

Final Draft Environmental Assessment for the

# Honomū Subsistence Agricultural Homestead Community

Honomū, District of South Hilo, Island of Hawai'i

October 2019 ~~September 2019~~



HAWAIIAN HOME LANDS  
HAWAIIAN HOMES COMMISSION  
DEPARTMENT OF HAWAIIAN HOME LANDS

Prepared for:

Department of Hawaiian Home Lands



Prepared by:

Townscape, Inc.

ITEM G-1 EXHIBIT A



Final ~~Draft~~ Environmental Assessment for the  
**Honomū Subsistence Agricultural  
Homestead Community**

Honomū, District of South Hilo, Island of Hawai‘i

Prepared for:



Prepared by:



October 2019 ~~September 2018~~

*This page intentionally left blank*



## PROJECT SUMMARY

This Draft Environmental Assessment (EA) has been prepared in accordance with the requirements of Chapter 343, Hawai‘i Revised Statutes (HRS) and Hawai‘i Administrative Rules (HAR) Title 11-200 *Environmental Impact Statement Rules*.<sup>1</sup> The State’s Environmental Impact Statement law is triggered by the use of State lands and funds.

<b>Project Name:</b>	Honomū Subsistence Agricultural Homestead Community
<b>Proposing Agency:</b>	Department of Hawaiian Home Lands (DHHL) P.O. Box 1879 Honolulu, HI 96805 Contact Julie Cachola, (808) 620-9483 julie-ann.cachola@hawaii.gov
<b>Accepting Authority:</b>	Hawaiian Homes Commission (HHC) Department of Hawaiian Home Lands Hale Kalaniana‘ole 91-5420 Kapolei Parkway Kapolei, HI 96707
<b>Consultant:</b>	Townscape, Inc. 900 Fort Street Mall, Suite #1160, Honolulu, HI 96813 Contact: Sherri Hiraoka, (808) 550-3892 sherri@townscapeinc.com
<b>Project Location:</b>	Honomū and Kūhua Ahupua‘a South Hilo District, Hawai‘i Island
<b>TMKs:</b>	(3) 2-8-011:009, 011, 019, and 999
<b>Project Size:</b>	766 acres
<b>Landowner:</b>	State of Hawai‘i, Department of Hawaiian Home Lands
<b>Chapter 343, HRS Trigger:</b>	Use of State lands and funds
<b>Existing Land Use:</b>	Pasture and diversified agriculture
<b>State Land Use District:</b>	Agriculture
<b>Hawai‘i County General Plan:</b>	Important Ag Lands
<b>Hawai‘i County Zoning:</b>	A-20a

---

<sup>1</sup> Governor Ige signed new Administrative Rules on July 30, 2019, repealing HAR §11-200 and bringing HAR §11-200.1 into effect on August 9, 2019. Actions that published a Draft EA prior to the new rules being enacted must comply with the requirements of HAR §11-200 to complete environmental review.

<b>Special Management Area:</b>	None
<b>Flood Zone:</b>	Zone X (unshaded)
<b>Permits Required:</b>	<p>Stream Channel Alteration Permit</p> <p>HRS §6E, Historic Preservation Review Clearance</p> <p>HRS Chapter 343 compliance</p> <p>National Pollutant Discharge Elimination System (NPDES) General Permit</p> <p>Individual Wastewater System Approval</p> <p>Noise Variance (possible for construction)</p> <p>Permit to Perform Work Within a State Highway Right-of-Way</p> <p>Agricultural Project District approval</p> <p>Grading and Grubbing Permit</p> <p>Building Permit</p>
<b>Anticipated Determination:</b>	Finding of No Significant Impact (FONSI)
<b>Agencies and Parties Consulted:</b>	<p><b>Federal:</b> U.S. Fish and Wildlife Services (USFWS)</p> <p><b>State:</b> Department of Land and Natural Resources Department of Land and Natural Resources, State Historic Preservation Division (SHPD) Department of Health (DOH) Office of Planning (OP) Office of Hawaiian Affairs (OHA) Department of Business, Economic Development and Tourism (DBEDT) Department of Agriculture <u>Department of Transportation</u></p> <p><b>County:</b> Mayor's Office Department of Research and Development Department of Water Supply Department of Planning Department of Mass Transit Department of Public Works Department of Parks and Recreation Hawaii Police Department Hawaii Fire Department Department of Environmental Management Hawaii County Council</p> <p><b>Other:</b> Honomū Community Association Hāmākua CDP Committee Honomū Neighborhood Watch</p>

## Table of Contents

PROJECT SUMMARY .....	i
<b>1 PROJECT DESCRIPTION .....</b>	<b>1</b>
1.1 Project Need and Objectives.....	1
1.2 Project Location.....	3
1.3 Description of the Proposed Project.....	4
1.3.1 Subsistence Agricultural Homesteads .....	6
1.3.2 Supplemental Agriculture.....	8
1.3.3 Commercial .....	8
1.3.4 Community Use .....	9
1.3.5 Special District.....	9
1.3.6 Conservation .....	9
1.4 Proposed Infrastructure.....	10
1.4.1 Roads and Access.....	10
1.4.2 Grading and Runoff, Drainage, and Erosion Control.....	10
1.4.3 Water System.....	11
1.4.4 Wastewater System .....	12
1.4.5 Solid Waste .....	12
1.4.6 Electrical Power .....	12
1.4.7 Communications.....	12
1.5 Programmatic Supports .....	12
1.6 Preliminary Implementation Schedule and Costs .....	13
<b>2 AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES .....</b>	<b>15</b>
2.1 Climate.....	15
2.2 Geology and Topography.....	15
2.3 Hydrology and Drainage.....	18
2.4 Air Quality and Noise.....	20
2.5 Biological Environment .....	21
2.6 Natural Hazards.....	24
2.7 Historic and Archaeological Resources.....	27

## Table of Contents (continued)

2.8	Cultural Resources .....	30
2.9	Viewplanes .....	36
2.10	Roads, Bridges, and Culverts .....	41
2.11	Traffic .....	42
2.12	Public and Private Utilities.....	46
2.12.1	Sewer Services .....	46
2.12.2	Solid Waste Services .....	47
2.12.3	Water Services .....	47
2.12.4	Power and Communications .....	48
2.13	Public Services .....	49
2.13.1	Police Protection.....	49
2.13.2	Fire Protection .....	49
2.13.3	Medical Services .....	50
2.14	Socio-Economic Conditions .....	51
2.15	Hazardous Materials.....	56
<b>3</b>	<b>RELATIONSHIP TO PLANS AND POLICIES .....</b>	<b>59</b>
3.1	Federal Plans and Policies .....	59
3.1.1	Archaeological and Historic Preservation Act (16 U.S.C. § 470(F) and National Historic Preservation Act (16 U.S.C. § 470(F) .....	59
3.1.2	Coastal Zone Management Act (16 U.S.C. § 1456(C)(1) .....	59
3.1.3	Endangered Species Act 16 U.S.C. §1536(A)(2) and (4).....	59
3.1.4	Fish and Wildlife Coordination Act 16 U.S.C. § 662(A) .....	60
3.1.5	Wild and Scenic Rivers Act 16 U.S.C. § 1271-1287 .....	60
3.2	State of Hawai‘i Plans and Policies .....	60
3.2.1	State Land Use Law, Chapter 205, HRS .....	60
3.2.2	State of Hawai‘i Coastal Zone Management Program, Chapter 205A, HRS .....	62
3.2.3	Hawai‘i State Plan, Chapter 226, HRS.....	64
3.2.4	Complete Streets, Hawai‘i State Act 54, Session Laws of Hawaii (SLH) 2009.....	89

## Table of Contents (continued)

3.3	County of Hawai‘i Plans and Policies .....	89
3.3.1	Memorandum of Agreement Between the County of Hawaii and the Department of Hawaiian Home Lands (2002) .....	89
3.3.2	County General Plan .....	90
3.3.3	Zoning, Chapter 25, Hawai‘i County Code .....	94
3.3.4	Hāmākua Community Development Plan (CDP) .....	96
3.3.5	County of Hawai‘i Special Management Area (SMA) .....	98
3.4	Approvals and Permits .....	98
<b>4</b>	<b>PROJECT ALTERNATIVES .....</b>	<b>101</b>
4.1	No Action Alternative .....	101
4.2	Maximum Density of Subsistence Agricultural Lots Alternative .....	101
4.3	Alternative Location .....	104
<b>5</b>	<b>Findings and Anticipated Determination .....</b>	<b>105</b>
5.1	Anticipated Determination .....	105
5.2	Significance Criteria .....	105
<b>6</b>	<b>REFERENCES .....</b>	<b>111</b>

## Appendices

A	Pre-Assessment Consultation <u>and Draft EA Comments and Responses</u>
B	Biological Survey for Honomū Subsistence Agriculture Project
C	Archaeological Literature Review and Field Inspection Report
D	Cultural Impact Assessment
E	Infrastructure Assessment
F	Traffic Assessment
G	<u>Phase I Environmental Site Assessment</u>
H	<u>Memorandum of Agreement Between the County of Hawaii and the Department of Hawaiian Home Lands (2002)</u>

## List of Figures

Figure 1-1 DHHL Lease Application Type by Island (2014) .....	1
Figure 1-2 Project Location .....	2
Figure 1-3 Proposed Conceptual Land Use Plan.....	5
Figure 2-1 Honomū Soils and Streams.....	16
Figure 2-2 Wildfire Risk .....	26
Figure 2-3 Views from the Project Site .....	37
Figure 2-4 Views of the Project Site.....	39
Figure 2-5 Location of Viewplane Photos .....	40
Figure 2-6 Honomū Roads and Intersections .....	43
Figure 3-1 State Land Use Districts .....	61
Figure 3-2 Land Use Pattern Allocation Guide (LUPAG) Map.....	91
Figure 3-3 County Zoning .....	95
Figure 4-1 Maximum Density of Subsistence Agricultural Lots Alternative.....	102

## List of Tables

Table 1-1 Proposed Land Uses and Acres.....	4
Table 2-1 Honomū Streams .....	18
Table 2-2 Main Vegetation Types Observed in Honomū.....	23
Table 2-3 Main Faunal Types Observed in Honomū.....	23
Table 2-4 Honomū Existing Peak Hour Traffic .....	44
Table 2-5 Level of Service Descriptions .....	45
Table 3-1 Project's Consistency with the Hawai'i State Plan .....	65
Table 4-1 Comparison of Acres, Lots, Houses, and New Residents between the Maximum Density of Subsistence Agricultural Lots Alternative and the Preferred Alternative .....	103
Table 4-2 Outcomes of Converting Some Land Uses to Subsistence Agriculture.....	103

**List of Acronyms**

ASYA	Aquifer System Area
BMP	Best Management Practice
CIA	Cultural Impact Assessment
CTAHR	College of Tropical Agriculture and Human Resources, University of Hawai‘i
DHHL	Department of Hawaiian Home Lands
DOH	Department of Health, State of Hawai‘i
DSP	Division of State Parks, State Department of Land and Natural Resources
DWS	Department of Water Supply, County of Hawai‘i
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
GPD	Gallons Per Day
HAR	Hawai‘i Administrative Rules
HDOT	Department of Transportation
HELCO	Hawai‘i Electric Light Company
HHC	Hawaiian Homes Commission
HHCA	Hawaiian Homes Commission Act
HHL	Hawaiian Home Lands
HRS	Hawai‘i Revised Statutes
IAL	Important Agricultural Lands
IWS	Individual Wastewater System
LCA	Land Commission Award
LOS	Level of Service
LRFI	Literature Review and Field Inspection
LUPAG	Land Use Pattern Allocation Guide



**List of Acronyms (continued)**

MG	Million gallon
MGD	Million Gallon per Day
SCAP	Stream Channel Alteration Permit
SHPD	State Historic Preservation Division
SLH	Session Laws of Hawai‘i
TMK	Tax Map Key
TPDH	Transportation Plan for the District of Hawai‘i
USGS	United States Geological Survey
VPH	Vehicles Per Hour

# 1 PROJECT DESCRIPTION

The policy of the Hawaiian Homes Commission Act (HHCA) of 1920 is “to enable native Hawaiians to return to their lands in order to fully support self-sufficiency for native Hawaiians and the self-determination of native Hawaiians in the administration of this Act, and the preservation of the values, traditions, and culture of native Hawaiians.” The Honomū Subsistence Agricultural Homestead Community seeks to provide native Hawaiians with an opportunity to return to the land and promote self-sufficiency through farming opportunities.

## 1.1 Project Need and Objectives

The purpose of the Honomū Subsistence Agricultural Homestead Community (“the Project”) is to award agricultural lots to beneficiaries on the Agricultural Waitlist. Beneficiary demand for agricultural opportunities is very high. The Agricultural Waitlist is the longest of the three waitlists for DHHL leases on Hawai‘i Island, encompassing 42% of all those waiting for a Hawai‘i Island lease in 2014. The top 500 applicants on the Hawai‘i Island Agricultural Waitlist applied for a lease between 1952 and 1985 have been on the waitlist since between 1952 and 1985. Most of the applicants on the Hawai‘i Island Agricultural Waitlist currently live on Hawai‘i Island, but some reside on other islands in the State or on the mainland as they await a lot.

