6.2 Critical Habitats

Existing Conditions

The United States Fish and Wildlife Service (USFWS) designated two “critical habitat” areas for the endangered Kaua’i Cave Wolf Spider (*Adelocosa anops*) and Kaua’i Cave Amphipod (*Spelaeorchestia koloana*) that overlap the project site (see Figure 15). These areas are shown as a 200-foot radius around two lava tubes. They have been designated by USFWS as Units 6 and 8 in the April 9, 2003 Federal Register (50 CFR Part 17, Vol68, pp. 17430-17470). At the time of their federal designation, it was not known whether or not the endangered arthropods inhabited the lava tubes.

Potential Impacts and Mitigative Measures

The Knudsen Trust met with representatives from USFWS and State DLNR Division of Forestry and Wildlife (DOFAW) on November 14, 2002 and will work with the USFWS to determine if the Kaua’i Cave Wolf Spider and Amphipod inhabit the two lava tubes. Although the critical habitat requirements are triggered only when federal funds or activities occur at the site, the conceptual master plan for the Village at Po’ipū includes a fifty-foot buffer around the lava tubes within which no development will occur. These areas will be preserved as archaeological sites and will be planted with native plants to improve possible habitat conditions for the endangered Kaua’i Cave Wolf Spider and Amphipod should they exist on site.



LEGEND






-  USFWS Critical Habitat for Cave Wolf Spider and Cave Amphipods
-  Project Site Boundary
-  TMK Boundary
-  Major Streets
-  Streams

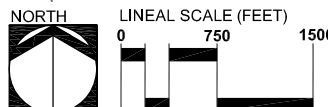

Figure 15
 U.S. Fish and Wildlife Service
 Critical Habitat Areas

Village at Po'ipū

Knudsen Trust South Kana'i

NORTH LINEAL SCALE (FEET)

0 750 1500

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VILLAGE AT PO'IPŪ**

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4.0 ASSESSMENT OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

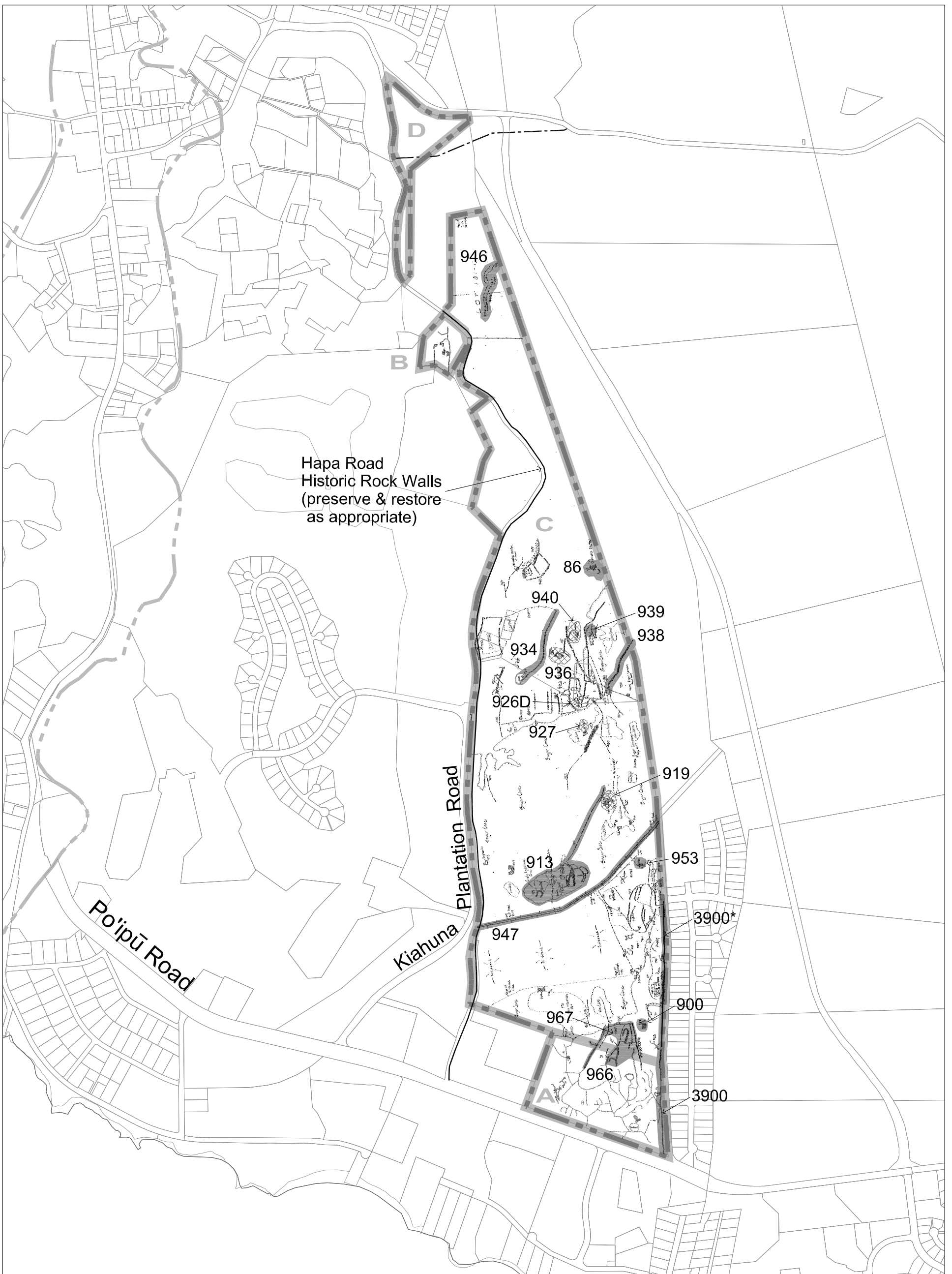
This section describes the existing conditions of the human environment, potential impacts of Village at Po'ipū, and proposed mitigative measures to minimize any negative impacts.

4.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Over the last fifteen years, Cultural Surveys Hawai'i (CSH) conducted several archaeological surveys in order to inventory the entire Village at Po'ipū project site. The first of these inventory surveys was conducted for the majority of the Village at Po'ipū site in 1990 and subsequently revised in 1991 (Hammatt 1991). Additional surveys have been recently conducted for the *makai* portion of the project area directly north of Po'ipū Road and the two *mauka* parcels not included in the original 1990 survey. Figure 16 shows the locations of archaeological sites within the Village at Po'ipū project site. The sites recommended for preservation and possible preservation are shaded and hatched, respectively.




In addition, CSH produced a Data Recovery and Preservation Plan for the first inventoried portion of the project site which was approved by SHPD in 1991 (Hammatt 1991). CSH has recently completed additional data recovery and interim preservation plans for Phase 1 of the Village at Po'ipū project which is located just mauka of the Kiahuna Tennis Club. All archaeological studies and preservation plans completed to date for the project site are summarized below. Appendices C through J contain the complete reports. SHPD approval letters are included in the front of each report.

In the following discussion, the "main" project area refers to the majority of the project site that was inventoried in the first CSH study in 1990-91 and outlined as Area C in Figure 16. The "makai portion" refers to the area to the east of the Kiahuna Tennis Club as shown as Area A in Figure 16. "Upper mauka" project area refers to Area D, the approximately 8.6-acre parcel identified by TMK: 2-8-14: por. 01 and separated from the main site by Grove Farm property. Finally, the "lower mauka" parcel refers to the 2.8-acre parcel separated from the main site by Hapa Road, or Area B.



LEGEND





SHPD Recommendations

-  Preserve
-  Possible Preservation, Test for Burials
-  Site Numbers of Those Recommended for Preservation or Possible Preservation

A-D Source Information:
 A) Yorck, et al, 2005.
 B) Tulchin and Hammatt, 2005
 C) Hammatt, et al, 1990, rev. 1991
 D) Hill, et al, 2005

* Note: Possible remnant of 3900. Requires field verification but will be identified as preservation until it can be verified.

Other Features

-  Project Site Boundary
-  TMK Boundary
-  Major Streets
-  Streams

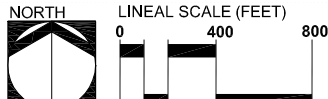

Disclaimer:
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Figure 16
 Archaeological Sites

Village at Po'ipū

Knudsen Trust South KAUAI

NORTH LINEAL SCALE (FEET)
 0 400 800

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Previous Archaeology

Archaeological research before 1960 was limited to oral history accounts and surveys of the larger more important sites, especially *heiau* sites along the coast. Beginning in the 1960s, several large archeological surveys were carried for a large proportion of lands throughout Kōloa and surrounding *ahupua'a*. These studies are discussed in detail in the archaeological reports included in Appendices C through J.

Archaeology and Inventory Surveys

In 1991, Cultural Surveys Hawai'i surveyed the majority of the project site (Figure 16, Area C) in support of the now-defunct Po'ipūlani Golf Course project. CSH surveyed the *makai* portion of the Village at Po'ipū project site (Area A) in 2005. The remaining upper and lower *mauka* parcels of the Village at Po'ipū site have also been surveyed by CSH and all but one of the reports have obtained SHPD review and approval. The last inventory survey report for the 2.8-acre portion of TMK 2-8-13:01 (the lower *mauka* portion) was completed in December 2005 and is currently being reviewed by SHPD. The final SHPD determination for that parcel will be included in the Final EIS. The following discussion describes the findings of the archaeology and inventory surveys and the recommendations for the project site.

Main Project Area

In 1990-91, CSH conducted an archaeological inventory of the majority of the Village at Po'ipū project area for the then-proposed Po'ipūlani Golf Course and Residential Development in 1990. The report, entitled *Archaeological Inventory Survey of the Proposed Po'ipūlani Golf Course and Residential Development Kōloa, Kaua'i* (Hammatt, Folk, and Stride 1991), was completed in July 1991 and accepted by SHPD. The project was never constructed. However, the findings of the archaeological inventory survey remain relevant and are summarized below. The complete report is attached as Appendix C.

Survey Findings. Fieldwork was conducted in June and July 1990. Although there has been considerable modification of the landscape for sugar cultivation and cattle ranching, significant remnants of a once continuous pre-contact habitation and agricultural complex were found on the property. A total of 75 sites were inventoried.

Of these sites, CSH identified eight as permanent habitation sites based on their size and formal construction. These primarily consist of large platforms with paved surfaces. There is also one enclosure identified as a house enclosure from the historic period. One of the two lava tubes found in the survey area is listed as a permanent habitation site based on the size of the interior chamber. All permanent habitation sites except the house enclosure are estimated to be pre-contact.

DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ

CSH identified 31 temporary habitation sites based on size, construction, style, and shape. These sites tend to be smaller, with informal construction style, with no paving and minimal facing in the stonework. The predominant shape is a C-shape, with some small enclosures. Virtually all of the temporary habitation sites are estimated to be from the pre-contact period.

Sixteen *'auwai* were identified in the survey area. They vary in construction from two parallel earthen mounds to rock-lined depressions with rock mounds on each side. Large lengths of the *'auwai* have been impacted by land clearing for sugar cultivation and ranching and only short segments remain. All *'auwai* are estimated to be a part of the pre-contact irrigation system, although some were also used in the 19th and 20th centuries for sugar cultivation, apparently without modifications.

Agricultural sites identified by CSH consist of clusters of adjacent fields defined by low field boundary walls, earthen mounds, and/or five to six foot high, stacked boulder walls. The low earth mound walls are estimated to be from the pre-contact period and reflect pre-contact (pre-cattle) agricultural activity. The higher, stacked boulder walls are estimated to be historic additions to the pre-historic plots, specifically to control cattle.

In general, burial sites do not figure prominently in the Kōloa fields and there are relatively few sites within the project area that appear to have been used exclusively as burial structures. There are a total of eight potential burial sites, although only one of these – one of the lava tubes – has been confirmed.

The most predominant structure from the historic period is the railroad berm that crosses the *makai* section of the surveyed area. The berm is intact along almost the entire length and reaches its greatest height at the west end.

Of the 75 sites, 63 were identified as significant according to the broad criteria established for the National and State Registers. More specifically, ten habitation and agricultural sites are considered significant under criteria "C" – "Site is an excellent example of a site type." The majority of the significant sites (61) are included under criteria "D" – "Site may be likely to yield information important in prehistory or history." These are primarily habitations sites, as well as agricultural features, whose excavation and further mapping and recording could potentially increase knowledge on chronology and sequence of pre-contact land development. There are also eight sites regarded as significant under criteria "E" – "Site has cultural significance to the Hawaiians or other ethnic group."

Recommendations. The 1991 inventory survey recommended preservation of ten significant sites (site numbers 86, 900, 913, 934, 938, 939, 946, 947, 953, and 966). In addition, the accompanying 1991 data recovery and preservation plan recommended

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five other sites for possible preservation due to the potential for finding burials (sites 919, 926D, 927, 936, and 940). All fifteen of these sites will be preserved in the Village at Po'ipū as shown in Figure 3. CSH recommended that all other sites that could not be incorporated into the then-proposed development be subjected to a program of data recovery including subsurface testing and excavation. The data recovery plan for this area was completed in 1991 and data recover and interim protection plan for construction of Phase I have also been completed and approved by SHPD (see below for further discussion and Appendices G-J for the full reports).

Makai Project Area

In 2005, CSH completed an archaeological inventory survey on the southern most portion of the Village at Po'ipū project site (shown as Area A in Figure 16). It is located directly *mauka* of Po'ipū Road and abuts the main portion of the Village at Po'ipū project area which was surveyed in 1990-91. The majority of the *makai* project area continues to be used as grazing land for cattle. The western portion of the project areas is being utilized as a baseyard for a local landscaping operation. A barbed-wire fence separates the nursery from the cattle grazing lands. Bulldozing activities in the current project area are evident, as there are multiple bulldozed roads in the central and eastern portions of the study area.

The *makai* project area was subjected to a field inspection by CSH archaeologists in 2003. Pedestrian inspection of the project area indicated that several previously identified sites had been disturbed. Based on the varying levels of documentation and the observation that certain sites had been destroyed and/or severely impacted, SHPD requested an inventory survey plan be developed for review and approval prior to conducting the required inventory survey. CSH completed the inventory survey of the site, which included a complete ground survey, subsurface testing, research of historic and archaeological background, and preparation of the report in 2005. The inventory survey report was reviewed and approved by SHPD and is attached as Appendix D.

Current Survey Findings. Fieldwork was conducted by Gerald Ida, B.A., Missy Kamai, B.A., and Jonas Madeus, B.A., under the general guidance of Hallett H. Hammatt, Ph.D., between the dates of September 1 and 17, 2004. The field survey included collection of GPS data, mapping, and test excavations of sites and features in the project area. The surface survey covered 100 percent of the project area. All previously identified sites were relocated, if possible, mapped, photographed, and described.

Of 33 previously documented sites, fifteen remain and eighteen no longer exist. One site was newly identified in this study. Ten sites have a habitation function, three have an agricultural function, one has both a habitation and agricultural function, one has a storage function, and one is a probable *ahupua'a* boundary. Subsurface testing and material finds recovered during the survey indicate that the sites were used primarily for temporary habitation, including limited food preparation/consumption and lithic

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reduction related to tool making. All sixteen identified sites are considered significant under Criteria D, "Site may be likely to yield information important in prehistory or history."

Recommendations. The CSH report recommends nine of the sixteen sites for further data recovery and work. Five sites are not recommended for further work because they have been severely impacted by rock collecting and only remnants of the original sites remain. Two sites, site 966 and 3900, are recommended for preservation. Site 966 is the makai part of a larger complex of features identified in the 1990-91 inventory survey and preservation plan. Although it has been heavily impacted by rock collecting and bulldozing, portions of the site remain intact, including 75 meters of a stone enclosing wall, a *lo'i* wall, and an adjacent *'auwai*. CSH recommends that the preservation be focused on the remaining northern portion as shaded in Figure 16. Site 3900 is believed to be a probable ahupua'a boundary wall and should be preserved where it is intact.

Upper Mauka Project Area

The approximately 8.6-acre upper *mauka* portion of the Village at Po'ipū site, identified by TMK: 2-8-14: por. 01 (Area D in Figure 16), is located immediately *makai* of Weliweli Road and is bordered on the west by Hapa Road and on the east by parcels currently used as pastureland. It is separated from the main project area by undeveloped lands owned by Grove Farm. The parcel consists of a northern triangular shaped area and a narrow strip that extends south from it, with most of the project area being fenced with barbed wire. The southern most third of narrow strip is fairly open pasture. North of the open pasture, the density of vegetation changes abruptly from low grasses to *koa haole*, sisal, java plum trees, Chinese banyans, and tall grasses. The vegetation gets increasingly dense in the northern triangular section of the project area, reducing visibility to about 20 feet.

In March 2005, Cultural Surveys Hawai'i, Inc. conducted an archaeological field inspection of the site that identified two possible platform remnants and a portion of the Kōloa Sugar Company's elevated metal irrigation flume. In accordance with CSH's recommendation that the identified features be properly documented before any development activities commence, CSH conducted a full archaeological inventory survey for the site. The inventory survey included a complete ground survey of the upper *mauka* project area, limited subsurface testing on subsurface deposits, research on historic and archaeological background, consultation with community members, and preparation of a survey report, which is summarized below and included in its entirety as Appendix E. The report was completed in September 2005 and approved by SHPD on January 11, 2006.

Current Survey Findings. Fieldwork was completed by Todd Tulchin, Robert R. Hill, and Hallett H Hammatt on August 2-4, 2005. The fieldwork included an initial pedestrian survey, followed by subsurface testing, documentation, and photography.

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Two probable archaeological sites, initially classified as raised platforms during the previous field inspection were relocated. One of the possible platforms was tested and found to have been a geologic feature modified by heavy machinery. No cultural material was found. The second platform was determined to have been similar in nature and was not tested.

The inventory survey also relocated the previously identified irrigation flume, which was found to be associated with the expansion of sugar plantation lands of the Kōloa Sugar Company. The survey revealed that damage had occurred to a 15-meter section of the irrigation flume from the modern operation of heavy equipment. It appeared that two of the structural pylons built of basal cobbles and concrete had been leveled to grade at a point where the elevated metal flume met the concrete culvert under Hapa Road. The elevated metal flume is deemed significant according to Criterion A ("Sites that are associated with events that have made a significant contribution to broad patterns of our history") due to its association with the Kōloa Sugar Company's water infrastructure and Criterion D ("Sites which have yielded, or may be likely to yield, information important in prehistory or history") for engineering information regarding the construction of the flume.

Recommendations. Because the upper mauka project area has already been extensively compromised during the construction and maintenance of the elevated metal irrigation flume, as well as the modern construction of roadways bordering the project area, CSH concluded that no mitigation measures are required for work on this parcel. All features associated with the sites identified during the survey have been thoroughly documented and therefore no further data recovery work is necessary in regard to the three sites.

Lower Mauka Project Area

The second *mauka* parcel is the 2.8-acre portion of TMK 2-8-13:01 bounded by Hapa Road, the Roman Catholic Church and undeveloped Grove Farm property. The lower *mauka* parcel is located within relatively level terrain, at an elevation of approximately 150 feet above msl. The archaeological inventory survey conducted by CSH in 2005 included a complete ground survey, subsurface testing, research on the historic and archaeological background of the site, and preparation of an inventory survey report. The complete report is included in Appendix F and is currently being reviewed by SHPD.

Current Survey Findings. Cultural Surveys Hawai'i conducted fieldwork on August 2-4, 2005. Fieldwork comprised 100 percent coverage pedestrian inspection and limited subsurface testing, which consisted of partial excavation, by hand, of selected surface archaeological features located during the pedestrian survey.

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A total of three historic sites, comprised of six individual features, were identified within the central portion of the project area. Identified features consisted of ranch-related stone cattle walls, a stacked-stone platform used as a traditional Hawaiian habitation site, and two planting areas used for dry-land agriculture. Subsurface testing within the platform revealed the presence of midden, charcoal, and traditional Hawaiian artifacts. Traditional artifacts recovered from the test excavation included a basalt flake, basalt awl, broken polished basalt adze fragment, and three coral abraders. In addition, a human tooth was found in the platform test excavation site. Both the stacked-stone platform and the two agricultural planting areas were interpreted to be pre-contact habitation and agricultural features. All three historic properties are considered significant under Criteria "D" – "Site may be likely to yield information important in prehistory or history."

Recommendations. The CSH inventory survey report for the lower *mauka* parcel recommends an archaeological data recovery program, in the form of controlled archaeological excavations for both the stacked-stone platform and the agricultural planting areas. Data recovery excavations will generate additional information regarding the age and function of the properties. Because the inventory survey generated sufficient information regarding the location, function, age, and construction methods of the stone walls, no further work is recommended.

In addition, due to the presence of a human tooth located during the test excavation within the platform, there is the possibility that additional human remains may be present. Prior to commencement of construction, the data recovery program including a Data Recovery Plan will be submitted to SHPD for review and approval.

Data Recovery and Preservation Plans

To date, CSH has completed data recovery plans for the main project area, the Phase 1 project area, and the railroad berm in compliance with SHPD regulations. CSH also prepared an interim protection plan for the Phase 1 project area. These reports are summarized below and are attached in their entirety in Appendices G, H, I, and J.

Main Project Area

A data recovery and preservation plan was first completed for the main project area by CSH in 1991 as a follow-up to the archaeological inventory survey for the proposed Po'ipūlani Golf Course and related residential development. The following discussion summarizes the recommendations of the plan. See Appendix G for the complete report.

Preservation Plan. The 1991 data recovery and preservation plan recommended complete preservation of nine sites (sites 86, 900, 913, 934, 936, 938, 939, 953, 966) and the partial preservation of the railroad berm (site 947). An additional five sites (sites

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919, 926D, 927, 936, and 940) should also be preserved if archaeological testing determined that human burials occur within them.

During construction, the plan recommended marking all sites designated for preservation with a fence or highly visible barrier to make them visible for avoidance by mechanical equipment. The location of these barriers should be approved by State and County agencies but should create at least a 50-foot buffer. An archaeologist should be present during fencing to insure appropriate location of the fences and during all grading, grubbing, or other construction activities in the vicinity of the preserve areas that are likely to pose potential impact to them. The plan also recommended taking immediate steps to prevent vandalism to all existing sites, particularly rock robbing.

Following completion of construction, CSH recommends establishing a long-term preservation plan approved by State and County agencies. The long-term plan would likely include vegetation clearing, planting around some of the sites, and interpretive signage. In addition, access to the two lava tubes should be limited by protective fencing or grates at the entrances.

Data Recovery. The 1991 CSH plan also recommends data recovery activities for certain sites. Of the total 63 significant sites, ten sites are to be preserved and do not require more than testing to address specific questions. The remaining 53 sites should be the subject of a data recovery plan, which recommended the following data collection activities:

- Cross-section trenches of *'auwai*, agricultural fields, and field walls;
- Testing of larger habitation sites with more complete excavation of two sites;
- Testing of at least half of all temporary habitation sites with complete excavation of two to three sites.
- Testing of two cave sites with a one-meter square trench each, to recover chronological and paleontological data;
- Preparation of an end of fieldwork report and arrangement of a site tour with SHPD.
- Preparation of a final report on all data recovery (and monitoring) findings.

Phase I

Phase 1 of the Village at Po'ipū consists of approximately 20 acres located *mauka* of Po'ipū Road and is bordered on west by Hapa Road and on the south by Kiahuna Tennis Club. The area was included in the 1978 archaeological inventory survey for the proposed Kiahuna Golf Village project and the 1991 archaeological inventory survey and data recovery and preservation plan for the proposed Po'ipūlani Golf Course project. Data recovery and interim protection plans have been completed for this area in preparation for construction of Phase 1. These plans, which are summarized below, are included as Appendices H, I, and J.

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Data Recovery for Phase I. CSH prepared and completed archaeological data recovery for the four significant sites located within Phase 1 of the Village at Po'ipū project in November 2004. It was reviewed and accepted by SHPD on January 26, 2005. The data recovery and preservation plan was formulated based on the results of the archaeological inventory survey prepared for the property by CSH in 1991. The scope of work for the data recovery included archaeological fieldwork to document artifacts and faunal materials and features, research on historic and archaeological background, and preparation of an archaeological data recovery report, which is included as Appendix H of this EIS.

The four historic sites (908, 909, 969, and 973) were excavated for data recovery. Two were temporary habitation platforms and two were *'auwai* (irrigation ditches) used for pre-contact agricultural activities. Limited amounts of cultural materials were recovered during excavation of one of the habitation platforms, suggesting that the site was used temporarily rather than for an extended period time. The lack of cultural materials at the second habitation platform confirms this finding. No cultural materials were found during the testing of the *'auwai*, which is not uncommon for such features. Construction of the *'auwai* suggests that they were constructed and utilized during pre-contact times, despite the lack of charcoal. Dates received from radiocarbon dating indicate that the habitation platform was used during late pre-contact and early historic times.

Data Recovery for Railroad Berm. A portion of the railroad berm that bisects the Village at Po'ipū site (state site 50-30-10-947) will be rifted to allow for a planned road in the Phase 1 project area. A data recovery plan for the railroad berm was completed by CSH in September 2004 and approved by SHPD on December 15, 2004. The berm is part of a railroad network that historically transferred sugar from Weliweli and Pa'a to Kōloa Landing. The original data recovery and preservation plan completed in 1991 by CSH for the proposed Po'ipūlani development recommended that photographs and cross sectional drawings be made any time the berm experiences demolition, in order to document construction methods used to build the structure as well as to preserve significant historical information. In satisfaction of this recommendation, the 2004 data recovery plan requires the same level of documentation for any breach of the railroad berm. In addition, it requires stabilization of the cut ends of the berm using the material that is removed from the breach and maintenance of the same slope as much as County construction regulations will allow. The complete plan is included as Appendix I.

Based on historical records, the railroad berm was constructed between 1882 and 1910 as part of the Kōloa Sugar Company railroad system. This section of the railroad was used to haul sugar from Weliweli and Pa'a to Kōloa Landing. The east branch of the berm traverses a portion of the Village at Po'ipū site (TMK 2-8-14:19) for a distance of 1,650 feet from southwest to northeast. The berm in the area of Phase I is six feet high

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and 20 feet wide. The proposed road will require about 50 feet of the berm to be removed for the proposed road in Phase I.

The loss of this relatively small portion of the berm will allow for documentation of the construction methods used to build the berm. The objective of the data recovery plan is to increase public knowledge about the construction of the railroad berm. Fieldwork will include the production of archival quality photographs and archaeological cross-sections of the railroad berm as it is breached. Since little is known about the construction of this historic site, the loss of this portion of berm is balanced by increasing knowledge of the site. According to CSH, the additional information about the construction of the railroad is proper mitigation for the relatively small amount of impact on the site. A report of the findings when construction occurs will be prepared for review and approval of SHPD.

Phase I Interim Protection Plan. The interim preservation plan for historic sites located in Phase I of the Village at Po'ipū project area was completed by CSH in October 2004 and approved by SHPD on March 30, 2005. The plan includes descriptions of all sites within proximity to Phase I construction activity and recommends how sites should be protected during the course of construction activities. See Appendix J for the complete plan.

Interim protection measures will include the following:

- **Demarcated Buffer Zones:** A buffer will be marked with an orange colored plastic barricade fence and appropriate signage during any construction in the immediate area of historic sites. The fencing and signage will remain in effect during all construction and landscaping activities in the vicinity. Avoidance instructions will be written into construction plans and specifications. No construction will take place within the buffer zone.
- **Written Notification and Invitation to Verification of Buffer Establishment:** The State Historic Preservation Division will be notified in writing once the interim buffer marker is erected and invited to verify the placement prior to any land alternation near the sites.
- **On-site Briefing of All Trades Working in the Vicinity:** All construction and landscaping crews working in the vicinity will have an on-site briefing informing them of the presence of the boundaries around the sites, asking for their avoidance of this area, and holding them accountable, for any breach of the maintenance of the integrity of the buffer zones.

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Hapa Road

Although not included in any of the archaeological inventory studies prepared for the Village at Po'ipū, CSH provides a detailed description of the historic Hapa Road (site 992) and its rock walls in the Village at Po'ipū Phase I Interim Protection Plan (Appendix J). It describes the current condition of the road, portions of which have been paved into a modern road. The road itself is at least 100 years old and is believed to date back to the 1850s when the Catholic Church was built makai of Kōloa Town on the west side of the road. It probably predated this period as a mauka/makai trail. Because the rocky lands on either side of the road were used for cattle grazing, the walls were necessitated as pasture boundaries and to allow driving of cattle along the road during the early part of this century. The County of Kaua'i has mandated by ordinance and condition of zoning approvals that Hapa Road be improved into a pedestrian and bicycle path.

Summary of Potential Impacts and Mitigative Measures

All of the archaeological sites recommended for preservation to date as well as those recommended for possible preservation by SHPD have been protected in the conceptual master plan (see Figure 3). Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. Within the Village at Po'ipū project site, over 23 acres have been set aside for archaeological sites and preserves.

In addition, Hapa Road will be improved as a pedestrian and bicycle path as mandated by the County of Kaua'i. The historic rock walls will be preserved in place where they are in good condition and restored where they have collapsed or have been damaged by stone robbing. The path is envisioned as part of an integrated pedestrian and bicycle network that will weave throughout the Village at Po'ipū project. The Knudsen Trust will work closely with SHPD and the County of Kaua'i on the design and development of Hapa Road.

CSH and representatives from the Knudsen Trust are working closely with the State Historic Preservation Division's (SHPD) Kaua'i representative, Nancy McMahon, on preservation and protection plans. Their work is ongoing as construction for Phase I is expected to commence in 2006. As more studies are completed and approved for the project, similar steps will be taken to ensure all significant sites are protected as required by SHPD.

The Knudsen Trust and its contractors will comply with all laws and rules regarding the preservation of archaeological and historic sites should any sites be found during demolition and construction. Should any human remains, *iwi kupuna* or Native Hawaiian cultural or traditional deposits, be found during ground disturbance or excavation, work will cease immediately where the cultural material is found and the

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site shall be protected from further damage. The contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary. Alternate public access routes will be provided if safety-related restrictions are put in place during construction.

As shown in the conceptual master plan for the Village at Po'ipū, the proposed vehicular and pedestrian circulation networks will be designed to provide both visual connections and direct access to the sites. In most cases, public roadways will run adjacent to the sites so that cultural practitioners, researchers and other interested persons may easily access the sites. However, low walls or other barriers should be erected around the archaeological preserves to discourage stone robbing. Appropriate interpretive signage will be provided at the archaeological preserves. In addition, the signs will instruct visitors of the care and respect required to preserve the sites for future generations. Native plants will be used to landscape the sites. It is expected that the future Homeowners' Association (HOA) for the Village at Po'ipū will maintain the sites once the Knudsen Trust completes the initial improvements and transfers ownership to the HOA.

4.2 CULTURAL RESOURCES

Cultural Surveys Hawai'i (CSH) conducted a cultural impact assessment of the Village at Po'ipū site to gather information about traditional cultural practices and pre-historic and historic cultural resources. Preparation of the assessment included archival and documentary research, review of existing archaeological information, and consultation with individuals with knowledge of the area, and the cultural resources, practices, and beliefs associated with the area. The cultural impact assessment is summarized below. Appendix K contains the full report.

Historical Cultural Context

Pre-Contact Kōloa. The Village at Po'ipū site is in the *ahupua'a* of Kōloa in the Kona District of Kaua'i Island. The project area is located at the eastern end of an expansive irrigation system that spread out across the *makai* plain of Kōloa Ahupua'a. Although few records exist that document traditional Hawaiian life in Kōloa Ahupua'a, the documentation of at least fourteen *heiau*, the presence of a *hōlua* course in the *mauka* reaches of the *ahupua'a*, and the myriad legends attached to Maulili Pool suggest a heightened cultural richness of the *ahupua'a*.

Archaeological investigations have revealed that the "lo'i lands of Kōloa" formed an extensive system -- the "Kōloa Field System" -- that extended from Lāwa'i to Weliweli. The Kōloa field system consisted of a series of parallel *'auwai* fed by Waikomo Stream.

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The system covered over 700 acres, making it one of the largest irrigated systems in the Hawaiian Islands.

Early Historic Period. Written accounts by visitors and settlers at Kōloa Ahupua'a primarily describe the westerners' own concerns. However, these accounts include occasional references to the Hawaiians of the *ahupua'a*.

The first western settlers arrived in Kōloa in December 1834, initiating a process of rapid change that would reshape the life of Kōloa in the nineteenth century. Commercial activities burgeoned in the 1830s. In 1835, Ladd and Company gained from the King and local chiefs the lease of about one thousand acres and began sugarcane cultivation. In response, Kōloa Town and the landing at the mouth of Waikomo Stream became major commercial centers. Chief exports included sweet potatoes, sugar, and molasses. Kōloa was also frequently used as a landing for whalers.

Toward the mid-nineteenth century, the Organic Acts of 1845 and 1846 initiated the process of the Mahele – the division of Hawaiian lands – which introduced private property ownership into Hawaiian society. The bulk of the Kōloa Ahupua'a (approximately 8,620 acres) was awarded to Moses Kekuaiwa, the son of Kekuanaoa and Kinua, and the brother of Alexander Liholiho (Kamehameha IV), Lot Kapuaiwa (Kamehameha V), and Victoria Kamāmalu. The next largest award went to the Protestant Mission and consisted of approximately 825 acres.