*Figure 1-1 DHHL Lease Application Type by Island (2014)*

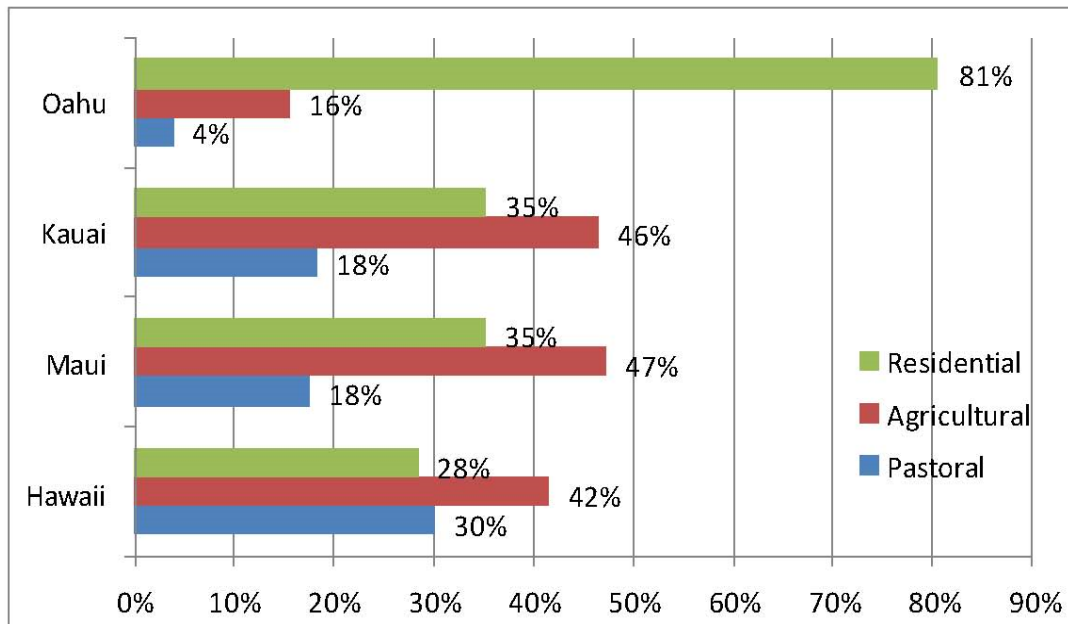
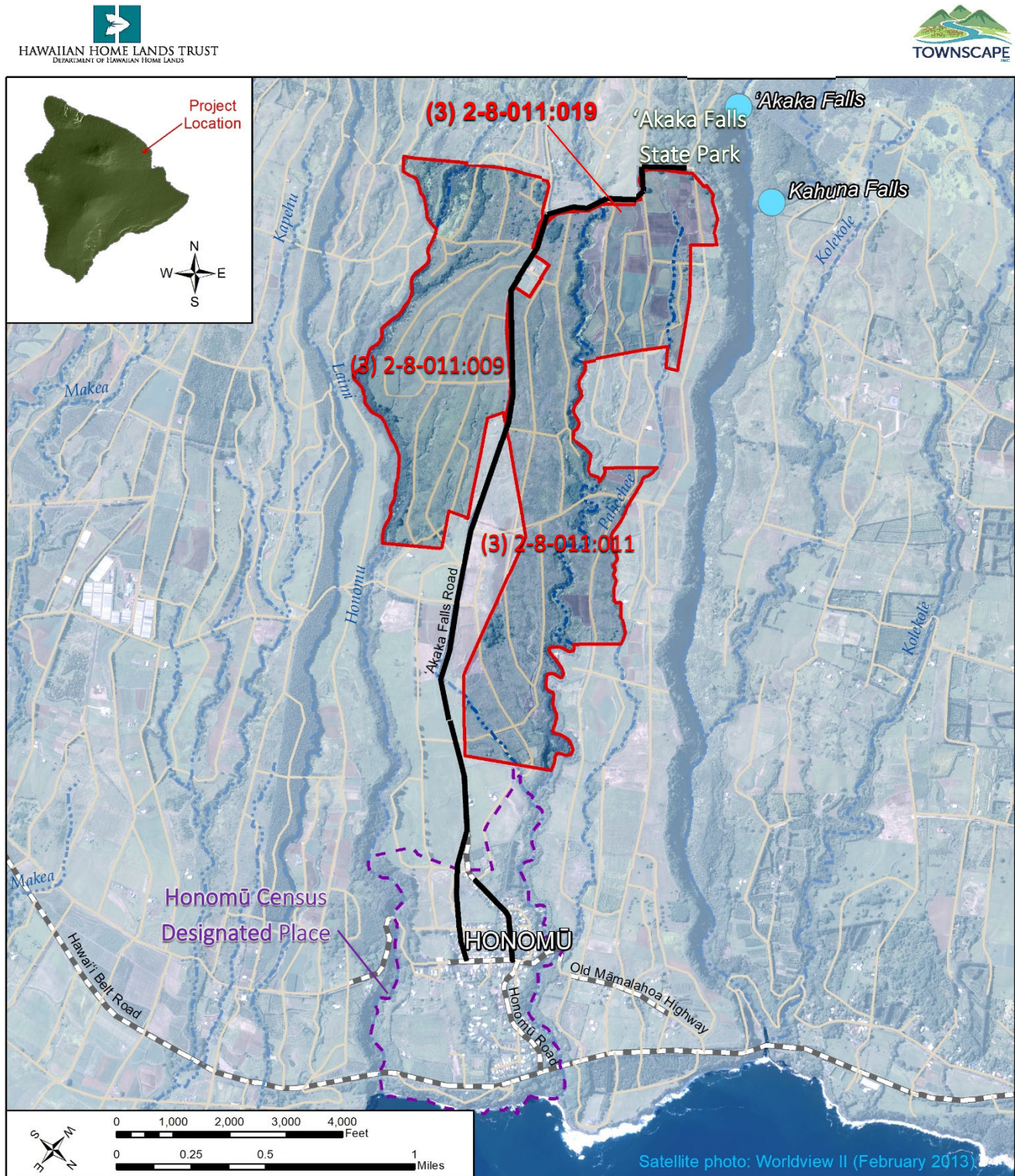


Figure 1-2 Project Location



## 1.2 Project Location

The State Department of Hawaiian Home Lands (DHHL) is proposing to offer subsistence agricultural homestead lots to beneficiaries of the Hawaiian Home Lands (HHL) Trust in the Honomū and Kūhwa ahupuaʻa, South Hilo District, Island of Hawaiʻi (**Figure 1-2**). The 766 acres, owned by DHHL, is divided amongst three parcels, TMK: (3) 2-8-011:009, 011, 019, and 999, that straddle ʻAkaka Falls Road (State of Hawaiʻi Department of Transportation Route 220).

DHHL owns 116,963 acres on Hawaiʻi Island. It develops Island Plans to assess and recommend future uses for its lands. The most recent Hawaiʻi Island Plan was completed in 2002, before the current subsistence agriculture Administrative Rules were finalized. This 2002 Island Plan originally identified Lower Piʻihonua as the priority tract for Subsistence Agriculture use. Since then, additional planning revealed that access to the site was hindered by ~~an~~ insufficiently sized bridges that cannot handle significant increases in traffic volume. Improvements necessary to accommodate the projected traffic increases were determined to be cost-prohibitive and DHHL evaluated its other tracts for possible use as a subsistence agricultural homestead community.

This re-evaluation of the DHHL land inventory concluded that the Honomū tract was better suited for a subsistence agricultural homestead community than Lower Piʻihonua. These lands were not part of the original HHCA allocation that designated land to the Hawaiian Homes Commission (HHC). Instead, the Honomū lands were transferred from the State Department of Land and Natural Resources to DHHL in 1994 (Act 14) as part of a settlement between DHHL and the State of Hawaiʻi for breaches to the HHL trust. These lands are of higher agricultural quality than the lands originally allocated to the HHC in 1920.<sup>2</sup>

In addition to good soil quality, Honomū was selected for a subsistence agricultural homestead community because it is accessible, has good quality soils, experiences high average rainfall with which to naturally irrigate crops, and is relatively close to agricultural support networks, such as the University of Hawaiʻi Agricultural Extension and the Soil and Water Conservation District (SWCD). Most of these DHHL lands are currently being used for pasture by two short-term licensees. A small portion of the property is in small-scale vegetable cultivation and about one-quarter of the property is currently unlicensed and fallow.

The project is surrounded by agricultural land uses on all sides. ʻAkaka Falls State Park is adjacent to the western corner of TMK parcel (3) 2-8-011:011. Honomū Stream runs along the southern boundary of parcel (3) 2-8-011:009 and Kolekole Stream runs near the northern boundary of the Project. Pāheʻe Stream runs through the northern parcel.

---

<sup>2</sup> As a part of the HHCA, certain public lands on each of five major islands were designated as “Hawaiian home lands” and placed under the jurisdiction of the Hawaiian Homes Commission. However, political interests favoring the sugar plantations resulted in prime agricultural lands being excluded from Home Lands designations.



### 1.3 Description of the Proposed Project

DHHL has historically offered large agricultural lots to beneficiaries for commercial agriculture purposes. Utilization of these agricultural leases was observed to be poor, with many lessees unable to conduct agricultural operations at a commercial scale. Current agricultural homestead lessees have difficulty farming due to many factors, some of which include:

- Acreages that are too large for them to manage;
- The requirement for a farm plan for marketing and sale of agricultural products;
- The requirement for cultivation of a minimum of two-thirds of the lot at all times; and
- Lack of technical and lease management support.

In 2017, DHHL updated its Administrative Rules allowing for Subsistence Agriculture, providing smaller, more manageable lots and removing both the farm plan and the two-thirds cultivation requirements, which were burdensome for families engaging in small-scale subsistence agriculture. DHHL has also developed programs that provide assistance with technical and lease compliance matters to promote successful lessees. ~~where~~ Consequently, subsistence agricultural lots are no larger than three acres in size and ~~where~~ lessees are required to, within three years:

- Actively cultivate subsistence agriculture, OR
- Reside and cultivate subsistence agriculture on their lots.

While the primary purpose of this project is to provide agricultural lots to DHHL beneficiaries, DHHL recognizes that other land uses are necessary for protecting natural resources, creating a community for lessees, and providing opportunities for commercial growth. The project proposes the following six DHHL use designation ~~land uses~~, listed in **Table 1-1** and shown in **Figure 1-3**. Each proposed land use is described below.

**Table 1-1 Proposed Land Uses and Acres**

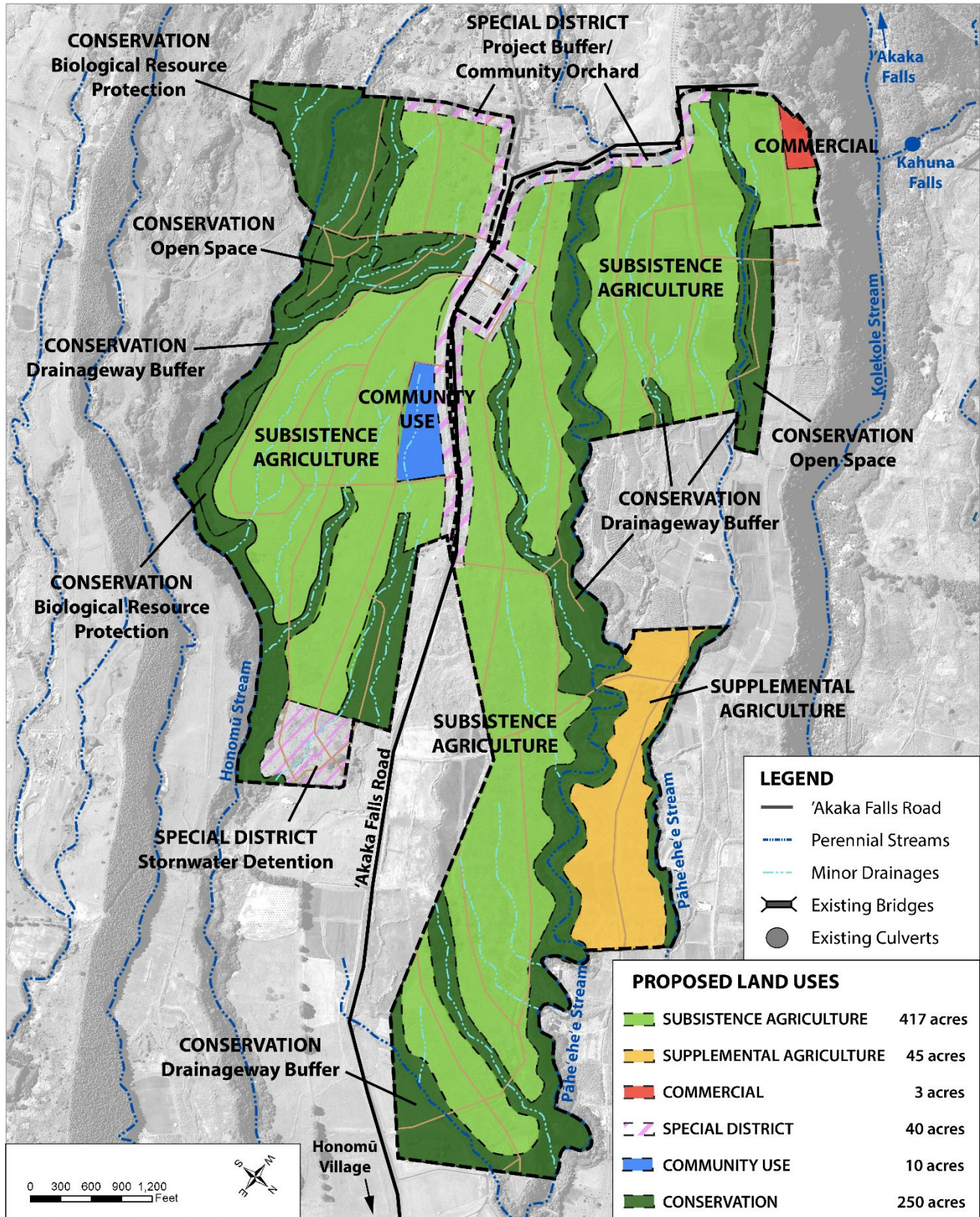
Land Use	Number of Acres	Percent of Total
Subsistence Agriculture	417	55%
Supplemental Agriculture	45	6%
Commercial	3	0.4%
Community Facilities	10	1%
Special District	40	5%
Conservation	250	33%
<b>TOTAL</b>	<b>766</b>	<b>100%</b>

Note: Sum of the acres in each land use designation does not exactly total 766 acres due to rounding.