Eighty-eight other *kuleana* awards were given to individuals within Kōloa Ahupua'a. Three Land Commission Awards (LCAs) are located within the Village at Po'ipū project area. An additional five LCAs are located adjacent to the project area.

Documentation from the Mahele period provides the most information about traditional Hawaiian activities, practices and land use within the project area. Mahele documents indicate that within and around the Village at Po'ipū project area, land use and activity by the mid-nineteenth century included habitation and taro cultivation. This may reflect the continuation of traditional Hawaiian land use within the project area. Testimony from one awardee in the vicinity of the project site, R.A. Walsh of the Roman Catholic Mission, suggests that the portion of Kōloa including the project area comprises the eastern end of a *lo'i* (irrigated terrace) system of the *ahupua'a*.

Late 1800s to Present. It is likely that taro *lo'i* continued in existence in the 1880s and the population of Kōloa continued to be dispersed across the Kōloa plain. A hand-drawn map of Kōloa by Kōloa resident, Judge Henry Kawahinehelelani Blake depicts taro *lo'i* and houses in the central portion of the Village at Po'ipū project area through the late nineteenth century. These uses were likely a continuation of the fields and houses identified in the LCA records.

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By the first decades of the twentieth century, cane fields spanned the landscape of Kōloa. However, sugar company field maps from the early 1900s indicate only small incursions of sugarcane within the present project area. By the mid-twentieth century, the project area was comprised of open pasture, with sugar cane extending into small portions. An aerial photograph taken on April 30, 2000 indicates that, at the end of the twentieth century, the project area continued to comprise open and brush-covered pastureland with now-discontinued sugar cane fields also present.

Interviews

As part of the cultural assessment, individuals were interviewed to obtain information concerning their knowledge of the Village at Po'ipū site or the vicinity. Summaries of these interviews follow below. Transcripts of the interviews are included in the cultural assessment report (Appendix K).

Chris Kauwe and **Billy Kaohelaui'i** were interviewed at Po'ipū Beach Park, which is just *makai* of the lands and cultural site that their group, Hui Malama Kāne I Olo Uma, is presently caring for. Mr. Kaohelaui'i recalled visiting the project area with his family during his childhood in Kōloa. He also recalled a trail lined with rocks that led past the church up to Kōloa Town. Mr. Kaohelaui'i believes cultural sites within the project area include *heiau*, house foundations, birth places, caves, and rock walls.¹

Regarding current uses of the site, Mr. Kauwe identified several native herbs that he gathers from the project site for cultural practices. He also mentioned foot trails that lead into the project area from the Weliweli Tract subdivision. Both Mr. Kauwe and Mr. Kaohelaui'i believe that the archaeological sites in the project area were once continuous with the sites their group is caring for. Their concerns regarding the Village at Po'ipū project include watershed contamination, the loss of native plants, the loss of open space, and over-population and overcrowding. Mr. Kauwe also expressed concern that flooding could impact the lands *makai* of the site for which is group is currently caring.

Reginald Gage has been a Kaua'i resident since 1968 and serves on the Board of Directors of the Kaua'i Historical Society. Mr. Gage provided information about the origins of the name *Kōloa*, legends associated with Kōloa, and historic uses within the area. Regarding current cultural practices, Mr. Gage was not aware of any gathering of resources or cultural practices by Native Hawaiians or any other ethnic groups on the Village at Po'ipū site. Mr. Gage's greatest concern regarding the project site is the previous destruction or loss of archaeological sites. He noted that there could be unknown and undiscovered sites within the project area. He also suggested that

¹ Please note that no *heiau* were found onsite during the archaeological inventory surveys performed for the project site. Please refer to Section 4.1 and related appendices.

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although he does not know of any trails, it is likely that there were trails that have since been overgrown.

Kupuna Elizabeth Kalehuamakanoe Bukoski came to live in Kōloa in the 1930s. She now lives on Hapa Road immediately west of the proposed project area. During her interview, Mrs. Bukoski recalled sending her children into the project site to gather native plants for medicine, including *'uhaloa* and *pōpolo*. She also remembered many different native trees along Hapa Road, including *koa* and *kamani*. According to Mrs. Bukoski, Hapa Road was the first road in the area and that it was unpaved. She did not recall any other trails in the area. With regards to the proposed Village at Po'ipū project, Mrs. Bukoski expressed the belief that the project developer does not understand the area and its residents, and that it is unaware of potential historic sites. She is also concerned about the project's location across from her family's home.

David Chang is a local historian and long-time resident of Kōloa. In a phone interview with CSH, Mr. Chang expressed his concerns about the critical habitat of the Kaua'i Cave Wolf Spider and Amphipod.

Recommendations

To ensure the protection and preservation of all significant historic sites and any potential burial sites (if present), CSH recommends that preservation procedures formulated during archaeological investigations be implemented prior to and during future development. In the event that previously unrecorded, significant historic properties are encountered during the course of development activities, further preservation measures should be undertaken.

In order to mitigate the impact of future development on traditional gathering practices, native Hawaiian plants should be incorporated in the landscaping in and around archaeological preserve areas of the project. Access to these areas for gathering purposes should be coordinated with members of the local community.

CSH has determined that the Village at Po'ipū project can have minimal impact upon native Hawaiian cultural resources, beliefs and practices, provided that the measures for the preservation of significant historic properties and burial treatment are implemented, and that there is proper treatment of any previously unrecorded, significant historic properties that may be encountered during development.

Potential Impacts and Mitigative Measures

Based on interviews held with people knowledgeable with the Kōloa-Po'ipū area and the Village at Po'ipū site, the primary cultural concerns pertain to the protection and preservation of culturally and historically significant archaeological sites. As discussed

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in Section 4.1, all of the archaeological sites recommended for preservation and possible preservation by SHPD will be preserved and are integrated into the design of the proposed Village at Po'ipū community (see Figure 3). Native plants, including those that are currently found onsite, will be planted within the archaeological preserves. Whenever possible, existing plants will be transplanted into these areas. The preserves will be accessible to the public and will allow continued access by cultural practitioners. During construction, the Office of Hawaiian Affairs recommends that access to the sites and for cultural gathering should continue as long as public safety can be ensured. Alternate public access routes will be provided if safety-related restrictions to access are put in place during construction.

4.3 ROADWAYS AND TRAFFIC

Austin Tsutsumi & Associates, Inc. prepared a Traffic Impact Analysis Report (TIAR) for the proposed project. Key elements of the TIAR are summarized below. Appendix L contains the complete report.

Existing Conditions

The Village at Po'ipū project site is bordered by Weliweli Road to the north, Po'ipū Road to the south, and Kiahuna Plantation Drive and Hapa Road to the west. Primary access to the site is either from the south via Po'ipū Road or from the north via Maluhia and Weliweli Roads. Ala Kinoiki Road, the eastern bypass road, parallels the project site to the east. Weekday AM peak traffic occurs from 7:15 a.m. to 8:15 a.m. Weekday PM peak traffic occurs from 3:45 p.m. to 4:45 p.m.

Existing roadways within the project area are described below:

- Po'ipū Road is a two-way, two-lane County collector roadway that runs north-south from Kōloa Road to Lāwa'i Road. Po'ipū Road changes to east-west direction after its intersection with Lāwa'i Road. The speed limit is 25 miles per hour (mph). Po'ipū Road forms the stem of an unsignalized Tee-intersection with Kōloa Road. The Po'ipū Road northbound approach has a yield-sign-controlled exclusive right-turn lane and a stop-sign-controlled exclusive left-turn lane. Further east, at its intersection with Kiahuna Tennis Club Driveway, Po'ipū Road has a shared right-turn/through lane at its eastbound approach and a shared through/left-turn lane at its westbound approach. At Kiahuna Plantation Drive, Po'ipū Road eastbound and westbound approaches have an exclusive left-turn lane and a shared right-turn/through lane. At the Ho'owili Road/Po'ipū Road intersection, the eastbound approach has a shared right-turn/through lane while the westbound approach has an exclusive left-turn lane and a through lane. At Kipuka Street, the Po'ipū Road westbound approach has a shared right-

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turn/through lane; the eastbound approach has an exclusive left-turn lane and a through lane. East of the project site, Po'ipū Road forms a cross-intersection with Ala Kinoiki (north leg) and Pe'e Road (south leg). The Po'ipū Road eastbound approach has an exclusive left-turn lane and a shared right-turn/through lane. The westbound approach has a shared left-turn/through lane and an exclusive right-turn lane.

- Weliweli Road is a two-way, two-lane, County roadway oriented east-west from Kōloa Road to the Old Kōloa Sugar Mill. It intersects Ala Kinoiki Road east of Kōloa Town. The posted speed limit is 25 mph. Weliweli Road forms the stem of an unsignalized Tee-intersection with Kōloa Road. The northbound approach is stop-sign-controlled and has a single shared left-turn/right-turn lane. At the Weliweli Road/Hapa Road intersection, the Weliweli Road westbound approach has a single lane for left-turn and through movements, while the eastbound approach has a single shared lane for through and right-turn movements. Further west, Weliweli Road forms a cross-intersection with Ala Kinoiki Road. The stop-sign-controlled Weliweli Road westbound and eastbound approaches have a single shared lane for left-turn, through, and right-turn movements.
- Hapa Road is a two-way County roadway oriented north-south, in the northern portion of the Village at Po'ipū site. The road runs from a Tee-intersection with Weliweli Road to Saint Raphael's Church. At the Weliweli Road intersection, the Hapa Road northbound approach is stop-sign-controlled and has an exclusive right-turn and an exclusive left-turn lane. South of the church it is an unimproved road. Remnants of low rock walls border the road in places.
- Kiahuna Plantation Drive is a two-way, two-lane, private driveway that runs north-south, beginning at a stop-sign-controlled intersection with Po'ipū Road. At the intersection, the northbound and southbound approaches each have a single shared lane for right-turn/through/left-turn movements. Kiahuna Plantation Drive provides access to Kiahuna Golf Club, Po'ipū Shopping Village, and Kiahuna Golf Village residences. The posted speed limit is 25 mph.

Other existing roadways that are in the vicinity of the project area include the following:

- Maluhia Road is a two-way, two-lane road oriented north-south from Kaumuali'i Highway to an unsignalized Tee-intersection with Koloa Road. The posted speed limit varies from 35 to 50 mph, and is reduced to 25 mph as the road approaches Kōloa Town. At Kōloa Road, the Maluhia Road southbound approach has an exclusive right-turn lane and an exclusive left-turn lane. The southbound right-turn traffic is yield-sign-controlled, while the southbound left-turn traffic is stop-sign-controlled. At its intersection with Ala Kinoiki Road, the Maluhia Road northbound approach has a through lane and an exclusive right-

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turn lane; the southbound approach has a through lane and an exclusive left-turn.

- Ala Kinoiki Road (i.e. Kōloa/Po'ipū Eastern Bypass Road) is a two-way, two-lane, County arterial roadway oriented north-south, providing an alternate route from Maluhia Road in Kōloa to Po'ipū. The posted speed limit on Ala Kinoiki Road varies from 25 to 40 mph. Ala Kinoiki Road intersects Maluhia Road north of Kōloa Town at an unsignalized Tee-intersection. The Ala Kinoiki Road westbound approach is stop-sign-controlled and has an exclusive left-turn lane and an exclusive right-turn lane. The Ala Kinoiki Road westbound right-turn lane connects to an exclusive northbound acceleration lane on Maluhia Road, forming a "free" right-turn. Ala Kinoiki Road continues south to an intersection with Weliweli Road. The northbound approach has an exclusive left-turn lane and a two to three vehicle storage length and a share right-turn/through lane. The southbound approach at Weliweli Road has an exclusive left-turn lane with a two to three vehicle storage length, a through lane, and an exclusive right-turn lane. Further south, Ala Kinoiki Road intersects Po'ipū Road on the east side of the project site. The southbound approach has an exclusive right-turn lane connecting to an acceleration lane on westbound Po'ipū Road, forming a "free" right-turn.
- Kōloa Road is a two-way, two-lane road County collector roadway oriented east-west from Kaumuali'i Highway in Lāwa'i to Waikomo Road in Kōloa. The speed limit varies between 25 to 50 mph on the section from Kaumuali'i Highway to Po'ipū Road and between 15 to 25 mph in Kōloa Town. At its intersection with Maluhia Road, the Kōloa Road eastbound approach has an exclusive left-turn lane with a storage length for approximately six to seven vehicles and a through lane; the westbound approach has a single shared lane for through and right-turn traffic movements. At the Kōloa Road/Po'ipū Road intersection, the Kōloa Road westbound approach has an exclusive left-turn lane with a storage length for approximately seven to eight vehicles and a separate through lane. The eastbound approach has a single shared lane for through and right-turn traffic movements. At its intersection with Weliweli Road, the Kōloa Road eastbound approach has a single shared lane for through and right-turn traffic movements while the westbound approach has a single shared lane for left-turn and through movements.
- Kiahuna Tennis Club Driveway is a two-way, two-lane, private driveway oriented north-south, which begins at a stop-signed-controlled Tee-intersection with Po'ipū Road, and serves as the only access to the Kiahuna Tennis Club. Southbound, the Kiahuna Tennis Club Driveway has a shared right-turn and left-turn lane.

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- Ho'owili Road is a two-way, two-lane, County roadway running south from Po'ipū Road to Ho'one Road, providing access to Po'ipū Beach Park, Brennecke Beach Park, and single-family residences. The posted speed limit is 25 mph. At its stop-sign-controlled intersection with Po'ipū Road, the Ho'owili Road northbound approach has an exclusive right-turn lane and an exclusive left-turn lane.
- Kipuka Road is a two-way, two-lane, County roadway that runs north-south, beginning at a Tee-intersection with Po'ipū Road and terminating at Pahoehoe Road. At Po'ipū Road the stop-sign-controlled Kipuka Street southbound approach has a single lane for right-turn and left-turn movements. Kipuka Road serves the neighboring Weliweli Tract subdivision. The posted speed limit is 25 mph.
- Pahoehoe Road is a two-way, two-lane, County roadway oriented east-west, and located in the northern portion of the Weliweli Tract subdivision.
- Pe'e Road is a two-way, two-lane, County roadway that runs north-south from Po'ipū Road to where Ho'one Road to the south. Pe'e Road serves the residences and resorts around the Po'ipū Crater Resort area. The posted speed is 25 mph.

Existing and Projected Traffic Condition Analysis without Project. Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow ranging from free-flow conditions (LOS A) to congested conditions (LOS F). Most intersections in the vicinity of the proposed Village at Po'ipū project site currently operate at acceptable LOS levels during morning and afternoon peak hours. The exception to this is the Kōloa Road/Po'ipū Road intersection, at which the northbound left-turn traffic on Po'ipū Road operates at LOS F during the afternoon peak hour of traffic.

As a basis for comparison, traffic was projected for the area without the proposed Village at Po'ipū project. It was calculated based on a three percent annual growth of background traffic² and the projected traffic generated by new projects planned in the area as known at the time of the TIAR. These projects included Kukui'ula and related employee housing, Kiahuna Mauka, Kōloa Creekside, the Po'ipū Beach Hotel, Kōloa Marketplace, Historic Kōloa Village, the Po'ipū Beach Villas, and the expansion of the Sheraton Kauai Resort Hotel. It also considered roadway improvements planned for these projects such as the Western Bypass Road. The study years selected for the traffic projections were 2006, 2010, and 2015 in order to coincide with the proposed phasing of the Village at Po'ipū project.

² Calculated based on State Department of Transportation studies and historic data. Please reference the full TIAR for more detail (Appendix L).

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Even without the project, several improvements to the roadway network in the Kōloa-Po'ipū region would need to be made to provide acceptable levels of service to accommodate projected traffic growth. ATA recommended the following improvements.

Base year 2006 without the project:

- At the Po'ipū Road/Ala Kinoiki Road/Pe'e Road intersection: install an all-way stop controlled intersection or a single-lane roundabout. Roundabouts are able to accommodate up to 30 percent more vehicular traffic with less delay than a signalized or stop-controlled intersection. However, there may not be sufficient space to accommodate one at this location without acquiring additional right-of-way.

Base year 2010 without the project:

- At the Kōloa Road/Weliweli Road intersection, modify the Weliweli Road northbound approach to include an exclusive right-turn lane and an exclusive left-turn lane.
- At the Ala Kinoiki Road/Weliweli Road intersection, install a traffic signal or single-lane roundabout.
- At the Po'ipū Road/Ho'owili Road intersection, install a traffic signal or single-lane roundabout.
- At the Po'ipū Road/Kiahuna Plantation Drive intersection, install a traffic signal or single-lane roundabout.

Base year 2015 without the project:

- Additional improvements may be required depending upon the improvement installed in 2010. The Po'ipū Road/Kiahuna Plantation Drive would require the addition of exclusive right- and left-turn lanes if a traffic signal is installed. No further improvements will be required if a single-lane roundabout be installed.

Potential Impacts and Mitigative Measures

As noted earlier, build-out of the Village at Po'ipū would occur over three phases with the phases estimated to finish by 2006, 2010, and 2015. The TIAR projects the incremental impacts to traffic from each of the three phases and recommends mitigative measures.

Phase 1 (2006). Residents of Phase 1 would utilize Kiahuna Plantation Drive and the Kiahuna Tennis Club Driveway. Phase 1 is expected to generate approximately 33 trips during the AM peak hour of traffic and 40 trips during the PM peak hour of traffic. Traffic conditions at intersections will be similar to conditions without the project. Because no major traffic impacts resulting from Phase 1 of the project are anticipated, no mitigation measures are proposed.

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Phase 2 (2010). Following completion of Phase 2, traffic from the Village at Po'ipū will use two additional access points: 1) Kipuka Street; and 2) a new road (Driveway A) intersecting Po'ipū Road at its intersection with Ho'owili Road. Build-out of Phase 1 and Phase 2 is expected to generate approximately 130 trips during the AM peak hour of traffic and 165 trips during the PM peak hour of traffic.

The construction of Driveway A during Phase 2 will reinforce the baseline need to either install a traffic signal or construct a single-lane roundabout at its intersection with Po'ipū Road and Ho'owili Road. If a traffic signal is installed, the following will be required:

- An exclusive right-turn lane and a shared through/left-turn lane on the northbound Ho'owili Road approach;
- A shared right-turn/through/left-turn lane on the southbound Driveway A approach; and
- A shared right-turn/through lane and an exclusive left-turn lane on westbound and eastbound Po'ipū Road approaches.

With either the installation of a roundabout or traffic signal, operating conditions will be acceptable at this intersection. Traffic at the other intersections will be similar to future conditions without the project so no additional mitigation measures are proposed.

Phase 3 (2015). At full build-out, the Village at Po'ipū is proposed to have five access points onto the existing roadway network: 1) Kiahuna Plantation Drive; 2) Kiahuna Tennis Club driveway; 3) Hapa Road; 4) Kipuka Street via Pahoe Street; and 5) Driveway A. With the third phase completed, Village at Po'ipū is expected to generate approximately 242 trips during the AM peak hour of traffic and 320 trips during the PM peak hour of traffic. Traffic flow at area intersections will be similar to projected baseline conditions without the project except for the following:

- Traffic on the southbound Kiahuna Tennis Club Driveway approach to Po'ipū Road will be LOS E rather than LOS D during the PM peak hour but would not warrant the installation of a traffic signal; and
- Traffic on the southbound Kiahuna Plantation Drive approach to Po'ipū Road would require an exclusive right-turn lane should a traffic signal be installed at the Kiahuna Plantation Drive/Po'ipū Road intersection. No design changes would be necessary if a single-lane roundabout is installed.

The projected traffic impacts directly attributed to the Village at Po'ipū are anticipated to be relatively minor. With the installation of all recommended improvements, traffic in the Kōloa-Po'ipū area is expected to operate at acceptable levels of service. The Knudsen Trust will implement those improvements directly related to its project's projected traffic impacts.

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4.4 NOISE

D.L Adams Associates, Ltd. prepared an environmental noise assessment report for the Village at Po'ipū to examine potential noise impacts and suggest possible mitigative measures (see Appendix M). Key elements of the report are summarized below.

Existing Conditions

The Village at Po'ipū project site and vicinity is relatively quiet. The dominant sources of noise are generated by vehicular traffic on surrounding roads, birds, and wind. Secondary noise sources include pedestrian traffic, barking dogs and farm animals, and light rain. Based on noise measurements taken at the property line, the average day-night level is 53 decibel (dBA).

Potential Impacts

Potential impacts to the acoustic environment of the site and neighboring properties relate to short-term demolition and construction noise, traffic, and post-construction operations.

Demolition and Construction Noise. The dominant noise sources during construction will probably be earth moving equipment, such as bulldozers and diesel powered trucks. Noise from construction activities will occur mainly on the project site and Hapa Road. Noise from construction activities will be short-term, limited to daytime hours, and will comply with State of Hawaii Community Noise Control Rules and the DOH-issued construction noise permit.

Traffic Noise. Increases in traffic noise levels are not expected to be significant. At most, increases are less than 1 dB. All existing and predicted future noise levels are well below the FHWA/HDOT maximum noise limit of 67 dBA.

Post-Construction Operations. After construction, long-term noise impacts would include stationary mechanical equipment that is typical for residential housing, such as air conditioners or compressors. Other noises include typical human activities (i.e. outdoor maintenance, conversations, etc.) and vehicles entering and exiting the neighborhoods.

Mitigative Measures

All activities related to Village at Po'ipū will comply with HAR, Chapter 11-46, Community Noise Control.

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Demolition and Construction Noise. Proper mitigating measures will be employed to minimize demolition- and construction-related noise impacts to comply with all Federal and State noise control regulations. The noise assessment report recommends using mufflers on diesel and gasoline engine machines and using property tuned and balanced machines. Additional noise mitigation could include temporary noise barriers or time of day usage limits for certain kinds of construction activities.

Increased noise activity due to demolition and construction will be short-term, limited to daytime hours, and persist only during the construction period. When construction noise exceeds, or is expected to exceed the Department of Health's allowable limits, a permit must be obtained. Specific permit restrictions for construction activities are:

- No permit shall allow any construction activities that emit noise in excess of the maximum permissible sound levels before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday.
- No permit shall allow any construction activities that emit noise in excess of the maximum permissible sound levels before 9:00 a.m. and after 6:00 p.m. on Saturday.
- No permit shall allow any construction activities that emit noise in excess of the maximum permissible sound levels on Sundays and holidays.

The use of hoe rams and jack hammers 25 lbs. or larger, high-pressure sprayers, chain saws, and pile drivers will be restricted to 9:00 a.m. to 5:30 p.m., Monday through Friday.

Traffic Noise. Because traffic noise analysis shows no significant noise impact to the surrounding community, or at the proposed Village at Po'ipū site, mitigation measures related to traffic noise are not warranted or proposed.

Post-Construction Operations. The design of Village at Po'ipū will provide for the location and placement of stationary mechanical equipment, such as chillers, compressors, and air conditioning units, away from neighbors and residential units, as much as is practical. Enclosed mechanical rooms may be required for some equipment.

4.5 AIR QUALITY

B.D. Neal & Associates prepared an air quality impact assessment to: 1) examine potential air quality impacts related to Village at Po'ipū; and 2) suggest mitigative measures to reduce any potential air quality impacts where possible and appropriate. The air quality assessment is summarized below. Appendix N contains the full report.

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Existing Conditions

The climate of the Po'ipū area is very much affected by the topography of the island and its coastal situation. Winds are predominantly trade winds from the east or northeast, except for occasional periods when kona storms may generate strong winds from the south or when the trade winds are weak and land breeze-sea breeze circulations may develop. Wind speeds average about 11 to 12 miles per hour, providing relatively good ventilation much of the time. Temperatures in the area are generally very moderate with average daily temperatures ranging from about 68 degrees Fahrenheit to 81 degrees Fahrenheit. Average annual rainfall in the Po'ipū area amounts to about 40 to 45 inches with summer months being the driest.

Both federal and state standards have been established to maintain ambient air quality. At the present time, seven parameters are regulated, including: particulate matter, sulfur dioxide, hydrogen sulfide, nitrogen dioxide, carbon monoxide, ozone, and lead. Hawai'i air quality standards are comparable to the national standards except those for nitrogen dioxide and carbon monoxide, which are more stringent than the national standards.

Although there is very little air quality data available from the Department of Health for the island of Kaua'i, the present air quality of the project area appear to be reasonably good. Based on the information available, it appears likely that all national air quality standards are currently being met, although occasional exceedances of the more stringent state standards for carbon monoxide may occur near congested roadway intersections.

Potential Impacts

Short-Term Impacts. Short-term direct and indirect impacts on air quality could potentially occur due to project construction. Direct impacts could include: 1) fugitive dust from vehicle movement and soil excavation; and 2) exhaust emissions from on-site construction equipment.

Fugitive dust emissions from demolition and construction activities are difficult to estimate because of their elusive nature of emission and because the potential for its generation varies greatly depending upon the type of soil at the construction site, the amount of dirt-disturbing activity taking place, the moisture content of exposed soil in work areas, and the wind speed.

The U.S. Environmental Protection Agency has provided a rough estimate for uncontrolled fugitive dust emissions from construction activity of 1.2 tons per acre per month under conditions of "medium" activity, moderate soil silt content (30 percent), and precipitation/evaporation (P/E) index of 50. The air quality assessment estimates

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that uncontrolled fugitive dust emissions from construction of the Village at Po'ipū would likely be somewhere near this level. State of Hawai'i Air Pollution Control Regulations prohibit visible emissions of fugitive dust from construction activities at the property line.

On-site mobile and stationary demolition and construction equipment also will emit air pollutants from engine exhausts. The largest of this equipment is usually diesel-powered. Nitrogen oxides emissions from diesel engines can be relatively high compared to gasoline-powered equipment, but the standard for nitrogen dioxide is set on an annual basis and is not likely to be violated by short-term construction equipment emissions. Carbon monoxide emissions from diesel engines, on the other hand, are low and should be relatively insignificant compared to vehicular emissions on nearby roadways.

Indirectly, there could also be short-term impacts from construction equipment traveling to and from the project site, from a temporary increase in local traffic caused by commuting construction workers, and from the disruption of normal traffic flow caused by lane closures of adjacent roadways.

Long-Term Impacts. According to the air quality assessment, upon completion of construction activities, the Village at Po'ipū project should not have a significant impact on air quality. Air quality modeling predicts that with or without the project, concentrations of potential pollutants should remain well below both national and state standards.

Mitigative Measures

Mitigation measures will be implemented to minimize potential air quality impacts, as discussed below.

Short-Term Demolition and Construction Activities. All construction activities will comply with the provisions of HAR, §11-60.1-33 on fugitive dust. In compliance with these provisions, an effective dust control plan will be implemented.

Contractors will provide adequate measures to control fugitive dust emissions during various phases of construction. Such dust control measures include:

- Plan the different phases of construction so that the amount of dust-generating materials and activities are minimized, centralize on-site vehicular traffic routes, and locate potential dust-generating equipment in areas of the least impact;
- Provide an adequate water source at the site prior to start-up of construction activities for dust control;
- Landscape and cover bare areas as soon as possible, including slopes, throughout all phases of construction;

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- Minimize dust from shoulders and access roads;
- Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- Control dust from debris being hauled away from the project site.

Air quality impacts from slow-moving construction vehicles on roadways will be mitigated by moving heavy construction equipment during periods of low traffic volume. Likewise, the schedules of commuting construction workers can be adjusted to avoid peak hours in the vicinity.

Long-Term Operations. Due to landscaping and ongoing maintenance and the low traffic impact of the project site, long-term air quality impacts were considered to be extremely low and not significant. As a result, no long-term mitigation measures are proposed or warranted.

4.6 VISUAL RESOURCES

Existing Conditions

The project area *makai* of the railroad berm and adjacent to Po'ipū Road is visible from Po'ipū Road. Areas *mauka* of the berm are not visible from Po'ipū Road but are visible from Hapa Road and Kiahuna Plantation Road. The area is visually dominated by the existing haole koa scrub (*Leucaena leucocephala*). Along Kiahuna Plantation Drive, rows of royal palms border the roadway creating a tree-lined drive but looking east to the project site from Kiahuna Plantation Drive, the project site is covered by koa haole thickets and pasture scrubland. Views from the site are limited by the gradual slope of the property, vegetation, and nearby development. However, moderate to expansive panoramas are available from selected points. Figure 9 shows birds-eye aerial oblique photographs of the project site.

Potential Impacts and Mitigative Measures

The nature of the site will change from overgrown scrub and pasture land to a residential community. The Knudsen Trust will provide a park and a landscape or natural buffer on their property along Po'ipū Road to soften views with greenery. Hapa Road will be developed into a pedestrian/bike path and will be landscaped. The historic rock walls along Hapa Road will be preserved in place or restored. In addition, detailed design guidelines have been developed by PBR HAWAII (August 11, 2004) that will dictate appropriate architectural and landscaping treatments for future development. Height limits prescribed in the design guidelines are equal to or less than those in the Kaua'i County Code. A Design and Architectural Review Committee must

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approve all designs before construction may commence. Homes will be designed to address the roadways and public areas.

4.7 SOCIAL & ECONOMIC CHARACTERISTICS

The Hallstrom Group, Inc. prepared a market study, economic impact analysis, and public cost/benefits assessment for the Village at Po'ipū (see Appendix O). Key elements of the study and other social characteristics of the project area are summarized below.

4.7.1 Population

Existing Conditions

According to 2000 U.S. Census data as reported in the Hawai'i State Data Book for 2004, the County of Kaua'i had a total population of 58,463 persons, with 5,404 residents in the Kōloa and Po'ipū census tracts (DBEDT 2004). In 2004, the population for the County of Kaua'i rose to 61,929, a six percent increase over the 2000 Census figures (DBEDT 2005).

In addition to the resident population, for the year 2004, approximately 18,869 non-residents were estimated to populate Kaua'i County on any given day. Combining resident and visitor populations, the de facto population of Kaua'i County was approximately 78,001 in July 2004 (DBEDT 2004).

Potential Impact and Mitigative Measures

Several population projections for Kaua'i and the Kōloa-Po'ipū area have been calculated by State and County sources. According to the State Department of Business Economic Development and Tourism (DBEDT), the population of Kaua'i is projected to increase to 65,900 persons by 2010, 74,750 persons by 2020, and to 83,900 persons by 2030 (DBEDT 2004). According to the Kaua'i General Plan, Kaua'i's population is estimated to reach 74,320 persons by 2020 (Kaua'i County 2000). Conservative projections indicate that between 4,800 (28 percent) to 7,700 (45 percent) of the 17,000 new Kaua'i residents will be housed in the Kōloa-Po'ipū area by 2025 (The Hallstrom Group 2005).

The Village at Po'ipū will provide single- and multi-family residences for both non-residents and permanent residents. Based on the proposed 350-503 units at the Village at Po'ipū and the County's formula of 2.1 persons per multi-family unit and 3.5 persons per single-family residence, the de facto population for the Village at Po'ipū will be between 1,037 to 1,573 persons at full build-out. Based on projections prepared for the

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Hallstrom market study, the average daily defacto population of the project is 1,145 persons with approximately half of these estimated to be full-time residents (The Hallstrom Group 2005). Both calculations are consistent with each other and provide a basis to estimate potential impacts from the proposed community.

Because only approximately half of Village at Po'ipū population is estimated to be permanent residents, the project is not expected to have a significant impact on population levels. Non-residents and part-time residents using their units as second homes are expected to exert less pressure on government services such as schools and infrastructure than would a community of full-time residents. However, it is noted that the State Department of Education will request a fair-share contribution for the project with which the developer will fully comply. The developer will also install all required infrastructure as discussed in other sections of this EIS (see other subsections of 4.0). However, it should be noted that both the resident and non-resident populations of Kaua'i are projected to grow independent of the Village at Po'ipū. The cumulative needs of a growing Kōloa-Po'ipū area population as projected by the General Plan and relating to larger traffic infrastructure, public services, and other issues will need to be addressed regardless of whether the Village at Po'ipū is built. As most of the proposed projects will be developed in phases, supporting infrastructure and services will also be phased and developed as needed.

4.7.2 Housing

Existing Conditions

According to the Hallstrom market study, the Po'ipū-Kōloa housing market is currently in a moderately to strongly undersupplied condition. There is not enough housing to meet demand. Development in the area has been limited since the 1980s, with very low vacancy rates, high market interest, and rapidly appreciating prices over the last several years. The total number of housing units in the Po'ipū-Koloa area is estimated to be approximately 1,400 units. Therefore, coupled with the projected population increase over the next 20 years, the actualization of a healthy and stable housing market in the Po'ipū-Koloa area will need 2,544 to 5,517 additional housing units by 2025 (Hallstrom Group 2005).

The median home price on Kaua'i was \$665,000 in May 2005, according to data from the Hawai'i Information Service (Pacific Business News 2005). Housing costs have been rising dramatically since 2000, when median home prices were under \$300,000 (Laney, 2004). The Hallstrom market study attributes the rapidly escalating per unit prices to the extremely limited inventory available for resale in the region.

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Potential Impacts and Mitigative Measures

The Village at Po'ipū will contribute 134 multi-family units and 216 to 369 single-family residences to the Po'ipū-Kōloa housing market. The market study estimates that for a relatively healthy housing market for the Kōloa/Po'ipū region, roughly 42 percent of units required through 2025 should be priced for the affordable and moderate-gap group housing needs (below \$500,000) while the remaining 58 percent of potential purchasers would be seeking homes at the moderate to high market price levels (more than \$500,000). Virtually all of the subject inventory will be oriented towards the 58 percent of the purchasers seeking homes at the moderate to high market price levels (more than \$500,000). This segment of purchasers will require approximately 1,480 to 3,220 units over the next 20 years. The Village at Po'ipū needs only to capture a portion of this demand to achieve rapid absorption and be considered a meaningful source of residential inventory.

The Knudsen Trust is also working with the County of Kaua'i Housing Agency to satisfy affordable housing requirements for the project. In satisfaction of the original 1977 State Land Use Boundary Amendment (Docket A76-418) which reclassified the lands *makai* of the railroad berm as well as lands to the west from the Agricultural District to the Urban District, a \$2,000,000 payment was made to the County of Kaua'i to fulfill its affordable housing obligation. This condition was confirmed as being satisfied by the LUC on October 16, 1995. Phase 1 and 2 of the Village at Po'ipū project are located in this area *makai* of the railroad berm and therefore do not have any affordable housing requirements to fulfill.

4.7.3 Community Character

Existing Conditions

Southern Kaua'i and the Kōloa District include both rural residential and premier resort communities. In the Kōloa-Po'ipū area, resort/vacation-oriented uses have been traditionally located *makai* of Po'ipū Road with resident-oriented single-family subdivisions located in *mauka* areas.

Although Kōloa is greatly influenced by the nearby coastal Po'ipū resort area, it has retained its quiet, rural character. Kōloa is Hawai'i's oldest plantation town. Sugar production began in the early-1800s and the area was once the commercial and business hub of the island. Many of the original buildings constructed in Kōloa during the plantation era still remain. Today, Kōloa Town has developed into a tourist-oriented destination depicting old Hawai'i, while still serving Kaua'i residents.

The Po'ipū resort area, located approximately three miles south of Kōloa Town, is one of Kaua'i's premier resort destinations. Po'ipū suffered major damage from Hurricane

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ʻIniki in 1992. Following the aftermath of the hurricane, Poʻipū was left with only a limited number of rentable hotel rooms and condominium rental units. Since 1992, the Poʻipū area has been steadily rebuilding the visitor and resort facilities. In addition, the proportion of single-family homes, including homes purchased by full-time residents, has increased in *makai* areas of Poʻipū. Today, Poʻipū is again a desirable resort and residential community.

Potential Impacts and Mitigative Measures

The Village at Poʻipū will be a natural in-fill within the planned urban expansion Kōloa-Poʻipū corridor. The proposed master plan maximizes the utilizations of urban in-fill/expansion lands by combining residential types, varying densities, and implementing planning and architectural standards in order to blend with the existing community. This is consistent with County policy and the General Plan to alleviate the unit shortage by permitting urban development of centrally located, vacant, feral or nominal agricultural lands. As noted earlier, the entire project site is designated as “Residential Community” by the County General Plan.

The Village at Poʻipū design guidelines will encourage the appropriate use of materials, colors, design standards, and landscaping in character with existing residential communities in the area. The Village at Poʻipū also creates opportunities to improve environmental resources by replacing existing alien and invasive species with native and non-invasive species and using bioswales and landscaping measures to improve the water quality of runoff. The project will also preserve and protect archaeological and cultural resources and enhance recreational opportunities through the inclusion of parks, open spaces, pedestrian/bicycle paths, and archaeological preserves.

4.7.4 Employment

Existing Conditions

Numerous job opportunities on Kauaʻi, such as in construction and tourism, have led to a dramatically decreasing unemployment rate over the last ten years. According to the 2004 Hawaiʻi State Data Book, the unemployment rate on Kauaʻi dropped from a high of 13 percent in 1993 to an estimated 3.3 percent in 2004 (DBEDT 2004). According to 2000 Census profiles for Kōloa and Poʻipū, the unemployment rates were 4.7 percent and 1.3 percent, respectively (DBEDT 2000).

Potential Impacts and Mitigative Measures

The construction of the Village at Poʻipū and its ongoing operations will create some 1,737 “worker years” of employment during the first ten years of its construction and use, generating approximately \$77.9 million in wages. On a stabilized basis, long-term

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home and unit maintenance at the Village at Po'ipū will support approximately 29 full-time equivalent on-site positions and an additional 12 off-site jobs, with total wages of \$1.2 million annually (The Hallstrom Group 2005).

4.7.5 Economic Factors/Government Revenues

Existing Conditions

The Po'ipū area is one of Kaua'i's major visitor destinations. Prior to Hurricane 'Iniki in 1992, there were over 1,500 hotel rooms in Po'ipū. Although the resort area suffered major damage from the hurricane, it has been steadily rebuilding its visitor plant and resort facilities since 1992.

Tourism is the primary sector of Kaua'i's economy. On average, the 1,020,921 visitors to the island of Kaua'i in 2004 spent \$159 per person per day. In 2004, the leisure and hospitality industry, including hotels, employed 8,400 persons in Kaua'i County, which represents nearly 30 percent of the total employed non-agricultural civilian labor force (28,100). As of 1999, 2.7 percent of families in Po'ipū Census Designated Place (CDP) and fell below the poverty level, compared with 16.7 percent in Kōloa CDP and 8.4 percent in Kaua'i County (DBEDT 2000). According to the *Hawaii State Data Book 2004*, median household income for Kaua'i was \$45,020 in 1999 and per capita income was \$22,646. DBEDT projects per capita income in Kaua'i County to rise to \$35,849 by 2025.

Potential Impacts and Mitigative Measures

The development of the Village at Po'ipū community will generate activity and expenditures that will favorably impact the Kauai economy on both a direct and indirect basis, increasing the level of capital investment, capital growth and capital flow in the region. The project will add millions of dollars into South and Central Kauai, expanding the economy, widening the tax base and creating stable long-term employment opportunities.

At project built-out, the de facto population for the 350 to 503 units is estimated to be 1,037 to 1,573 persons, with approximately half of those full-time residents. The Hallstrom Group estimated that these full-time residents will have annual discretionary spending of \$56.7 million per year. Some of the resident and virtually all of the non-resident expenditures will be "new" dollars on Kaua'i, providing true economic expansion. In addition to expenditures, the project is estimated to add \$173 million in development capital and \$4.2 million in annual business operations into the Kaua'i economy. On a stabilized basis, project operations will support approximately 41 full-time equivalent on- and off-site jobs, with total annual wages of \$1.2 million.

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The State of Hawai'i and County of Kaua'i will also directly benefit from the project and its operation over time from real property taxes, gross excise tax receipts, and state income taxes. The State of Hawai'i is estimated to receive \$43.8 million in primary tax receipts during the first 10 years of development, and \$4.8 million annually thereafter. The County of Kaua'i would receive \$10 million during the first 10 years and \$1.3 million per year thereafter. In no year does the State or County suffer a revenue shortfall (expenditures exceeding receipts) relative to the project.

The total direct, local impact to Kaua'i (dollars flowing into the island market) is estimated to be \$341.7 million during the initial decade of construction and operation, and stabilize at \$62 million annually thereafter. As these dollars move through the island market, they will have a multiplier effect increasing the economic impact of the Village at Po'ipū to Kaua'i during its first ten years to some \$683.3 million.

4.8 INFRASTRUCTURE AND UTILITIES

A preliminary engineering report was prepared for Village at Po'ipū by Kodani and Associates. Preliminary cost estimates for the order-of-magnitude costs are provided in Section 2.4 and in Table 4. Key elements of the report are summarized in the following sections. The complete report is included in Appendix P.

4.8.1 Water Systems

The Village at Po'ipū site is located within the County of Kauai's Department of Water (DOW) existing Kōloa-Po'ipū Water System. The service area of this system consists of a concentration of resorts along the Po'ipū coastline and residential communities clustered near the coast and around Kōloa Town. The Kōloa-Po'ipū Water System is divided into a 366-foot pressure zone and 245-foot pressure zone. The five wells that serve the system have a total capacity of about 3,560 gallons per minute (gpm). Total available storage for the water system is 4.25 million gallons.

Potable water for domestic use by the residential units in the Village at Po'ipū development will be supplied by the DOW. The water facilities constructed for this project will be built to DOW standards and will be dedicated to the DOW prior to connection. A second non-potable water system is proposed for irrigating landscaped common areas, multifamily residential, and the larger single family lots. The non-potable system would be a private system operated by the developer and later transferred to the homeowner's association.

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Potential Impacts and Mitigative Measures

Potable Water Demand. Potable water used by the home sites in the Village at Po'ipū will be supplied by DOW. Based on an average demand of 500 gallons per day (gpd) for single family units and 350 gpd for multifamily units, the full build-out of the project would generate an average demand of about 231,400 gallons per day.

Within the 245-foot service zone, the DOW has agreed to supply water from its existing sources to the 50 single-family units that make up Phase I of the Village at Po'ipū project. Water for the remainder of the development within the 245-foot service zone will become available when Well "F" is completed. The Village at Po'ipū proposes to meet its source requirements by entering into an agreement with the DOW to pay a pro-rata share of the total cost to develop and outfit Well "F". The development of the units within the 366-foot service zone is not expected to begin until about 2015. By that time, the DOW expects to develop additional sources that can be used by the Village at Po'ipū. The developer will pay its fair share of the cost to serve the units in this service zone.

Water Reservoir Storage. The Trust will be providing their fair-share contribution to water storage requirements for the project. The DOW has preliminarily agreed to provide storage for the areas of the Village at Poipu project within the 245-foot service zone. In exchange, the Trust will be responsible for constructing a 400,000-gallon storage tank once construction moves into the 366-foot service zone.

Non-Potable Water. A separate non-potable irrigation system is planned for use on all landscaped common areas, including roadways, parks, archaeological preserves, multifamily units, and the Hapa Road pedestrian/bicycle path. It will be developed for the project to reduce potable water requirements. Additional lines will be installed to serve the larger residential lots. Non-potable water for irrigation use will be supplied by a private system constructed and operated by the developer and eventually transferred to the future homeowners' association. Non-potable water will be provided by two sources: 1) Grove Farm's Waita Reservoir and 2) two onsite wells. Dual systems are also planned for the larger lots to further reduce potable water demand for irrigation purposes. With the installation and use of dual water systems, the overall demand on potable water resources is reduced.

4.8.2 Wastewater System

Wastewater generated by the Village at Po'ipū project would be collected and routed to the Po'ipū Water Reclamation Facility (PWRf) for treatment. The treatment plant is a privately owned secondary treatment plant whose effluent is used to irrigate the adjacent Kiahuna Golf Course. An upgrade and expansion of the wastewater plant was initiated in 2004. The first phase of improvements has been completed and included a

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new biological process, capable of treating up to 1,000,000 gallons per day of wastewater. With the completion of this phase, the Po'ipū Reclamation Facility has sufficient capacity to treat all the wastewater that will be generated by the Village at Po'ipū.

The second phase of improvements is estimated for completion at the end of 2005 and includes tertiary filtration and ultraviolet (UV) disinfection. When the second phase of improvements is completed, the treatment plant will meet R-1 standards, which is the highest level of effluent quality regulated by the State of Hawai'i.

Potential Impacts and Mitigative Measures

Based on a 250-gpd per multi-family unit generation rate and a 400-gpd per single-family generation rate, the proposed project would produce roughly 181,100 gpd at full build out. As noted above, all of the effluent generated by the Village at Po'ipū will be routed to the PWRF. It is expected that the effluent will be used by the neighboring Kiahuna Mauka Partners to irrigate the common areas of their development as well as the Kiahuna Golf Course. This will increase reuse of wastewater and reduce potable water requirements for irrigation in the region.

An onsite sewer collection system consisting of sewer manholes and 8-inch pipelines will also be constructed. The developer will construct a sewer pump station and install sewer lines off-site to convey the wastewater to the treatment facility, as needed.

4.8.3 Drainage System

Existing terrain within the Village at Po'ipū site is generally consistent, with the topography being level to undulating and rocky in places. Elevations run from 18 feet above mean sea level (msl) at the *makai* boundary along Po'ipū Road to approximately 200 feet above msl along its *mauka* border near the intersection of Hapa Road and Weliweli Road. There are no wetlands or impaired waters of Hawai'i onsite.

Under existing conditions, runoff on the project site collects in natural swales and drainage ways and flows *makai*, in the general direction of Po'ipū Road. The flows cross under Po'ipū Road through two sets of existing culverts near Hapa Road and near Kipuka Street before making its way through downstream properties to the ocean. Surface flows from the northernmost portion of the Village at Po'ipū site flow to the Kiahuna Golf course.

Under existing conditions, peak discharge rates for a 100-year, 24-hour storm are estimated to be 519 cubic feet per second (cfs) through the series of five culverts near the Po'ipū Road/Hapa Road intersection and 277 cfs through the culvert near Kipuka Road, and 170 cfs from the northernmost portion of the Village at Po'ipū site.

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Potential Impacts and Mitigative Measures

The development of the Village at Po'ipū will result in the construction of impermeable areas such as roads and homes that will affect runoff. Drainage patterns will change slightly from the existing conditions as the runoff pattern is revised to follow the new roadways.

Peak discharge rates with the Village at Po'ipū project are estimated to be 466 cfs through the series of five culverts near Hapa Road, 332 cfs through the culvert near the Po'ipū Road/Kipuka Road intersection, and 157 cfs from the northernmost portion of the site. Drainage flows through the series of five culverts and from the northernmost portion of the site will decrease with the proposed project. However, the flow rate is estimated to increase by 55 cfs over the existing peak discharge through the culvert near the Po'ipū Road/Kipuka Road intersection.

The County of Kaua'i requires that for new developments, the peak discharge rate for the future condition be maintained at exiting levels. To meet this requirement, the developer proposes to construct detention basins near Po'ipū Road. Table 5 compares the existing peak discharge rates with future peak discharge rates with and without the detention basins.

Table 5: Comparison of Existing and Future Peak Runoff Conditions

Drainage Area	Existing Peak Discharge Rate (cfs)	Future Peak Discharge Rate (cfs)	Future Peak Discharge Rate After Detention (cfs)
Kipuka Road Culvert (No. 2)	277	332	172
Hapa Road Culverts (No. 1 and 3)	519	466	466 (No Detention)
Mauka Area (No. 4)	170	157	157 (No Detention)

Because the Village at Po'ipū will be completed in three phases, a temporary detention basin will also be necessary during construction. To maintain the pre-development peak discharge rate throughout all three phases of construction, a temporary detention facility will be constructed upstream of the culvert openings at Po'ipū Road. Following construction of the upstream areas and the permanent detention facilities, the temporary detention basin can be removed.

The on-site drainage collection system for the Village at Po'ipū will consist of drain inlets, manholes, swales, and drainage pipes estimated from 18" to 60" in diameter,

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which will be installed along the planned roadways of the development. Runoff will be collected and routed to detention basins before being discharged to the culverts crossing Po'ipū Road. Drainage improvements may also include the construction of bioswales, which use landscaping improvements to help filter and slow runoff, improving the water quality of the runoff before it hits the drainage systems and eventually the ocean.

With the construction of the proposed drainage system and detention basins, peak discharge rates of runoff to neighboring areas will not exceed existing rates. In fact, they will be reduced. Furthermore, the use of bioswales and biofiltration should help slow runoff and improve the water quality of the runoff. Therefore the development will not create an unreasonable risk to adjacent and downstream properties.

4.8.4 Electrical and Communications Systems

Kaua'i Island Utility Cooperative (KIUC) supplies electrical power for residential, commercial, large power, and street lighting uses throughout the island. Major load centers are in Kapa'a-Wailua, Līhu'e, and Kōloa-Po'ipū. KIUC generates power from a 96-megawatt (MW), diesel-fired power plant located at Port Allen. The utility also purchases non-firm power from Island Coffee and the Gay & Robinson sugar mill.

The Village at Po'ipū site is within the Kalāheo-Po'ipū-Kōloa service area. The region is served by four transmission circuits, one extending east from Pt. Allen and another extending south from Kaumuali'i Highway. There is a switchyard in Kōloa and a substation in Lāwa'i.

Hawaiian Telcom (formerly Verizon Hawaii) provides telephone and other communications services to Kaua'i. Oceanic Time Warner Cable provides the cable television and internet service for Kaua'i.

Potential Impacts and Mitigative Measures

The annual electrical demand of the project when fully developed is expected to reach approximately 3 million kilowatt-hours (BD Neal 2005). Electrical power for the project will most probably be provided mainly by KIUC's oil-fired generating facilities located on Kaua'i. In order to meet the electrical power needs of the proposed project, power generating facilities will be required to burn more fuel and hence more air pollution will be emitted at these facilities. However, the estimated indirect emissions from project electrical demand amount to less than 1 percent of the present air pollution emissions occurring on Kaua'i and therefore have a relatively minor impact to air quality.

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Electrical and communications improvements necessary to support the proposed development can be served by existing utility companies, with some off-site work required. The developer will install onsite and any off-site improvements required to serve the Village at Po'ipū should not have an adverse effect on the utilities' ability to service other areas.

Energy-efficient measures to reduce the maximum electrical demand will be considered in the design and operation of the Village at Po'ipū, where feasible. Design standards will specify low-impact lighting and will encourage energy-efficient building design such as covered porches, natural ventilation, and the use of solar energy.

Further efforts to minimize energy consumption may include incorporating select items from *Guidelines for Sustainable Building Design in Hawaii'i: A planner's Checklist* (OEQC 1999), the County of Kaua'i's Building Energy Code, and the *Field Guide for Energy Performance, Comfort, and Value in Hawaii Homes* into the Village at Po'ipū design guidelines.

Where applicable, the following additional energy-saving methods and technologies will be considered:

- Use of site shading to reduce cooling load;
- Maximum use of day-lighting;
- Use of high efficiency compact fluorescent lighting;
- Exceeding Model Energy Code requirements;
- Roof and wall insulation, radiant barriers, and energy efficient windows;
- Use of solar parking lot lighting;
- Use of light color or "green" roofs;
- Use of roof and gutters to divert rainwater for irrigating landscaping;
- Use of landscaping for dust control and to minimize heat gain to area; and
- Use of photovoltaics, fuel cells, and other renewable energy sources.

All utilities and infrastructure related to electrical and communication systems will be installed underground. This will reduce visual and safety impacts that would have resulted from overhead utilities.

4.8.5 Solid Waste

The County of Kaua'i, Department of Public Works (DPW) maintains an island wide solid waste collection and disposal system. The Kekaha Landfill Phase II is the primary disposal site for solid waste on Kaua'i. As of FY1999, the landfill accepted approximately 67,590 tons of solid waste. The County also operates four refuse transfer stations, one of which is located in Hanapēpē. The Hanapēpē station also accepts green waste.

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Potential Impacts and Mitigative Measures

As the resident and visitor population on Kaua'i grows, demand on the Kekaha Landfill Phase II will increase irrespective of where new development occurs. The *Kaua'i General Plan* projects that a new landfill site will need to be developed by 2020 to meet future island-wide solid waste generation by all Kaua'i residents and visitors.

Construction. The Village at Po'ipū will generate solid waste during the construction of backbone infrastructure and as the project achieves build-out. The quantity of solid waste generated will vary with different construction activities, and some wastes may require separate and special disposal methods. As much as practical, construction plans will specify the use of products with recycled content and the use of locally produced products.

During construction, a job-site waste management and recycling program will be implemented to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. This recycling program will incorporate the "Three Rs" of effective waste management:

- Reduce by preventing waste before it happens through efficient design;
- Reuse by using materials removed during demolition (such as rocks) on-site; and
- Recycle by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products.

Post-Construction Operations. Once the site is fully developed, the maximum population of the project is not expected to exceed 1,574 residents. It is estimated that solid waste from the project will amount to about 6.5 lbs per person per day. Thus, solid waste generated by the proposed development when fully completed and occupied is not expected to exceed about five tons per day (BD Neal 2005).

This is a relatively small amount in comparison with the total waste generated island wide. Further, it is likely that a significant number of the future Village at Po'ipū residents already reside on Kaua'i. Although the Village at Po'ipū will introduce new residents to Kaua'i, it is not expected to greatly impact landfill capacity. A new landfill will have to be developed regardless of the proposed project.

As for secondary impacts, all solid waste on the island is buried at the Kekaha Landfill. Thus, assuming this continues to be the method for solid waste disposal, the only associated air pollution emissions that will occur will be from trucking the waste to the landfill and burying it. These emissions are expected to be relatively minor (BD Neal).

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4.9 PUBLIC SERVICES AND FACILITIES

As discussed in Section 4.7.1, the defacto population for the Village at Po'ipū will be 1,037 to 1,573 persons at full build-out, with approximately 595 full-time residents. Because roughly half of the population will be full-time residents, demand on government services and funds will be less than a community of full-time residents, as visitors typically do not rely on the full range of government services that full-time residents require. However, all property owners at the Village at Po'ipū will pay property taxes on a full-time basis and excise taxes when they purchase goods and services on the island.

During the first ten years of build-out and operation, the Village at Po'ipū is projected to generate approximately \$10 million in taxes for the County of Kaua'i; and approximately \$43.8 million for the State of Hawai'i. After build-out, annual taxes generated from the community are project to be approximately \$1.3 million for the County and approximately \$4.8 million for the State. In no year will the State or the County suffer a revenue shortfall due to the Village at Po'ipū (Hallstrom 2005).

4.9.1 Police Protection

Existing Conditions

The Kaua'i Police Department has three stations, located approximately 25 miles apart. The main station and administrative headquarters are in Līhu'e at the new facility on Kapule Highway. There is a substation on Po'ipū Road in the Po'ipū Kai Resort located one-half mile east of Village at Po'ipū. Satellite stations at Waimea and Hanalei are co-located with fire stations.

Potential Impacts and Mitigative Measures

The Hallstrom Study (2005) estimated the number of additional officers required to serve the proposed Village at Po'ipū project. Using a base cost of \$140 per hour for a responding officer (wages and benefits for responding/support/administrative personnel, overhead, capital costs, and amortized equipment), the annual additional police enforcement cost to Kaua'i County on a stabilized basis after project build-out was estimated to be about \$159,040. This additional demand of 1,136 hours (at \$140/hour) is the equivalent to 56.8 percent of one new officer position. (One new officer position was estimated at 2,000 total hours per year.) The estimated increase in tax receipts to the County of Kaua'i will more than cover any added cost to public services as a result of the population at the Village at Po'ipū.

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4.9.2 Fire Protection

Existing Conditions

The Kaua'i Fire Department has a main station and administrative headquarters in Līhu'e. There are six additional fire stations serving the island. The closest fire station to the proposed project is on Po'ipū Road at the Lāwa'i Road intersection, approximately two-thirds of a mile west of the project site.

Potential Impacts and Mitigative Measures

The public costs/benefits assessment included in the Hallstrom market study estimates that the Village at Po'ipū may require two "minor" fire/rescue events per month, requiring one crew for a total of three hours, and one "major" fire/rescue event every two months requiring two crews for a total of eight hours each. Cost estimates are based on a crew cost of \$800/hour (four to five fire fighters, wages, benefits, overhead and amortized equipment). Using this method, the annual additional costs to Kaua'i County resulting from the Village at Poipu is \$134,400 per year at full build-out. According to the Hallstrom report, the increase in tax receipts to the County of Kaua'i will more than cover any added cost to public services as a result of the population at the Village at Po'ipū.

Furthermore, fire protection systems including fire hydrants and adequately sized water mains will be installed for the project. The system will be designed to accommodate the proposed residential neighborhoods and will comply with Department of Water standards. Road widths, dead-ends, and cul-de-sacs will be designed to ensure maneuverability of fire apparatus within the community. Before construction can commence, all subdivision plans must be reviewed approved by the County of Kaua'i Public Works and will be designed to meet their requirements.

4.9.3 Schools

Existing Conditions

The Village at Po'ipū is located in the State Department of Education's Kaua'i Complex. Students living in the proposed community and attending public school would attend Kaua'i High School, Chiefess Kamakahahei Middle School, and Kōloa Elementary. Official enrollments and school capacities (based on design enrollments plus additional facilities/portables) for these schools are shown in the following table.

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Table 6: Kaua'i Complex Schools, Capacity and Enrollments

School Name	Capacity (Students)	Official Enrollment (Students)			
		2001-2002	2002-2003	2003-2004	2004-2005
Kōloa Elementary	449	245	210	198	184
Chiefess Kamakahelei Middle	1,271	1,036	1,074	1,043	1,023
Kaua'i High School	1,493	1,236	1,249	1,285	1,282

Source: State of Hawai'i, Department of Education (<http://doe.k12.hi.us/>)

According to the Department of Education (DOE), these schools have capacity for some increase in students. Enrollment at Kōloa Elementary has steadily declined during the past several years; although the DOE projects that this trend may reverse in the next year or two. Enrollments at Chiefess Kamakahelei Middle School and Kaua'i High have remained relatively steady averaging annual enrollments of about 1,040 students and 1,260 students, respectively.

Potential Impacts and Mitigative Measures

The Village at Po'ipū residential development is expected to directly increase demand on these schools. Using DOE Multipliers for single-family residential developments, an estimated 154 to 187 students are projected for this project.³ However, it is estimated that a portion of new homeowners will be part-time residents and would thereby reduce the estimated demands on the schools. The market study prepared for the project estimates that the Village at Po'ipū will have 149 school-aged children, 98 of whom will attend public schools (The Hallstrom Group 2005).

The State Land Use Commission will determine a school fair-share contribution for the Village at Po'ipū. The developers will fully comply with the Commission's determination. Should the DOE determine that a new facility is necessary to serve students from the Kōloa-Po'ipū area, Knudsen Trust's contribution will help offset the costs to provide school land and facilities.

4.9.4 Recreational Facilities

Existing Conditions

There are a number of existing recreational facilities, parks, and open spaces in the Kōloa-Po'ipū-Kalāheo area, including the Kiahuna Tennis and Swim Club adjacent to

³ Unit Type	Elementary	Middle	High
Single Family	0.279	0.143	0.154
Multi-Family/Ohana	0.109	0.04	0.069

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the project site, Po'ipū Beach and Manokalanipo Park to the south, Weliweli Park to the east, and the Kōloa Neighborhood Center just north of the proposed community.

Potential Impacts and Mitigative Measures

As a residential development, the Village at Po'ipū is expected to directly increase demand on these recreation facilities. However, archaeological preserves, parks, and other amenities will be provided in the Village at Po'ipū and will exceed the County park dedication requirements.

Based on the County of Kaua'i's Subdivision Ordinance formula for calculating park dedication requirements,⁴ the estimated population for the 350-503 dwelling units proposed for the Village at Po'ipū ranges from 1,038 to 1,574. According to the County's Land Dedication Formula, 1.82 to 2.76 acres of parks would be required for the project.

The Village at Po'ipū will provide parks and open space areas (12 acres) and archaeological preserves (over 23 acres), as well as an extensive network of pedestrian paths including a shared bike and pedestrian path in Hapa Road. The amount of space allocated to parks and archaeology preserves in the proposed master plan far exceed County park dedication requirements.

In addition to the parks and preserves, a network of pedestrian/bicycle paths will weave throughout the project site, linking the different neighborhoods and archaeological preserves to one another and encouraging residents to walk or bike to various destinations around the area such as the Kiahuna Tennis and Swim Club, Po'ipū Spa and Fitness, Kōloa Town, Po'ipū Beach, and the Po'ipū Shopping Village.

A 40-foot buffer will also be provided on the eastern edge of the property from Po'ipū Road to the railroad berm as required by condition of Kaua'i County ordinance. This was originally set aside for the eastern bypass road. However, since the preferred alignment shifted east to where Ala Kinoiki Road is, the area will remain as open space and will be either integrated into the pedestrian/bicycle path network or included as a landscape easement where it overlaps proposed residential lots. Regardless of the final outcome, this 40-foot buffer area will remain as part of the open space network of the Village at Po'ipū.

The above facilities should more than meet the future parks and recreation demand generated by the project.

⁴ Kaua'i Subdivision Ordinance §9-2.8

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4.9.5 Health Care Services

Existing Conditions

There are three major hospitals on Kaua'i and several medical clinics. The three hospitals include Wilcox Memorial Hospital in Līhu'e, Kaua'i Veterans Memorial Hospital in Waimea, and the Samuel Mahelona Hospital in Kapa'a. Wilcox Memorial Hospital is the closest hospital to the project site and provides 71 acute care beds and emergency room service. Garden Island Health Care operates within the second and third floors of the Wilcox Memorial Hospital to provide 110 long-term care beds. Together the three hospitals on the island provide four advanced life support ambulances. The closest medical clinic is located in Kōloa Town and is operated by the Wilcox Health System's Kaua'i Medical Clinic.

Potential Impacts and Mitigative Measures

The proposed Village at Po'ipū community will require health care services and will increase demand on Kaua'i's health care facilities. However, many of the residents of the community are expected to be from Kaua'i and will therefore not affect existing needs for medical services by a proportional amount.

The public costs/benefits assessment included in the Hallstrom market study estimates that the Village at Po'ipū may require an average of four emergency medical calls per month. According to the Hallstrom report, the increase in tax receipts to the County of Kaua'i will more than cover any added cost to public services as a result of the population at the Village at Po'ipū. Road widths within the project site will be designed to meet County standards, facilitating access for EMS vehicles in the case of a medical emergency.

5.0 RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS

The processing of various permits and approvals are prerequisites for the construction of Village at Po'ipū community. Relevant State of Hawai'i and Kaua'i County land use plans, policies, and ordinances are described below.

5.1 STATE OF HAWAI'I

5.1.1 Chapter 343, Hawai'i Revised Statutes

Compliance with Chapter 343, HRS is required as described earlier in Section 1.1.5.

5.1.2 State Land Use Law, Chapter 205, Hawai'i Revised Statutes

The State Land Use Law (Chapter 205, Hawai'i Revised Statutes (HRS)), establishes the State Land Use Commission (LUC) and provides this body the authority to designate all lands in the State into one of four districts: Urban, Rural, Agricultural, or Conservation. These districts are defined and mapped by the State Land Use Commission in order to ensure compatibility with neighboring land uses and protection of public health.

The existing State Land Use Districts for the project site are shown in Figure 5. There are both Agricultural and Urban Districts within the project site. The area *makai* of the railroad berm is within the Urban District. Most of the land *mauka* of the railroad berm is within the Agricultural District, except for a narrow strip of land that is designated as Urban and also zoned R-4 by the County. Within the project site, approximately 124.7 acres are within the Agricultural District and approximately 78.3 acres are within the Urban District. A State Land Use District Boundary Amendment (SLUDBA) will be required to reclassify the Agricultural District and is currently being petitioned with the LUC (Docket A05-761). An additional 2.7-acre portion of Hapa Road is also within the Agricultural District and will be included in the SLUDBA petition per the LUC request and with permission of the County of Kaua'i.

5.1.3 Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes

The Coastal Zone Management Area as defined in Chapter 205A, HRS, includes all the lands of the state. As such, the project site is within the Coastal Zone Management Area. However, it is not located along a shoreline. The project site is located outside the Special Management Area (SMA) (see Figure 8). The SMA is the area extending inland from the shoreline that has been designated for special protection to help

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preserve coastal resources. The County must approve any development within the SMA and a permit issued depending upon the type of development. The project site is outside of the SMA and thus, will not require a SMA Permit.

The objectives of the Coastal Zone Management (CZM) Program are to provide the public with recreational opportunities, protect historic and prehistoric resources, protect scenic and open space resources, protect coastal ecosystems, provide facilities for economic development, reduce hazards, and manage development. Program objectives applicable to the Village at Po'ipū are discussed below.

Recreational Resources

Objective:

- (A) *Provide coastal recreational opportunities accessible to the public.*

Policies:

- (B) *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*
 - (i) *Protecting coastal resources uniquely suited for recreation activities that cannot be provided in other areas.*
 - (iii) *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value.*
 - (iv) *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation.*
 - (vii) *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing.*
 - (viii) *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.*

Discussion: The Village at Po'ipū is inland of the coastline and will not impact access to coastal recreational opportunities. It does, however, include extensive pedestrian/bicycle paths which will encourage non-vehicle transportation between *mauka* and *makai* areas such as Po'ipū Beach and Kōloa Town.

Historic Resources

Objective:

- (A) *Protect, preserve, and where desirable, restore those natural and man made historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

Policies:

- (A) *Identify and analyze significant archaeological resources;*

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- (B) *Maximize information retention through preservation of remains and artifacts or salvage operations; and*
- (C) *Support state goals for protection, restoration, interpretation, and display of historic resources.*

Discussion: Extensive archaeological inventory studies, as well as data recovery and preservation plans have been and will continue to be conducted for the project. All of the archaeological sites recommended for preservation to date as well as those recommended for possible preservation will be protected. Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. In total, these areas set aside for archaeological sites and preserves constitute over 23 acres. See Figure 3.

The vehicular and pedestrian circulation networks will be designed to provide both visual connections and direct access to the sites. In most cases, the roadways will run adjacent to the sites to support public access so that cultural practitioners, researchers and other interested persons may easily access the sites. Appropriate interpretive signage will be provided at the archaeological preserves. In addition, the signs will instruct visitors of the care and respect required to preserve the sites for future generations. Native plants will be used to landscape the preserves.