Figure 1-3 Proposed Conceptual Land Use Plan

HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



### 1.3.1 Subsistence Agricultural Homesteads

The primary land use of this project is subsistence agriculture. As previously mentioned, subsistence agricultural lots are no more than three acres in size and allow for, but do not require, a residence. The planning team determined that for Honomū, the size of each subsistence agricultural lot could range from one to three acres. There is no minimum size for DHHL subsistence agricultural lots, but it was decided that this project would impose a minimum lot size of one-acre ~~was determined~~ based on the rural nature of the existing community and feedback from agricultural applicants at the beneficiary meeting in October 2017, current farmers (including those farming on DHHL agricultural lots), and University of Hawai'i College of Tropical Agriculture and Human Resources (CTAHR) agricultural extension agents. All sources confirmed that one-acre lots are sufficient to support subsistence agriculture, allowing enough space for agricultural plots, a house, an on-site wastewater disposal system, a water catchment tank, and stormwater detention or retention.

DHHL considered the kauhale-style design for homesteads in Honomū but found that creating separate areas designated for houses and farms within an agricultural homestead is not possible within DHHL's current rule structure. Such a design would require creating two separate lots, one for a residence and one for a farm, to each lessee within the same homestead community. Existing Hawaiian Homes Commission rules do not allow for separate subsistence agricultural lot to be awarded to the same beneficiary. Additionally, since building a house is not required on subsistence agricultural lots, designating house lots/sites that may not be used, eliminates a portion of the land available for farming.

The actual mix of lot sizes will depend on the existing topography of the site and DHHL beneficiary preference, but the maximum number of lots proposed is 375. This assumes that all lots are one-acre in size and that no additional land is needed for roads or drainage features. The number of lots could be less if two and three acre lots are also offered or if additional land is needed for roads and drainage features during design. It should be noted that a section in the northwestern portion of Parcel 9 (south tract) has been reported and observed to have surface water sheet flow and to be marsh-like. These conditions may cause some of this land to be converted from subsistence agriculture to conservation, potentially reducing the lands available for homesteading. However, to be conservative, project impacts will continue to be assessed based on the maximum number lot size of 375 lots: approximately 125 lots on the North parcel and 250 lots on the South parcel.

Approximately 50% of DHHL agricultural lessees currently reside on their homestead lots. Based on a 50% settlement rate, approximately 188 lessees are likely to build a house on their lot (50% of a maximum of 375 lots). The average household size for DHHL beneficiaries in East Hawai'i is 3.291 persons (*U.S. Census Bureau 2008-2012 American Community Survey*). Therefore, the



residential population for the Project is estimated at 619 people when the Project is fully completed and settled (375 lots X 50% settlement rate X 3.291 persons per household).

DHHL Administrative Rules §10.-3-26 (b) (1) require that residences “shall be built to county code” or they “may be exempted from county codes by the department provided that:

- (i) The plans for any non-conforming portion or portions are submitted to the department for approval;
- (ii) Any non-conforming portion or portions are certified as meeting industry standards for health and safety by a subject matter appropriate State of Hawaii licensed structural engineer or architect; and
- (iii) The units are in compliance with applicable laws and regulations including but not limited to environmental compliance, water, clean water, wastewater, and catchment...”

Crops grown on subsistence agricultural homestead lots are intended to provide food to be consumed in the home or to provide supplemental household income. The subsistence agriculture designation was created to provide agricultural ~~lands~~ leases that are more manageable than the large ~~lots~~ acreage leases previously offered under the General Agriculture program, which ~~had~~ resulted in few lessees cultivating ~~the land~~ their homestead. DHHL pays for a dedicated CTAHR agricultural extension agent to provide technical services to DHHL beneficiaries on Hawai‘i Island in an effort to improve the success of agricultural lessees. Subsistence Agriculture lots offered by DHHL do not have requirements for agricultural productivity or organic techniques, as these lots are for subsistence, not commercial, purposes. Lessees will be required to comply with all agricultural practices as regulated by the State Department of Agriculture, Department of Health, County Planning Department, and any other agency regulating farm practices in general. DHHL’s agricultural extension agent is tasked with providing lessees with technical assistance regarding best practices and compliance.

~~Subsistence agriculture lessees are required to either~~ leases will include the following requirements: within three years, live on Hawai‘i Island and either (1) actively cultivate food crops or raise small livestock or both for subsistence agriculture purposes, or (2) reside and actively cultivate subsistence agriculture on the lot. ~~their land within three years of receiving their lease. Applicants must live on Hawai‘i Island. Those applicants not living on Hawai‘i Island need to relocate there within three years of receiving their lease.~~ Lots will be awarded to applicants on the Hawai‘i Island Agricultural Waitlist in rank order, meaning that those that have been on the waitlist the longest are awarded lots first. No other vetting process is used for subsistence agricultural lots under three acres in size.

In order to maintain the agricultural character of these lands, infrastructure in the Honomū Subsistence Agricultural Homestead Community will be rural in nature. For more on the infrastructure standards that will be implemented, see the discussion in **Section 1.4. The need**

for community rules; by-laws; and/or Covenants, Conditions & Restrictions (CC&Rs) will be made by DHHL homestead lessees who will decide how they would like to organize themselves, possibly through a community association. DHHL leases include standards and requirements of lessees. DHHL has and continues to develop support programs to assist lessees with lease compliance and agricultural success and will also provide enforcement actions, when necessary.

### 1.3.2 Supplemental Agriculture

The supplemental agriculture land use designation is meant for large-lot agriculture and is intended to provide opportunities for agricultural production for supplemental income and home use. The Supplemental Agriculture area will provide the Project's successful subsistence farming lessees with opportunities for additional acreage to grow their crops. The supplemental agriculture lots were sited away from the main road, making them more difficult to observe and access, since houses would not be allowed on these lots. Without the constant presence, the supplemental agriculture lots are more vulnerable to agricultural theft, which was raised as a concern amongst current non-Hawaiian homestead Honomū residents. In this location, would-be thieves would need to enter the Honomū Subsistence Agricultural Homestead Community and risk detection to access supplemental agriculture lots.

### 1.3.3 Commercial

DHHL designates commercial lands as those that may generate revenue for the Hawaiian Home Lands Trust. These lands are suitable for retail, business, and commercial activities, or otherwise provide revenue through lease rents. A portion of the Project is adjacent to 'Akaka Falls State Park, which provides an opportunity for complementary land uses. The Department of Land and Natural Resources (DLNR) Division of State Parks (DSP) has shown interest in expanding its existing parking lot, which regularly overflows. As the State charges an entry fee for non-Hawai'i residents,<sup>3</sup> there is an opportunity to generate some revenue either through parking fees or through a lease to DSP. Most of the three acres of commercial lands designated within this project are expected to be used to expand the State Park parking lot. Specific commercial uses will be determined as opportunities arise but will be complementary to the uses in this area. Uses that may be Some uses being considered include a scenic lookout toward Kahuna Falls, snack shop, souvenir shop, and/or education kiosk. DHHL will commit to requesting proposals for commercial lessees that will complement the 'Akaka Falls State Park and will engage in its beneficiary consultation process if a different type of use is considered in the future.

---

<sup>3</sup> The Division of State Parks charges an individual fee of \$5 per car or \$1 per pedestrian to enter the 'Akaka Falls State Park. Commercial PUC vehicles are charged \$10 (1-7 passenger vehicle), \$20 (8-25 passenger vehicle), or \$40 (26+ passenger vehicle). Source: <http://hawaiiistateparks.org/parks/hawaii/akaka-falls-state-park/> (retrieved 6/19/18)

### 1.3.4 Community Use

Community use areas are common areas for shared DHHL homestead uses and facilities. Community Use areas ~~and~~ may include space for parks, recreation, cultural activities, community-based economic development, utilities, and other facilities and amenities. Specific community uses will be determined by the Honomū Subsistence Agricultural Homestead Community.

### 1.3.5 Special District

Areas requiring special attention because of unusual opportunities and/or constraints are designated as special districts. Two types of special districts are identified within the Project: project buffers and stormwater management.

#### Project Buffers

Project buffers of approximately 100 feet wide are proposed along most of 'Akaka Falls Road as both a physical and visual barrier between the roadway and the Project. This buffer may be either open space or include some type of vegetation, possibly a Honomū Subsistence Agricultural Homestead Community-owned and/or managed orchard. Such spaces could be used as training sites for agricultural best practices.

#### Storm Water Management

Honomū experiences high average annual rainfall. In working toward minimizing impacts from runoff and erosion on makai properties, the Project has designated a roughly 13 acres of special district area in the makai portion of the southern parcel for stormwater management, should it be needed.

### 1.3.6 Conservation

Environmentally sensitive areas are designated as conservation, limiting uses. The Project identified areas with steep slopes, the potential for biological habitat restoration, and challenges for development as conservation and are meant to be kept undeveloped as drainageway buffers, biological resource protection, and open space. An additional section in the northwestern portion of Parcel 9 (south tract), currently designated for subsistence agriculture, was reported by neighbors to have unusually high surface water sheet flow and to be marsh-like, even when it is not raining. Site visits by DHHL have confirmed wet and muddy conditions in portions of the parcel in question. These conditions may cause some of this land to be converted from subsistence agriculture to conservation, if it is determined to be undevelopable. DHHL will continue to engage with engineers, government regulators, and other site specialists to determine if development of supplemental agriculture is appropriate in this area.

Areas identified as Conservation under DHHL land use designations will not be leased for agricultural or other types of DHHL homesteads or be available for other types of development,

such as commercial or community facilities. Instead, Conservation areas will remain undeveloped for passive enjoyment by beneficiaries, ecosystem habitat, and natural resource protection. Resource management and other activities, such as gathering of resources for cultural purposes, in Conservation areas may be proposed by Honomū Subsistence Agricultural Homestead Community members in the future and will require approval from DHHL.

## 1.4 Proposed Infrastructure

Infrastructure for this project will be designed to provide for the health and safety of residents but be appropriate for a rural area.

### 1.4.1 Roads and Access

DHHL will coordinate with the State of Hawai'i Department of Transportation (HDOT) to provide access to the Project off of 'Akaka Falls Road, which is owned and managed by HDOT. DHHL will comply with HDOT's request that access to the Project site off of 'Akaka Falls Road be designed as four-way intersections, where practicable. Additionally, no parking is allowed within the HDOT right-of-way along 'Akaka Falls Road. DHHL will design this project to not encourage parking within the HDOT right-of-way.

Internal roads will include one 10-foot wide travel lane in each direction. ~~and one~~ One 4-foot wide grassed swale and shoulder or other control in each direction will be utilized to manage and convey runoff generated from the internal roads, while maintaining the rural character of the region. These standards will not allow the roads to be dedicated to the County at this time; therefore, DHHL will be responsible for maintenance. Maintenance will be conducted either by DHHL staff or contracted to a vendor. However, DHHL will designate a total road right-of-way of 50-feet wide to allow for possible road upgrades that could allow for future dedication to the County.

The internal road network is being designed in tandem with the lot layout to assure access to all lots. The existing road network is the base for the road layout but existing roads may be re-aligned and new road alignments may be added, where necessary. All pre-existing and new roads will be constructed to allow for standard vehicular access and emergency service vehicles.

### 1.4.2 Grading and Runoff, Drainage, and Erosion Control

The existing topography will only be altered to the extent necessary for the safe implementation of proposed land uses and will adhere to County of Hawai'i grading permit requirements. DHHL is also coordinating with the Hāmākua Soil and Water Conservation District to develop a Master Drainage Plan to manage runoff and erosion. Lessees will also be required to maintain on-site stormwater retention areas on each subsistence agricultural lot. Streams and gulches will be designated as conservation lands to maintain existing drainage patterns and detention/retention areas have been identified, if needed.

### 1.4.3 Water System

Water will be provided via catchment system to be constructed by lessees. The high rainfall in Honomū is expected to provide most, if not all, of the irrigation needs for subsistence agriculture cultivation. Catchment tanks will be necessary for those lessees who choose to build a house on their lot or want to provide for back-up or supplemental irrigation water for their crops. The average cost for materials to construct a 12,000-gallon water catchment system is \$4,000; for a 10,000-gallon water catchment system is \$3,500; and for a 2,000-gallon water catchment system is \$1,500.