Scenic and Open Space Resources

Objective:

- (A) *Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.*

Policies:

- (B) *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline.*
- (C) *Preserve, maintain, and where desirable, improve and restore shoreline open space and scenic resources.*
- (D) *Encourage those developments that are not coastal dependent to locate in inland areas.*

Discussion: The Village at Po'ipū is located away from the shoreline, outside the Special Management Area. Overall, views of the shoreline from the site vicinity are limited by the gradual slope of the property, vegetation, and nearby development. Views into the site will also be mitigated by the natural or landscaped buffers along Po'ipū Road and the Weliweli Subdivision and the bicycle/pedestrian improvements on Hapa Road. Height limits prescribed in the design guidelines for the community are equal or less than those in the Kaua'i County Code and will minimize any impact to coastal views.

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Coastal Ecosystems

Objective:

- (A) *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

Policies:

- (A) *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources.*
- (B) *Improve the technical basis for natural resource management.*
- (C) *Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance.*
- (D) *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs.*
- (E) *Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.*

Discussion: Through the use of bioswales and biofiltration and detention basins, the Village at Po'ipū project will reduce peak discharge rates and clean runoff to downslope areas and the ocean compared to existing conditions. During construction activities, best management practices and erosion control measures will also be implemented. Proposed drainage and erosion control measures are further discussed in Sections 3.3 and 4.8.3 respectively.

Economic Uses

Objective:

- (A) *Provide public or private facilities and improvements important to the State's economy in suitable locations.*

Policies:

- (B) *Ensure that coastal dependent development such as harbors and ports, and coasted related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area.*
- (C) *Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside presently designated areas when:
 - (ii) *Adverse environmental effects are minimized.**

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Discussion: Coastal-related economic uses in the Po'ipū area primarily consists of activities related to the visitor industry. The Village at Po'ipū project is located *mauka* of the primary Po'ipū resort area and is expected to contain a mix of full-time and part-time residents. Its close proximity to the existing visitor-related facilities in Po'ipū is expected to support existing businesses and improve *mauka-makai* transportation by providing a new *mauka-makai* road and a network of pedestrian and bicycle paths. The proposed Village at Po'ipū is consistent with the County General Plan as it is designated as "Residential Community" *mauka* of the coastal Po'ipū resort area.

Coastal Hazards

Objective:

- (A) *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

Policies:

- (B) *Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards.*
- (C) *Ensure that developments comply with requirements of the Federal Flood Insurance Program.*
- (D) *Prevent coastal flooding from inland projects.*

Discussion: The Village at Po'ipū is not anticipated to be affected by coastal hazards as it is located away from the shoreline and outside the tsunami evacuation zone (see Figure 13). The project area is also located outside of the floodway as shown on the Flood Insurance Rate Map. The project site is located in Zone X, which designates areas determined to be outside the 500-year flood plain (Figure 14).

Managing Development

Objective:

- (A) *Improve the development review process, communication and public participation in the management of coastal resources and hazards.*

Policies:

- (A) *Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;*
- (B) *Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements.*
- (C) *Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.*

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Discussion: The Village at Po'ipū will be in conformance with all applicable laws, regulations, and requirements. The State Land Use District Boundary Amendment, EIS and subdivision approval processes provide for agency review and public comments, as well as opportunities for the public and decision-makers to ask for more information.

In addition, the residential uses of the Village at Po'ipū are consistent with County General Plan and zoning designations for the property. As such, residential uses on the property have been thoroughly considered and approved through the processes involved with these designations.

Public Participation

Objective:

- (A) *Stimulate public awareness, education, and participation in coastal management.*

Policies:

- (A) *Promote public involvement in coastal zone management processes.*
- (B) *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, development, and government activities.*
- (C) *Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

Discussion: This EIS reports on the anticipated short- and long-term impacts of the Village at Po'ipū project. Prior to and throughout the preparation of this EIS (and preceding EISPN), various agencies, individuals, and community organizations were consulted (see Section 0 for complete consultation list). In addition, as noted above, the EISPN, this EIS, and the required permitting process, provide numerous opportunities for public comments and participation.

Beach Protection

Objective:

- (A) *Protect beaches for public use and recreation.*

Policies:

- (A) *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion.*
- (C) *Minimize the construction of public erosion-protection structures seaward of the shoreline.*

Discussion: The Village at Po'ipū is located away from the shoreline, outside the Special Management Area, and will not encroach upon any beaches or interfere with natural shoreline processes.

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Marine Resources

Objective:

- (A) *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

Policies:

- (A) *Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial.*
- (B) *Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency.*

Discussion: The Village at Po'ipū is not expected to have an impact on marine and coastal resources. Proposed drainage improvements will be implemented to lower future discharge rates below existing levels. Improvements may include the construction of bioswales, which use landscaping improvements to help filter and slow runoff, improving the water quality of the runoff before it hits the drainage systems and eventually the ocean. See Section 4.8.3 for further discussion of the proposed drainage system.

5.1.4 Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes

The Hawai'i State Plan (Chapter 226, HRS) establishes a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The sections of the Hawai'i State Plan directly applicable to the Village at Po'ipū, along with a discussion of how the project conforms to the State Plan, are discussed below.

The Hawai'i State Plan lists three "Overall Themes" relating to: 1) individual and family self-sufficiency; 2) social and economic mobility; and 3) community or social well-being. These themes are viewed as "basic functions of society" and goals toward which government must strive (§226-3). To guarantee the elements of choice and mobility embodied in the three themes, the Plan states three goals:

- 1) *A strong, viable economy, characterized by stability, diversity and growth that enables fulfillment of the needs and expectations of Hawaii's present and future generations.*
- 2) *A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*
- 3) *Physical, social and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring and of participation in community life (§226-3).*

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Discussion: The Village at Po'ipū contributes to the attainment of the three goals by providing direct and indirect short and long-term employment opportunities for the present and future residents of Kaua'i, generating increased State and County tax revenues, and contributing to the stability, diversity, and growth of local and regional economies as discussed in Section 4.7. It will also provide a desired physical environment by replacing the existing landscape of non-native and invasive scrub vegetation with a residential community that preserves and protects significant historical and archaeological resources and contains a network of parks, pedestrian and bicycle paths that are landscaped with native plants. Wastewater will be treated at the PWRF and reused for irrigation on neighboring properties. Onsite common areas, multifamily areas and larger single family lots will also be irrigated with non-potable water sources to minimize impacts to domestic water demand. Residents and visitors will be encouraged to walk or bike along landscaped streets and socialize with neighbors from their front porches.

Part I. Overall Theme, Goals, Objectives and Policies

Section 226-5 Objective and policies for population:

- (a) *It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter.*
- (b) *To achieve the population objective, it shall be the policy of this State to:*
 - (1) *Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.*
 - (2) *Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.*
 - (3) *Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.*
 - (7) *Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.*

Discussion: The Village at Po'ipū will provide 134 multi-family and 216-369 single-family residences in an area with a moderately to strongly undersupplied housing market. The project is consistent with the County of Kaua'i's vision of accommodating growth as it designated as "Residential Community" on the County's General Plan Land Use Map for the Kōloa-Po'ipū-Kalāheo Planning District. The site is envisioned to fill a large portion of Kaua'i's south shore residential growth requirements over the next fifteen years. It is adjacent to existing infrastructure, roads, and urban development and is expected to support increased economic activities and employment opportunities in the area.

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Section 226-6 Objective and policies for the economy – in general:

- (a) *Planning for the State's economy in general shall be directed toward achievement of the following objectives:*
 - (1) *Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.*
- (b) *To achieve the general economic objectives, it shall be the policy of this State to:*
 - (6) *Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.*
 - (9) *Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.*
 - (14) *Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.*

Discussion: The Village at Po'ipū site is currently pastureland for cattle and horses and vacant scrubland and generates minimal economic benefit for the State. As proposed, the Village at Po'ipū will help to meet the strong demand for resident- and visitor-oriented residential opportunities in the region while preserving historic and cultural resources, thus ensuring sensitive economic growth for both State and County governments and Kaua'i residents.

Economic impacts associated with the Village at Po'ipū include (Hallstrom Group 2005):

- \$43.8 million income in taxes for the State of Hawai'i and \$10 million in taxes for the County of Kaua'i during the first ten years of project build-out and operation.
- \$4.2 million annual income in stabilized taxes for the State and \$1.3 million annually for the County after the first ten years.
- 1,737 "worker years" during the first ten years of build-out and operation and 41 full-time equivalent jobs, on a stabilized basis, following the first ten years.
- \$77.9 million in wages during the first ten years.
- \$1.2 million in stabilized annual wages after the first ten years.

Section 226-8 Objective and policies for the economy – visitor industry:

- (a) *Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy;*
- (b) *To achieve visitor industry objective, it shall be the policy of this State to:*
 - (1) *Support and assist in the promotion of Hawai'i's visitor attractions and facilities.*
 - (2) *Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.*
 - (4) *Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related development which are sensitive to neighboring communities and activities.*

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- (7) *Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.*

Discussion: The Village at Po'ipū is expected to provide housing opportunities for both existing Kaua'i and Hawai'i residents as well as non-residents interested in purchasing second homes in Hawai'i. The proposed conceptual master plan encourages future residents and visitors alike to walk and bike to various destinations in and around the proposed project. Significant historic resources will be preserved and protected and made accessible to the public. Interpretive signage will be installed to educate both *kama'aina* and visitors about the rich history of the site. Existing invasive species will be removed and native plants will be used to landscape common areas and archaeological preserves improving potential habitats of the endangered Kaua'i cave wolf spider and amphipod.

Section 226-11 Objectives and policies for the physical environment – land-based, shoreline, and marine resources:

- (a) *Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives.*
- (2) *Effective protection of Hawaii's unique and fragile environmental resources.*
- (b) *To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:*
- (1) *Exercise an overall conservation ethic in the use of Hawaii's natural resources.*
- (2) *Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.*
- (3) *Take into account the physical attributes of areas when planning and designing activities and facilities.*
- (4) *Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.*
- (6) *Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.*
- (8) *Pursue compatible relationships among activities, facilities, and natural resources.*
- (9) *Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.*

Discussion: As discussed, the Village at Po'ipū is located in an area envisioned by the County to accommodate projected residential growth and is adjacent to similar residential communities. Significant historic and archaeological resources will be preserved, protected, and made accessible for cultural practitioners and those interested in learning about them. Proposed infrastructure improvements will better control peak discharge and clean runoff by using bioswales, biofiltration, and detention basins. No threatened or endangered species or species of concern are known to exist on the site. However, native plants will be planted in common areas, parks and archaeological preserves and encouraged on private lots which may improve habitat conditions for the endangered Kaua'i cave wolf spider and amphipod. Extensive pedestrian and bicycle

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path networks are planned for the community encouraging residents and visitors to bike or walk throughout the proposed community and to neighboring commercial and retail areas, communities and beach areas.

Section 226-12 Objective and policies for the physical environment – scenic, natural beauty, and historic resources:

- (a) *Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.*
- (b) *To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:*
 - (1) *Promote the preservation and restoration of significant natural and historic resources.*
 - (3) *Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.*
 - (4) *Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.*
 - (5) *Encourage the design of developments and activities that complement the natural beauty of the islands.*

Discussion: As discussed above, this EIS identifies physical, archaeological, and cultural attributes of the proposed project, identifies potential impacts, and proposes mitigation measures. Extensive archaeological studies, as well as data recovery and preservation plans have been conducted for the entire property. All of the archaeological sites recommended for preservation to date as well as those recommended for possible preservation will be protected. Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. In total, these areas set aside for archaeological sites and preserves constitute over 23 acres.

Based on interviews with people knowledgeable with the Kōloa-Po'ipū area and the Village at Po'ipū site, primary cultural concerns pertain to preservation of identified and potential archaeological sites and protection of environmental resources. As discussed above, the Village at Po'ipū will preserve and protect significant archaeological resources while allowing continued public access to the sites.

The Village at Po'ipū is located away from the shoreline, outside the Special Management Area. Overall, views of the shoreline from the site vicinity are limited by the gradual slope of the property, vegetation, and nearby development. All common areas and public streets will be landscaped. Natural and landscaped buffers will be provided along Po'ipū Road and Weliweli Tract. Hapa Road will be improved as landscaped bicycle/pedestrian path. Height limits prescribed in the design guidelines for the community are equal or less than those in the Kaua'i County Code and will minimize any impact to coastal views.

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Section 226-13 Objectives and policies for the physical environment – land, air, and water quality:

- (a) *Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:*
 - (1) *Maintenance and pursuit of improved quality in Hawaii's land, air and water resources.*
- (b) *To achieve the land, air, and water quality objectives, it shall be the policy of this State to:*
 - (2) *Promote the proper management of Hawaii's land and water resources.*
 - (3) *Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.*
 - (5) *Reduce threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.*
 - (6) *Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.*
 - (7) *Encourage urban developments in close proximity to existing services and facilities.*
 - (8) *Foster recognition of the importance and value of land, air, and water resources to Hawaii's people, their cultures and visitors.*

Discussion: The Village at Po'ipū is not expected to have significant adverse long-term effects on the land, air, or water quality as design, construction, and operation will incorporate measures to maintain, and in some cases improve, existing environmental conditions on the project site and vicinity. Runoff that eventually enters the ocean from the project site will be better managed with the proposed onsite detention basins and bioswales filtering and slowing runoff through biofiltration. The Village at Po'ipū site is located away from the shoreline, outside the Special Management Area and is not anticipated to be at risk from tsunami or flooding. The site is no more subject to the risk of hurricane, earthquake, or volcanic hazard than any other location on Kaua'i. The project site is located in close proximity to existing infrastructure and resort and residential communities. The proposed project is not expected to adversely impact air quality as discussed in Section 4.5.

Section 226-15 Objectives and policies for facility systems – solid and liquid wastes:

- (a) *Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards achievement of the following objectives:*
 - (1) *Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.*

Discussion: As discussed in Section 4.8.2, the Kōloa-Po'ipū region is not currently serviced by a County wastewater treatment system. Wastewater generated by the Village at Po'ipū project would be collected and routed to the privately-owned Po'ipū Water Reclamation Facility (PWRF) for treatment which has sufficient capacity to serve the Village at Po'ipū. The PWRF has a one million gpd capacity and is being upgraded

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to R-1 effluent. It is expected that the effluent will be used for irrigating landscaping at the neighboring Kiahuna Mauka development as well as the Kiahuna Golf Course, which increase reuse of wastewater and reduce potable water requirements for irrigation in the region. Solid wastes generated by the project are not expected to significantly add to existing waste generation and construction activities will be encouraged to recycle and reuse as much material as economically feasible and available. Further discussion is provided in Section 4.8.5.

Section 226-16 Objective and policies for facility systems – water:

- (a) *Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.*
- (b) *To achieve the facility systems water objective, it shall be the policy of this State to:*
 - (1) *Coordinate development of land use activities with existing and potential water supply.*

Discussion: As discussed in Section 4.8.1, a dual water system is planned for the Village at Po'ipū project. To reduce domestic potable water demand, a non-potable water system will be developed for irrigating common areas, street landscaping, the multifamily community and the larger single family lots. This will be a private system, sourced from two on-site wells and Grove Farm's Waita Reservoir. Potable water will be provided by existing and planned DOW water sources. Additional storage facilities may need to be developed to serve the *mauka* portions of the project planned for the last phase of development.

Section 226-17 Objectives and policies for facility systems – transportation:

- (a) *Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:*
 - (2) *A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.*
- (b) *To achieve the transportation objectives, it shall be the policy of the State to:*
 - (6) *Encourage transportation systems that serve to accommodate present and future development needs of communities.*
 - (12) *Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives.*

Discussion: A TIAR was prepared for the Village at Po'ipū project and is discussed in detail in Section 4.3. The project will be built-out over three phases. Traffic impacts directly associated with the proposed project are minimal compared with other proposed developments in the area. However, mitigative measures recommended by the TIAR for the Village at Po'ipū project will be implemented during each phase of

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development. In addition, the development of Hapa Road as a *mauka-makai* pedestrian and bicycle path will encourage residents and visitors in the area to reduce car trips.

Section 226-19 Objectives and policies for socio-cultural advancement – housing:

- (a) *Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:*
 - (1) *Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.*
 - (2) *The orderly development of residential areas sensitive to community needs and other land uses.*
- (b) *To achieve the housing objectives, it shall be the policy of this State to:*
 - (1) *Effectively accommodate the housing needs of Hawaii's people.*
 - (3) *Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.*
 - (5) *Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.*
 - (6) *Facilitate the use of available vacant, developable, and underutilized urban lands for housing.*
 - (7) *Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.*

Discussion: The Village at Po'ipū will create both single- and multi-family residential opportunities for a range of purchaser types, including mid- to upper-income Kaua'i residents, in-migrating households, second home/vacation buyers, and investors; with emphasis on the first two categories. Because the project is located near the existing Po'ipū resort area, the expected mix of residents are expected to be split roughly in half between full-time and part-time residents. The Village at Po'ipū project site is located in a logical in-fill/expansion area of urban lands as visualized by the County General Plan. Further, the site has direct access onto main arterials in the community; access to nearby existing utility systems; and is adjacent to primary retail, restaurant, services, and recreational amenities.

Section 226-23 Objectives and policies for socio-cultural advancement – Leisure:

- (a) *Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards achievement of the objective of the adequate provision of resources to accommodate diverse, cultural, artistic, and recreational, needs for present and future generations:*

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Discussion: The Village at Po'ipū will provide parks and open space areas (12 acres) and archaeological preserves (over 23 acres), as well as an extensive network of pedestrian paths including a shared bike and pedestrian path in Hapa Road. This network will encourage residents and visitors to walk or bike to various destinations in and around the project site such as the Kiahuna Tennis and Swim Club, Po'ipū Spa and Fitness, Po'ipū Beach, Kōloa Town, and the Po'ipū Shopping Village. The amount of space allocated to parks and archaeology preserves in the proposed master plan far exceed County park dedication requirements.

Part II. Planning, Coordinating and Implementation

Part II of the Hawaii State Plan pertains to the administrative structure and implementation process of the Plan. As such, comments are not deemed appropriate.

Part III. Priority Guidelines

The Priority Guidelines section of the Hawaii State Plan establishes overall priority guidelines to address areas of Statewide concern. The Hawaii State Plan notes that the State shall strive to improve the quality of life for Hawai'i's present and future population through the pursuit of desirable courses of action in five major areas of Statewide concern which merit priority attention: 1) economic development, 2) population growth and land resource management, 3) affordable housing, 4) crime and criminal justice; and 5) quality education. The priority guidelines applicable to the Village at Po'ipū are discussed below.

Section 226-103 Economic priority guidelines:

- (a) *Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy.*
 - (1) *Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.*
 - (A) *Encourage investments which:*
 - (i) *Reflect long term commitments to the State;*
 - (ii) *Rely on economic linkages within the local economy;*
 - (iii) *Reinvest in the local economy;*
 - (iv) *Are sensitive to community needs and priorities; and*
 - (v) *Demonstrate a commitment to provide management opportunities to Hawaii residents.*
 - (5) *Streamline the building and development permit and review process, and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where public health, safety and welfare would not be adversely affected.*

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Discussion: The Village at Po'ipū will make a significant contribution to the economic growth of the Kōloa-Po'ipū region by meeting the demands of the underserved residential and visitor-oriented housing market. At project built-out, the de facto population for the 350 to 503 units is estimated to be 1,037 to 1,574 persons, with approximately 595 full-time residents, with annual discretionary spending of \$56.7 million per year. Some of the resident and virtually all of the non-resident expenditures will be "new" dollars on Kaua'i, providing true economic expansion. In addition to expenditures, the project is estimated to add \$173 million in development capital and \$4.2 million in annual business operations into the Kaua'i economy.

The multiple County and State approvals and permits required for the Village at Po'ipū represents opportunities for government to consolidate public hearings and provide concurrent processing of applications, thereby streamlining the building and development permit and review process and eliminating burdensome, duplicative government requirements without adversely affecting public health, safety, and welfare.

Section 226-104 Population growth and land resources priority guidelines:

- (a) *Priority guidelines to effect desired Statewide growth and distribution:*
 - (1) *Encourage planning and resource management to insure population growth rates throughout the State that are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.*
- (b) *Priority guidelines for regional growth distribution and land resource utilization:*
 - (6) *Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.*
 - (12) *Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.*

Discussion: Because the site is designated as "Residential Community" on the General Plan's Land Use Map for the Kōloa-Po'ipū-Kalāheo Planning District, this area is envisioned by the County to fill a large portion of Kaua'i's south shore residential growth requirements. The de facto population of the Village at Po'ipū is estimated to be 1,037 to 1,574 persons, approximately half of who are anticipated to be full-time residents.

The Village at Po'ipū is a logical use of the property as it has direct access onto main arterials in the community; access to nearby existing utility systems; and is adjacent to primary retail, restaurant, services, and recreational amenities. Significant historic resources will be preserved and protected in the proposed plan. Further, the Village at Po'ipū site is not expected to negatively impact the shoreline, conservation lands, or other limited resources.

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Best management practices will be employed during construction to mitigate runoff, erosion, and other activities that have the potential to impact air and water quality. Mitigation measures for these and other potential impacts resulting from this project are identified in Sections 3.0 and 4.0.

5.1.5 State Functional Plans

The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 13 state functional plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai'i State Plan. The functional plans applicable to the Village at Po'ipū, along with each plan's applicable objectives, policies, and actions are discussed below.

Employment

The Employment Functional Plan focuses on the preparation of Hawai'i's workforce for the global, information-based 21st-century economy. It takes a multi-agency approach in providing job training and education services, implementing job placement services, improving the quality of the work environment, and coordinating employment information, analysis, and planning.

Discussion: In the short-term, the Village at Po'ipū is expected to create 1,737 "worker years" and \$77.9 million in wages during the first ten years of building and use. On a stabilized basis, the Village at Po'ipū will generate 29 on-site and 12 off-site permanent full-time equivalent jobs. Wages associated with these positions are estimated to total \$1.2 million per year. Additional discussion is provided in Section 4.7.4.

Energy

The Energy Advisory Committee highlights three major concerns for Hawai'i in its Functional Plan: 1) the State's over dependency on oil and fossil fuels; 2) the need for an integrated approach to energy development and management; and 3) energy emergency preparedness.

Discussion: Energy-efficient and conservation measures to reduce the maximum electrical demand will be considered in the design and operation of the Village at Po'ipū, where feasible. Design standards will specify low-impact lighting and will encourage energy-efficient building design and site development practices. Other energy conservation measures, as detailed in Section 4.8.4, will also be considered.

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Historic Preservation

The long-term philosophy of the Historic Preservation Functional Plan highlights the importance of maintaining a record of Hawai'i's unique history. History enriches our social, intellectual, aesthetic and economic lives with insights from the past. With the rapid change and development of our island state, our historical resources are at risk. The Historic Preservation Functional Plan attempts to preserve these resources by focusing on three main issue areas: 1) preservation of historic properties; 2) collection and preservation of historic records, artifacts and oral histories; and 3) provision of public information and education on the ethnic and cultural heritages and history of Hawai'i.

Discussion: Extensive archaeological studies, as well as data recovery and preservation plans have been conducted for the entire property. All of the archaeological sites recommended for preservation to date as well as those recommended for possible preservation will be protected. Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. In total, the areas set aside for archaeological sites and preserves encompass over 23 acres or nearly twelve percent of the project area.

The vehicular and pedestrian circulation networks will be designed to provide both visual connections and direct access to the sites. In most cases, the roadways will run adjacent to the sites so that cultural practitioners, researchers and other interested persons may easily access the sites. Appropriate interpretive signage will be provided at the archaeological preserves. In addition, signage will instruct visitors of the care and respect required to preserve the sites for future generations. Native plants will be used to landscape the sites. Additional information on historic and cultural resources is provided in Sections 4.1 and 4.2.

Housing

The State Housing Functional Plan, prepared by the State Housing Finance and Development Corporation (now Housing and Community Development Corporation of Hawaii), addresses six major areas of concern: 1) increasing home ownership; 2) expanding rental housing opportunities; 3) expanding rental housing opportunities for the elderly and other special need groups; 4) preserving housing stock; 5) designating and acquiring land that is suitable for residential development; and 6) establishing and maintaining a housing information system. The majority of the objectives, policies, and implementing actions of the State Housing Functional Plan apply to the government sector.

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Discussion: The Village at Po'ipū will provide additional residential opportunities for both permanent and part-time residents in the Kōloa-Po'ipū area. The market study prepared for the Village at Po'ipū forecasts that this area of Kaua'i will require 2,544 to 5,517 new residential units over the next twenty years. It is anticipated that approximately half of the units built in the Village at Po'ipū will be occupied by full-time residents. While the target market for the proposed project is for buyers with higher incomes, increasing supply, whatever the price range, will reduce overall demand and competition for homes.

Recreation

The Recreation Functional Plan outlines the public and private sectors' roles in serving the recreation and open space needs of the public. It organizes objectives, policies, and actions into six major issue areas: 1) ocean and shoreline recreation; 2) mauka, urban, and other recreational opportunities; 3) public access to shoreline recreation areas; 4) resource conservation and management; 5) management of recreation programs, facilities, and areas; and 6) wetlands protection and management.

Discussion: The Village at Po'ipū will positively impact provision of and access to recreational resources and open space in the Kōloa-Po'ipū region. The master plan for the community includes 12 acres of parks and open space and areas over 23 acres of archaeological preserves. In addition to the parks and preserves, a network of pedestrian/bicycle paths, including a shared bike and pedestrian path in Hapa Road, will weave throughout the project site, linking the different neighborhoods and archaeological preserves to one another and encouraging residents to walk or bike to various destinations around the area such as the Kiahuna Tennis and Swim Club, Po'ipū Spa and Fitness, Po'ipū Beach, and the Po'ipū Shopping Village. Runoff generated by onsite development will be mitigated through the use of landscaped bioswales and detention basins.

Transportation

The overall objective of the Transportation Functional Plan is to provide for the efficient, safe, and convenient movement of people and goods. The Transportation Functional Plan is implemented as a short- to mid-term action agenda by the DOT. It identifies four key issue areas as the most critical concerns relating to transportation in Hawai'i. They are: 1) congestion; 2) economic development; 3) funding; and 4) education.

Discussion: The Village at Po'ipū will be built-out over three phases. Traffic impacts associated with each phase have been identified by the Traffic Impact Analysis Report (TIAR) conducted for the project. Mitigative measures recommended by the TIAR will be implemented during each phase of development (see Section 4.3). In addition, the

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development of Hapa Road as a *mauka-makai* pedestrian and bicycle path as well as other pedestrian/bikeways will encourage residents and visitors in the area to reduce local vehicle trips.

5.2 KAUA'I COUNTY

5.2.1 Kaua'i County General Plan

The General Plan of the County of Kaua'i is a policy document that is intended to help guide development for the enhancement and improvement of life on Kaua'i. The document provides the County's vision for Kaua'i and establishes the strategies to help achieve that vision.

According to the 2000 General Plan Update and the Kōloa-Po'ipū-Kalāheo Planning District Land Use Map, the entire Village at Po'ipū project area is designated as "Residential Community" (see Figure 6). Residential uses, excluding agricultural houselots, are allowed in areas with this General Plan designation. Residential Community is one of six Urban land use designations (Urban Center, Resort, Residential Community, Transportation, Military, and Parks). One of the key policies in the General Plan's framework for preserving Kaua'i's rural character is to promote growth and development where they are designated in the General Plan in these urban areas. The land uses proposed in the Village at Po'ipū master plan are consistent with this designation and the General Plan's vision for Po'ipū as a residential community.

5.2.2 Kaua'i County Zoning

Similar to the State Land Use Districts, the Comprehensive Zoning Ordinance for the County of Kaua'i regulates the type and location of development permitted on the island. However, land use classifications are more detailed than the State Land Use Districts and County designations are specific in terms of describing permitted land uses. For example, there are Residential, Resort, Agricultural, Commercial, Industrial, Open, Special Treatment, and Constraint Districts; many of these districts have subcategories based on a variety of development standards such as permitted lot size or structures. They also include development standards for each district and land use.

The existing Kaua'i County zoning for the Village at Po'ipū community includes a mix of Residential zoning R-4, R-6 and R-10 and the Open District (see Figure 7). The proposed residential development will conform to existing zoning.

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5.3 APPROVALS AND PERMITS

A listing of anticipated permits and approvals required for the proposed project is presented below.

Table 7: List of Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY
Chapter 343, HRS compliance	State Land Use Commission Office of Environmental Quality Control
State Land Use District Boundary Amendment	State Land Use Commission
National Pollutant Discharge Elimination System (NPDES)	State Department of Health
Archaeological Data Recovery and Preservation Plans, Compliance with Chapter 6E, HRS	State Historic Preservation Division
Grading/Building Permits	Kaua'i County Department of Public Works
Subdivision Approval	Kaua'i County Planning Department

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6.0 ALTERNATIVES TO THE PROPOSED ACTION

Under HAR, Section 11-200-10(6), Environmental Impact Statement Rules, the alternatives to a proposed action considered are limited to those that would allow the objectives of the project to be met, while minimizing potential adverse environmental impacts. The feasible alternatives must also address the project's economic characteristics while responding to the surrounding land uses that will be impacted by the project. In conformance with applicable regulations, the alternatives below have been identified and investigated.

As stated in Section 2.3.1, the objectives of the Village at Po'ipū are to:

- Create a high-quality residential community in an appropriate location in South Kaua'i to help satisfy the demand for this market;
- Preserve and protect cultural and historic archaeological resources for present and future generations of Hawai'i residents and visitors;
- Expand regional recreation opportunities by creating pedestrian and bicycle greenway networks, parks, open spaces, and archaeological preserves; and
- Provide for the logical and long-planned in-fill of urban expansion in the Po'ipū area.

6.1 NO-ACTION ALTERNATIVE

Under the "no-action" alternative, the project area would remain in its current undeveloped state and continue to be underutilized as pastureland. This alternative would not be consistent with the Kaua'i General Plan (2000) nor improve the undersupplied condition of the current housing market within the Po'ipū/Kōloa area.

According to the General Plan, the entire Village at Po'ipū project site is designated as "Residential Community" and is needed to support the growth projected for South Kaua'i. Based on the market study prepared for the project by The Hallstrom Group, the Po'ipū/Kōloa housing market is in a moderately to strongly undersupplied condition and is expected to require over 4,000 additional units over the next twenty years (Hallstrom 2005). This lack of supply is a major factor of escalating housing prices. The "no-action" alternative would not help South Kaua'i's housing shortage nor fulfill the policies of the County's General Plan. Other potentially inappropriate lands may be sought for residential development if this area is left undeveloped.

Further, the "no-action" alternative would deny the State, County, and general public of the potential public benefits associated with the Village at Po'ipū. Some of the benefits include:

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- Investment of \$173 million in new construction capital that would increase the real property tax receipts collected by the County of Kaua'i.
- An increase in construction spending resulting in increased construction employment leading to increased consumer spending by construction workers within the local economy and increased income taxes and increased excise tax collection.
- Creation of employment opportunities in the construction industry during and after construction.
- Long-term protection of archaeological resources in over 23 acres of preserves, ensuring the preservation of cultural and historic resources for current and future generations.

6.2 OTHER ALTERNATIVES

Agriculture

One potential alternative to the proposed project is to convert the land to agricultural use as its current State Land Use District designation implies. However, based on the various soil studies (see Section 3.3), the project site contains soils that have severe limitations in terms of their productivity and would require extreme measures to make them suitable for cultivation. They are most suited for grazing and pasture, which are its current uses.

Park/Open Space

Similar to the agriculture and "no-action" alternatives, the project site could be developed into a lower intensity use such as a park or left as open space. However, given Kaua'i's need for housing and its designation as a "Residential Community" within the General Plan, this alternative would not provide the County with the highest and best possible use of the site.

Other Urban Uses

The site could also be developed for other urban land uses such as commercial uses. However, given the proximity of the Po'ipū Village Shopping Center, Kōloa Town, and the upcoming Kukui'ula commercial areas, the area may be saturated with commercial uses. The site would be unsuitable for higher intensity uses such as industrial given the surrounding residential and resort communities and significant archaeological sites.

All of the above alternatives are contrary to the County's vision and policies for the use of the area which has been specified as "Residential Community" in their 2000 General Plan. Furthermore, given the need for housing in South Kaua'i and its ideal location

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close to other residential areas, existing infrastructure, and roadways, the proposed project would be the best use for the site.

6.3 POSTPONING ACTION PENDING FURTHER STUDY

The alternative of postponing action pending further study may allow some of the objectives of the Village at Po'ipū to be met eventually; however, this alternative is not necessary for the following reasons:

1. This environmental impact statement and its related technical studies provide a thorough evaluation of the impacts of the Village at Po'ipū;
2. Permit processing for the Village at Po'ipū will include a State Land Use Boundary District Amendment, which provides for agency review and public comments, as well as opportunities for the public and decision-makers to ask for more information;
3. The Village at Po'ipū is consistent with the County of Kaua'i General Plan and County zoning designations, as well as the State Land Use Urban District designation on portions of the project site and adjacent properties on all four sides of the site. As such, residential uses on the property have been thoroughly considered and approved through the public processes involved with these designations.

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7.0 CONTEXTUAL ISSUES

Key issues within the context of the Villages at Po'ipū are presented in this section.