The actual size of each water catchment system will depend on the use intended by each lessee (residential, crop irrigation). For irrigation purposes, water demand will depend upon the type of crop grown, the land area cultivated, and the type of irrigation method. DHHL will also instruct its agricultural extension agent to provide information to lessees on the dangers of rat lungworm disease and how to prevent it. These types of details can be developed between the lessee and the agricultural extension agent assisting them.

Lessees who wish to sell produce may need to comply with the Food Safety Modernization Act (FSMA), which requires a higher quality of water than catchment tanks may be able to provide. If there are enough lessees selling produce, the Honomū Subsistence Agricultural Homestead Community may choose to develop a potable water system, and/or other agricultural support facilities. Until that time, lessees requiring those types of water systems and facilities will need to secure access to existing facilities in the area. As long as DHHL funds an agricultural extension agent, that agent will provide technical assistance with complying with FSMA and may also be able to assist with connecting lessees with existing agricultural support facilities, such as processing centers. If a DHHL agricultural extension agent is not available, assistance may be sought from CTAHR agricultural extension agents not dedicated specifically to DHHL.

Although the project is adjacent to streams, stream diversions<sup>4</sup> are not recommended as a water source for either agricultural irrigation or domestic consumption due to the complex permitting and regulatory approvals that would be necessary. At the very least, an amendment to the Interim Instream Flow Standards, a Stream Diversion Works permit, and perhaps a Stream Channel Alteration Permit would be needed before a diversion could be constructed. The regulatory process would take many months, if not years to complete.

---

<sup>4</sup> The State defines a “stream diversion” as “the act of diverting, pumping or otherwise removing water from a stream into a channel, ditch, pipeline, or other conduit” (Hawai‘i Administrative Rules §13-168-2).

#### 1.4.4 Wastewater System

Wastewater disposal will be the responsibility of each subsistence agriculture lessee. Subsistence agricultural lots that have a residence ~~are expected to~~ will need wastewater disposal facilities ~~and not every lessee is expected to build a house.~~ DHHL will coordinate with the State Department of Health (DOH) to determine the appropriate wastewater requirements for the project and will provide guidance to lessees that wish to construct wastewater disposal systems. The most common type of Individual Wastewater System (IWS) is a septic system. The average cost for materials and installation of an IWS to serve a 3-bedroom residential home is \$8,000.

Lessees that do not construct a residence may also choose to construct or obtain restroom facilities to service their agricultural lots. Commercial farms are required to have access to restroom facilities but those cultivating crops for in-home consumption may also choose to have a restroom available. Various options are available, including mobile trailers and camping toilets. Lessees may discuss the appropriate facility with DHHL's agricultural extension agent or other publicly available entity or program that provides agricultural education.

#### 1.4.5 Solid Waste

Solid waste disposal will be the responsibility of each lessee. Green waste recycling will be encouraged.

#### 1.4.6 Electrical Power

Electrical power will be provided by DHHL via overhead electrical lines along internal roads.

#### 1.4.7 Communications

Communications, such as telephone and internet service, will be the responsibility of each lessee.

### 1.5 Programmatic Supports

DHHL provides case managers to assist lessees with understanding the requirements of their leases and maintain compliance. DHHL staff meets with each lessee to understand their needs and desires for their lot and works with them to develop a strategy to meet lease requirements within that context.

DHHL also has a University of Hawai'i College of Tropical Agriculture and Human Resources agricultural extension agent on staff to work exclusively with its Hawai'i Island agricultural lessees on a long-term basis. This extension agent is already developing basic educational programs and will meet with lessees to be able to tailor future training to what is needed by lessees. Topics may include crop selection, local markets, agricultural practices, irrigation methods, and food safety.

## 1.6 Preliminary Implementation Schedule and Costs

Implementation of Phase I is expected to begin in ~~early 2019~~ 2020 and will include about 15 subsistence agriculture lots on the northwestern portion of Parcel 11 (north tract, near 'Akaka Falls State Park). This location was selected for Phase I to take advantage of the already cleared land and the internal roads that are in relatively good condition. Additionally, the soils are fertile, as demonstrated by the current cultivation of diversified vegetable crops currently being grown. There is no existing valid lease or license on this area and any impacts would only be observed by those who travel to the very end of 'Akaka Falls Road, as opposed to other locations on the DHHL property that are more visible.

Phase I is purposely designed to be small to work through the process of designing for this particular site. Any lessons learned from this Phase I will inform the design and implementation of subsequent phases. The number, timing, and size of each phase will depend upon engineering master planning, permits and approvals, construction financing, and infrastructure development, but DHHL will work toward awarding the final increment of leases by 2032.



*This page intentionally left blank*

## 2 AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This chapter describes the natural, man-made, and social environment; the potential impacts that may result from implementation of the Project; and measures proposed to mitigate those impacts.

### 2.1 Climate

The climate in the project area is similar to other inland areas in the South Hilo region, which is characterized as tropical rainforest, experiencing high rainfall with a mean annual rainfall at approximately 5,200 millimeters (205 inches) according to Giambelluca et al. (2013). The dominant winds in the area are northeast trade winds, with occasional southerly winds that carry volcanic haze or VOG into the area (Juvik and Juvik, 1998).

#### *Potential Impacts and Mitigation Measures*

The proposed project is not anticipated to have a significant impact on climate.

### 2.2 Geology and Topography

The project area is located approximately 1.7 to 5.3 kilometers (1.1 to 3.3 miles) inland of the northeastern coastline of the island of Hawai‘i at an elevation between 122 and 381 meters (400 to 1,250 feet) above mean sea level. The overall project site is relatively flat with an overall slope of around 2 percent. Several stream gulches and natural drainages cut through the property, the most substantial of which are the Pāhe‘e Stream and Honomū Stream gulches. Lands in between the gulches are open plateaus used for agriculture, both historically and currently.

The project area mostly crosses volcanic flows from Mauna Kea ranging from 64,000 to 300,000 years in age. A small area in the southeastern section of the project area crosses a younger flow of 11,000 to 64,000 years old, also from Mauna Kea. These flows are topped with a thick layer of volcanic ash from the Kohala and Mauna Kea Volcanoes (USGS-HVO: 2009). The soil from this volcanic ash is highly productive for farming.

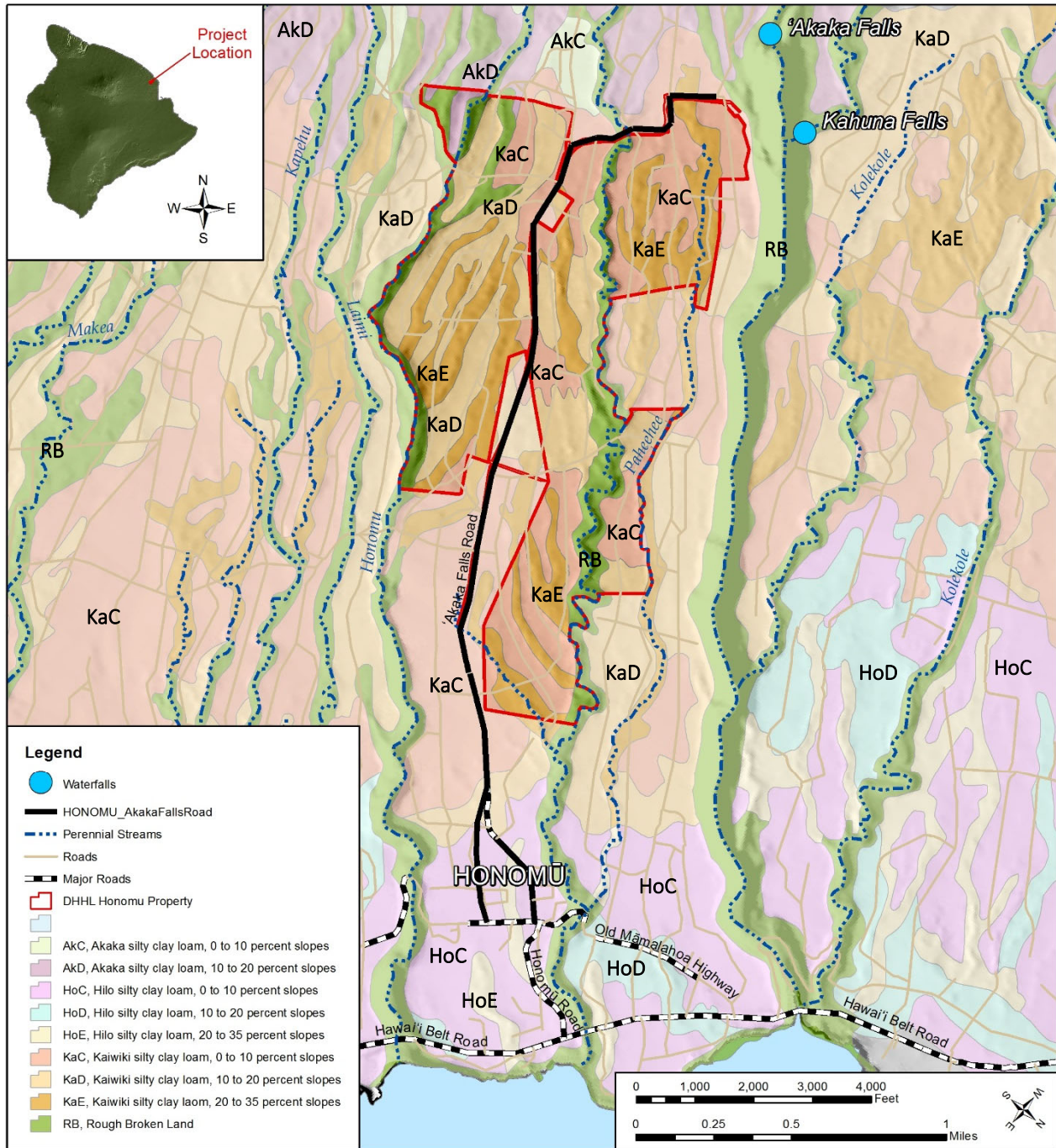
According to the U.S. Department of Agriculture Soil Survey Geographic database (2001) and a soil survey gathered by Sato et al (1973), the soils in the project area consist of Kaiwiki silty clay loam, Akaka silty clay loam, and Rough Broken land. Kaiwiki silty clay loams (KaC, KaD, KaE) are well-drained silty clay loams with medium to high runoff and moderate permeability that formed in a series of layers of volcanic ash. These clay loams have a banded appearance, are found low on the windward slopes of Mauna Kea, and have historically been used to grow sugarcane.



Figure 2-1 Honomū Soils and Streams



## HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



There are some small areas of Akaka silty clay loams (AkD) located in the southwest corner of the project area. They are roughly the same age as the younger Mauna Kea lava flows. They are moderately well-drained and range from gently sloping to steep soils found in the uplands. This clay loam is formed from volcanic ash, and is suitable for pasture, woodland, wildlife habitat and watershed usage. Sugarcane in small quantities may be grown in this soil in areas that are transitional to Kaiwiki soils. This soil is very permeable, has slow runoff, and has slight risk to erosion hazard. Roots can penetrate this soil to 5 feet depth or more.<sup>5</sup>

Rough broken land (RB) is a miscellaneous land type that is found along the gulches with a slope between 35 to 75 percent. It is made up of steep and precipitous land that is broken up by intermittent drainage channels. It can be used for pasture, woodland, wildlife habitats and recreation areas (Sato et al. 1973:51).

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. Impacts will be low because the gentle slopes within the property are anticipated to require minimal grading and steep gulches and ravines will be protected as conservation lands.

The project area was traditionally used for subsistence agriculture by the native inhabitants and was later used for commercial sugar production. As the proposed project is a subsistence agricultural community, the impact on the soil is anticipated to be less intensive than the commercial agricultural operations that previously dominated the area.

All activities as a part of the proposed project shall comply with the requirements of the Hawai'i County Code, Chapter 10 on Erosion and Sedimentary Control. The proposed action will follow Best Management Practices (BMPs) to minimize erosion and sedimentation that may result from site preparation activities. Additionally, DHHL is consulting with the Soil and Water Conservation District to prepare a Master Drainage Plan that will address BMPs for the comprehensive protection and enhancement of the natural drainages within the project area.

~~There do not appear to be any hazardous materials in the project area, but in response to comments from the State DOH, a Phase I Environmental Site Assessment (ESA) is being conducted to identify whether recognized environmental conditions exist in the project area and to recommend further action, if any are found. [Please see Section 2.15 Hazardous Materials]~~

---

<sup>5</sup> Sato, H.H., W. Ikeda, R. Paeth, R. Smythe, and M. Takehiro, Jr. (1973) *Soil Survey of the Island of Hawaii, State of Hawaii*. U.S. Dept. of Agriculture, Soil Conservation Service in cooperation with the University of Hawai'i Agricultural Experiment Station.