7.1 RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Short-term uses and long-term productivity consist of the Village at Po'ipū's short-term construction phases and long-term benefits after construction. Short-term construction impacts can be mitigated while they occur. In the long-term, the creation of the Village at Po'ipū will contribute to substantial positive economic and other benefits as discussed throughout this EIS. The Village at Po'ipū will contribute to meeting strong demand for permanent and part-time residential opportunities in the Kōloa-Po'ipū area, helping the region grow in a well thought-out and sustainable manner.

7.2 CUMULATIVE AND SECONDARY IMPACTS

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions or projects within the area regardless of who initiates the action. Since the Village at Po'ipū community is included in the "Residential Community" as designated on the County of Kaua'i's General Plan, the General Plan provides the basis for reasonably anticipated impacts generated by the development and growth envisioned for the area.

According to Sections 6.4, 7.0, and 8.0 of the General Plan and available information from relevant agencies, several improvements to public infrastructure and services will be required in order to support the general growth of the Kōloa-Po'ipū area. These include:

- Roadways: Expansion of Kaumuali'i Highway into a four-lane divided parkway between Kōloa Road and Rice Street/Kūhiō Highway. Maluhia Road consists of two parallel tree tunnels with four traffic lanes between them – the old tree tunnel and a new parallel tree tunnel roadway each carrying two lanes of one-way traffic. Construction of a new two-lane connector road between Port Allen and Po'ipū. Additional roadway improvements required to accommodate other known developments in the area are described in Section 4.3 and the TIAR.
- Transit services: Increased bus service in Kōloa/Po'ipū.

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- Bikeways: Development of bikepaths connecting Kōloa, Po'ipū and Kukui'ula.
- Water: Potable water sources for domestic use within the Kōloa-Po'ipū system are adequate. However, storage facilities will need to be improved and increased by 2020 according to the Department of Water's Water Plan 2020.
- Wastewater: The County has deferred plans for a regional system to serve the Kōloa-Po'ipū area. Instead, it has encouraged the development of separate, smaller private systems to be developed such as the expansion of the Po'ipū Water Reclamation Facility and A&B's private system serving its Kukui'ula project.
- Electrical Power: No new facilities are anticipated as needed for the Kōloa-Po'ipū area.
- Solid Waste: Since the County's landfill in Kekaha serves the entire island, new landfill capacity is needed for island-wide services by 2020. A new transfer station is also proposed for Kōloa.
- Police and Fire Safety: The Kaua'i Police Department estimates that it needs 2.5 officers per 1,000 residents. With a potential population of 1,037 to 1,573 persons at full build-out, the Village at Po'ipū project would require between 2.5 and 4 additional officers. The Hallstrom market study calculates potential future police protection needs for the project based on the number of probable police incidents and estimates that only 56.8 percent of one new officer position would be required by the project. For fire protection, the General Plan does not foresee any need to increase facilities or staff to adequately serve the growth of the Kōloa-Po'ipū area by 2020.
- Schools: The Kōloa-Po'ipū communities are located within the Kaua'i High School complex. The schools serving the project are Kōloa Elementary, Chiefess Kamakahahei Middle, and Kaua'i High Schools. Kōloa Elementary has a capacity of 449 students and enrollment has been steadily declining from 310 students in 1999 to 184 in 2004-05. However, the DOE expects enrollments to increase in a few years. Chiefess Kamakahahei Middle is a relatively new school built in with a capacity of 1,271 students. Student enrollments over the past three years are just over 1,000 students. Kaua'i High School has a capacity of 1,493 students with enrollment between 1,200 and 1,300 students in recent years. The DOE

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notes that there is sufficient capacity for some enrollment increases at these schools. However, the LUC is expected to impose a fair-share contribution on the project with which the developer will fully comply.

In addition, the following information on other proposed Kōloa-Po'ipū projects from the Hallstrom market study is provided below.

Proposed Kōloa-Po'ipū Projects

In recent years, various landowners and developers have proposed major new projects for the Po'ipū area. There are three major projects approved or proposed in the general vicinity of the Village at Po'ipū site: Kukui'ula, Kiahuna Mauka, and Po'ipū Beach Villas. These three market developments are all moving forward, and are already, or will be, in construction during 2005. The projects will provide a maximum of 2,555 total units (1,180 single family homes and 1,375 multi family units). However, it is unlikely that all of this inventory will be built, as master plans evolve over time and actual densities invariably fall short of maximum approvals. Further, it is unlikely that all of the product will be built within the same build-out timeframe as the Village at Po'ipū; as noted in the General Plan, "Master-planned projects such as...Kukui'ula typically take 30 years or more to build out."

A fourth project, Weliweli Expansion, is a long-planned State sponsored development now on hold. The project was first proposed for development in the 1970s, and was granted initial County entitlements. However, it has been on hold for many years, which no change in status likely in the near to mid-term despite the evident need for resident housing.

Other smaller scale residential developments, as well as office/commercial and resort projects are also planned in the Kōloa-Po'ipū area. These include, Kōloa Creekside, renovation of the Po'ipū Beach Hotel, Kōloa Marketplace, Historic Kōloa Village, Po'ipū Beach Villas, and expansion of the Sheraton Kaua'i Resort Hotel.

Cumulative Impacts

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. Cumulative and secondary impacts resulting from the above projects are likely to include increased population and greater demands on public roadways, infrastructure systems and services. However, the population of Kaua'i, particularly in the Kōloa-Po'ipū area, is projected to grow and the needs of a growing population relating to traffic, infrastructure, public services, and other issues will need to be addressed regardless if some or all of these projects are built. The Village at Po'ipū is not expected to contribute substantially to negative cumulative impacts relative to, and combined with, other

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proposed projects in the Kōloa-Po'ipū area. For those impacts that require mitigation, the developers will comply with these recommendations. These impacts are discussed in detail in Section 4.0 of the EIS.

Positive secondary and cumulative impacts associated with the Village at Po'ipū include:

- Economic “multiplier” impacts to the State and County of Kaua'i economies from increased property tax revenues, jobs, and related income taxes, and the Village at Po'ipū full- and part-time resident expenditures. These positive impacts will be infused into the economy and result in increased capital spending as business, government, and individuals allocate funds and spend discretionary income.
- The increase of the total housing supply in the region to decrease competition for housing opportunities, particularly in non-resort areas.

Impacts from other proposed South Kaua'i projects will contribute to incremental, cumulative impacts to regional infrastructure, public service systems and facilities, and area resources. However, all of these proposed projects will be subject to regulatory review to ensure compliance with applicable land use and other policies. Projects must have the appropriate State land use designation, the appropriate County zoning, and comply with other applicable regulatory review and approval procedures to ensure that each project will not have major adverse effects on infrastructure, public services, and the natural or socio-economic environment, or result in adverse cumulative and secondary impacts. Similar to the Village at Po'ipū project, developers of other projects in the region will be required to satisfactorily mitigate impacts of their projects before proceeding with development. Growth in the Kōloa-Po'ipū region is a natural progression. Careful planning will ensure that growth does not negatively affect and overburden infrastructure systems.

7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Use of resources related to the Village at Po'ipū is expected to be substantially similar or generally less than existing residential and resort uses in the project vicinity. Major resource commitments include the money, construction materials, labor, and energy required for the construction of the Village at Po'ipū and ongoing operations after construction. The impacts represented by the commitment of these resources, however, should be weighed against the positive socio-economic benefits that will be derived from the project versus the consequences of either taking no action or pursuing another less beneficial use of the property. All significant archaeological sites recommended for preservation and possible preservation will be preserved and protected onsite.

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7.4 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Air Quality. In the short-term, construction of the Village at Po'ipū will generate fugitive dust. All demolition and construction activities will comply with the provisions of HAR, Chapter 11-60.1, Air Pollution Control, Section 11-60.1-33, "Fugitive Dust." In compliance with these provisions, an effective dust control plan will be implemented.

In the long-term, the air quality assessment conducted for this EIS concludes that after construction: 1) the Village at Po'ipū should have no significant long-term impacts on maximum air pollution levels in the area; and 2) it is unlikely that traffic associated with the Village at Po'ipū will cause any significant detrimental impacts on air quality in the area.

Noise. In the short-term, construction of the Village at Po'ipū will generate noise that may impact nearby residences. The dominant noise sources during construction will be from equipment such as bulldozers, excavators, and diesel trucks. Increased noise due to construction will be short-term, limited to daytime hours, and must comply with the State Department of Health noise regulations.

In the long-term, traffic-related noise levels are expected to decrease and no vehicular-related noise impacts are anticipated due to the Village at Po'ipū. Regarding noise from post-construction operations, the design of the Village at Po'ipū will provide for the location and placement of stationary mechanical equipment (such as chillers, compressors, and air conditioning units) away from neighbors and residential units as much as is practical. Enclosed mechanical rooms may be required for some equipment.

7.5 RATIONALE FOR PROCEEDING WITH THE VILLAGE AT PO'IPŪ NOTWITHSTANDING UNAVOIDABLE EFFECTS

In light of the above mentioned unavoidable effects, the creation of the Village at Po'ipū should proceed because relatively minor negative impacts will be offset by substantial positive impacts, including: 1) the increase in number and diversification of the Kōloa-Po'ipū area housing stock; 2) protection and documentation of significant archaeological sites and the creation of archaeological preserves including improvements for public access, clearing of invasive plant species and landscaping with native plants; 3) improved filtration and mitigation of surface water runoff from the existing site using bioswales, landscaping and native plants; 4) increased recreational facilities including parks, bicycle and pedestrian paths and the improvement of Hapa

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ**

Road as a mauka-makai shared path; 5) conformance with the County of Kaua'i General Plan and its vision for accommodating growth in South Kaua'i; and 6) the wages, taxes, and overall positive economic impacts of the Village at Po'ipū. The proposed project provides a balanced solution for providing housing in an area close to existing urban areas and designated by the County General Plan for residential community while protecting significant archaeological resources, improving runoff water quality and replacing alien plant species with native plants.

7.6 UNRESOLVED ISSUES

The Knudsen Trust is currently working with the County of Kaua'i Housing Agency to fulfill any affordable housing requirement for the Village at Po'ipū. Please note that in satisfaction of the original 1977 State Land Use Boundary Amendment (Docket A76-418) which reclassified the lands *makai* of the railroad berm as well as lands to the west from the Agricultural District to the Urban District, a \$2,000,000 payment was made to the County of Kaua'i to fulfill its affordable housing obligation. This condition was confirmed as being satisfied by the LUC on October 16, 1995. Phase 1 and 2 of the Village at Po'ipū project are located in this area *makai* of the railroad berm and therefore do not have any affordable housing requirements to fulfill.

8.0 CONSULTATION

The preparation of this Draft EIS involved communicating with Federal, State, and County agencies, and individuals and community organizations, including those listed below.

Federal

- U.S. Fish and Wildlife Service
- Michael Kato, Postmaster, Kōloa Post Office

State of Hawai'i

- Department of Business Economic Development & Tourism (DBED&T) Land Use Commission
- Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife
- Mike Lauretta, DLNR – Kaua'i Land Division
- Nancy McMahan, DLNR State Historic Preservation Division (SHPD) – Kaua'i Archaeologist
- Nathan Napōka, SHPD – History and Cultural Branch
- Department of Health
- Darryl Yagodich, Department of Hawaiian Homelands – Planning Office
- Department of Transportation
- La France Kapaka-Arboleda, Office of Hawaiian Affairs, Community Resource Coordinator, Kaua'i/Ni'ihau Island Burial Council
- Heidi Guth, Office of Hawaiian Affairs

Kaua'i County

- Planning Department
- Department of Water
- Department of Public Works
- County Council
- Mayor Bryan Baptiste

Individuals and Community Organizations

- 'Ahahui o Ka'ahumanu Kaua'i Chapter
- Manuel Andrade, Rancher
- Edward Halealoha Ayau, Hui Mālama I Nā Iwi o Hawai'i Nei
- Debra Badua, Principal, Kōloa Elementary School
- Elizabeth Bukoski, Kōloa Resident
- Rick Bundschuh and Dain Spore, Pastors, Kaua'i Christian Fellowship
- Stella Burgess, Hyatt Hotels & Resorts Cultural Specialist

DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ

- Albert Carbonel, Queen Lili'uokalani Children Center
- Jim Case, President, Po'ipū Beach Rotary Club
- David Chang, Kōloa Historian
- George Costa, General Manager, Embassy Vacation Resort Po'ipū Point
- Chris Dibble, Administrator, Saint Raphael's Catholic Church
- Malvin Dohrman, President, Kaua'i Historical Society
- Reginald Gage, Kaua'i Historical Society
- Jerry Gibson, General Manager, Hyatt Regency Kaua'i Resort & Spa
- Edgar Gum, General Manager, Marriott Waiohai Beach Club
- Nani Higa, Halau Hula o Nani
- Nani Hill, Head Pastor, Kōloa Union Church
- Dick Holtzman, President, Kukui'ula Development Company
- Noe Ho'okano, General Manager, Lāwa'i Beach Resort
- Louis Jacinto, Kōloa Resident, former Kōloa Sugar Company Employee
- Reverend Kosen Ishikawa, Pastor, Koloa Jodo Mission
- Niles Kageyama, Pastor, Kōloa Missionary Church
- Isaac Kaiu, Kupuna
- Billy Kaohelauli'i, Kama'āina of Kōloa
- Lionel Kaohi, Association of Hawaiian Civic Clubs-Kaua'i Council
- Chris Kauwe, Cultural Practitioner, Kanaka Maoli, Hui Mālama Kāne I Olo Uma
- James Kimokea, Kama'āina
- Sheryl Keli'ipio, Ho'o Lāhui
- Carol Lovell, Director, Kaua'i Museum
- Abel Medeiros, Kōloa Resident, Rancher
- Manuel Medeiros, Kōloa Resident
- Beryl Moir, Resident
- Owen Morgan, General Manager HOA, Po'ipū Kai Resort
- Ron Morin, General Manager, Kiahuna Plantation - Outrigger
- Moana Palama, President, Kōloa Community Association
- Margy Parker, Executive Director, Po'ipū Beach Resort Association
- Henry Perez, Former General Manager, Lāwa'i Beach Resort
- Warren Perry, Royal Order of Kamehameha, Kaumuali'i Chapter No. 3
- Mary Requilman, Managing Director, Kaua'i Historical Society
- Mike Roberts, Vice President, DMB
- Rupert Napopoloakāne Rowe, Kama'āina of Kōloa, Puni Family
- Abby Santos, General Manager & Co-owner, No Ka'oi Plants
- Myles Shibata, Vice President, TAK Hawai'i, Inc.
- Tom Shigemoto, Vice President, A&B Properties
- Charldon Thomas, Former General Manager, Sheraton Kaua'i Resort
- Roy Thompson, General Manager, Kiahuna Plantation - Castle
- Buff Toulon, President, Po'ipū Ocean View Resorts
- Rick Tsuchiya, Kaua'i Historic Preservation Review Commission
- Angela Vento, General Manager, Sheraton Kaua'i Resort

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ**

9.0 LIST OF PREPARERS

The Draft EIS has been prepared by PBR HAWAII, 1001 Bishop Street, ASB Tower, Suite 650, Honolulu, Hawai'i, 96813.

Several key technical consultants were employed to provide specific assessments of environmental factors for this project. These consultants, their company affiliation, and their specialty are listed below:

Technical Consultants	Area of Expertise
B.D. Neal & Associates	Air Quality Assessment
Cultural Surveys Hawai'i, Inc.	Archaeological Studies
Cultural Surveys Hawai'i, Inc.	Cultural Impact Assessment
Kodani and Associates	Civil Engineering
The Hallstrom Group, Inc.	Market Study, Economic Impact Analysis and Public Cost/Benefit Assessment
Phil Bruner	Faunal Studies
Char & Associates	Flora Studies
D.L Adams Associates, Ltd.	Noise Impact Assessment
Austin Tsutsumi & Associates, Inc.	Traffic Impact Assessment

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ**

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VILLAGE AT PO'IPŪ**

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VILLAGE AT PO'IPŪ

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VILLAGE AT PO'IPŪ**

**11.0 COMMENT LETTERS ON THE
ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE AND RESPONSES**

The following is a list of agencies and individuals to whom the EISPN was mailed for comment and the date of their comment letters. The comment letters and responses are attached in their entirety on the following pages.

NO.	AGENCY/INDIVIDUAL	DATE EISPN MAILED	COMMENT LETTER DATED
	<i>STATE</i>		
1	Office of Environmental Services	7/23/05	8/3/05
2	Land Use Commission	7/23/05	
3	Department of Agriculture	7/23/05	
4	Department of Accounting and General Services	7/23/05	7/27/05
5	State Department of Business Economic Development and Tourism (DBEDT)	7/23/05	
6	DBEDT Strategic Industries Division	7/23/05	7/29/05
7	State DBEDT Office of Planning	7/23/05	8/9/05
8	Department of Defense	7/23/05	
9	Department of Education	7/23/05	8/23/05
10	Department of Hawaiian Homelands	7/23/05	7/28/05
11	Department of Health-Environmental Planning Office	7/23/05	8/18/05
12	Department of Land and Natural Resources (DLNR)	7/23/05	
13	State Historic Preservation Division	7/23/05	8/29/05
14	State Historic Preservation Division - Kaua'i	7/23/05	
15	Department of Transportation	7/23/05	
16	Office of Hawaiian Affairs	7/23/05	8/15/05
17	UH Environmental Center	7/23/05	
18	UH Water Resources Research Center	7/23/05	
	<i>FEDERAL</i>		
19	US Fish and Wildlife Service	7/23/05	
20	US National Marine Fisheries Service	7/23/05	
21	US Army Corps of Engineers	7/23/05	8/12/05
22	US Army Corp of Engineers-Regulatory Branch		9/30/05

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
VILLAGE AT PO'IPŪ**

NO.	AGENCY/INDIVIDUAL	DATE EISPN MAILED	COMMENT LETTER DATED
	<i>COUNTY OF KAUA'I</i>		
23	Fire Department	7/23/05	8/2/05
24	Planning Department	7/23/05	
25	Police Department	7/23/05	
26	Department of Public Works	7/23/05	
27	Kaua'i County Office of Community Assistance- Transportation Agency	7/23/05	
28	Department of Water	7/23/05	8/25/05
	<i>LIBRARIES</i>		
29	Kōloa Public and School Library	7/23/05	
30	Līhu'e Public Library	7/23/05	
31	Kaua'i Community College Library	7/23/05	
	<i>NEWSPAPERS</i>		
32	Honolulu Advertiser	7/23/05	
33	Honolulu Star Bulletin	7/23/05	
34	Garden Island Newspaper	7/23/05	
	<i>ELECTED OFFICIALS/UTILITIES</i>		
35	Kaipo Asing, County Council Chair	7/23/05	
36	KIUC	7/23/05	
	<i>COMMUNITY</i>		
37	Terrie Hayes Comment Letter from Llewelyn Kaohelaui'i, Rupert Rowe, Terrie Hayes, Tessie Kinnaman, Leslie Pool, Andy Siegel, and members for Hui Malama O Kane I Olo Uma	7/23/05	8/23/05
38	Alan Souza (received with letter #38)		8/23/05
39	Chris Kauwe	8/16/05	
40	Tom Conlon		8/22/05
41	Joel Canzoneri		8/23/05

LINDA LINGLE
GOVERNOR OF HAWAII



RECEIVED
August 3, 2005
STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TEL: (808) 966-4186
FACSIMILE: (808) 966-4186
E-mail: eeqc@health.state.hi.us

August 3, 2005

Mr. Anthony Ching, Executive Officer
State Land Use Commission
235 South Beretania Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Ching:

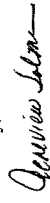
Subject: EISPN for Poipu Village

Thank you for the opportunity to review the subject document. We have the following comments.

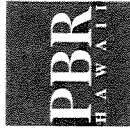
1. Please fully analyze all the impacts of expanding the Poipu Water Reclamation Facility.
2. Please consider conducting a social impact assessment to analyze the impacts of this project on population characteristics, affordable housing, public services and other factors important to the community.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,


Genevieve Salmonsom
Director

c: PBR
Knudsen Trust



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Principal
HILO OFFICE

GRANT MURAKAMI, AICP
Senior Associate

TOM SCHIBLI, AICP
Associate

RAYMOND T. HIGA, ASLA
Associate

KEVIN NISHIKAWA, ASLA
Associate

HONOLULU OFFICE
100 BISHOP STREET
43D TOWER, SUITE 650
HONOLULU, HAWAII 96813-4444
TEL: (808) 521-5611
FAX: (808) 521-1612
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HILO OFFICE
101 ALPHEA STREET
HILO LODGE CENTER SUITE 210
HILO, HAWAII 96720-1102
TEL: (808) 961-3333
FAX: (808) 961-4089
E-Mail: philip@pbrowai.com

WAILUKU OFFICE
2123 KAOHI STREET
WAILUKU, HAWAII 96793-2204
TEL: (808) 242-2078
FAX: (808) 242-1975
E-Mail: pjohnson@pbrowai.com

January 27, 2006

Ms. Genevieve Salmonsom, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)


Dear Ms. Salmonsom:

Thank you for your letter dated August 3, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

1. An analysis of potential impacts and mitigative measures related to the expansion of the Po'ipū Water Reclamation Facility is provided in Section 4.8.2 of the Draft EIS. The preliminary engineering report provides a full description of the expansion plans and is attached as an appendix to the EIS.
2. A market study for the Villages at Po'ipū project has been prepared and it includes a social impact assessment of population, affordable housing, public services, and other important socio-economic factors. An analysis of potential socio-economic impacts and mitigative measures is provided in Section 4.7 of the Draft EIS, and the full market study report is included as an appendix.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII


Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Mr. Stacey Wong/Eric A. Knudsen Trust

LINDA LINGLE
GOVERNOR



RUSS K. SAITO
COMPTROLLER
KATHERINE H. THOMASON
DEPUTY COMPTROLLER

JUL 28 2005

STATE OF HAWAII

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810

(P)1213.5

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813

Dear Ms. Yuen:

Subject: Environmental Impact Statement Preparation Notice (EISPN)
Village at Poipu, Kauai, TMK Numbers: 2-8-13:01, 2-8-14:01-04, 19, 37 and
Lot 19-B (Hapa Road)

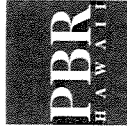
Thank you for the opportunity to provide comments prior to the subject project's EISPN. This project does not directly impact any Department of Accounting and General Services' projects or existing facilities. Therefore, we have no comments to offer at this time.

If you have any questions, please call Mr. Bruce Bennett of the Planning Branch at 586-0491.

Sincerely,

ERNEST Y. W. LAU
Public Works Administrator

BB:jp
c: Mr. Anthony Ching, State Land Use Commission
Ms. Genevieve Salmonson, OEQC
Ms. Stacey Wong, Eric A. Knudsen Trust



LAND PLANNING
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ASSOCIATE

KEVIN NISHIKAWA, ASLA
ASSOCIATE

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FAX: (808) 981-3333
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FAX: (808) 242-2842
E-Mail: pbrwailuku@hawaii.net

January 27, 2006

Mr. Ernest Y. W. Lau, Public Works Administrator
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13:01, and 2-8-14:01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Lau:

Thank you for your letter dated July 27, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to you comments.

We appreciate the information that the proposed project does not directly impact any Department of Accounting and General Services' projects or existing facilities, and that you have no comments to offer at this time.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII

Kifumi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

APR 9 2005
HONOLULU, HAWAII

**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

Strategic Industries Division
235 South Beretania Street, Leleopapa A, Kamehameha Bldg., 5th Floor, Honolulu, Hawaii 96813 Telephone: (808) 587-3607
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Fax: (808) 587-3620
Web site: www.hawaii.gov/dbedt/ert



July 29, 2005

PBR Hawaii
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813
Attn: Kumi Yuen

Dear Ms. Yuen:

Re: Environmental Impact Statement Preparation Notice (EISP/N)
Village at Poipu, Kauai
Tax Map Key: 2-8-13:01, 2-8-14:01, 2-8-14:02, 2-8-14:03, 2-8-14:04, 2-8-14:19, 2-8-14:37
and Lot 19-B (Hapa Road)

In response to your July 23, 2005, notice, thank you for the opportunity to provide comments on the EISP/N for the Village at Poipu, Kauai. We note that this is a 203.3 acre proposed residential development with an estimated 216-369 single family units and 134 multi-family units. We also note that you included a discussion of selected sustainable site and building design techniques from the *Guidelines for Sustainable Building Design in Hawaii: A Planner's Checklist* in your document.

The mandate for consideration of energy efficiency is found in Chapter 344, HRS ("State Environmental Policy") and for efficient energy resource use in Chapter 226 ("Hawaii State Planning Act"). In particular, we would like to call your attention to HRS 226 18(c) (4) which includes a State objective of promoting all cost-effective energy conservation through adoption of energy-efficient practices and technologies. You indicated that you will be addressing sections of the Hawaii State Plan and discussing how the project conforms to the State Plan in your DEIS. We look forward to receipt of your DEIS and the discussion of how your project incorporates energy efficiency technologies and practices. In this regard, we would like to refer you to the County of Kauai's Building Energy Code which is available from the Kauai Building Division at 808-241-6650.

PBR Hawaii
July 29, 2005
Page 2

Other references which you may find useful include the *Field Guide for Energy Performance, Comfort, and Value in Hawaii Homes* at <http://www.hawaii.gov/dbedt/ert/fieldguide/fieldguide.html> and the sustainability guidelines at <http://www.hawaii.gov/dbedt/ert/rebuild/pdfs/momisustainable.pdf>.

If you need clarification of any of the above, please do not hesitate to contact me.

Sincerely,

Maurice H. Kaya
Chief Technology Officer

c: Eric A. Knudsen Trust
OEQC
State Land Use Commission



LAND PLANNING
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Associate

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WAILUKU OFFICE
2123 KAGAU STREET
WAILUKU, HAWAII 96793-2214
Tel: (808) 242-2878
Fax: (808) 242-2922
E-Mail: jpholmes@halo.hi

January 27, 2006

Mr. Maurice H. Kaya, Chief Technology Officer
Strategic Industries Division
Department of Business, Economic Development & Tourism
State of Hawai'i
235 South Beretania Street,
Leiopapa A Kamehameha Building, 5th Floor
Honolulu, Hawai'i 96804

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Kaya:
Thank you for your letter dated July 29, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

We understand that the mandate for consideration of energy efficiency is found in Chapter 344, HRS (State Environmental Policy) and for efficient energy resource use is in Chapter 226 (Hawaii State Planning Act). The discussion of the Hawai'i State Plan is provided in Section 5.1.4 of the Draft EIS.

Also, thank you for your recommendations regarding HRS 226 18(c) (4), the County of Kaua'i's Building Energy Code, the *Field Guide for Energy Performance, Comfort, and Value in Hawaii Homes*, and the sustainability guidelines on the DBEDT website. We will forward this information to our client who is considering energy efficient designs for the project.

Thank you for reviewing the EISP. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OECC
Mr. Stacey Wong/Eric A. Knudsen Trust

C:\job22\2217\05 Village at Poipu Entitlements-DEIS\Reports\EIS\Draft EIS\Response Letters\DBEDT SID.doc



DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. P-11054

August 9, 2005

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawaii 96813

Dear Ms. Yuen:

Subject: Village at Poipu
Eric A. Knudsen Trust
Environmental Impact Statement Preparation Notice (EISP)
(State Land Use Commission Docket No. A05-761)

We have received the subject EISP and offer the following comments.

It is our understanding that the Eric A. Knudsen Trust (Applicant) is proposing to develop a master planned single-family and multi-family residential community consisting of approximately 216 to 369 single-family (SF) and 134 multi-family (MF) residential units. At maximum buildout, assuming 350 dwelling units (216 SF and 134 MF units), the defacto population is estimated to be 1,145 persons, comprised of 695 full-time residents and 550 second home owners and guests.

The EISP states that the median home sales price on Kauai was \$665,000 in May 2005. According to the preliminary draft of the Applicant's market study, the Poipu-Koloa housing market is currently in a moderately to strongly undersupplied condition and that 2,544 to 5,177 additional housing units are needed by 2025. The market study should estimate the proposed selling prices for the residential units and should explain how the affordable housing requirements of the County of Kauai will be met.

The Kauai Department of Water (DOW) has stated that the proposed 350 to 503 units estimated for the subject project would generate an average demand of about 175,000 to 251,500 gallons per day (based on per average demand for 500 gallons per unit per day). The DOW further states that the Koloa-Poipu Water System does not have sufficient capacity to serve the

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LAURA H. THIELER
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OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ms. Yuen
Page 2
August 9, 2005

project's proposed demand. The applicant should provide more information on the availability of water such as the sustainable yield of the aquifer.

The critical habitat of the endangered Kauai Cave Wolf Spider and Kauai Cave Amphipod should be protected by first delineating the full extent of the Lava tubes.

The discussion of surrounding uses should also include the proposed Kukuila development to the west of Poipu Road and the types and selling prices of the residential units in comparison to the subject Village at Poipu.

Thank you for the opportunity to provide these comments. Should you have any questions, please call the Land Use Division at 587-2842.

Sincerely,



Laura H. Thielen
Director



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Fax: (808) 242-2802
E-Mail: pbrwaialae@hawaii.net

January 26, 2006

Ms. Laura H. Thielen, Director
Department of Business, Economic Development & Tourism
Office of Planning
P.O. Box 2359
Honolulu, Hawaii 96804

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Ms. Thielen:

Thank you for your letter (Ref. No. P-11054) dated August 9, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP/N). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments. Excerpts from your letter which bear responses are italicized below:

...The market study should estimate the proposed selling prices for the residential units and should explain how the affordable housing requirements of the County of Kauai will be met.

Response: The market study prepared for the Village at Po'ipū includes estimated selling prices for the residential units and is summarized in Section 4.7.2 of the Draft EIS. The market study is included in its entirety as an appendix to the EIS. One of the major reasons for the dramatic increases in recent median home sales prices in Kaua'i is the lack of available resale inventory and new housing supply. The Village at Po'ipū seeks to increase housing supply in an appropriate area currently designated as a residential community by the Kaua'i General Plan. The Knudsen Trust is also working with the County of Kaua'i Housing Agency to meet its affordable housing requirements for the project and will include this information in the EIS if the agreements can be reached before completion of the Final EIS. Please note that the Knudsen Trust fulfilled its affordable housing requirements as part of the original 1977 State Land Use Boundary Amendment granted by the LUC (Docket No. A76-418, confirmed by the LUC on October 16, 1995). This area includes Phases 1 and 2 of the proposed Village at Po'ipū project located makai of the railroad berm.

The applicant should provide more information on the availability of water such as the sustainable yield of the aquifer.

Response: Section 4.8.1 of the Draft EIS provides more information on the water systems proposed for the project and the availability of the water. A preliminary engineering report was prepared in November 2005 and includes a water system master plan for the project. The preliminary engineering report is included in the EIS as an appendix. It states: "The Village at Po'ipū is located within the County Department of Water's Kōloa-Po'ipū Water System. The service area of this system consists of a concentration of resorts along the Po'ipū coastline and residential communities clustered near the coast and around Kōloa town. The Kōloa Po'ipū Water System is divided into a 366-foot pressure zone and a 245-foot pressure zone and is currently supplied by five wells with a total capacity of about 3,560 gpm. Total available storage for the water system is 4.25 million gallons."

In addition, a separate non-potable water system will be developed for irrigating the landscaping in common areas such as the parks and archaeological preserves, the multi-family residential and the larger single family residential lots. This non-potable system will be supplied by a private system, sourced from two onsite wells and Grove Farm's Waita Reservoir. Further discussion of the water system and the complete preliminary engineering report are included in the EIS.

The critical habitat of the endangered Kauai Cave Wolf Spider and Kauai Cave Amphipod should be protected by first delineating the full extent of the Lava tubes.

Response: The archaeological inventory survey prepared for the project site in 1991 delineated the full extent of the lava tubes and this is shown in Figures 3 and 16 of the Draft EIS. The critical habitat unit areas as shown in Figure 15 were established by the US Fish and Wildlife Service (USFWS). Fifty-foot buffers will be provided around the delineated lava tubes as shown in the conceptual master plan for the project and will be protected as archaeological preserves in which no buildings will be constructed. In addition, native plants will be planted within these areas to improve potential habitat conditions for the two endangered species.

The discussion of surrounding uses should also include the proposed Kukuila development to the west of Poipu Road and the types and selling prices of the residential units in comparison to the subject Village at Poipu.

Response: The Draft EIS will include Kukuila in its discussion of surrounding uses. While selling prices of the residential units at Kukuila are not known at this time, Kukuila is a luxury development while much of the Village at Po'ipū is expected to target the moderate and high market priced housing segment. As noted above, the Knudsen Trust is currently working with the County of Kaua'i

Housing Agency to meet its remaining affordable housing requirement for the project.

Thank you for reviewing the EISPN. Your comments will be included in the EIS.
Sincerely,

PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust



APR 23 2005

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2380
HONOLULU, HAWAII 96864

OFFICE OF THE SUPERINTENDENT

August 23, 2005

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawaii 96813

Dear Ms. Yuen:

Subject: Environmental Impact Statement Preparation Notice for
Village at Po'ipu Koloa, Kauai
TMK: 2-8-13-01, 2-8-14-01, 02, 03, 04, 19, 37 and Lot 19-B

The Department of Education (DOE) has reviewed the Environmental Impact Statement Preparation Notice (EISP) for Village at Po'ipu in Koloa, Kauai.