## 2.3 Hydrology and Drainage

### Surface Water

There are three perennial streams that are located near the project area (**Table 2-1**). Kolekole Stream is located along the northern end of the project area, Pāhe‘e Stream flows through the center of the northern parcel, and Honomū Stream is located to the south (**Figure 2-1**). Each of these streams have been listed by the National Park Service as candidates for designation as a Scenic River under the National Wild and Scenic Rivers Act of 1968 which is meant to “preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations.”<sup>6</sup>

**Table 2-1 Honomū Streams**

Stream Name	Length (miles)	(Date) and Reason Identified as a Candidate for Designation as a Scenic River	<u>Existing Permits on Non-DHHL Lands in the Vicinity of the Project Site*</u>
Kolekole <sup>7</sup>	12	(1982) Contains the State’s highest waterfall, ‘Akaka Falls, which is 420 feet in height.	Stream Diversion Works Permit issued for water drawn from the Kolekole Spring or ‘Akaka Falls Spring to supply the County of Hawai‘i Department of Water Supply Honomū Water System. This system contains a 0.1 million gallon reservoir tank located mauka of the Honomū community. <sup>8</sup>
Pāhe‘e Stream <sup>9</sup>	29	(1995) Contains a diverse population of sensitive native aquatic species.	N/A
Honomū <sup>10</sup>	8	(1995) Contains a diverse population of sensitive native aquatic species, more specifically the presence of the endemic ‘o‘opu ‘alamo‘o ( <i>Lentipes Concolor</i> ).	After-the-fact Stream Channel Alteration Permit (SCAP) issued for TMK 2-8-011:005 for a stream intake used to wash farm equipment, with a maximum yield of 100 gpd. <sup>11</sup>

\*There are no existing stream permits associated with the Project Site.

<sup>6</sup> <https://www.rivers.gov/wsr-act.php>

<sup>7</sup> NPS (National Park Service, U.S. Department of the Interior) (1995) Nationwide Rivers Inventory, Hawai‘i Segments. URL: <https://www.nps.gov/subjects/rivers/hawaii.htm>

<sup>8</sup> [http://www.hawaiidws.org/7%20the%20water/wateruseplan/HWUDP%20Chapter%20802\\_Final.pdf](http://www.hawaiidws.org/7%20the%20water/wateruseplan/HWUDP%20Chapter%20802_Final.pdf)

<sup>9</sup> NPS (National Park Service, U.S. Department of the Interior) (1995) Nationwide Rivers Inventory, Hawai‘i Segments. URL: <https://www.nps.gov/subjects/rivers/hawaii.htm>

<sup>10</sup> NPS (National Park Service, U.S. Department of the Interior) (1995) Nationwide Rivers Inventory, Hawai‘i Segments. URL: <https://www.nps.gov/subjects/rivers/hawaii.htm>

<sup>11</sup> [http://www.hawaiidws.org/wp-content/uploads/2018/06/HWUDP-Chapter-802\\_Final.pdf](http://www.hawaiidws.org/wp-content/uploads/2018/06/HWUDP-Chapter-802_Final.pdf)

## Ground Water

The project site is located over the Hakalau Aquifer System Area (ASYA) that extends from Pepeʻekea Point to Nahiwa Point along the coast and reaches up to the summit of Mauna Kea. It has the highest sustainable yield, 150 million gallons per day, of the four ASYAs located within the East Mauna Kea Aquifer Sector Area<sup>12</sup> and it is not a ground water management area, as designated by the State Commission on Water Resource Management.

## Potential Impacts and Mitigation Measures

### Surface Water and Drainage

The proposed project will have mitigable impacts upon the environment. The County requires that no net increase in runoff from the 10-year design storm be discharged from any construction project or new development. The Project will ~~meet~~ exceed this requirement by developing and implementing a master drainage plan that accommodates at least the 25-year storm setting aside property for storm water retention basins, or similar storm water management methods on each lot. Storm water retention is being designed into all subsistence agricultural lots in Phase I of the project and the need for storm water management within each lot will be re-evaluated in subsequent phases. Should concerns regarding excessive runoff or non-point source pollution arise, lessees would be responsible for any corrective action as prescribed by the County and/or State Department of Health, as would be the case for other land users. Grassed swales or other controls will be utilized to manage and convey runoff generated from the internal roads, while maintaining the rural character of the region.

Grading and subdivided lot layouts will consider the existing streams, drainageways, and system of culverts as much as possible to maintain the existing drainage pattern throughout the project site. All grading work will be in accordance with Hawaiʻi County Code Chapter 10, Erosion and Sedimentation Control. Grading plans will incorporate temporary and permanent Best Management Practices (BMPs) as a means of erosion control. BMPs are utilized to protect neighboring properties, downstream areas, and natural and constructed drainageways from sediment and pollution transported via storm water runoff and to stabilize graded earth so that erosion does not occur after grading operations. Some typical examples of BMPs include mulching and grassing, matting, sedimentation basins, silt fences and sediment control logs

On-site surface water retention sites will be recommended on each agricultural lot and surface water retention/detention sites have been set aside near major drainages to collect and hold stormwater runoff. For example, a roughly 13-acre site in the makai (eastern) part of Parcel 9 (south tract) has been designated as Special District for storm water management , if needed. DHHL is also consulting with the Soil and Water Conservation District to prepare a Master Drainage Plan that will develop BMPs to address runoff for the Project as a whole. In addition to

---

<sup>12</sup> [http://www.hawaiidws.org/7%20the%20water/wateruseplan/HWUDP%20Chapter%20802\\_Final.pdf](http://www.hawaiidws.org/7%20the%20water/wateruseplan/HWUDP%20Chapter%20802_Final.pdf)



addressing surface water runoff, the Master Drainage Plan will also address erosion and polluted runoff control through BMPs. DHHL will divide the site into smaller drainage areas and design retention/detention basins, cutoff ditches, and culverts to accommodate runoff generated by the project at a cost range of \$4 - \$8 million. All drainage plans must be approved by the County Planning Department before subdivision is allowed, assuring compliance with regulations. DHHL proposes to not only meet, but exceed, County drainage standards by designing for the 25-year storm, rather than the 10-year design storm required by County Code.

Traditional flood attenuation methods that meet regulatory requirements may be possible in areas near the streams. One such area is located in the southwest portion of the project and is designated as Conservation. While most of the streams are located within steep gulches, Honomū Stream is accessible here. The land adjacent to the stream will be utilized as part of a watershed approach to managing water flow.

### Ground water

The proposed project will have no significant impacts upon the environment. The Project will consist primarily of agricultural uses, which will ~~keep much of it in~~ maintain the pervious nature of most of the lands surfaces. This, along with on-site surface water runoff detention/retention features, will promote continued infiltration of water into the aquifers. Additionally, DHHL will coordinate with the DOH to ensure that wastewater disposal systems comply with appropriate regulations. No cesspools will be allowed.

## 2.4 Air Quality and Noise

Air quality in the Honomū area is listed as “Level – Good” on the Air Quality Index (AQI) provided by the Hawai‘i Department of Health, Environmental Health Division. This level means that air quality is considered satisfactory, and air pollution poses little to no risk.<sup>13</sup> The Project area is surrounded by agricultural and residential uses. Dozens of vehicles travel on ‘Akaka Falls Road on a daily basis. Noise levels in this area are fairly low and are associated with agricultural operations and vehicles traveling along the highway.

### *Potential Impacts and Mitigation Measures*

The proposed project will have mitigable impacts upon the environment. ~~Short-term~~ Impacts on air quality and noise will result from construction vehicles traveling to and from the Project site, as well as from fugitive dust during site preparation and construction activities, and agricultural operations. In a Pre-Assessment Consultation letter, the DOH Environmental Planning Office recommended coordination with the Clean Air Branch to ensure compliance with and regulations associated with fugitive dust emissions and coordination with the Indoor and Radiological Health Branch regarding any noise permits that may be needed.

---

<sup>13</sup> [https://www.airnow.gov/index.cfm?action=airnow.local\\_city&zipcode=96728&submit=Go](https://www.airnow.gov/index.cfm?action=airnow.local_city&zipcode=96728&submit=Go)



Dust control measures will be employed in compliance with applicable State and County regulations, including HAR §11-60.1-33 and Chapter 10 of the Hawaii County Code (*Erosion and Sedimentation Control*). Some typical measures recommended by HAR §11-60.1-33 are provided below. The typically wet climate of Honomū will assist in controlling fugitive dust.

- Application of water or suitable chemicals to control fugitive dust
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials
- Covering all moving, open-bodied trucks transporting materials which may result in fugitive dust
- Conducting agricultural operations, such as tilling of land and the application of fertilizers, in such manner as to reasonably minimize fugitive dust
- Maintenance of roadways in a clean manner
- Prompt removal of earth or other materials from paved streets which have been transported there by trucking, earth-moving equipment, erosion, or other means.

Regarding noise, DHHL will coordinate with the DOH Indoor and Radiological Health Branch to determine the need for a noise permit and to establish best practices to minimize any excessive noise impacts during site preparation and construction. The project buffer along 'Akaka Falls Road will provide additional protections from noise and dust associated with future agricultural and other land uses by lessees.

## 2.5 Biological Environment

A team of biologists from Geometrician Associates, LLC spent five days at the Honomū project site conducting biological surveys of the area. All portions of the property were investigated, with the exception of the interior of gulches, which will be preserved as a part of the buffer zones for the proposed project.

### Flora

The Project site can be classified as lowland and wet forest with dominant species of vegetation likely being 'ōhi'a trees (*metrosideros polymorpha*), uluhe fern (*Dicranopteris linearis*), and hāpu'u fern (*Cibotium spp.*). Because this area has a long history of intensive cultivation, there are almost no traces of original vegetation at the site today. Similar to other locations along the Hāmākua coast, much of these habitats are dominated by non-native species, with just a few widespread native species present in certain areas of the site.

Some other native species of vegetation that occur in these habitats include: neneleau shrubs or trees (*Rhus sanwicensis*), kōlea trees (*Myrsine lessertiana*), and hau trees (*Hibiscus tiliaceus*). In addition to the hāpu'u and uluhe ferns, other native ferns such as Cretan brake (*Pteris certica*),

kikawaiō (*Cyclosorus cyrantheoides*), hō‘i‘o kula (*Cyclosorus sanwicensis*), pākahakaha (*Lepisorus thunbergianus*), wahine noho mauna (*Adenophorus tamariscinus*), and pala‘ā (*Sphenomeris chinensis*) among others can be found on the site. **Table 2-2** describes the dominant vegetation found in the various areas observed during the survey.

## Fauna

Hawai‘i’s only native land mammal is the endangered Hawaiian hoary bat, which can be found throughout Kaua‘i, Maui, O‘ahu, and Hawai‘i islands. They roost in native and non-native trees alike, and often forage in areas like the border between forest and pasture lands, forest road corridors, streams, bays, and inlets. ~~No~~ While no bats were observed during the survey, ~~but~~ it is assumed that bats ~~are~~ could be present in the area.

The only native species of bird that was observed was a pair of endangered Hawaiian hawks that were seen circling for a period of ten minutes during the mid-day in the southwestern corner of the property. No ‘amakihi or other native forest birds were seen or heard.

The faunal survey of the project site consisted of an opportunistic survey to document all observed species observed through sight and sound throughout the property. **Table 2-3** describes the types of animals that were observed in the project area.

## Potential Impacts and Mitigation Measures

The proposed project will have mitigable impacts upon the environment. These lands have a long history of intensive cultivation and there are almost no traces of original vegetation at the site today, which is dominated by non-native species of vegetation in the farm and pasture areas designated for subsistence and supplemental agriculture, commercial activities, and community use, with just a few widespread native species present. Invasive species such as albizia and strawberry guava will be cleared as each project phase is prepared is for leasing. DHHL welcomes recommendations for removal from DLNR, the State Department of Agriculture, and area residents who have already removed albizia from their properties.

Intensified farming and agriculture in upland areas does have the potential to affect water quality in streams and gulches, which could impact the native species that rely on these resources. However, it was noted that stream biota was still relatively intact, even when the intensive sugar plantations were in operation. The proposed subsistence agricultural subdivision would operate at a less intense scale than the previous sugar plantations. Additionally, existing buffers along gulch edges, streams, and major tributaries would be maintained, and in some areas, widened, thus providing even more protection for waterways. A Master Drainage Plan will be developed to further identify and implement BMPs to reduce erosion and runoff and DHHL will provide an agricultural extension agent to work with lessees on appropriate BMPs to minimize erosion and runoff.

Table 2-2 Main Vegetation Types Observed in Honomū

Area	Dominant vegetation
Active and Fallow farmland	Crops, weedy grasses, sedges, herbs, ferns and low shrubs.
Dense secondary forest	Dominated by invasive albizia trees ( <i>Falcataria moluccana</i> ).
Gulch margins & riparian areas	Variety of invasive trees and shrubs, along with some native species (uluhe fern, tree ferns, neneleau and hau trees).
Gulches	Invasive trees (rose apple and strawberry guava), native ferns, herbs and in a few locations native trees (‘ōhi‘a and kōlea).
Partially forested pastureland	Invasive trees: albizia, strawberry guava ( <i>Psidium cattleianum</i> ), <i>Ardisia</i> spp., alexander palm ( <i>Archontophoenix alexandrae</i> ), <i>Melochia umbellata</i> and African tulip ( <i>Spathodea campanulata</i> ) Diverse grasses: Guinea grass ( <i>Megathyrsus maximus</i> ), Lyon’s grass ( <i>Themeda villosa</i> ), Hilo grass ( <i>Paspalum conjugatum</i> ) and remnant sugarcane ( <i>Saccharum officinarum</i> ) Native plants: neneleau trees, hāpu‘u fern, and uluhe fern. Warabi ferns ( <i>Diplazium esculenta</i> ), and several other invasive species of herbs, shrubs and trees including <i>Clidemia hirta</i> , <i>Miconia calvesens</i> , <i>Hyptis pectinate</i> , <i>Desmodium</i> spp., and <i>Indigofera suffruticosa</i> .
Southwest corner (steep area of land between two tributaries of the Honomū Stream)	Uluhe fern, other native ferns, non-native trees, shrubs, herbs and a some of the few ‘ōhi‘a on the property

Table 2-3 Main Faunal Types ~~Observed~~ in Honomū

Type of Fauna	Observation / Description
Non-native birds	Japanese white-eye, red-billed leiothrix, cattle egret, house finch, northern cardinal, yellow-billed cardinal, common myna, spotted dove, zebra dove and peacocks
Native birds	Hawaiian hawk
Native mammals	No Hawaiian hoary bats observed, <u>but bats are presumed to be present in the area</u>
Non-native mammals	Feral pigs, mongooses, feral cats, (feral) dogs, several species of gecko lizards, and coqui frogs

The Hawaiian hoary bat is vulnerable to habitat loss, pesticides, predation, snagging in barbed wire, and roost disturbance. Roost disturbance most likely occurs when there is clearing, grubbing, or trimming of tall, woody vegetation when female bats carrying pups are less able to vacate roosts quickly during disturbances. They also will leave their pups unattended in their roost while they forage, which could leave them vulnerable if that tree is being felled.