The DOE's only comment is that with an estimate of 369 single-family units and 134 multi-family units, we estimate that there would be roughly 158 students eventually residing in the project. Currently, there is sufficient facility capacity for some increase in students at Koloa Elementary, Kamakaele Middle, and Kauai High schools. However, we are not certain about the impact of other residential developments on the schools. Koloa Elementary's enrollment has declined during the past few years but enrollment projections estimate its enrollment to begin growing in the next year or two.

The DOE will ask the State Land Use Commission to impose a school fair-share contribution on the project to help offset the costs the DOE will incur to provide school land and facilities to the residents of the Village at Po'ipu.

Although some of the initial homeowners within the project will be part-time residents, there are indications that part-time residents enroll their children in public schools during their residency. The DOE has only one opportunity to request this school condition when agricultural land is reclassified to urban uses. The Villages of Po'ipu are expected to house residents and their students for several generations.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Ms. Kimi Yuen
Page 2
August 23, 2005

There is no certainty that the residents will be part-time residents or full-time residents, but it is certain that if they have children, the DOE must plan to provide them with a public education.

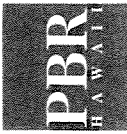
We appreciate the opportunity to comment on the EISP. If you have any questions, please call Rae Loui, Assistant Superintendent of the Office of Business Services, at 586-3444 or Heidi Meeker of the Facilities Development Branch at 733-4862.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:hy

cc: Rae Loui, Asst. Supt., OBS
Daniel Hamada, CAS, Kapaa/Kauai/Waimea Complex Area
Anthony Ching, SLUC
Genevieve Salmonson, OEQC



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WAILUKU, HAWAII 96793-2214
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E-Mail: pbrmail@hawaii.net

January 26, 2006

Ms. Patricia Hamamoto, Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipu, Kauai
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Ms. Hamamoto:

Thank you for your letter dated August 23, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISP/N). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

The Hallstrom Group has conducted a market study for the Villages at Po'ipu project, which includes a social impact assessment of population, affordable housing, public services, and other important socio-economic factors, such as public schools. This analysis takes into account the cumulative impacts of other known planned and proposed residential developments in the area. The full market study report will be included as an appendix in the EIS.

We recognize that the Department of Education will ask the State Land Use Commission to impose a school fair-share contribution on the Village at Po'ipu project. Our client will fully comply with the Commission's determination.

Thank you for reviewing the EISP/N. Your comments will be included in the EIS.

Sincerely,
PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

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LINDA LINGLE
GOVERNOR
STATE OF HAWAII

AUG 01 2005

10:00 AM

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION
BEN HENDERSON
DEPUTY TO THE CHAIRMAN
KAULANA H. PARK
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879
HONOLULU, HAWAII 96805

July 28, 2005

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawaii 96813

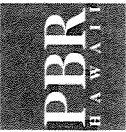
Dear Ms. Yuen:

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice report for the Village at Poipu project on Kauai. The Department of Hawaiian Home Lands has no comments to offer.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

Micah A. Kane, Chairman
Hawaiian Homes Commission



LAND PLANNING
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JAMES LEONARD, AICP
Principal
Hilo Office

GRANT MURAKAMI, AICP
Senior Associate

TOM SCINNELLA, AICP
ASSOCIATE

RAYMOND T. HIGA, ASLA
ASSOCIATE

KEVIN NISHIKAWA, ASLA
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January 27, 2006

Mr. Micah A. Kane, Chairman
Hawaiian Homes Commission
Department of Hawaiian Homelands
State of Hawaii
P.O. Box 1879
Honolulu, Hawaii 96805

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13-01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Kane:

Thank you for your letter dated July 28, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP). As the consultant for the applicant, Eric A. Knudsen Trust, we acknowledge that you have no comments to offer at this time.

Thank you for reviewing the EISP. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

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Kimi Yuen

From: sysadmin
Sent: Thursday, August 18, 2005 8:44 AM
To: Kimi Yuen
Subject: FW: Attn: Ms. Kimi Yuen, Re: EISP for Village at Po'ipu

From: Jiacci Liu [mailto:JLiu@eha.health.state.hi.us]
Sent: Wednesday, August 17, 2005 4:38 PM
To: sysadmin
Subject: Attn: Ms. Kimi Yuen, Re: EISP for Village at Po'ipu

Dear Ms. Yuen,

Thank you for allowing us to review the subject project. We offer Standard Comments at: <http://www.state.hi.us/health/environmental/envy-planning/landuse/landuse.html> or clicking (Standard Comments). We are looking forward to seeing the DEIS and please send the document to our office at:

Environmental Planning Office
Department of Health
919 Ala Moana Blvd., Room 312
Honolulu, Hawaii 96814

Thank you.
Jiacci Liu
Land Use Review Coordinator
Environmental Planning Office /DOH
(808) 586-4346

8/18/2005

Environmental Planning Office Standard Comments / Areas of Concern

Updated 9/15/05

The Environmental Planning Office (EPO) is responsible for several surface water quality management programs mandated by the federal Clean Water Act or dictated by State policy. (<http://www.state.hi.us/doh/eh/epo/wqm/wqm.htm>). Among these responsibilities, EPO:

- maintains the *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)* (<http://www.state.hi.us/doh/eh/epo/wqm/303dpcfinal.pdf>);
- develops and establishes Total Maximum Daily Loads (TMDLs) for listed waters (suggesting how much existing pollutant loads should be reduced in order to attain water quality standards, please see <http://www.epa.gov/owow/tmdl/intro.html>);
- writes TMDL Implementation Plans describing how suggested pollutant load reductions can be achieved; and
- conducts assessments of stream habitat quality and biological integrity.

Standard Comments / Areas of Concern

To facilitate TMDL development and implementation, and to assist with our assessment of the potential impact of proposed actions upon water quality, pollutant loading, and biological resources in receiving waters, we suggest that environmental review documents, permit applications, and related submittals include the following standard information and analyses:

Waterbody type and class

1. Identify the waterbody type and class, as defined in Hawaii Administrative Rules Chapter 11-54 (<http://www.state.hi.us/health/about/rules/11-54.pdf>), of all potentially affected water bodies.

Existing water quality management actions

2. Identify any existing National Pollutant Discharge Elimination System (NPDES) permits and related connection permits (issued by permittees) that will govern the management of water that runs off or is discharged from the proposed project site or facility. Please include NPDES and other permit numbers; names of permittees, permitted facilities, and receiving waters (including waterbody type and class as in 1. above); diagrams showing drainage/discharge pathways and outfall locations; and note any permit conditions that may specifically apply to the proposed project.
3. Identify any planning documents, groups, and projects that include specific prescriptions for water quality management at the proposed project site and in the potentially affected waterbodies. Please note those prescriptions that may specifically apply to the proposed project.

Pending water quality management actions

4. Identify all potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)* including the listed waterbody, geographic scope of listings, and pollutant(s) (See Table 5 at <http://www.hawaii.gov/health/environmental/env-planning/wqm/303dpcfinal.pdf>).
5. If the proposed project involves potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*, identify and quantify expected changes in the following site and watershed conditions and characteristics:
 - surface permeability
 - hydrologic response of surface (timing, magnitude, and pathways)
 - receiving water hydrology
 - runoff and discharge constituents
 - pollutant concentrations and loads in receiving waters
 - aquatic habitat quality and the integrity of aquatic biota

Where TMDLs are already established they include pollutant load allocations for the surrounding lands and point source discharges. In these cases, we suggest that the submittal specify how the proposed project would contribute to achieving the applicable load reductions.

Where TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives is to prevent any project-related increases in pollutant loads. This is generally accomplished through the proper application of suitable best management practices in all phases of the project and adherence to any applicable ordinances, standards, and permit conditions. In these cases we suggest that the submittal specify how the proposed project would contribute to reducing the polluted discharge and runoff entering the receiving waters, including plans for additional pollutant load reduction practices in future management of the surrounding lands and drainage/discharge systems.

Proposed Action and Alternatives Considered

We suggest that each submittal identify and analyze potential project impacts at a watershed scale by considering the potential contribution of the proposed project to cumulative, multi-project watershed effects on hydrology, water quality, and aquatic and riparian ecosystems.

We also suggest that each submittal broadly evaluate project alternatives by identifying more than one engineering solution for proposed projects. In particular, we suggest the consideration of "alternative," "soft," and "green" engineering solutions for channel modifications that would provide a more environmentally friendly and aesthetically pleasing channel environment and minimize the destruction of natural landscapes.

If you have any questions about these comments or EPO programs, please contact Jiakai Liu at 586-4346.

¹¹⁹Potentially affected waterbodies" means those in which proposed project activity would take place and any others that could receive water discharged by the proposed project activity or water flowing down from the proposed project site. These waterbodies can be presented as a chain of receiving waters whose top link is at the project site upslope and whose bottom link is in Pacific Ocean "oceanic waters," with all receiving waters named according to conventions established by Chapter 11-54 and the *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*. For example, a recent project proposed for Nuhelewai Stream, Oahu (a tributary of Kapalama Canal) might potentially affect Nuhelewai Stream, Kapalama Canal, Honolulu Harbor and Shore Areas, and the Pacific Ocean.



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January 26, 2006

Mr. Jiakai Liu
State of Hawaii
Department of Health
Environmental Planning Office
919 Ala Moana Boulevard, Room 312
Honolulu, Hawaii 96814

RE: **Environmental Impact Statement Preparation Notice**

Eric A. Knudsen Trust Village at Po'ipū, Kaula'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Liu:

Thank you for your e-mail dated August 18, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP/N). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

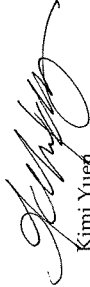
1. Waterbody type and class: The proposed project does not contain any wetlands, streams or known waterbodies onsite. The project site is over 1,000 feet upslope of the Pacific Ocean and runoff from the project site may affect marine waters.
2. National Pollutant Discharge Elimination System (NPDES): A NPDES permit is required for this project. The need for this permit is stated in Section 5.3 (Approvals and Permits) of the Draft EIS. The preliminary engineering report includes a drainage master plan and is attached as an appendix to the EIS.
3. Water quality management: The drainage master plan for the project is described in the preliminary engineering report and is attached as an appendix to the EIS. The proposed drainage system includes detention basins and bioswales to help mitigate and filter runoff generated onsite. The drainage system is summarized in Section 4.8.3 of the Draft EIS.
4. Impaired Waters of Hawaii: No water bodies on the current 2004 List of Impaired Waters in Hawaii Prepared under Clean Water Act §303 (d) are expected to be impacted by the proposed project.
5. See Response to Item 4 above.

Page 2 of 2
Mr. Jiakai Liu
January 26, 2006

We acknowledge your suggestion that we identify and analyze potential project impacts at a watershed scale. Section 4.8.3 of the Draft EIS and the preliminary engineering report describe the proposed drainage systems which will include detention basins and bioswales that are consistent with your recommendation to implement alternative and green engineering solutions to mitigate runoff and improve water quality and the project's potential impact on aquatic riparian ecosystems.

Thank you for reviewing the EISPN. Your comments will be included in the EIS.

Sincerely,
PBR HAWAII



Kimi Yuet
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

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LINDA LINGLE
GOVERNOR OF HAWAII



AUG 30 2005

PETER S. YOUNG
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER ON WATER RESOURCES MANAGEMENT
ROBERT K. MASUDA
DEPUTY COMMISSIONER
ACTING DEPUTY MANAGER
WATER
AQUATIC RESOURCES
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MANAGEMENT
FORESTRY AND WILDLIFE
RESOURCES
KAPOLA'ONE ISLAND RESERVE COMMISSION
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 535
KAPOLEI, HAWAII 96707

August 29, 2005

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawaii 96813

And

Ms. Stacey Wong
Eric A. Knudsen Trust
P.O. Box 759
Kalaheo, Hawaii 96741

Dear Ms. Yuen and Mr. Wong:

SUBJECT: Chapter 6E-42 – Historic Preservation Review - EIS Preparation Notice
Villages at Po'ipu
Koloa Ahupuaa, Koloa District, Kauai Island
TMK: 2-8-13-01; 2-8-14: 02, 03; 2-8-14: 04, 19, 37 & lot 19-B (Hapa Road)

Thank you for submitting this EIS Preparation Notice for your project at the Villages at Po'ipu, which we received on July 25, 2005. Section 5.1 of this Notice, discusses the cultural and archaeological concerns. Discussions have taken place with our staff on this project since 2002.

In 1990, Cultural Surveys Hawaii, surveyed most of the project area under the proposed Poipulani Development. Sites were agreed upon for preservation and the Knudsen Trust has continued to agree to preserve these sites. Archaeological work has been on going in Phase I of the Villages at Po'ipu. We believe that only the interim and long term preservation measures needed to be implemented and completed for this Phase of the project.

Additional survey work, data recovery and preservation plans are needed for the rest of the project area for the Villages at Po'ipu. Sites including the historic Hapa Road wall are not clearly presented as a site to be preserved in this preservation map (page 41). In addition, our office was questioned back in 1990 by the Kauai Planning Commission and the community for not preserving more sites. This led to a field trip with the Planning Commissioners and our staff archaeologist for Kauai sometime back in 1990-91. Their consensus was to also preserve Site 50-30-10-942, which is near Hapa Road wall and is a land commission award. After this the applicant then, Lorin Baxter withdrew his application and the project never moved forward.

Kimi Yuen
Stacey Wong
Page 2

The applicant and his consulting archaeologist have been informed that they should work with the Kauai Historic Preservation Review Commission (KHPRC) to identify additional sites that may be preserved. To date we do not believe that this has taken place.

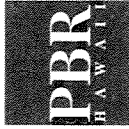
If you have any questions, please call Nancy McMahon at 808.742.7033.

Sincerely,


MELANIE A. CHINEN, Administrator
State Historic Preservation Division

NM/jen

c: Ian Costa, Planning Department
Kauai Historic Preservation Resource Commission
Kauai Island Burial Council
Anthony Ching, State Land Use Commission
OEQC



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January 27, 2006

Ms. Melanie Chinen, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Kakuhihewa Building, Room 555
Kapolei, Hawaii 'i 96707

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Ms. Chinen:

Thank you for your letter dated August 29, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

We appreciate your summary of SHPD's understanding of the status of the Phase I portion of the Village at Po'ipū project. The Trust will continue to work with your office on implementing the interim and long-term preservation measures for this phase of the project. The data recovery, data recovery plans, and interim protection plan for Phase I are summarized in Section 4.1 of the Draft EIS and attached as appendices to the EIS.

Since the EISP, all remaining areas of the Village at Po'ipū project site have undergone archaeological inventory surveys and all reports have been submitted to SHPD for review. All but one report has been approved by SHPD to date. We have included a summary of the findings in Section 4.1 of the Draft EIS and attached the full reports and copies of the SHPD approval letters as appendices to the EIS.

Hapa Road will be improved as a pedestrian and bicycle path as mandated by the County of Kaua'i. The historic rock walls will be preserved in place where they are in good condition and restored where they have collapsed or have been damaged by stone robbing. Section 4.1 of the Draft EIS provides an expanded analysis of Hapa Road and its historic rock walls and has been added to Figure 16 which has been enlarged for improved legibility.

We acknowledge your suggestion that the applicant and archaeologist work with the Kaua'i Historic Preservation Review Commission to identify additional sites that may be preserved and will forward this information to our client.

Page 2
Ms. Melanie A. Chinen
January 27, 2006

PHONE (808) 594-1888

FAX (808) 594-1865



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

PBR HAWAII

A handwritten signature in black ink, appearing to read "Kimi Yuen".

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

August 15, 2005

Kimi Yuen
Associate
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

HRD05/1965

O:\Job22\2217\05 Village at Poipu Entitlements\DEIS\Reports\EIS\Draft EIS\Response Letters\SHPD.doc

RE: Request for consultation on an Environmental Impact Statement Preparation Notice for the proposed Village at Po'ipū, Kōloa, Kaua'i

Dear Kimi Yuen,

The Office of Hawaiian Affairs (OHA) is in receipt of your July 23, 2005, request for comments on the above-referenced proposal, which would allow for the development of a residential community within approximately 203 acres of land in south Kaua'i, requiring the reclassification of 127.4 acres from Agricultural to Urban. OHA offers the following preliminary comments.

Cultural Resources

We note that you have appropriately consulted with our Kaua'i Community Resource Coordinator, La France Kapaka-Arboleda, and with the Kaua'i/Ni'ihau Island Burial Council. They could better inform you of who else should be contacted and of particular cultural and historical sites, events, practices and groups which should be considered and consulted, respectively. Based on their recommendations, OHA may request that an archaeological monitor be on-site during all excavations and ground disturbances for this project.

Despite the fact that extensive ground disturbance has already occurred in the area due to cattle and horse grazing, there are no assurances that cultural deposits do not exist in this large area. Therefore, OHA appreciates that, prior to construction, an archaeological inventory-level survey, with subsurface testing, will be conducted. Furthermore, should iwi kupuna or Native Hawaiian

cultural or traditional deposits be found during ground disturbance or excavation, OHA requests that work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Because many known archaeological sites exist within this property, it is likely that more will be found, and that the area is more of a cultural property than a property containing cultural sites. Thus, if this project goes forward, OHA suggests that efforts be made to incorporate the values of natural and cultural resource preservation within the Covenants, Conditions and Restrictions for the proposed development. Also, cultural practitioners of the area should be provided stewardship opportunities for the cultural properties, perhaps through an agreement with the Homeowners' Association.

Further consultation also may show that view planes must be preserved between existing heiau and other cultural sites. This should be learned early so that proposed construction can be sure to avoid obstructing such view planes and sight lines.

Because this property has been described as one of the largest intact cultural sites in Hawai'i, OHA is gathering more information, particularly because there are a number of people in the community who have expressed concerns about this proposed project. We are collecting information from concerned beneficiaries at this time and would be happy to share that information in the future, at least upon receipt of the Draft Environmental Impact Statement.

Cultural and Traditional Access

Equally, Native Hawaiians should be afforded reasonable access for cultural and traditional purposes. OHA appreciates the planned access to cultural sites, with appropriate interpretive signage that details the history and the care requirements for the sites.

We note that consideration must be given to applicable cultural gathering and access rights during and after construction activities. Recognized Native Hawaiian traditional gathering rights and access should not be restricted – even during construction – except as necessary to ensure safety. If such safety-related restrictions are put in place, alternate public access routes must be provided.

Natural Resources

OHA commends the plans to non-potable or reclaimed water for irrigation, and further urges the project to use endemic and indigenous plants as much as possible in its landscaping efforts. The proposed use of native plantings whenever possible, instead of water-hungry introduced and exotic landscaping plants, will help to prevent the further expansion of alien species and to preserve and foster the return of native species to Hawai'i.

We look forward to learning more about the existence and habitat of the endangered Kaua'i Cave Wolf Spider and the Kaua'i Cave amphipod on site. OHA appreciates the planned 200-foot buffer around the two lave tubes that are critical habitats for these endangered species, whether or not they are currently found in those tubes.

State Land Use District Boundary Amendment

When reviewing a petition to reclassify land, the State Land Use Commission shall specifically consider, among other things, the impact of the proposed reclassification on six areas of State concern, including "Maintenance of valued cultural, historical, or natural resources" (HRS § 205-17(3)(B)); and "Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups" (HRS § 205-17(3)(F)). Has this project considered low-income housing, or whether it only provides housing opportunities for people in the high-income tier? Kaua'i is facing a dire housing shortage for people of lower incomes, and OHA requests that their needs be adequately considered in this proposal.

Thank you for the opportunity to comment, and we look forward to the opportunity to review the forthcoming Draft Environmental Impact Statement. If you have further questions or concerns, please contact Heidi Guth at 594-1962 or e-mail her at heidig@oha.org.

Sincerely,



Clyde W. Nāmu 'o
Administrator

CC: La France Kapaka-Arboleda
Community Resource Coordinator
OHA – Kauai Office
3-3100 Kuhio Highway, Suite C4
Lihue, HI 96766-1153

Stacey Wong
Trustee
Eric A. Knudsen Trust
P.O. Box 759
Kalaheo, HI 96741

Kimi Yuen
August 15, 2005
Page 4

Anthony Ching
Executive Director
State Land Use Commission
P.O. Box 2359
Honolulu, HI 96804

Office of Environmental Quality Control
State Department of Health
235 S. Beretania St., Suite 702
Honolulu, HI 96813



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January 26, 2006

Mr. Clyde W. Nāmu'ō
State of Hawaii
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawaii 96813

RE: **Environmental Impact Statement Preparation Notice**
Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKS: 2-8-13-01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Nāmu'ō:

Thank you for your letter dated August 15, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP/N). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

Cultural Resources

We appreciate your recommendations on who to contact with regards to important cultural resources. A cultural impact study was completed in August 2005 in support of this project and is included in the EIS.

We acknowledge your concern regarding cultural deposits on site and note that archaeological inventory surveys have been completed for the entire site. All but one of the survey reports have received approval from the State Historic Preservation Division (SHPD); the remaining report was completed in December 2005 and is currently being reviewed by SHPD. The inventory survey reports and the SHPD approval letters are included in the EIS. All sites recommended for preservation or possible preservation will be preserved and incorporated into the over 23 acres dedicated to archaeological preserves. These sites will remain accessible to the public and will be landscaped with native plants.

Furthermore, data recovery plans and data recovery studies as well as site protection plans will be completed for project and those that have been completed to date are also included in the EIS.

As suggested, the EIS will include language that states, "Should iwi kupuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease and the appropriate agencies will be contacted pursuant to applicable law."

Page 2

Mr. Clyde W. Nāmu'o
January 26, 2006

We acknowledge and will forward to the client your suggestion to incorporate the values of natural and cultural resource preservation within the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed development, and that appropriate cultural practitioners are provided opportunities for stewardship of the cultural properties.

We would appreciate any further information and recommendations you may have based on your ongoing efforts in the community. We will submit a copy of the Draft EIS to you for your review and comment. We would appreciate any information you can share with us regarding community concerns, so that we can address them directly.

Cultural and Traditional Access

We appreciate your positive comments on the planned access to cultural sites with appropriate interpretive signage that details the history and the care requirements for the site.

We also acknowledge your concern regarding Native Hawaiian traditional gathering rights and access during and after construction. Alternate public access routes will be provided if safety-related restrictions to access are put in place during construction.

Natural Resources

We appreciate your positive comments regarding the use of non-potable or reclaimed water for irrigation and the use of endemic and indigenous plants. As noted in the EIS, the design guidelines and landscape master plan will encourage and implement as much as possible the use of native plants in the landscaping of the project. In particular, native plants will be planted within the archaeological preserves.

We also appreciate your comments regarding the critical habitats for the Kaua'i Cave Wolf Spider and Kaua'i Cave amphipod.

State Land Use District Boundary Amendment


We recognize OHA's concerns about Kaua'i's housing shortage for people of lower incomes. The Village at Po'ipū will include a variety of housing options and opportunities, including single- and multi-family units. The Knudsen Trust is currently working with the County of Kaua'i Housing Agency to meet affordable housing requirements for the project.

Page 3

Mr. Clyde W. Nāmu'o
January 26, 2006

Mahalo for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching / State Land Use Commission
Ms. Genevieve Salmonson / OEQC

Mr. Stacey Wong / Eric A. Knudsen Trust

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 223
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF: CEPOH-EC-T

August 12, 2005

Civil Works Technical Branch

Mr. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawaii 96813


Dear Mr. Yuen:

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice (EISPN) for the Village at Poipu Project, Kauai (TMKs 2-8-13: 1; 2-8-14: 1-4, 19, and 37). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

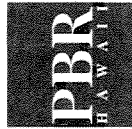
a. The proposed project may involve work in and/or placement of dredged and/or fill material into waters of the U.S. under our regulatory jurisdiction. A review of the USGS topographic maps indicates a potential water of the U.S. labeled as "flume" within the northern portion of the project. Therefore, a DA permit may be required although additional information is required in order to make a final determination. For further information, please contact Ms. Connie Ramsey of our Regulatory Branch at (808) 438-2039.

b. The flood hazard information provided on page 32 of the EISPN is correct. Should you have any questions, please call Ms. Jessie Dobinck of my staff at 438-8876.

Sincerely,


James Pennaz, P.E.
Chief, Civil Works
Technical Branch

Encs



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January 26, 2006

Mr. James Pennaz, P.E., Chief
Civil Works Technical Branch
Attn: CEPOH-EC-T
Department of the Army
U.S. Army Engineer District, Honolulu
Building 223
Fort Shafter, Hawaii 96858-5440

RE: Environmental Impact Statement Preparation Notice Comment Letter
Eric A. Knudsen Trust Village at Po'ipu, Kauai
TMKs: 2-8-13:01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Pennaz:

Thank you for your letter dated August 12, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

a. We recognize your review of USGS topographic maps, which indicate a potential water of the U.S. labeled as "flume" within the northern portion of the project. We have corresponded with Ms. Connie Ramsey and received a final determination letter from Mr. George P. Young, P.E., Chief, Regulatory Branch, dated September 30, 2005 that the proposed development will not involve any discharge of dredged and/or fill material into jurisdictional waters of the US and that no Department of the Army (DA) permit would be required for this project.

b. We appreciate your confirming the flood hazard information in the EISPN.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEFC
Mr. Stacey Wong/Eric A. Knudsen Trust



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

010107005

REPLY TO
ATTENTION OF

September 30, 2005

Regulatory Branch

File No. POH-2005-416

Ms. Kimi Yuen
PBR Hawaii
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

Subject: Final determination of Department of the Army (DA) jurisdiction for the proposed Village at Poipu, Koloa, Kauai, TMK: (4) 2-8-13:1 and 2-8-14:1-4, 19, and 37

Dear Ms. Yuen:

On August 12, 2005 the Corps provided a preliminary jurisdictional determination pursuant to Section 404 of the Clean Water Act in response to an Environmental Impact Statement Preparation Notice (EISP/N) for the above-referenced project. Based on the initial review by my regulatory project manager, more information was needed regarding a feature identified as a "flume" on the USGS topographic quadrangle of the project area. On August 23rd, you provided an electronic copy of a report dated August 18, 2005 by Cultural Surveys Hawaii, Inc., which provided information on the current condition of the "elevated plantation-era flume" located in the northern portion of the project area, southeast of the intersection of Wellwell and Hapa Roads (TMK: 2-8-14:01).

The report states that the flume was part of an irrigation/mill system constructed by Koloa Sugar Company while the area was under sugar cultivation, but has since been abandoned and fallen into disrepair. Based on the additional information provided, the Corps has determined that the proposed development will not involve any discharge of dredged and/or fill material into jurisdictional waters of the U.S.; therefore, a DA permit will not be required for this project.

If you need further assistance, please contact Ms. Connie Ramsey by phone at 438-2039, by facsimile at 438-4060, or by e-mail at Connie.L.Ramsey@usace.army.mil. Please refer to the file number regarding this project. Thank you for your cooperation with our regulatory program.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch



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January 26, 2006

Mr. George Young, P.E., Chief
Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

RE: Environmental Impact Statement Preparation Notice
Final Determination of Department of the Army (DA) Jurisdiction Letter
File No. POH-2005-416

Eric A. Knudsen Trust Village at Po'ipū, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Young:

Thank you for your letter dated September 30, 2005 regarding the final determination of the DA jurisdiction for the proposed Village at Po'ipū project which was sent in response to the Environmental Impact Statement Preparation Notice (EISP/N). We appreciate your assistance with the final determination which states that the Corps has determined that the proposed development will not involve any discharge of dredged and/or fill material into jurisdictional waters of the U.S.; therefore, a DA permit will not be required for this project.

Thank you for letter. It will be included in the EIS.

Sincerely,

PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

Bryan J. Baptiste
Mayor



COUNTY OF KAUAI
Fire Department
1001 Bishop Street, Suite 295
Honolulu, HI 96813

Robert F. Westerman
Fire Chief

Page 2
August 2, 2005

The hydrant system shall be designed to accommodate the variety of zoning in the area. The amount of water required for fire protection in the subdivision will vary with the use of the property. The minimum spacing of the hydrants will also depend on the zoning and occupancy. The hydrant system shall comply with Water Department Standards.

Should you have any questions or need additional information, contact the Fire Prevention Bureau at 808-241-6511.

Sincerely,

Russell Yee
Prevention Captain

Approved:

Robert Westerman
Fire Chief

August 2, 2005

PBR Hawaii
Kimi Yuen
Project Consultant
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

RE: Village at Po'ipū

Dear Ms. Yuen:

The Kauai Fire Department has some concerns with the upcoming Village at Po'ipū. The EISP submitted to our office for review does not address the installation of the fire hydrant systems or road widths. It is essential for the infrastructure to be in place prior to the construction of the residential units.

The amount of impact on the Fire Department will vary with the demographics of the new subdivision. The lower-end estimates of 350 units and 1145 persons for the area will have a definite impact on the nearby fire station. The transient and resident population will need service in both EMS and fire calls. What does *significant* mean under *Potential Impacts and Mitigative Measures*? Consideration must be given to the safety of both our residents and visitors.

The increase of population in the area will also increase the amount of vehicles on the surrounding roads. The added congestion may or may not have an effect on the response times during emergency calls. Minimum road widths are essential for safe travel along the thoroughfares. Dead-ends and cul-de-sacs shall be designed to insure maneuverability of the fire apparatus within the subdivision.



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E-Mail: pbrwaikali@pbrhawaii.com

January 27, 2006

Mr. Russell Yee, Prevention Captain
Robert Westerman, Fire Chief
County of Kaua'i Fire Department
Mo'ikeha Building
4444 Rice Street, Suite 295
Lihu'e, Hawaii'i 96766

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipu, Kaua'i
TMKs: 2-8-13-01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Yee and Mr. Westerman:

Thank you for your letter dated August 2, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISP). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

We understand that the installation of fire hydrant systems must be in place prior to construction. The conceptual master plan shown in the EISP and Draft EIS are preliminary plans for the Village at Po'ipu. As the project is phased and prepared for construction, subdivision plans will be prepared by engineers and submitted to the County of Kaua'i Department of Public Works for approval before construction can commence. These subdivision plans must meet County requirements including adequate fire hydrant systems, road widths, and cul-de-sac dimensions.

We acknowledge your comment that the transient and residential population will impact the nearby fire station. Further analysis of this potential impact and mitigative measures is provided in Section 4.9.2 in the Draft EIS and included as part of the market study and public cost/benefit analysis prepared for the project. The market study and public cost/benefit analysis report is attached in its entirety as an appendix to the EIS.

We will incorporate your comments regarding traffic, road widths, dead-ends, and cul-de-sacs into the design plan to ensure maneuverability of the fire apparatus within the community in Section 4.9.2 of the Draft EIS.

A Traffic Impact Analysis Report (TIAR) for the proposed project has been prepared for the project and is included as an appendix in the Draft EIS. Further information regarding the traffic impact of the proposed project on surrounding roads is also provided in Section 4.3 of the Draft EIS.

Page 2
Mr. Russell Yee and Mr. Robert Westerman
January 27, 2006

The hydrant system will be designed to accommodate the various zoning in the area, and will comply with Department of Water standards.

Thank you for reviewing the EISP. Your letter will be included in the EIS.

Sincerely,
PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust



Water has no substitute.....Conserve it

August 25, 2005

Ms. Kimi Yuen
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

Dear Ms. Yuen:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for "Village at Poi'pu" project, Poi'pu, Kaua'i

This is in regards to your July 23, 2005 letter. The subject project was required to complete a water master plan for full growth development of this area. The developer will be required to provide all necessary water system facilities as determined by the approved water master plan. The above information was not included in the EISPN.

If you have any questions, please contact Mr. Edward Doi at (808) 245-5417.

Sincerely,

Gregg Fujikawa
Chief of Water Resources and Planning

EDoi
25-517 No. Pk. Bldg. Village at Poi

c: Mr. Anthony Ching
State Land Use Commission
P.O. Box 2359
Honolulu, HI 96804

4398 Pua Loke St., P.O. Box 1706, Lihue, HI 96766 Phone: 808-245-5400
Engineering and Fiscal Fax: 808-245-5813, Operations Fax: 808-245-5402, Administration Fax: 808-246-8628



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January 27, 2006

Mr. Gregg Fujikawa, Chief of Water Resources and Planning
Department of Water
County of Kaua'i
4398 Pua Loke Street
P.O. Box 1706
Lihue, Hawaii'i 96766

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Poi'pu, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Fujikawa:

Thank you for your letter dated August 25, 2005 regarding the Village at Poi'pu Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

A water master plan for the Village at Poi'pu project was completed in October 2005 and was approved the Department of Water (DOW) on November 17, 2005. Our client will implement the master plan as approved by the DOW. The discussion of the water system is provided in Section 4.8.1 of the Draft EIS and the preliminary engineering report is attached as an appendix to the EIS.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

PBR HAWAII

Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

C:\Job22\217.05 Village at Poiipu Entitlements-DEIS\Reports\EIS\Draft EIS\Response Letters\DOW.doc

Kimi Yuen
PBR Hawaii
1001 Bishop Street,
ASB Tower, Suite 650
Honolulu, HI 96813

FAX # (808) 523-1402

Re: Eric A. Knudsen Trust, Application
Title of Project: Village at Po'ipu
Location: Po'ipu
Island: Kaua'i
District: Koloa

Aloha Kimi Yuen,

We are writing as residents, Kanaka Ma'oli, concerned citizens of Po'ipu and the island of Kaua'i regarding the application as referenced above, pertaining to Tax Map Key Numbers: 2-8-13:01, 2-8-14-01, 2-8-14-02, 2-8-14-03, 2-8-14:04, 2-8-14:19, 2-8-14:37 and LOT 19-B(HAPA ROAD), approximately 203 acres, Po'ipu, District of Koloa, Kauai, Hawaii and remain as "OPEN/SPECIAL TREATMENT PUBLIC" and "AGRICULTURAL LANDS."

Our questions and concerns pertaining to the TMK's above and are as follows:

- 1.) The indiginious peoples cultural rights(Garden Island August 03, 2005).
- 2.) Ownership of Leasehold Lands. How and when did the title transfer to Knudsen Trust?
- 3.) Archeological Sites and Inventory and access to these for cultural practices. (Cultural Services Hawaii 1990, etc.)
- 4.) The damaged and destroyed sites and appropriate fines.
- 5.) Addressing the housing needs of low income, low moderate and gap groups within this project.
- 6.) The Kauai County Council recommendations for a Moratorium on re-zoning including these valuable ag lands (Garden Island August 12, 2005).
- 7.) With the rapid development on the south shore of Kauai, a comprehensive plan, not individual development plan, is needed prior to any further developments.
- 8.) Sewage and water run-off

- 9.) Rubbish removal
- 10.)Traffic and roadways.
- 11.)Lack of recreational areas and the overuse of those in existence (i.e.: Po'ipu Beach Park).
- 12.)In the event of a natural disaster, evacuation on inadequate roadways would compound the disaster.
- 13.)Owls, Bats, Birds and other endangered species would potentially be eliminated with this development.
- 14.)The intended water catchments area is in the prehistoric amphitheatre! Run off would then run downhill, flowing over the highway and dump into the Kane I Olo Uma archeological site and estuary directly across Po'ipu Road.
- 15.) These unclassified ALISH Lands in this Ag Zoned proposal have been impeded by the cattle use and should be restored to agricultural production, as well as the Waikomo Stream ("Cultural Survey's Hawaii", Sept. 1990, page 31).
- 16.)The worldwide lack of natural resources, especially water and land, should dictate the preservation of open space and agricultural land use zoning, especially on Kauai.
- 17.)The proposed trend in "residential development" would not benefit Kauai residents as the cost of such housing would be beyond the means of most. Similar "residential developments" are proposed in Waimea/Port Allen areas with home costs from \$325,000. to \$550,000. (Kauai Business Report August 2005 and Kauai Island News August 05 and August 12, 2005)

Articles referenced are included.

Mahalo in advance, for your response.

Llewelyn Kaohelaui'i, Leslie Pool, Rupert Rowe, Terrie Hayes, Tessie Kinmanan, Leslie Pool, Andy Siegel

You may reach us at c.o.Llewelyn Kaohelaui'i
2249 Kuai Road
Po'ipu, HI 96756

IN THE NEWS SPORTS

Irons gets a win at U.S. Open



Associated Press
Kelly Slater reacts after winning the first place in men's division U.S. Open of Surfing in Huntington Beach, Calif.

WORLD/NATION

All passengers survive crash of jetliner
Page A4

Median price of a house on O'ahu in July was \$599,000

Hawaiians want cultural preserve



Lester Chang / The Garden Island
For preservation: Instead of planned residences on land near Po'ipu Beach Park, Kanaka Maoli (indigenous people) Rupert, Rowe, James Kimoeko and Billy Kaohelaui'i, would like to see a cultural preserve on the Knudsen Trust property.

Lester Chang
THE GARDEN ISLAND

PO'IPU — With plans for a 10-acre Hawaiian cultural preserve, Rupert Rowe, Billy Kaohelaui'i, James Kimoeko, all Kanaka Maoli, the indigenous people of Hawai'i, and non-Hawaiians, have come out swinging against a proposal to build two homes on leased lands owned by Knudsen Trust family members.

If they have their wish, the project would be the first of its kind in South Kaua'i, and would help perpetuate the Hawaiian culture.

"It will protect the past, protect the culture for the future," Rowe told *The Garden Island*. "It really is needed, today."

The 10-acre site, if created, would run mauka from Brennecke's Beach Broiler restaurant to Po'ipu Road.

Although Avery Yonn, a Kaua'i architect and representative for the Knudsen Trust, believes otherwise, and cites private-property development rights, the Kanaka say the 1.2-acre Knudsen land slated for residential development contains major historical sites.

Therefore, they reason, no development should occur on that parcel, or an adjoining, eight-acre parcel owned by Kaua'i County.

The critics feel justified in their stand because they feel the property is unique in Hawai'i: it

Hawaiian half...

→ see next page 9/10

cc: Anthony Ching-State Land Use Commission
P.O. Box 2359
Honolulu, HI 96804
FAX # (808) 587-3827

cc: Office of Environmental Quality Control
235 South Beretania Street, Suite #702
Honolulu, HI 96813
FAX # (808) 586-4185

Hawaiians Cont. from page 4 of G.I.

page 2

The critics feel justified in their stand because the property is unique in that it contains remnants of a Hawaiian village that was home to 30,000 Kanaka, the only intact makahiki sporting arena in the state, remnants of home sites for French and a rock wall that runs for miles from the ocean. But the desire to develop the preserve creates a way for a confrontation between the Kanaka and property owners who own land on which the preserve is planned.

"We are in this for the long haul," said Terris Hayes, Kaula's aunt's girlfriend. "You don't have to be a Kanaka to want to preserve cultural, archeological and historical sites," said Hayes, who is not Kanaka nor Native Hawaiian. The impetus for the preserve idea came after leaders of the Knudsen Trust and Sinclair Bill applied for permits from county officials to build a house and an unlicensed (ALC) on a 1.2-acre parcel located behind Bremsecke's Beach in other restaurant.

The parcel is designated by county leaders as an openzone district, and is owned by the Knudsen interests, Bob French, the owner of Bremsecke's Beach, who was a restaurateur, and others who want to build the two structures.

Kauai County Planning Commission members held a public hearing on the proposal last month, and are poised to act on the permit requests soon. Officials discussed French had unpermitted grubbing and grading done from the 1.2-acre parcel, and on an adjacent county land. French had submitted "retroactive" plans, and was ultimately required to pay \$2,000 for an after-the-fact permit. said because of the unpermitted work should be done on the parcel, and that the proposed cultural preserve. "The \$2,000 fine is a slap on the wrist, nothing more," Rowe

See Hawaiians, A8

Hawaiians

Continued from A1

As compensation for the unpermitted grubbing, Rowe and others demanded the county take the commercial Nukunui French has to run the Nukunui Surf Company. Business next to Bremsecke's Beach. But Hayes said that may not be a possibility, as the permit process for that project would most likely be separate from the current request for permits for the homes that are planned to be built.

"You said, as far as he knew, most of the illegal grading had occurred on county property, not on private property," Youn said. "I assume my neighbor and I are the only ones who will not destroy or encroach on historic sites, and that the Knudsen family heirs, if need be, will protect a rock formation found within the 1.2 acres."

Kaohelaui said protection of the entire 10 acres is important, as the land is special near the edge of the proposed preserve, and every chance he gets to visit historic sites there, he says he makes a pilgrimage to his past, and that of his ancestors.

On the edge of his property is located what he and others say is the site of a traditional (Hawaiian) sporting games similar to Olympic sports arena in Hawaii, encompassing about 1 1/2 acres and protected by a lava-rock border. Rowe said the arena was used by the strongest of Hawaiian warriors, who came from the island of Oahu. Chiefs were seated in a special section to watch the action, while common folks sat in another area. The rock wall boosted an elevated walkway, apparently to allow spectators to move around the arena and to get the large ponds for athletic activities wrestling and activities stressing physical strength. Before the combats did battle, they most likely paid respect to Hawaiian gods, as evidenced by rock idols that were stamined on elevated piles of rocks, Kaohelaui said. The rock idols their gods, and they were shaped like huge thumbs. In and around the arena can be found remnants of a water well, a pig pen, five house sites, and apparently for use by the ali'i (noble chiefs).

Kaohelaui apparently chose the area because it was what they needed for survival. "People would come down here for recreation, and for shopping for food," Kaohelaui said. "There were performed many rituals, and

and the ocean. And they were an important part of the proposed refuge, if it can come about, will be a part of important history for future generations of Hawaiians.

David Birge, who is part Native American and is not Hawaiian, said he feels the same way. He is descended from the Santa Clara Tase Public Tribe in New Mexico.

He remembers that leaders of the federal government took the Hawaiian people from his tribe's leaders from him, and he never gave them back so they could be taken care of by his tribal leaders. He said he didn't want the Hawaiians to clean up the arena, for instance, and not have stewardship of it.

It is necessary to bring the children and grandchildren here so they can learn about the culture as I was," he said.

Rowe, Kaohelaui and others have cleaned the arena since early 2000, and they said they would make every effort possible to ensure the land remains in the hands of the Kanaka. Youn, who is of Native Hawaiian ancestry, said he also has been cleaning the sites, but emphasized existing land-use laws allow for the building of the two homes on the 1.2-acre site.

"His (Rowe's) opinion is right in his opinion," Youn said. "But his concept of ownership is different from mine. Youn said he is not at that point, where he subscribes to the concept of ownership on the land, this will be a cultural preserve."

"I am still locked in by current laws, land-use laws that allow certain ownership rights on private property," Youn said. "If anything, there should be a compromise of ancient rights and grant a curatorship public access, and not necessarily public access," Youn said.

If plans are advanced to protect the rock foundation found on the 1.2 acres, "we will hire an archeologist to identify it and grant a curatorship public access," Youn said.

Youn said personally would volunteer his services to work with leaders of the community and county government in setting up a curatorship program for the rock foundation. "We are talking about preserving in the long term," Youn said.

Lester Chang, staff writer, may be reached at 635-4141.

84(7/91) Exhibit

"COPY"

severe drought the lauwai fed by the mauka ag waters would continue to flow.

Mid-to Late-19th Century

One of the best sources of information on mid-19th Century settlement patterns, besides voluminous documentary sources, is the 1891 Monsarrat map of Kōloa which shows Land Court Awards (LCA), major roads, some lauwai, and some taro and cane lands. The pre-historic pattern of continuous settlement of all lands from the present site of Kōloa Town to the shoreline is not evident. The major concentration of house lots and ag land awards is found around Kōloa Town with the A. P. Mission located here as the central focus of this settlement pattern. House lot and lo'i land awards extend makai from Kōloa nearly continuously along both sides of Waikomo Stream to Kōloa Landing which was by this time a major exporting point for local agricultural produce. Smaller secondary concentrations of kuleana and houses not associated with LCAs occur at Kukuila Bay (9 house structures and 1 LCA) around the A. P. Mission land behind present Prince Kuhio Park (5 house structures and 4 LCAs) and, thirdly, extending southeastward from Kōloa Town to the Roman Catholic Mission. This mission although established later than the A. P. Mission in Kōloa was a secondary center of settlement. It was founded in 1841 by Father Walsh and the present stone church was built in the 1850s (Judd, 1935:77). Two Land Court Awards makai of the church are within the present study area.

ARCHAEOLOGICAL INVENTORY SURVEY
OF THE PROPOSED PO'IPULANI GOLF COURSE
AND RESIDENTIAL DEVELOPMENT

KŌLOA, KAUA'I

by

Hallett H. Hammatt, Ph.D.
William H. Folk, B.A.
Mark Stride

prepared for

Po'ipulani Development Corporation

by
Cultural Surveys Hawaii
September, 1990
Revised January 1991
Revised July 1991

Arch. Inv. Survey of the proposed (1/91) PO'IPULANI GOLF COURSE + RES. DEV. KOLOA, HI Exhibit Page 22 "COPY"

The land west of Kōloa Town is shown in cane as was the land mauka of Kukuīula Bay.

What of the lands from the shoreline to the town of Kōloa which were all irrigated by 'auwai and show archaeologically dense agricultural and habitation use? Monsarrat's map shows blank space. All of these lands went to Kekuaīwa and included the majority of the lo'i lands. We know this land was in full production in the mid-19th Century as evidenced by the large exports of food supplies in the 1850s and 1860s (Judd, 1935). Kekuaīwa was the chief who probably controlled the bulk of the crop production in this peak period and his tenants lived and worked these lands to supply him with supplies to export but were not claimants to it.

Commercial Sugar Period

The earliest commercial sugar cane was grown by native farmers in small plots as evidenced by the LCA testimonies which mention sugar fields next to taro lo'i. The rocky terraced lands were avoided for large scale production partly because they were valuable for food crops and partly because of the labor involved in laying out large fields. The larger irrigated fields were, however, put into cane when it was profitable to replace taro, and, after the California export boom, for food crops. Most of the Kīahuna project area and some of Kukuīula area were simply abandoned in place and became Knudsen grazing land. The larger, irrigated fields were leveled and expanded for commercial sugar

(Rev 7/91) Exhibit Page 30 "COPY"

The earliest detailed archaeological site surveys were carried out by Kikuchi in 1961 and 1963 from Hanapepe to Māhā'ulepū. Although no sites were recorded as being definitely in the present project area, several sites were listed but not located and could possibly be near this study area.

During the 1973-1974 State-wide Inventory of Historic Places performed by A.R.C.H. of the County of Kaua'i for the State of Hawai'i, archaeological remains in the present project area (Site 50-30-10-85 and 86) were briefly evaluated and placed on the Reserve status. The exact location and extent of these sites were not clearly defined at that time. Archaeological sites were placed in Reserve status because they needed additional research and should be saved until they could be placed into one of the other categories. These included: 1) High Value - sites that must be saved; 2) Valuable - sites that should be saved; 3) Marginal - can be destroyed with reservations; 4) Destroyed - all traced obliterated. These categories are no longer in use in State-sponsored surveys.

At least ten archaeological reports were generated from work in the Po'ipu-Kōloa area in the 1970s and early 1980s (A.R.C.H. '80; Bordner '77a; Bordner '77b; Ching '74a; Ching '74b; Hammatt '78; Kikuchi '80; Landrum '84; Neller '81; Sinoto '75). Most of these documents are short "letter" reports detailing the results of walk-through reconnaissance surveys. By far the most ambitious of these projects was the "Archaeological and Biological Survey of the Proposed Kīahuna Golf Village Area" (Hammatt, 1978)

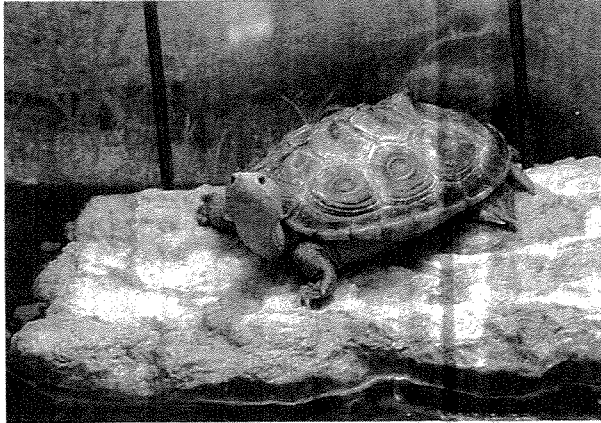


Turtle gets special pass into Hawai'i

Surprising owner must be sure pet toes the line

BY JAMES GONSER
Senior Urban Honolulu Writer

Kobe may be one of the red terrapins in the world. His owner, Jason Ninomiya of Wao Kele, couldn't bear to leave his 3-year-old diamondback terrapin behind when he returned to Hawai'i this summer. He made special travel arrangements, jumped through bureaucratic hoops and secured accommodations for Kobe to be allowed to travel with him into the state. "It's special," Ninomiya said. "He's a 3-inch-long turtle. He is friendly. He will follow me around. The red-ear sliders I run away from you." On Friday, the state Board of Agriculture gave the final approval for Kobe to live in Hawai'i with several restrictions. Ninomiya, fiancée Kahala Ogata, parents, Andy and Myrionomiya, were all smiles as they left the hearing. The saga began three years ago when Ninomiya found the turtle at a reptile farm outside Chicago. Ninomiya was



Andy Ninomiya

The state has given its blessing to Kobe the terrapin to follow his owner to Hawai'i even if the species is usually restricted. But Kobe must stay confined, undergo health exams and remain a lifelong bachelor.

working on his pediatric residency at Loyola University Medical Center in Maywood, Ill.

Knowing the diamondback terrapin is restricted in Hawai'i, he started the paperwork in

March for an import permit.

"We couldn't leave him," Ninomiya said.

To reduce the amount of time Kobe would spend in quarantine, Ninomiya decided to drive

from Chicago to Seattle rather than fly, stopping on the way to show the little guy Mount Rushmore and Yellowstone National

SEE TURTLE, B4

25,000 acres on Big Isle set for preservation

Congress OKs \$3.4 million to buy Wao Kele 'o Puna

Associated Press

Congress has approved \$3.4 million for the purchase of more than 25,000 acres of forest on the Big Island that had once been at the center of protests over geothermal power.

The Wao Kele 'o Puna forest could become the third purchase in Hawai'i under the federal Forest Legacy Program, begun in 1990. The other projects are two conservation easements bought for \$3.3 million in South Kona.

The proposed purchase will both help preserve valuable natural resources and finally resolve the issues that generated protests decades ago, said County Councilman Bob Jacobson.

"This is the healing of a great ill," he said.

Currently owned by Campbell Estate, Wao Kele 'o Puna had been at the center of protests in the late 1980s over a company's plan to harness steam from a volcanic rift zone to generate electricity.

Wyoming-based True Geo-

thermal, however, had failed to find the steam resource on the tract needed on the land for commercial development.

The estate originally intended to use its land at Kahaualea for the project. Those lands were covered by lava from neighboring Kilauea's eruption beginning in 1983.

Two years later the state Board of Land and Natural Resources approved the trade of the Kahaualea lands for the state-owned Wao Kele 'o Puna, which included the Puna Forest Reserve.

The tract is one of the last large intact lowland forests in Hawai'i, according to the Trust for Public Land, which is helping to coordinate the acquisition.

It is also a critical seed bank for regenerating plants in areas covered by Kilauea's eruptions and represents one-fifth of the watershed feeding the island's largest water source, the Pahoa aquifer, the trust said.

The funding for the purchase was included in the Department of Interior's budget for the fiscal year beginning Oct. 1, said Anne Stewart, legislative director for U.S. Rep. Ed Case.

President Bush is expected to sign the bill.

Developer envisions up to 500 homes at Poipu

A large Kaua'i landowner is proposing to develop 350 to 500 homes in Po'ipū in an effort that would help ease part of the Island's high housing demand by converting mostly pasture and scrub land into a residential subdivision at the resort area.

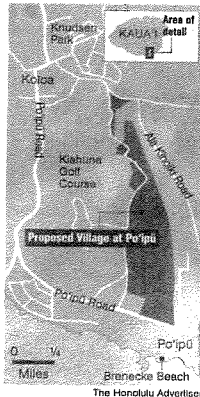
The Eric A. Knudsen Trust is seeking government approvals to develop the homes on 203 acres it owns between the Kiahuna Golf Club and the Weliweli subdivision mauka of the Marriott Waiohai Beach Club time-share.

The project, named Village at Po'ipū, is projected to contain 216 to 369 single-family homes on about 150 acres, and 134 multifamily homes on nine acres.

About 12 acres would be made into parks. And about 20 acres would be maintained as archaeological preserves, including areas around two lava tubes designated critical habitats for the endangered Kaua'i cave wolf spider and Kaua'i cave amphipod.

Stacey Wong, trustee for the developer, said the project is in an area that was slated for residential growth 30 years ago and is being filled out by nearby projects such as Kukui'ula and Kiahuna Mauka subdivisions.

The Knudsen trust, in an en-



The Honolulu Advertiser

vironmental impact statement preparation notice recently filed with the state, said the project isn't likely to have a significant negative impact on natural or cultural resources, and fits with the designated residential use of the land on the County General Plan.

The project site was once part of a network of taro fields, ditches and living settlements, which by the 1930s were out of use. Most of the property was not converted for sugar cultivation, and reverted to pasture.

County zoning on the site is a mix of residential and open zoning, the latter of which allows a variety of uses including agriculture and single-family homes.

Wong said construction of an initial phase of 50 lots for single-family homes on residential-zoned land should start in the next couple of months. The lots are being sold to a company planning to build roughly 2,000-square-foot plantation-style houses. That sale has not been completed, so Wong said it was premature

to identify the buyer.

The Knudsen trust expects it will take at least two years to gain approvals to develop the rest of the property, including 124 acres of the 203-acre site that are in the state's agricultural district and would need state Land Use Commission reclassification for urban use. The trust recently petitioned the LUC for such reclassification.

The total development cost for infrastructure of Village at Po'ipū is estimated at \$34 million.

Wong said that given recent home sales in the area, the

trust expects a majority of Village at Po'ipū buyers to be from off island, with a sizeable group of Kaua'i residents. "It's really hard to tell what the final mix will be," he said.

The Knudsen trust is one of Kaua'i's major private landowners, with about 4,000 acres of mostly agriculture and open-zoned property in Kōloa and Po'ipū. The trust was established in the early 1920s in the name of former territorial legislator, rancher, author and storyteller Eric A. Knudsen, who died in 1957.

PLEASE
SAVE OUR
CULTURE
SAVE POIPIU.
MAHAALO!

Council

Continued from A1

not need to rezone any resort lands, today," Asing said.

Asing said in deriving numbers to support his resolution, he realized the numbers on vacation rentals and other resort units were "huge," but did not feel compelled to mention them in his resolution.

Yukimura said there is a danger that affordable housing units could be put on the open market one day, and they would contribute to the problem Asing's resolution attempts to address. That is why, she said, the number of affordable houses should also be considered in the equation.

Asing said his resolution is only the first step of many to control resort development on the island.

"If we don't do this, could it be worse?" Asing asked. "The answer is yes. Do something now, hold and just wait."

Asing said he hopes his resolution sends a clear message to the Kaua'i County Planning Department to "be careful on what you do, reassess everything and look at the problems."

Yukimura said a part of the problem deals with not addressing population growth in the past.

She said the first general plan for the county was developed in 1970, when the island's population was 30,000. The plan projected a population of 90,000 some day, she said.

"At every General Plan update, we never addressed that issue (population numbers) she said. "Is 90,000 really what we want, and where do we want that growth? We didn't address that issue in 2000 (when the plan was updated) and that is why we are here today."

Furfaro said a partial solution may be for the county to catch up with its infrastructure needs, building more roads and adding more water capacity.

"The long-term issue here is that this council needs to focus

on infrastructure issues that affect the entire island, as these lands are, in fact, identified for development," Furfaro said. "We need to evaluate the infrastructure and really catch up."

Furfaro said he plans to propose a separate resolution to accelerate the updating of the comprehensive zoning ordinance.

The same resolution, he said, would ask that the review of the county's General Plan be done in 2020 instead of 2010.

That way, work on that plan would coincide with any work on Kaua'i Water Department's 2020 plan to upgrade the island's public water system and the state Department of Transportation's road plan for Kaua'i.

This strategy would result in better planning for the island for generations to come, Furfaro said.

▶ **Lester Chang**, staff writer, can be reached at 245-3681 (ext. 225) and lchang@kauaipubco.com.

Council: Hold back resort development

Lester Chang
THE GARDEN ISLAND

Hold back development. That's the decision of the County Council via on Thursday. The vote came with support behind a resolution drafted by Council Chairman Kaipo Asing that calls for a moratorium on the rezoning of resort lands until December, 2006.

Asing said the council's decision is a "hold back" development, and that the wording and intent had to be expanded to have real impact on the non-binding resolution's intent to prevent rezoning of resort lands.

The non-binding resolution is intended to prevent rezoning of resort lands until May 1st, or by the time the council meets in May or by the time the council meets in June.

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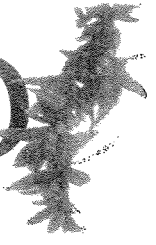
The non-binding resolution is intended to prevent rezoning of resort lands until May 1st, or by the time the council meets in May or by the time the council meets in June.

See Council, A5

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August 2005 • Volume 11 Issue 8

Waimea Plantation Village: 56 units coming soon

Kauai Business Report

WAIMEA — Kikiaola Land Company recently announced the most recent phase of its Waimea Plantation community master plan.

Waimea Plantation Village will encompass 56 single- and multi-family units adjacent to Waimea town and located on a 5-acre parcel between the West Kauai Technology and Visitor Center and the West Kauai Medical Center.

With unit prices expected to start at \$325,000, Waimea Plantation Village will consist of a mix of three-bedroom and four-bedroom homes and two-bedroom and three-bedroom townhouses that will be constructed



WAIMEA PLANTATION
VILLAGE

with a modern, plantation-style architecture including a recreational center and swimming pool.

"Kikiaola Land Company is excited to offer these residences to the community," said Linda Fayé Collins, President and CEO of Kikiaola Land Company. "We recognize that Waimea town has a

rich history and culture. Waimea Plantation Village will perpetuate these values in every aspect of its homes and the residential community that we're going to create."

Waimea Plantation consists of 626-acres extending one and one-half miles from Kikiaola Harbor to Waimea. The Kauai's General Plan Update designations for Waimea Plan-

See **WAIMEA**, Page 5



This Waimea Plantation Village three-bedroom house rendering illustrates the project's modern, plantation-style architecture.

6

Page 8 | August 12, 2005 | Kauai Island News

Dog owner fined in tot's death

The owner of a beagle-Labrador mix that killed a 17-month-old child last year pleaded no contest last week to owning a dangerous dog, and prosecutors will recommend a \$500 fine with no jail time.

Farmer Buenaventura "Ben" Ednilao, 59, of Lihue, kept several dogs chained for

security near the border of his Moloa'a farm lot, where he grew papayas and bananas. The farm is adjacent to a farm operated by the parents of young Trusten Heart Liddie.

The child apparently wandered unnoticed away from his parents on Feb. 21, 2004, and into the range of the dog.

The family found him motionless, being bitten on the face and body by the still-chained dog.

The animal, an unneutered male that reportedly had not previously bitten anyone, was destroyed. Ednilao's sentencing is scheduled for Sept. 20.

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A&B announces residential project

Alexander & Baldwin said last week it will build a 17-acre residential development overlooking Port Allen Harbor on Kauai that will feature a 75-unit multistory condominium project and 60 single-family homes.

The condominium portion of the development is named Kai Olinu and will include two- and three-bedroom

units ranging from 1,000 square feet to 1,300 square feet. Prices are expected to run from \$325,000 to \$550,000. The single-family development, called Keala'ula, will consist of three-bedroom homes in several models on lots that will average 6,000 square feet. Pricing has yet to be determined.

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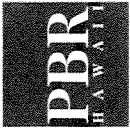
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WE OFFER OUR EMPLOYEES:



From Cultural Surveys Hawaii
Sept 1990.



January 27, 2006

Mr. Llewelyn Kaohelaui'i
Members of Hui Malama O Kane I Olo Uma
2249 Kuai Road
Po'ipu, Hawaii 96756

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipu, Kaua'i
TMKS: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Kaohelaui'i and the Members of Hui Malama O Kane I Olo Uma:

Thank you for your letter dated August 23, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

1) We appreciate your concern about the cultural rights of Native Hawaiians. Special care will be taken during and after construction to preserve Native Hawaiian traditional gathering rights and access to archaeological and cultural sites, which will be protected in preserves as part of this project. Alternative public access routes will be provided during construction if safety-related restrictions to access are put in place.

2) The project site was part of a single 6,500-acre property purchased by Annie Sinclair Knudsen in 1872. She later gave most of the lands including all of Village at Po'ipu to her two sons, Eric A. and August Knudsen, in the early 1920s to hold in trust.

3) Section 4.1 of the Draft EIS includes a discussion and analysis of the archaeological inventory surveys, data recovery and protection plans prepared for the proposed project. Complete copies of all archaeological reports are attached as appendices to the EIS. A cultural impact analysis has also been prepared and is summarized in Section 4.2 of the Draft EIS. The final report is also attached as an appendix to the EIS. All significant sites recommended for preservation and possible preservation will be preserved and maintained as archaeological preserves. Native Hawaiian traditional gathering rights and access to the sites will be preserved during and after construction.

4) Our client and the lessees of the properties upon which archaeological sites were damaged or destroyed have been working with SHPD on appropriate corrective action. The agreement is awaiting final approval.

5) We appreciate your concerns about the housing needs of low income, low moderate, and gap groups. Village at Po'ipu will include a variety of housing options and opportunities, including single- and multi-family

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FAX: (808) 242-2873
E-Mail: pohawaii@hawaii.com

which recorded 583 archaeological features in a survey of 460 acres including the makai portion of the present study area west to Po'ipu Road.

The results of the Kīahuna survey show intensive prehistoric modification of the rocky landscape into an almost continuous complex of irrigated agricultural fields interconnected with lauwai (ditches) and thickly scattered with habitation sites on higher ground around the fields. This complex, all irrigated by water tapped from Waikomo Stream, extended eastward and westward an unknown distance. Since sugar cane cultivation and housing developments have altered much of the area, the irrigated fields and stone-lined ditches can only be traced eastward to the west boundary of the present study area. Clearly, the remnant of this former Hawaiian agricultural community is one of the outstanding examples of ancient land use in Hawai'i.

In 1982 Robert Connolly prepared an archaeological reconnaissance report for land which included the eastern portion of the present study area. He provides rough locations and brief descriptions of most of the sites on a proposed corridor of the Kōloa-Po'ipu Bypass Road.

In 1981 Dr. William Kikuchi conducted an archaeological Reconnaissance of a 66-acre parcel in Weliweli (TMK 2-8-22:6) which borders the present project area to the east (Kikuchi, 1981). Kikuchi recorded a number of lauwai, terraces, walls and habitation sites in this tract which had been extensively bulldozed. There were enough site remnants present to conclude that

housing. A market study conducted for the Village at Po'ipū identifies the project's impact on housing opportunities on Kaua'i. The Knudsen Trust is working with the County of Kaua'i Housing Agency to meet its remaining affordable housing requirements for the project. The affordable housing requirements of the area makai of the railroad berm have been satisfied. Please refer to Section 4.7.2 for further analysis. The full market study is included as an appendix in the EIS.

6) The existing Kaua'i County zoning for the project site is a mix of different Residential zones (R-4, R-6, and R-10) and Open District. The proposed Village at Po'ipū project will conform to this zoning and no zone changes will be sought.

7) We understand your concern about the cumulative impacts of development on the south shore of Kaua'i. The Draft EIS will include a discussion of regional impacts created by the Village at Po'ipū project and other surrounding uses. The technical reports used to assess the project's impact cover all known projects in the surrounding area and incorporate them into their analysis. In addition, the County of Kaua'i updated its General Plan (GP) in 2000. The General Plan Update was a community-based effort that established planning goals and visions for the five regions of Kaua'i including the Kōloa-Po'ipū-Kalāheo Planning District. The Land Use Maps generated for the five districts provide comprehensive plans for the appropriate growth and future needs of the region. The proposed Village at Po'ipū project is located in an area designated as a "residential community" in the General Plan Land Use Map for the Kōloa-Po'ipū-Kalāheo Planning District and is therefore consistent with this vision for the region.

8) Sections 4.8.2 and 4.8.3 of the Draft EIS provide full analysis of the wastewater and drainage plans proposed for Village at Po'ipū project. With regard to your concerns about water runoff, the drainage master plan includes detention basins and bioswales that will help slow and filter runoff using native plant material and landscaping before they exit the site. The detention basins will ensure that no net increase in peak runoff will occur. These mitigation measures are expected to improve existing drainage conditions and impacts on downstream areas.

9) Section 4.8.5 of the Draft EIS includes information on solid waste disposal facilities, and the impact of the project on landfill capacity.

10) Section 4.3 of the Draft EIS provides information and analysis of the estimated traffic impact of the proposed project. The full Traffic Impact Analysis Report (TIAR) for the proposed project is attached as an appendix in the Draft EIS.

11) We acknowledge your concerns about the overuse of existing recreational facilities in Po'ipū. As shown on the Conceptual Master Plan (Figure 3 of the EISPN), the Village at Po'ipū will provide 12 acres of parks and open spaces and over 23 acres of archaeological preserves, as well as an extensive network of pedestrian paths, including the restoration of Hapa Road as a shared bike and pedestrian path. This far exceeds the County requirements for a project of this size and will help support recreational needs for the Po'ipū-Kōloa area.

12) We recognize your concerns regarding evacuation routes in the event of a natural disaster. The proposed roadways for the project will increase the number of mauka-makai evacuation routes for the community and all roads will be designed to meet County standards.

13) A fauna study has been conducted to identify existing wildlife and determine the impact of the proposed project on any faunal communities. Preliminary findings concluded that the proposed Village at Po'ipū may actually positively impact the migratory Pacific Golden Plover and endangered Hawaiian Hoary Bat. The two USFWS critical habitats for the endangered Kaua'i Cave Wolf Spider and Amphipod have been integrated into the conceptual master plan for the project and buffers have been created around the two lava tubes which will be preserved as archaeological preserves and landscaped with native plants. The complete fauna study is included as an appendix to the Draft EIS and discussed in Section 3.6.