Approximately 17 acres in the southwestern corner of the Project site is dominated by non-native species, but there is extensive growth of the native uluhe fern and this area also contains most of the ‘ōhi‘a trees found on the project site. Other species of native vegetation can be found in the gulches in this area and there is potential for the restoration of native plant and animal habitats in this location. The gulches and this area will be preserved as conservation. DHHL will also provide the following guidance to lessees and construction and maintenance contractors and staff:

- Avoid clearing vegetation that is taller than fifteen feet during Hawaiian hoary bat pupping season (from June 1 to September 15), to the extent practical.
- Do not use barbed wire for fencing to protect Hawaiian hoary bats from getting snagged.
- Restrict earthmoving or tree cutting during Hawaiian hawk breeding season (from March through September). If this time period cannot be avoided, then a hawk nest search should be conducted by a qualified biologist prior to the start of these restricted activities. If this nest search discovers any in or near the project site, then all land clearing activity will cease until the end of the breeding season.
- Restrict construction lighting or unshielded equipment maintenance lighting will be used after dark between the months of April and October to prevent potential impacts on nocturnally flying seabirds, which can become disoriented by exterior lighting. All permanent lighting will be shielded in compliance with the Hawai‘i County Outdoor Lighting Ordinance, which reduces ambient glare caused by unshielded lighting.

In a Pre-Assessment Consultation letter, the DOH Environmental Planning Office informed DHHL that Title 11, HAR, Chapter 11-26, "Vector Control" requires that the Project *"shall ascertain the presence or absence of rodents on the property. Should the presence of vectors be determined, the applicant shall eradicate the vectors prior to clearing the site."* DHHL will coordinate with DOH on the appropriate measures to comply with this rule.

## 2.6 Natural Hazards

Hawai‘i Island is subject to various natural hazards, such as flooding, wildfire, volcanic hazards, and earthquakes. The vulnerability of the Project site to such hazards is described below.

### Flood Hazard Risk

The Federal Emergency Management Agency identifies the entire Project area as within Flood Zone X (unshaded) in its Flood Insurance Rate Maps, which are used to determine the risk of damage due to flooding. Zone X (unshaded) is determined to be outside the 500-year flood zone, a with minimal risk of flooding.

### Wildfire Hazard Risk

The State Department of Land and Natural Resources Division of Forestry and Wildlife identified the Project area as in the “N/A” zone for risk to wildfire hazards.<sup>14</sup> The land located to the north and makai of the project area is classified as “low” risk to wildfire hazard (**Figure 2-2**).

### Lava Flow Hazard Risk

The Project area is located within Zone 8 of the Lava-Flow Hazard Zones for the Island of Hawai‘i, which is one of the lowest risk zones for lava hazards. There are nine Zones identified, with Zone 1 being the most at risk to lava-flow hazards and Zone 9 being the least at risk. Zone 8 is identified as the remaining part of Mauna Kea volcanic area, with only a few percent of land in this zone having been covered by lava in the past 10,000 years.<sup>15</sup>

### Seismic Hazard Risk

Due to the active volcanoes located within the State, the main Hawaiian Islands are at risk for seismic activity. According to a USGS Map of the Seismic Hazard for the State, the Honomū area is located within the Seismic Design Category of D1.<sup>16</sup> This means that there is a probability that the area could experience very strong shaking. Damage to structures would be:

- slight for specially designed structures
- considerable for ordinary substantial buildings with partial collapse
- great in poorly built structures.

On April 26, 1973 Honomū experienced a 6.2 magnitude earthquake on the Richter Scale that originated at a depth of 25 miles below sea level. It injured 11 people and caused \$5.6 million of damage. This earthquake is thought to have been unrelated to volcanic activity. These types of earthquakes occur at irregular intervals.<sup>17</sup>

---

<sup>14</sup> Department of Land and Natural Resources, Division of Forestry and Wildlife, Fire Management Program, 2007 <http://files.hawaii.gov/dbedt/op/gis/data/FireRisk.pdf> (Retrieved 7/2/18.)

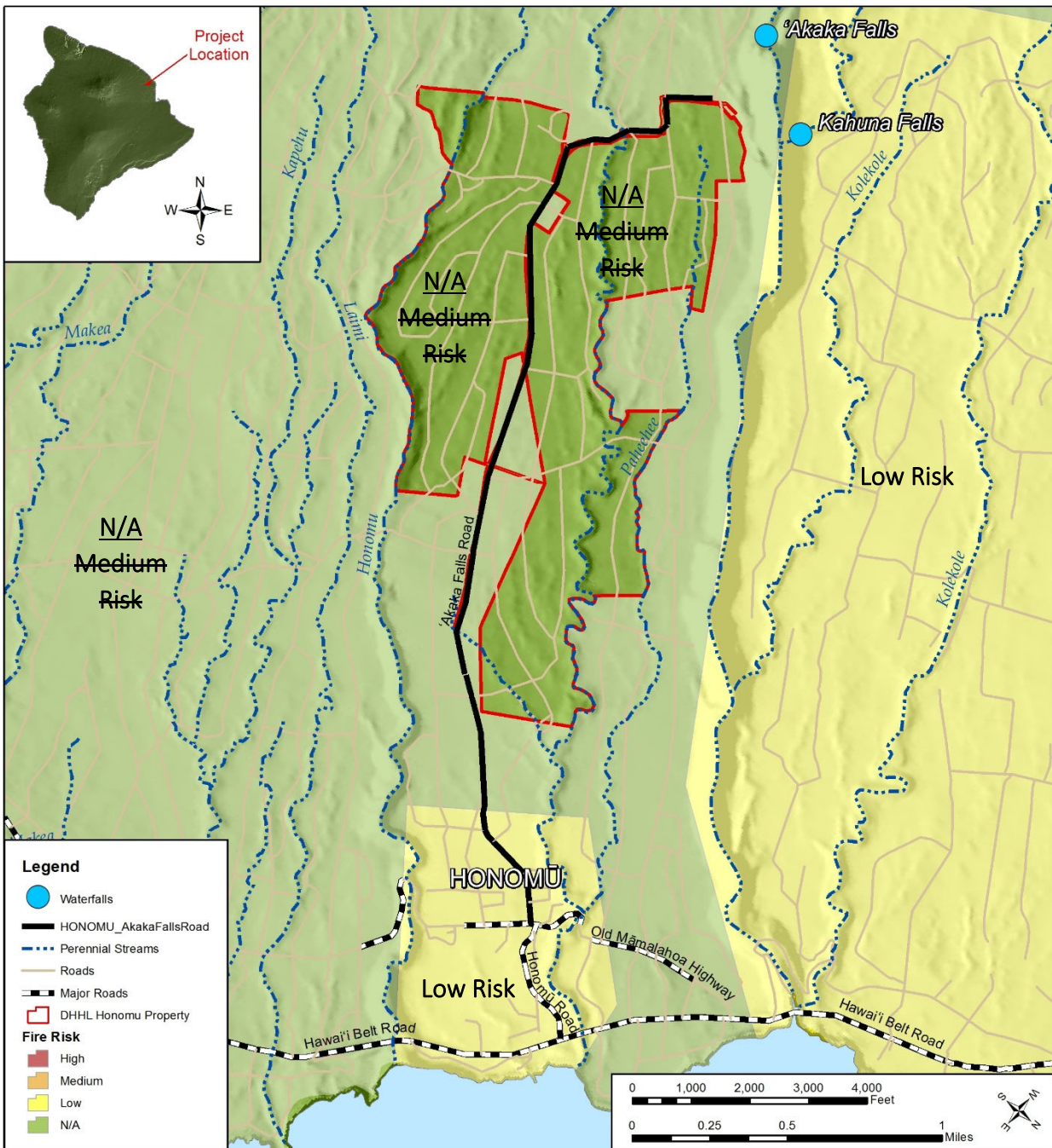
<sup>15</sup> U.S. Department of the Interior / Geological Survey (1991) Lava Flow Hazard Zone Maps [https://volcanoes.usgs.gov/observatories/hvo/hawaii\\_lava\\_flows.html](https://volcanoes.usgs.gov/observatories/hvo/hawaii_lava_flows.html) (retrieved 7/2/18).

<sup>16</sup> USGS Volcano Hazards Program. [https://volcanoes.usgs.gov/observatories/hvo/hazards\\_earthquakes.html](https://volcanoes.usgs.gov/observatories/hvo/hazards_earthquakes.html)

<sup>17</sup> Ibid.

Figure 2-2 Wildfire Risk

## HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



### ***Potential Impacts and Mitigation Measures***

The proposed project will have no impact upon the environment. The Project is outside the 500-year flood zone and will implement BMPs to minimize increased runoff from the property impacting downstream land uses.

The risk from wildfire is low due to the rainy climate and the presence of active farms will manage vegetation and increase the likelihood that a wildfire would be observed should it occur and be reported to the County Fire Department.

The risk from lava flows is low, but seismic activity is still a threat. Any structures built on the site will either be required to meet County Building Code or be certified by a licensed structural engineer or architect as meeting industry standards for health and safety.

## **2.7 Historic and Archaeological Resources**

Cultural Surveys Hawai'i conducted a Literature Review and Field Inspection (LRFI) of the Project site (**Appendix C**) to determine the likelihood that historic properties may be affected by the Project and based on the findings, consider cultural resource management recommendations. The report found that the majority of the Project area has been extensively modified by historic sugar cultivation and subsequent agricultural and ranching activities. No pre-Contact archaeological features were observed, although pre-Contact features may still be present within portions of the stream gulches that could not be accessed during the field inspection.

Historic transportation and sugarcane agriculture-related features were identified, such as 'Akaka Falls Road, Pāhe'ehe'e Mauka Bridge, unpaved cane roads, culverts, minor bridges, and plantation field berms. While no surface remains of the several known historic workers' camps were observed, associated subsurface deposits may still be present.

### **Early Historic Period**

The project area is located in the northern end of the district of Hilo known as Hilo-Palikū, or "Hilo of the upright cliffs." This area extended from Wailuku River to the Ka'ula Gulch and was the division between the district of Hilo and the district of Hāmākua to the north. This area was said to be dangerous because of the 'ōlohe, or skilled fighters and thieves that lived along these trails (Walker and Rosendahl 1994:4).

The project area was described in various reports and notes to have been in unirrigated agriculture, with crops including, at various times, dryland taro, bananas, kukui or candlenut, hala or pandanus, mountain apples, sweet potato, yams, breadfruit, paper mulberry, and sugarcane. King Kalākaua described the Hilo-Palikū area as having abundant rainfall and a fertile plateau, with high sea cliffs at the coast, and the impassable gulches.

Handy and Handy (1972) discuss scattered settlements built above streams that ran between the forested lands, with the population located mostly around the Hilo Bay area. Kalo was cultivated in terraces along the streams and gulches, including in Honomū Stream. (Handy and Handy 1972:538).

In 1823, Reverend William Ellis observed numerous deep ravines, fertile and populous uplands, and bold and rocky coastlines. The upland area was woody, though the trees were not very large. Open areas were filled with long grasses and luxuriant ferns and the houses that were visible from the sea were scattered singly around the cultivated areas. He observed cultivated crops of potatoes or taro in five or six-acre sections and large plantations of sugarcane and bananas. He also stated that the area appeared to be less populated than he had anticipated. (Ellis 2004: 321, 341-344, 352, 354-355).

Based on the observations of Rev. Ellis and with the use of modern environmental data, T. Stell Newman composed an ethno-historical study and map that defined indigenous Hawaiian land use patterns circa 1823. According to this information, the project area had low population density, dispersed coastal settlements, and scattered fields and gardens. No major field systems were described in this agricultural zone.

### **Mid- to Late-1800's**

The Original Belt Highway, also known as the Old Māmalahoa Highway, was reconstructed and mentioned in the 1898 report by the Minister of the Interior. (Hawaii Minister of the Interior: 1989:190). The Honomū Sugar Company established its headquarters northeast of the project area in Honomū. This sugar company was run by C. Brewer & Company until 1946 when the sugar mill was closed, and the operations were merged with Pepe'ekeo Sugar Company (Dorrance & Morgan 2000:98-99). The Pepe'ekeo Sugar Company was successful for 11 years, until it merged into the Mauna Kea Sugar Company in 1957. The Mauna Kea Sugar Company was formed out of what was once five independent plantations in the Hilo district. The company continued to be the sole sugar producer in the Hilo area until its close in 1994 (Dorrance and Morgan 2000:104).

### **1900's**

In 1905, Governor A.L. Atkinson established the Hilo Forest reserve, 110,000 acres of land mauka of the sugarcane plantations. The Board of Agriculture and Forestry conducted research and published a report that described the difficulty of building and maintaining roads as reasons against homesteads in the area. However, homesteads were ultimately approved because of the fair and arable lands, and because the deforestation needed to create the homesteads would have been limited and would not radically affect the forest reserve itself (Report to the Committee of Forestry 16 August 1904; reprinted in Maly and Maly 2006:153).



Approximately 24 homestead lots were established mauka of the Honomū Sugar Company lands. In nearby Laupāhoehoe, homesteaders would grow sugarcane under contract and sold the harvest to the local sugar company (University of Hawai‘i, Mānoa 2004). It is probable that a similar situation also took place in Honomū between the homesteaders and the Honomū Sugar Company.

### **Historic Bridges & Railroad Development**

In the 42.5-mile stretch of roadway from Hilo to Hāmākua in the north, there are 51 bridges built to cross the innumerable streams and gulches. A handful of historic bridges can be found near the project area (Alvarez 1987:2, 11). The Honomū Stream Bridge was built in the 1910s, though there is conflicting information that says that the bridge was built in 1935. Though originally a historic bridge, it was completely rebuilt in 2002 and therefore the structure that exists today is not considered to be a historic feature (MKE Associates, Fung Associates 2013: 6-237). The Pāhe‘e Stream Bridge, also called the Pāhe‘e Gulch Bridge, is a highway bridge that is a converted railroad trestle (Laupāhoehoe Train Museum 2009). This bridge is located makai of the project area along the Hawai‘i Belt Road/Route 19. It is one of a collection of six trestle bridges that are collectively assigned as State Inventory of Historic Places (SIHP) #50-10-16-9090 and added to the National Register of Historic Places, partially due to its ties to the historic railway (Alvarez 1987:131).

The historic rail line called the Hāmākua Division was constructed through this area to support the sugar mills outside of Hilo. This rail line was a 35-mile-long extension running north. The first phase of construction was the Hakalau Extension and it ran from Hilo town to Hakalau Gulch, just north of the current project area. It was along this extension that the Pāhe‘e Stream Bridge was built in 1911. This rail line followed the coastline makai of the government road in the Honomū area. This railway was washed away in the 1 April 1946 tsunami. The Hawaii Consolidated Railway Company decided against a costly rebuild. The Hawaii Territory highway division ultimately purchased the right-of-way and remaining bridges and constructed the Hawai‘i Belt Road/Route 19 in the 1950s.

### **Contemporary Land Use**

According to the 1966 USGS map and 1977 USGS Orthophoto, much of the plateau land in Honomū and Kūhūa was still under sugar cultivation at that time. Cane roads are present in the images, along with a few scattered structures. The bulk of the development was makai of the project area, near Honomū Village. The 1966 USGS map also indicates the site of ‘Akaka Falls State Park. Today, the project area is still in agriculture, with farm lands and pasture lands. Honomū Village is still the primary location of the residences in the area, with a handful of commercial properties near the village center. ‘Akaka Falls Road is frequented with tourists traveling to and from ‘Akaka Falls State Park and is the busier road in the area.

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. While no pre-contact surface remains were found, historic transportation and agriculture related features were identified. There is the potential for some pre-Contact features to be found in the gulch areas. In addition, historic-era transportation and sugar plantation remains may be found subsurface. The Project designates the gulches as conservation areas that are not to be developed, thus protecting any features that may exist. DHHL will continue to consult with the State Historic Preservation Division (SHPD) to determine what additional historic preservation work might be required, if any, including additional documentation of specific known features.

## **2.8 Cultural Resources**

A Cultural Impact Assessment (CIA) was prepared to identify cultural resources within the Project area, potential impacts to those resources as a result of the proposed project, and recommended measures to mitigate detrimental impacts. Background on the history of Honomū was provided by the archaeological LRFI conducted by Cultural Surveys Hawai'i and community consultations with kūpuna and kama'āina provided information on previous and current cultural resources and practices in the project area. The CIA may be found in **Appendix D**.

### ***Background on the Honomū Area***

1. The Project area is located in the ahupua'a (traditional land division) of Honomū ("silent bay") and Kūhua ("to thicken") in the district of Hāmākua on Hawai'i Island. Honomū and Kūhua are situated north of Hilo Bay in a region traditionally known as Hilo-Palikū, or "Hilo of the upright cliffs." The Hilo-Palikū region was "treacherous to travel through because of the many 'ōlohe (skilled fighters and thieves) who lived along the trails."
2. Mo'olelo (stories, oral histories) and wahi pana (storied places), such as 'Akaka, the "Legend of Ka-Miki," and the epic tale of Hi'iakaokapoliopele, are associated with the Project area, suggesting early settlement of the area by a viable Native Hawaiian population.
3. Early accounts depict the Project area as a fertile land with abundant water, many valleys and agriculture. The Hilo-Palikū area has been described as heavily cultivated and requiring no irrigation. Terraces were observed in Honomū for growing wetland taro.
4. 'Akaka Falls is a prominent waterfall adjacent to the Project area that is the source of many tributaries in Honomū. 'Akaka translates as "a rent, split, chink, separation; to crack, split, scale." 'Akaka is also referenced twice in the Legend of Ka-Miki, first as the skilled competitor and grandson of the chief Kūlanikapele, a counselor and 'ōlohe master who served the chief, Kolekole. The second reference to 'Akaka is as a waterfall.

5. During the Māhele, Honomū was granted to Keohokalole and Kūhua was granted to Kamamalu however, both chiefs relinquished their lands in commutation for lands elsewhere, thus both Honomū and Kūhua were retained by the government. The lack of Land Commission Awards (LCA) records awarded for Honomū or Kūhua, may suggest that there was less intensive indigenous Hawaiian land use within the Project area. Another conclusion for the lack of LCA records could be that the commutation of these lands by their konohiki left the makaʻāinana without support in the land claim process. Regardless of the reasoning, there exists no record of any LCA awarded to the people of these ahupuaʻa. However, 41 land grants were awarded by the Government in Honomū and 14 were awarded in Kūhua including land grants to the Honomu Sugar Company.
6. In 1880, the Honomu Sugar Plantation was established on 2,400 acres of land by M. Kirchoff & Company, with C. Brewer & Company, Ltd. as agent. Flumes extended from the upper region of Honomū which was interspersed with small-farm homesteaders growing cane, to the mill located at the coast.
7. In the early 1900s, a homestead of about 24 homes was established above the Project area. It was suggested that homestead settlement was part of efforts by the government to encourage plantation development.
8. Few archaeological studies have been conducted in the vicinity of the Project area and early studies focused on identifying heiau (pre-Contact places of worship) reported finding none in the Honomū vicinity, although there were reports of one heiau near Honomū School.
9. The pedestrian survey conducted for this Project's archaeological LRFI did not find any pre-Contact archaeological features within the Project area. However, numerous historic-era features associated with transportation and sugarcane agriculture, including roads, bridges, culverts, and berms, were identified and described in **Appendix C**.

### Community Consultations

TSI met with four kūpuna (elders) and/or kamaʻāina (Native-born) who participated in talk-story interviews for more in-depth contributions to the cultural impact assessment. The interviews were conducted from June 2017 through June 2018. However, one individual has since passed away, therefore, only three of the four interviews are included in this assessment. Interview summaries are provided in **Appendix D**. Community consultations indicate:

1. Honomū is bounded by Māmalahoa Highway or the Hawaiʻi Belt Road, Route 19, along the Hāmākua Coast, and extends to ʻAkaka Falls. One kūpuna thought that the name, Honomū, was associated with the many churches in Honomū but was not certain.
2. Honomū is a plantation town that grew around the Honomū Sugar Company when the sugar industry was prevalent on Hawaiʻi Island. Kūpuna remember that sugarcane was “everywhere” and characterized the Honomū landscape, including the Project area.

3. Honomū consisted of various plantation camps that provided free housing and water for plantation workers. Plantation Camps in Honomū that participants remembered included: Stable Camp, Camp 45, Camp 28, Camp 17, Camp 6, Camp 3, Railroad Camp, and Ka'akepa Camp. References were also made to a Chinese Camp and a Japanese Camp.
4. Workers at the sugar plantation in Honomū consisted predominantly of Filipino immigrants with smaller groups of Japanese, Chinese, and Puerto Rican workers and a few Portuguese, Hawaiians, and Pacific Islanders. "Everybody respected everybody's cultures and lifestyles [and] there was a lot of respect for each ethnicity."
5. Life in Honomū during the Plantation Era is described by participants as a tight-knit community where neighbors would share their food with each other. "Anything he'd [her father] bring back, like fish or pig, he would share with our neighbors and they would give us things from their garden in return. It was a real sharing community," one kupuna explained. Various events were held annually in Honomū Town that helped bring the community together, such as the annual Honomū Festival, Christmas Beauty Pageant, and Halloween Parade.
6. The Hawaiian population in Honomū was reported by kūpuna to be small. Comments by kūpuna included, "There wasn't a large Hawaiian community... It was mostly Filipino." "I don't remember any other Hawaiian families [in Honomū] until I was in middle school."
7. The previous and existing land use of the Project area was and continues to be agriculture: sugarcane production and cattle ranching, and more recently, the cultivation of food crops like ginger, taro, sweet potato, and pineapple.
8. Hunting, particularly for wild pigs, is a practice that continues to occur in the mountain areas above 'Akaka Falls and including the Project area. The pork meat is used to make sausages, smoke meat, and pasteles. It was felt that development has and will continue to push pigs out of the area and kūpuna felt that the proposed development will likely impact hunting practices in Honomū.
9. Several native fauna species were previously found in Honomū streams, such as 'ōpae, hīhīwai, and 'o'opu. Other species mentioned include mosquito fish, frogs, and freshwater prawns/crayfish. Though one individual thought that 'o'opu is no longer prevalent, 'ōpae and hīhīwai are considered to still exist. Kūpuna recalled catching frogs and introduced freshwater prawns from the rivers and streams for consumption.

10. The gathering of 'ōpae from the streams that flowed from 'Akaka Falls was a practice that used to occur within the Project area. "People used to get the 'ōpae for weddings and funerals and all the streams up to 'Akaka used to be used by the community for that." "We'd go up at night [to 'Akaka] to catch 'ōpae." However, the practice has declined with less access to streams due to new settlements and developments in Honomū, as well as the introduction of invasive freshwater prawns.
11. Kūpuna did not believe that there are Hawaiian cultural sites or heiau within the Project area. They felt that any sites that might have existed previously would have been destroyed by the agricultural practices of sugarcane cultivation and cattle ranching that occurred on the property.
12. 'Akaka Falls is an important landmark, situated adjacent to the Project area, with historical, cultural, ecological, economic, and spiritual value to the people of Honomū:
  - (i) 'Akaka, named for an 'ali'i with two mistresses, is associated with Hawaiian royalty, therefore, the site should be given a certain level of reverence;
  - (ii) 'Akaka Falls is attributed as the source of water for Honomū with various tributaries including Kolekole River, that flow into the ocean;
  - (iii) 'Akaka was a source of food, historically, and kūpuna recall the presence of 'ōpae, 'o'opu, frogs, prawns, and crayfish in the streams that were collected for consumption.
  - (iv) 'Akaka Falls was and continues to be a place of recreation for the local community who would often access the pools at the top of the waterfall for swimming;
  - (v) 'Akaka Falls is one of the main tourist attractions on the Hāmākua coast of Hawai'i Island. Though the waterfall is within a State Park, the site attracts many visitors to Honomū Town which boosts the town's economy;
  - (vi) 'Akaka is a special place that gives people life, hope, and a sense of forever, and a kupuna relayed that the memories of childhood experiences at 'Akaka make her happy.
13. Other distinguishing landmarks of the plantation era in Honomū include the Honomū Theatre, the Old Māmalahoa Highway and the historic buildings along the makai side of the road, remnant plantation camp houses, and the storage building of the Honomū Sugar Company along Highway 19.
14. Honomū was also known for its military and some military features, such as a bunker house that stored ammunition.
15. Agricultural theft and break-ins into tourist vehicles parked at 'Akaka Falls, is a common occurrence which led to the formation of a Neighborhood Watch program in Honomū, a volunteer community initiative to provide security at 'Akaka Falls.

16. Honomū Town has experienced numerous changes following the closing of the Honomū Sugar Company in the 1980s. Kūpuna explained that many newcomers have settled in Honomū and that many of the Hawaiian families have either passed or moved away. “Honomū today is very different. Now, newcomers don’t know the history and culture of the place. They try bring their own lifestyle and project that onto other people. That’s why it’s different.” Another kupuna noted that “Honomū is not as welcoming anymore... and now you need to lock your doors because there are so many thefts.”
17. All participants consulted for this Project perceived the proposed Honomū Subsistence Agricultural Homestead Community as a positive development that will bring many benefits to Honomū. “I don’t think it will be a problem,” said one kupuna. Participants identified potential positive impacts of the Project on Honomū and the larger community which include the following:
- (i) The focus on subsistence agriculture will be consistent with the past and present land use of the Project area for agriculture;
  - (ii) The Honomū Subsistence Agricultural Homestead Community might bring new projects that could benefit the Honomū community, for example, providing opportunities for local people to sell products to visitors such as at a Farmers’ Market, or allow the road-side sale of products along ‘Akaka Road.