14) We appreciate your concern about a prehistoric amphitheater. Although there was a modern amphitheater planned for construction in a previous development scheme in the location of the proposed detention basin, all of the archaeological inventory surveys performed for the site indicate that there were no prehistoric amphitheaters at this location. Please refer to the archaeological inventory survey reports provided in the appendices of the EIS. As discussed in comment #8 above, mitigation measures will be implemented to ensure that there is no net increase in peak runoff offsite. In addition, the project proposes to use bioswales to help filter and slow runoff, which will potentially improve current drainage impacts on the Kane I Olo Uma archaeological site downslope from the Village at Po'ipū.

15) We acknowledge your recommendation that the unclassified ALISH lands in the proposal be restored to agricultural use. Several studies rate the productivity of soils in Hawai'i for agriculture. In addition to the ALISH study, U.S. Department of Agriculture Soil Conservation Services Soil Survey indicates that the soils on the site have severe limitations for cultivation. The University of Hawai'i Land Study Bureau Detailed Land Classification rates the soils within the agriculturally zoned areas as "E," the lowest productivity rating. The County's 2000 General Plan, however,

has designated the project site as residential community and the proposed project is consistent with this vision for the area. The proposed project does not affect Waikomo Stream nor does it have any jurisdiction over its use.

16) We appreciate your concern about the worldwide lack of natural resources. The Draft EIS for the Village at Po'ipū will assess all potential impacts on the natural environment and propose necessary mitigation measures to protect natural resources. As discussed in #11 above, the project includes parks, archaeological preserves, and open space areas. According to the State Data Book for 2004, roughly only 4.1 percent of all land on Kaua'i is actually designated for urban uses. The vast majority of the island is designated as conservation (56.1 percent) and agriculture (39.4 percent) by the State Land Use Commission. Less than one percent is designated as Rural.¹ The severe lack of land designated for urban or residential uses unfortunately contributes to the limited housing supply and lack of affordable housing on Kaua'i.

17) We acknowledge your concern about the affordability of recent residential developments on Kaua'i. The proposed project will contain a wide-range of housing types, from multi-family to various single family lot sizes, to help target various affordability ranges. The Trust is also working with the County of Kaua'i Housing Agency to meet its remaining affordable housing requirements for the proposed project.

Thank you for reviewing the EISP. Your comments will be included in the EIS.

Sincerely,

PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

C:\j042\221705 Village at Poipu Entitlements-DEIS\Reports\EIS\Draft EIS\Response Letters\Community-01.doc

¹ Calculated from Table 6.04, "Estimated Acreage of Land Use Districts, By Islands: December 31, 2004," State of Hawai'i Data Book 2004. Available online at http://www3.hawaii.gov/DBEDT/Images/User_Files/Images/databook/db04/sec06_at1885.pdf

August 23, 2005

Dear State Use Land Commission,

This letter is related to tax map key numbers: 2-8-13:01, 2-8-14:01, 2-8-14:02, 2-8-14:03, 2-8-14:04, 2-8-14: 19, 2-8-14:37 and lot 19-B (Hapa Road)

I am amazed at the amount of development planned for the Poipu area of Kauai. This area of agricultural land should not be turned into residential land. Is no one thinking of the future?

There is already grubbing and grading going on in this area without permits I am told. These developers seem to have some sort of in with the local planners. In the past there were many historic / archaeological sites bulldozed over on weekends when the authorities were not working. (There is a huge need to have someone available on weekends!) There are many archaeological sites within the this area that need to be cared for.

I am extremely concerned that even if Poipu / Koloa were to grow as much as the developers have planned, there is little or no planning for infrastructure. At a meeting of the Koloa Community our supervisor told us that there should be a beltway built around the town of Koloa so that the traffic would not turn into gridlock. Then he said that there was not enough money to do this, and "he doesn't know what to do." The thing to do is to not allow this growth into our community.

If the is to be any growth, this new growth should be made to pay for the infrastructure needed. Our county planners only charge \$1000. for each new unit. They say that they would have to raise our existing taxes if we want infrastructure. This is ridiculous! They are building million and multi million dollar houses. These are not going to help the Kauai community! People here need houses that they can afford! They also do not need their taxes raised to pay for infrastructure built to accommodate expensive housing in their community. Make the new development pay for their needed infrastructure.

The Kauia planners want to build expensive houses on land designated as agricultural land. These houses are built for rich mainland people to move here, but, us local people are supposed to have our taxes raised to pay for the new infrastructure. Please see that this is not the right thing to do. This is not what is meant by, "perpetuated in Righteousness." this is the opposite of righteousness.

Please put a moratorium on growth in our area until our community can decide what should be going on in it, instead of the developers. Our politicians are not prepared to deal with these high powered speculators from the mainland. It has happened too quickly and the local government and the Kauai people are being walked all over.

Drinking water, water quality, and runoff are a major concern to our community. Friends that were born and raised here say that the reefs are no longer pristine. The chemicals from golf courses and development are quickly causing them to be destroyed. There are very few fish compared to the past and the reefs are becoming dull looking. This is one of the major reasons people come to our island. If you look at the problems created on the Kona coast of the Big Island and the coast of Japan - you will not want our reefs to follow the same destruction.

Please do not change our agricultural land into residential land.

If you feel it needs to change for some reason then it should be turned into

OPEN SPECIAL TREATMENT PUBLIC & CULTURAL DISTRICT OPEN SPACE. Koloa / poipu does not have the ability to handle this much new development. There are places on the island that would be appropriate to put in housing that would not put the culture and environment in danger. That development should be affordable for the local residents and their kids not just for mainland people that want to move here.

Thank you for your time and consideration.

Sincerely

Alan Souza

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January 27, 2006

Mr. Alan Souza
5119 Ho'ona Road
Koloa, Hawai'i 96756

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipū, Kaula'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Souza:

Thank you for your letter dated August 23, 2005 regarding the Village at Po'ipū Environmental Impact Statement Preparation Notice (EISP). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments. Excerpts from your letter which bear responses are italicized below:

In the past there were many historic/archaeological sites bulldozed over on weekends when the authorities were not working.

Our client and the lessees of the properties upon which archaeological sites were damaged or destroyed have been working with SHPD on appropriate corrective action. The agreement is awaiting final approval. We realize the severity of these actions and therefore, to ensure the long-term protection of important archaeological sites, the Village at Po'ipū conceptual plan preserves all sites recommended for preservation and possible preservation in over 23 acres of archaeological preserves. In addition, the project will preserve and restore the historic rock walls along Hapa Road.

I am concerned that even if Poipu/Koloa were to grow as much as the developers have planned, there is little or no planning for infrastructure.

Technical studies have been conducted to assess all necessary infrastructure and roadway improvements for the Village at Po'ipū project. All on- and off-site infrastructure costs for the proposed project will be paid for by the developers.

Drinking water, water quality, and runoff are a major concern to our community.

Numerous technical studies have been conducted to assess the potential impacts of the Village at Po'ipū on the natural environment. These are discussed in Sections 3.0 and 4.0 of the Draft EIS. With regards to drinking water, potable water demand for the project will be reduced by installing a separate irrigation system using non-potable water for irrigating landscaping in common areas, the multi-family residential area and the larger single-family lots. The non-potable water system will be supplied by a private system to conserve potable water.

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Mr. Alan Souza
January 27, 2006

Water quality and runoff are important concerns as well. The project proposes to use detention basins and bioswales to help slow and filter runoff from the project site using native plants and landscaping. In addition, the detention basins will be designed to prevent any net increase in peak runoff from the site. These mitigative measures are expected to improve runoff water quality from the site compared with existing conditions. Additional details are provided in the preliminary engineering report attached as an appendix to the Draft EIS.

There are places on the island that would be appropriate to put in housing that would not put the culture and environment in danger. That development should be affordable for the local residents and their kids not just for mainland people that want to move here.

We recognize your concern regarding the location of the proposed project and the potential impacts of the project to the culture and the environment. Complete discussions and supporting technical and cultural impact studies have been prepared and included in the EIS. The proposed project is consistent with the Kaua'i General Plan Update from 2000 which identifies the project site as a residential community. All archaeological sites recommended for preservation and possible preservation will be preserved in archaeological preserves which will be accessible to the public. Native Hawaiian gathering rights and access to the sites will also be respected during and after construction. The Trust is working with the County of Kaua'i Housing Agency to meet its remaining affordable housing requirements.

Thank you for reviewing the EISPN. Your comments will be included in the EIS.

Sincerely,

PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust



736 F Street
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Recreation
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Community Development
822-5955

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822-5951

Public Works
822-5957

Transportation
822-3775

22 August 2005

ARCATA, CA

COMMUNITY

RE: Village at Po'ipu Environmental Impact Statement Preparation Notice [EISPN]

Dear Friends of Kaua'i:

I was recently fortunate to have the opportunity to stay in Po'ipu and visit the areas proposed for the subject development, including the large surrounding areas previously owned by the Knudsen Trust. From the standpoint of land use regulation in California, I was surprised to see the analysis of the development of such a large area segregated, to the point that the cumulative impacts of all of the development on the contiguous Knudsen property would not be addressed. Clearly, there are cumulative impacts not being addressed as a result of segregating the Knudsen Trust property into so many smaller projects.

Individually, each of the projects deal with the same significant issues, and when looking at the bigger picture in this geographic area, these impacts are cumulatively significant to the entire community, and to the Public Safety of residents and visitors. These issues include the following:

1. Water supply, not only for drinking but also for fire suppression;
2. sewage disposal, currently provided by a private contractor is already a problem in terms of downwind odors. Capacity to meet full build out must be analyzed;
3. drainage, which without some kind of adequate detention, will run through existing communities and archeological sites to the ocean;
4. storm water quality, as a result of drainage run off, will seriously effect wildlife, vegetation and the public;
5. roads and traffic are already an issue and must be addressed in a comprehensive manner;
6. solid waste disposal; and,
7. the impacts on the recreational experience for both residents and guests alike.

In addition, the issue that first engaged me is the protection of, and enforcement of existing regulations regarding, the cultural heritage of the native peoples. I am appalled that no action has been taken against those individuals who have obviously graded sites without the necessary permits and an appropriate, accurate and complete review of potential cultural values. Some comprehensive consideration must be given to identifying and protecting sites significant to the remaining native people, particularly those that are in the heart of Po'ipu. I believe that an independent study of the cultural resources of this area must be undertaken as part of the environmental analysis of the subject project and the greater Knudsen property.

And finally, the County Planning staff report [for the July 26, 2005 Hearing] conditioned the approval on doing subsequent studies of almost every issue where I believe that there are significant impacts, both individually, and cumulatively. I have enclosed a summary of a landmark appellate court case in California [Sundstrom vs. County of Mendocino, 1988 - 202 Cal. App. 3d 298] where the County of Mendocino lost the litigation because the County did not "first resolve the uncertainties regarding the project's potential significant environmental effects". These issues, not only for each development, but for the entire "plan" must be addressed prior to approval of any project. There may be significant liabilities accruing to the County of Kauai and State of Hawaii by virtue of not addressing these issues prior to approval.

My visits to Hawaii are based on seeing and being able to enjoy all of the resources of the Islands, including the cultural resources and sacred sites of the indigenous people, and there are many reasons why I do not return to Oahu or Maui. I hope that a comprehensive analysis of all the cumulative impacts associated with this project and the balance of the Knudsen properties will be addressed in a way that will protect the reasons why people do come to, and prefer Kauai, its people and all of its resources.

Thank you in advance for your consideration of my comments. Those of us here on the mainland will be looking forward to being kept advised of the future actions on this project and the balance of the properties. Please add me to any mailing lists associated with these developments. If there is a charge please advise me and I will be happy to pay for the materials.

Sincerely,



Tom Conlon, Director
Community Development Department

Attach: Sundstrom Vs. County of Mendocino - Except from the CEQA Deskbook, 1999 Second Edition, Solano Press Books

cc: State Land Use Commission
ATTN: Anthony Ching
P.O. Box 2359
Honolulu, HI 96804

Office of Environmental Quality Control
235 S. Beretania St., Suite 702
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Billy Kaohelauli
Terrie Hayes
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Koloa, HI 96756

The Garden Island
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be affected" means the area in which significant effects would occur either directly or indirectly as a result of the project. Guidelines sec. 15360.

CEQA's Mandatory Findings of Significance

CEQA sets forth certain mandatory findings of significance. Pub. Res. Code sec. 21083; Guidelines sec. 15065. According to CEQA, a project would have a significant effect on the environment if the project would substantially degrade environmental quality or reduce fish or wildlife habitat; cause a fish or wildlife habitat to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the numbers or range of a rare, threatened, or endangered species; eliminate important examples of the major periods of California history or prehistory; or achieve short-term goals to the disadvantage of long-term goals. If the project's possible environmental effects are individually limited but cumulatively considerable, when viewed in connection with past, current, and reasonably anticipated future projects, the project would be deemed to have a significant effect. Also, if the project would have environmental effects that will directly or indirectly cause substantial adverse effects on human beings, the project would be deemed to have a significant effect. Guidelines sec. 15065. In addition, the Guidelines specify that a project with an effect that may cause a substantial adverse change in the significance of an historical resource will have a significant effect on the environment. Guidelines sec. 15064.5.

A potential impact will be considered significant if a Lead Agency determines that any of the mandatory findings of significance apply

Sundstrom v. County of Mendocino: Court Establishes Rules for Initial Studies and Negative Declarations

In *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, court interpretation of Negative Declarations came to a head. An individual citizen challenged the Mendocino County Board of Supervisors' decision to approve construction of a sewage treatment plant to serve an existing development consisting of a small motel, restaurant, and filling station, to which a larger motel, a restaurant, and apartments would be added.

The county had prepared an Initial Study supporting a Negative Declaration for the proposed project. The Initial Study/Negative Declaration conditioned certain mitigation measures to be developed and implemented at a later date. One of the reasons the Initial Study/Negative Declaration concluded there would be no potential for significant effects was because it required the applicant to prepare a future hydrologic study to evaluate the project's potential environmental effects on soil stability, erosion, sediment transport, and flooding of downslope properties. This future study was required to recommend appropriate mitigation measures for the significant impacts reported.

The Court of Appeal held that the Initial Study/Negative Declaration violated CEQA. The court stated that, before approving the project, the county must first resolve the uncertainties regarding the project's potential significant environmental effects. The court concluded that the project would not have the potential to have significant environmental effects. Also, the court found that the county's deferral of the analysis of significant effects to a study the applicant was preparing in the future was an inappropriate delegation of its CEQA duties. Although the county had included a permit condition requiring subsequent county approval of a sludge disposal plan, the court found it inadequate because there was evidence that an environmentally sound disposal plan might not be achievable. The court also noted that both the county public works department and the Coastal Commission had recommended project denial until the potential problems could be solved.

The court held that the Initial Study/Negative Declaration was ultimately invalid because of a lack of substantial evidence supporting the county's finding of no potential for significant impact. The court stated that the county had "evaded its responsibility to engage in comprehensive environmental review." This fact pattern and associated court ruling have been used as a reference guide for assessing the adequacy of mitigation included in Initial Study/Negative Declarations. An Initial Study/Negative Declaration that relies on a future study to determine if there are potentially significant effects is considered a failure to comply with CEQA.

CEQA Deskbook

1999 [Second] Edition

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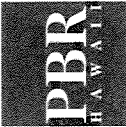
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January 27, 2006

Mr. Tom Conlan, Director
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City of Arcata
736 F Street
Arcata, CA 95521

RE: Environmental Impact Statement Preparation Notice

Eric A. Knudsen Trust Village at Po'ipu, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Conlon:

Thank you for your letter dated August 22, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISP/N). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

With regard to your concerns that the analysis of the project's potential impacts does not include the cumulative impacts of all development on contiguous Knudsen Trust property, the technical reports used to assess the project's impact cover all known projects in the surrounding area as well as regional issues and incorporate them into the analyses. Further, build-out of the Village at Po'ipu community will take place over a number of years. By addressing all three phases of Village at Po'ipu in one document, the Draft EIS aims to identify the cumulative short- and long-term impacts of the entire project, rather than as segregated projects.

The Draft EIS includes analyses of potential regional impacts and necessary mitigation measures on the natural and human environment, including:

- 1) *Water supply:* Section 4.8.1 of the Draft EIS provides an analysis of the potential impacts specific to the project. In order to reduce potable water demand, a separate private irrigation system will be developed to provide non-potable water for irrigating landscaping in common areas, the multi-family residential area and the larger single family lots. The complete preliminary engineering report is included as an appendix in the EIS and the proposed water system will be designed to supply sufficient capacity for both potable water and for fire suppression. The County Department of Water (DOW) has completed their Water Plan 2020 which considers island-wide and regional water system needs. The plan is available online at the DOW's website: http://www.kauaiwater.org/ce_waterplan2020app.asp.

Page 2
Mr. Tom Conlon
January 27, 2006

- 2) *Sewage disposal*: Section 4.8.2 of the Draft EIS includes updated information on the improvements proposed to manage wastewater generated by the Village at Po'ipū project. The Po'ipū Water Reclamation Facility (PWRRF) is currently undergoing several upgrades to increase capacity and improve effluent quality and odor control, and has been designed to accommodate the neighboring Kiahuna Mauka project in addition to the Village at Po'ipū. The Trust will contribute its fair-share cost for these improvements which will give PWRRF sufficient capacity to accommodate full build-out of the Village at Po'ipū. Additional information is provided in the preliminary engineering report attached as an appendix to the EIS.
- 3) *Drainage and Stormwater Quality*: The preliminary engineering report prepared for the project has taken into account regional drainage areas and reasonably foreseen projects in the area in its calculations. Discussion and analysis is provided in Section 4.8.3 of the Draft EIS and the full report is provided in an appendix.
- 5) *Roads and traffic*: A Traffic Impact Analysis Report (TIAR) for the proposed project has been prepared and will be included as an appendix in the Draft EIS. Similar to the other technical reports prepared for the project, this TIAR accounts for all reasonably foreseen developments in the area and regional traffic projections. A summary of the TIAR and an analysis of the impacts of the proposed project are provided in Section 4.3 of the Draft EIS.
- 6) *Solid waste disposal*: Section 4.8.5 of the Draft EIS includes information on solid waste disposal facilities, and the impact of the project on landfill capacity. The 2000 Kaua'i General Plan Update provides regional analysis of solid waste disposal. It is available online at the Kaua'i Planning Department website: <http://www.kauai.gov/Default.aspx?tabid=130>.
- 7) *Recreation*: The Village at Po'ipū project proposes to significantly expand recreational opportunities for the region. As shown on the Conceptual Master Plan (Figure 3 of the Draft EIS), the Village at Po'ipū will provide 12 acres of parks and open spaces and over 23 acres of archaeological preserves, as well as an extensive network of pedestrian paths, including the improvement of Hapa Road as a shared bicycle and pedestrian path. This far exceeds the County requirements for a project of this size and will significantly enhance the recreational experience for both residents and visitors alike.

We appreciate your concerns about the protection and enforcement of existing regulations regarding the protection of culturally significant archaeological

Page 3
Mr. Tom Conlon
January 27, 2006

resources. Our client and the lessees of the properties upon which archaeological sites were damaged or destroyed have been working with SHPD on appropriate corrective action. The agreement is awaiting final approval.

Extensive archaeological studies, as well as data recovery and preservation plans have been conducted for the entire property. All of the archaeological sites recommended for preservation to date as well as those recommended for possible preservation will be preserved as shown in Figure 16 of the Draft EIS. Fifty-foot buffers have been provided around each site and continuous archaeological preserves have been created around large complexes and where multiple sites are located close to one another. In total, the areas set aside for archaeological sites and preserves constitute over 23 acres.

We appreciate your inclusion of information regarding *Sundstrom vs. Mendocino*. Our client is in the process of complying with conditions of the zoning amendments, including the proposed improvements to Hapa Road. No development will take place that does not comply with these conditions. For this reason, the Draft EIS and technical studies prepared for the proposed project address not only the potential impacts and necessary mitigation measures of the Village at Po'ipū project, but other projects taking place or planned in the Po'ipū-Koloa community as well.

Thank you for reviewing the EISPN. Your comments will be included in the EIS.

Sincerely,
PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust

August 23, 2005

PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

Eric A. Knudsen Trust
P.O. Box 759
Kalaheo, HI 96813

Re: Proposed Development, Village at Po'ipu;
Tax Key Numbers: 2-8-13-01, 2-8-14-01, 2-8-14-03, 2-8-14-04, 2-8-14-19, 2-8-14-37 and Lot 19-B

Dear Kimi Yuen and Stacy Wong:

The purpose of this letter is to express my concerns regarding the above referenced development proposal and outline areas of concern that should be addressed in the environmental analysis associated with this proposal.

A complete environmental analysis of the project proposed as well as those envisioned projects reasonably foreseen in the area should be prepared such that the cumulative effects may be identified and mitigation measures incorporated into all projects. It does not seem appropriate to bifurcate the developments envisioned in the Po'ipu Beach area such that projects are reviewed on only an individual basis when in fact multiple development proposals each cumulatively contributing to overall environmental effects are not reviewed in their totality. A Specific Land Use Plan should be developed for the Po'ipu Beach area, with the owners of developable parcels incorporating their development plans into the Specific Plan, each contributing to the mitigation of the total environmental effects resulting from the multiple envisioned projects.

Among these cumulative effects that must be reviewed in their total context are sacred and cultural sites and related protections and mitigations, surface water run-off, human waste disposal, solid waste disposal, potable water supplies, traffic, recreation, title issues, and housing affordability.

An incredible number of sacred and cultural archaeological sites have been identified in the Po'ipu Beach area in the Archeological Inventory Survey (Hammatt, 1990). The location of these sites appears to conflict with the development proposed. Ahupua'a divisions of land are evident in the project area and the greater vicinity and must be addressed in the context of all heiau and ancient pathways connecting these sites. In exchange for development approvals, mitigation measures requiring the dedication of on-site and off-site areas (such as off-site areas are within adjacent lands proposed or contemplated for development) should be required with such dedications including a

connection of land areas from Po'ipu Beach landward to include heiaus, agricultural areas associated with ancient culture, and pathway areas connecting these sites. Such dedications to a Land Trust will ensure these sacred sites are preserved and protected in their ancient context for all future Hawaiian generations, and to educate island visitors to the ways of the ancient Hawaiians. Dedication of individual sites within a development looses the continuity of how these sites were historically used. Provisions should be made to access these sites in a comprehensive manner and such walking access should include the Kane i olo uma as a center piece.

Surface water run-off must be addressed in an area-wide manner, not on project by project basis. The run-off calculations for the impervious surfaces resulting from all the envisioned or reasonably foreseen projects in the area must be included in ensure that infrastructure improvements, detention basins, or other improvements are incorporated to prohibit flooding of downstream areas.

The sewage treatment plant does not appear adequate to meet the needs of even the current number of households in the Po'ipu Beach area, as odors and plant problems persist. Development approvals should not be issued until an analysis of the sewage treatment plant's potential for additional connections has been reviewed and certified. Such analysis should include the lands proposed or reasonably foreseen for development in the area.

Solid waste disposal is an important component of any development proposal but is a much more significant aspect on an island like Kaua'i where land is scarce. A comprehensive review of the capacity at the solid waste disposal area proposed for use for the developments in the area should be included in any environmental analysis. Such analysis should include a comprehensive review of all development planned for in the General Plan.

Potable water supplies should be addressed in the environmental review of this proposal, yet such analysis should be expanded to include proposed and reasonably foreseen developments in the Po'ipu Beach area. Use of groundwater supplies should be carefully reviewed in light of the potential to draw down groundwater or aquifer supplies resulting in the loss of water for current users. Well water contamination from golf course pesticide and agricultural uses should also be addressed.

Traffic issues hold perhaps the greatest harm to the Garden Island way of life. The development of up to 500 homes resulting from the Village at Po'ipu project, as well as the proposed and reasonably foreseen developments in the area, requires the cumulative analysis of traffic impacts. Adjacent condominium development, along with the proposed single-family and multi-family homes will cumulative effect the traffic patterns and circulation in an area already experiencing traffic delays. The preparation of a Specific Plan for the Po'ipu Beach area is warranted to address the location of future roads and plan expansions on a regional level. Hapa Road has historically been used as a walking path and the character of this road should remain. The location of new roads to handle

the expected increase in traffic is best handles on a regional basis with exactions required from landowners benefiting from additional development.

Recreation demand resulting from the construction of new housing units should be included in the environmental analysis for this and future proposed and reasonably foreseen developments. The County Park at Po'ipu Beach is in a state of overuse at this time and the additional demand posed by the 500 new housing units of the Village at Po'ipu and the unknown amount of units generated by adjacent and reasonably foreseen developments in the area would seem to require the dedication of additional recreational opportunities and facilities at Po'ipu Beach.

The ownership of the land in question as well as surrounding lands should be reviewed in the environmental analysis. A chain-of-title should be required and incorporated into the analysis to document the legal right of the landowner to propose the development on the above referenced parcels. Chains-of-title should also be required of adjacent developments when they are proposed to verify ownership as well.

Housing affordability issues should be addressed in the environmental analysis for this project. Median incomes must be identified and housing opportunities for Hawaiians should be incorporated into the project. More specifically, the integrity of the single-family neighborhood must be maintained by not allowing the vacation rental of homes in the single-family residential district. Such misuse of the single-family zone tends to degrade the neighborhood and contributes to the loss of continuity of livable communities by creating transient housing for people with no vested interest in the community.

I sincerely thank-you for the opportunity to comment on the scope of the EISPN. Please consider these my initial comments, as I look forward to review the Draft EIR when prepared and available for public review. It is my belief that developments contributing to the character of the Garden Island and preserving the rich cultural heritage of the Hawaiian community can coexist, resulting in a better project for our welfare and the good of future Hawaiian generations.

Sincerely,



Joel Canzoneri

cc: State Land Use Commission
Office of Environmental Quality Control



LAND PLANNING
AND DEVELOPMENT
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January 27, 2006

Mr. Joel Canzoneri
298 Esther Lane
Arcata, CA 95521

RE: Environmental Impact Statement Preparation Notice
Eric A. Knudsen Trust Village at Po'ipu, Kaua'i
TMKs: 2-8-13: 01, and 2-8-14: 01, 02, 03, 04, 19, 37, and Lot 19-B (Hapa Road)

Dear Mr. Canzoneri:

Thank you for your letter dated August 23, 2005 regarding the Village at Po'ipu Environmental Impact Statement Preparation Notice (EISPN). As the consultant for the applicant, Eric A. Knudsen Trust, we are responding to your comments.

We acknowledge your concern about the cumulative impacts of all developments envisioned in the Po'ipu Beach area. The technical reports used to assess the project's impact cover all known projects in the surrounding area and incorporate them into each of their analyses. Sections 3.0 and 4.0 of the Draft EIS includes discussions of the potential impacts of the project, both regional and specific, and the necessary mitigation measures with regard to a wide range of environmental, natural, social, economic concerns. These include but are not limited to archaeological sites, cultural impacts, traffic, noise, air quality, surface water runoff, sewage and solid waste disposal, water systems, recreation, and housing affordability.

With regard to a Specific Land Use Plan for the Po'ipu Beach area, the planning system in Hawaii and Kaua'i differs from that in California. The framework for long-range regional planning in Kaua'i consists primarily of the General Plan and Development Plans. The County of Kaua'i prepared an update to its General Plan in 2000. It includes a regional as well as island-wide analysis of the potential growth and future development needs of the island and its communities. It is a public process that involved widespread community participation to develop a vision for the island and its communities and provides direction for that growth. It includes requirements for future infrastructure, open space, housing and community character needs as well as detailed land use plans and historic resource maps for the five main planning districts on Kaua'i. It is available online at the Kaua'i Planning Department website: <http://www.kauai.gov/Default.asp?tabid=130>.

In addition to the General Plan, the County also prepares development plans for specific planning regions on the island. Unfortunately, the Po'ipu-Kōloa-Kalāheo Development Plan was last updated in the 1970s and is outdated. Therefore the

County's General Plan provides specific plans for this region and currently serves its purpose. The 2000 General Plan Land Use Map designates the project site for residential community. Therefore, the proposed Village at Po'ipū is in compliance with the County's long-range growth plans and vision for this region.

The following responses address your concerns about the impacts to specific resources and infrastructure:

We appreciate your concern for the protection of archaeological sites. We have carefully considered the impacts the proposed project will have on archaeological and cultural resources; therefore, archaeological inventory surveys have been completed for the entire site and all significant sites recommended for preservation and possible preservation will be preserved on site. They will be protected in over 23 acres of archaeological preserves and will be accessible to the public for cultural practices. Internal circulation networks will be designed to provide both visual connections and direct access to the sites. Interpretive signage will be provided at the archaeological preserves and the preserves will be landscaped with native plants. Additional discussion and descriptions of data recovery and protection plans are provided in Section 4.1 of the Draft EIS.

With regard to your concerns about water runoff, the preliminary engineering report has taken into account regional drainage areas and reasonably foreseen projects in the area in its calculations. Discussion and analysis is provided in Section 4.8.3 of the Draft EIS and the full report is provided in an appendix. In summary, all runoff generated onsite will be collected and routed to detention basins and bioswales using native plants and landscaping to help filter and slow runoff, thus improving existing drainage conditions and impacts on downstream areas.

Section 4.8.2 of the Draft EIS includes updated information on the improvements proposed to manage wastewater generated by the Village at Po'ipū project. The Po'ipū Water Reclamation Facility (PWRF) is currently undergoing several upgrades to increase capacity and improve effluent quality and has been designed to accommodate the neighboring Kiahuna Mauka project in addition to the Village at Po'ipū. The Trust will contribute its fair-share cost for these improvements which will give PWRF sufficient capacity to accommodate full build-out of the Village at Po'ipū. Additional information is provided in the preliminary engineering report attached as an appendix to the EIS.

Section 4.8.5 of the Draft EIS includes information on solid waste disposal facilities, and the impact of the project on landfill capacity. The County General Plan provides regional analysis of solid waste disposal.

We have carefully planned the water system for the Village at Po'ipū project to minimize impacts on potable water supplies. Section 4.8.1 of the Draft EIS provides an analysis of the potential impacts specific to the project. In order to reduce potable water demand, a separate private irrigation system will be developed to provide non-potable water for irrigating landscaping in common areas, the multi-family residential and larger single family lots. The complete preliminary engineering report is included as an appendix in the EIS. With respect to your concerns about water contamination from golf course pesticides and agricultural uses, neither of these uses is proposed for the Village at Po'ipū. The County Department of Water (DOW) has completed their Water Plan 2020 which considers island-wide and regional water system needs. The plan is available online at the DOW's website: http://www.kauaiwater.org/ce_waterplan2020app.asp.

We acknowledge your concerns about traffic issues on Kaua'i. A Traffic Impact Analysis Report (TIAR) for the proposed project was prepared and is included in its entirety as an appendix in the Draft EIS. Like the other technical reports, this TIAR accounts for all reasonably foreseen developments in the area and regional traffic concerns. A summary of the TIAR and an analysis of the impacts of the proposed project are provided in Section 4.3 of the Draft EIS. The project also includes restoring Hapa Road to its historic use as a *mauka-makai* pedestrian path and improving it per County ordinance to be a shared bicycle-pedestrian path.

We understand your concerns regarding the overuse of Po'ipū Beach Park. This facility is County-owned and operated, and therefore not within the jurisdiction of the Knudsen Trust. However, the Village at Po'ipū project proposes to significantly expand recreational opportunities for the region. As shown on the Conceptual Master Plan (Figure 3 of the Draft EIS), the Village at Po'ipū will provide 12 acres of parks and open spaces and over 23 acres of archaeological preserves, as well as an extensive network of pedestrian paths, including the improvement of Hapa Road as a shared bicycle and pedestrian path. This far exceeds the County requirements for a project of this size.

In response to your inquiry regarding land ownership, as discussed in Section 2.1.2 of the Draft EIS, the Eric A. Knudsen is the recorded fee owner of all of the parcels included in the Village at Po'ipū except for Lot 19-B (Hapa Road), which is owned by the County of Kaua'i. The project site was part of a single 6,500-acre property purchased by Annie Sinclair Knudsen in 1872. She later gave most of

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the lands including all of Village at Po'ipū project site to her two sons, Eric A. and August Knudsen, in the early 1920s to hold in trust.

We recognize your concerns about housing affordability issues. A market study conducted for the Village at Po'ipū identifies the impact this will have on housing opportunities on Kaua'i. The Draft EIS provides further discussion regarding housing issues in Section 4.7.2. The full market study will be included as an appendix in the Draft EIS. Although homes cannot be set aside specifically for persons of Native Hawaiian ancestry due to discrimination laws, approximately half of the future residents of Village at Po'ipū are expected to be current Hawai'i residents. The Village at Po'ipū is intended for residential purposes, and therefore will not include any resort uses. All residents will be members of the Homeowners' Association and will have a vested interest in the community.

Thank you for reviewing the EISPN. Your comments will be included in the EIS.

Sincerely,

PBR HAWAII



Kimi Yuen
Associate

cc: Mr. Anthony Ching/State Land Use Commission
Ms. Genevieve Salmonson/OEQC
Mr. Stacey Wong/Eric A. Knudsen Trust