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. The following cultural impacts and recommendations are based on a synthesis of all information gathered during preparation of this project. This assessment indicated that the Project area is located in an area previously developed for agriculture, therefore, many pre-existing archaeological sites might have been destroyed from sugarcane cultivation and cattle ranching. The most significant cultural impacts from the proposed project include: 1) the possibility of affecting practices that previously occurred on the property for subsistence, such as pig hunting and the gathering of ‘ōpae and freshwater prawns/crayfish from the rivers and streams; and 2) disturbing historic-era features associated with transportation and sugarcane agriculture.

All participants consulted for this Project perceived the proposed Honomū Subsistence Agricultural Homestead Community as a positive development that will bring benefits to Honomū and the larger community:

1. The focus on subsistence agriculture will be consistent with the past and present land use of the Project area for agriculture;

2. The Honomū Subsistence Agricultural Homestead Community might bring new projects that could benefit the Honomū community, for example, providing opportunities for local people to sell products to visitors such as at a Farmers' Market, or allow the road-side sale of products along 'Akaka Road.
3. The DHHL could leverage the visitor industry to generate funds for the Honomū Subsistence Agricultural Homestead Community by: 1) creating a parking lot on land adjacent to 'Akaka Falls State Park and charging visitors for parking, and 2) taking a certain percentage of profits made from the sale of roadside goods to visitors. Funds collected could be used for the development of the Honomū Subsistence Agricultural Homestead Community, such as infrastructure development, as well as paying for security guards to monitor the area and reduce the incidence of theft.

Therefore, the development of a Hawaiian Homestead that encourages subsistence agriculture will potentially increase the prevalence of Hawaiian cultural practices in agriculture in Honomū. Additionally, the potential influx of native Hawaiians into a town where the native Hawaiian population has been in decline, might bring back many Hawaiian cultural practices, beliefs, and values into the area. In the long term, this project might facilitate the revitalization of Hawaiian culture in Honomū.

To help mitigate the potential adverse impacts of the proposed Project on Hawaiian cultural beliefs, practices, and resources, the following measures will be implemented.

1. No burials were identified in the Project area. However, should cultural or burial sites be identified during ground disturbance, all work will immediately cease, and the appropriate agencies notified pursuant to applicable law. Kūpuna and/or lineal descendants from the Project area will also be consulted to ensure proper cultural protocol are addressed.
2. Consultation with SHPD will occur to determine the extent of historic preservation work required prior to the development of the proposed Project.
3. DHHL is willing to work with area residents to allow for access to traditional and customary practices, where possible. Streams and gulches will not be developed, and access may be negotiated.
4. Hunting on the Project site will not be allowed for public safety purposes, but access to a public hunting area mauka of the Project (Hilo Forest Reserve, Kaiwiki Section) will not be impeded by the Project.
5. DHHL requires that lessees of the Project actively cultivate their land. To ensure successful agricultural operations, DHHL ~~is~~ intends to continue providing lessees with a dedicated agricultural extension agent from the University of Hawai'i's College of Tropical Agriculture and Human Resources to assist DHHL agricultural lessees on Hawai'i Island in

planning for appropriate crops, agricultural methods, and resource conservation practices. Assistance may also be sought from CTAHR agricultural extension agents not dedicated specifically to DHHL, the local Soil and Water Conservation District, and non-profit entities, such as the Kohala Center.

6. Community members and organizations will continue to be briefed and consulted as the Project design progresses.

## 2.9 Viewplanes

The Project site is located along a gentle slope approximately one to three miles inland of the coast. Much of the region was previously under sugar cultivation and remains in agricultural open space, from the rural coastal towns generally located within a half-mile of Hawai'i Belt Road (also called Māmalahoa Highway or State Route 19) up to the forest reserve approximately five miles inland.

Views from the project site are generally of a line of trees on an adjacent property when looking South, trees along the Kolekole Stream to the North, the coastline and ocean when looking East, and the forest reserve when looking West. Mauna Kea may be seen in the distance from some locations. **Figure 2-3** provides views from the project site. **Figure 2-5** is a map that shows the general locations where the photos in **Figure 2-3** were taken.

Public views of the property are generally from 'Akaka Falls Road, which runs makai to mauka through the Project. Views are of pasture lands, trees, and tall grasses and shrubs. In the distance, the Pacific Ocean may be seen when looking makai and Mauna Kea when looking mauka. **Figure 2-4** provides views of the project site from 'Akaka Falls Road. **Figure 2-5** is a map that shows the general locations from where the views may be seen.

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. The Recommended Hāmākua Community Development Plan (January 2017) states among its values *"Our pristine landscapes and rich agricultural lands from mauka to makai, native forests to coastal waters, streams and watersheds, the sweeping views and open spaces are protected and enhanced."* The Project will alter the existing views of pasturelands as they are converted to DHHL homesteads, but the subsistence agriculture land use will be consistent with previous and current agricultural land uses.



**Figure 2-3 Views from the Project Site**



**Photo location 1**  
Looking south



**Photo location 2**  
Looking west (mauka)



**Photo location 2**  
Looking north



**Photo location 3**  
Looking east (makai)



**Photo location 4**  
Looking west (mauka)



**Photo location 4**  
Looking east (makai)



**Figure 2-3 Views from the Project Site (continued)**



**Photo location 4**  
*Looking south*



**Photo location 5**  
*Looking west (mauka)*



**Photo location 6**  
*Looking east (makai)*



**Photo location 7**  
*Looking north*



**Photo location 7**  
*Looking west*



**Photo location 8**  
*Looking north*



**Figure 2-4 Views of the Project Site**



**Photo location 9**  
Looking west (mauka)

**Photo credit: Google Street View**  
Image capture: September 2011



**Photo location 10**  
Looking east (makai)

**Photo credit: Google Street View**  
Image capture: September 2011



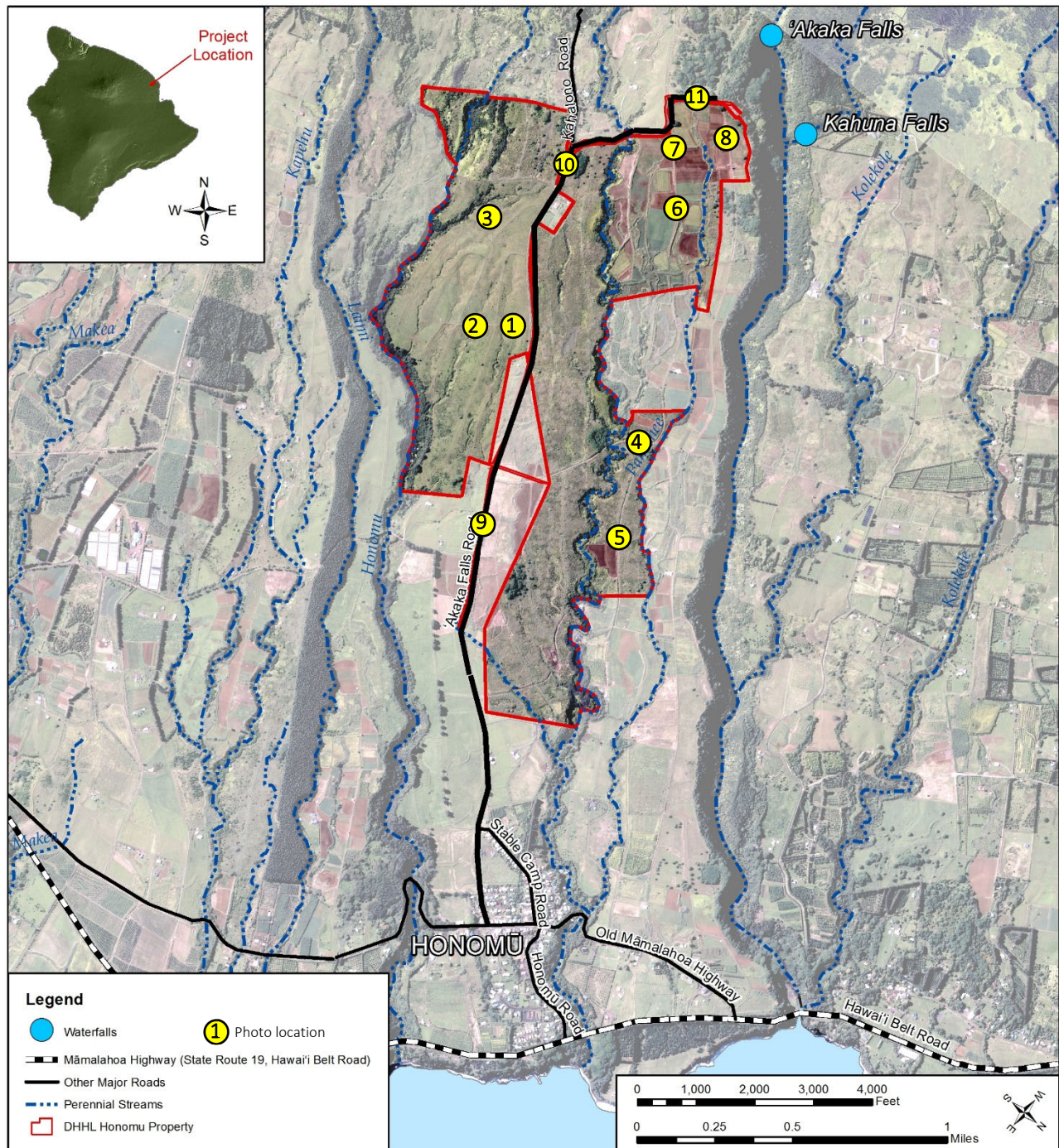
**Photo location 11**  
Looking east (makai)

**Photo credit: Google Street View**  
Image capture: September 2011



Figure 2-5 Location of Viewplane Photos

## HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



Single family homes may be built by lessees but no high-rise buildings will be allowed. Lot sizes will be smaller than in surrounding properties, but buffers along the streams, gulches, and makai portions of the property will keep over a third of the lands in conservation. Additionally, a 100-foot wide corridor will be maintained along most of 'Akaka Falls Road providing an open space buffer as one views the property from the road and conservation-designated lands will provide open space along the perimeter of nearly the entire project site.

## 2.10 Roads, Bridges, and Culverts

Access to the Project will be provided by 'Akaka Falls Road, State Highway 220, which extends from Honomū Village mauka to 'Akaka Falls State Park. Early maps from the 1900's show this road extending further mauka towards the former homestead lots but was later rerouted to provide access to 'Akaka Falls State Park. Presently, 'Akaka Falls Road is a two-lane asphalt road with a forty-foot right-of-way through most of the project area, with the exception of about one half-mile section near the mauka portion of the project, which has an eighty-foot right-of-way. ~~in the vicinity of the Project and a forty foot~~ The right-of-way is forty feet near Māmalahoa Highway. It has graded shoulders and associated drainage channels, signage and guardrails.

Within the project area there is an extensive network of historic-era cane haul roads. These were initially developed during the usage of the lands as a sugar plantation. The cane roads are typically dirt or grass dual-track roads with some gravelling in certain areas. They are typically five meters (approximately 16-17 feet) wide and are elevated earthen berms or sit flush with the surrounding ground surface.

Pāhe'ehe'e Mauka Bridge is the most prominent bridge within the project area. It is a two-span, concrete slab bridge that allows 'Akaka Falls Road to cross Pāhe'ehe'e Stream. Originally built in 1927 and rebuilt in 1973, some concrete slabs were observed in the stream gulch located makai of the bridge and are presumably remnants of the original construction left over from the rebuilding. There are two additional concrete, plantation-era bridges located along the cane haul roads in the interior of the Project site. All of the cane haul road bridges are overgrown with vegetation.

Two 36-inch culverts run under (perpendicular to) 'Akaka Falls Road, upstream of the Pāhe'ehe'e Stream Bridge. Seven additional culverts within the Project site allow for surface water to drain under cane haul roads.

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. DHHL will construct internal roads to service the Project. The old cane haul roads, bridges, and culverts will be evaluated for use by the Project and may be upgraded, realigned, or supplemented to achieve health and safety standards and service all lots. Where these features are upgraded or replaced,

DHHL will consult with SHPD to ensure the proper protocols are followed for historic-era features.

Internal roads will be designed to rural standards, as opposed to County subdivision standards. This means that maintenance of internal roadways will be the responsibility of DHHL unless and until roads are upgraded to County subdivision standards and dedicated to the County. DHHL may conduct maintenance using its own staff or it may contract this out to a vendor.

Intersections along 'Akaka Falls Road will be coordinated with the State Department of Transportation, which has jurisdiction over the State Highway. DHHL will comply with HDOT's request that access to the Project site off of 'Akaka Falls Road be designed as four-way intersections, where practicable. Additionally, no parking is allowed within the HDOT right-of-way along 'Akaka Falls Road. DHHL will design this project to not encourage parking within the HDOT right-of-way. The Project will use existing driveways, to the extent practicable.

## 2.11 Traffic

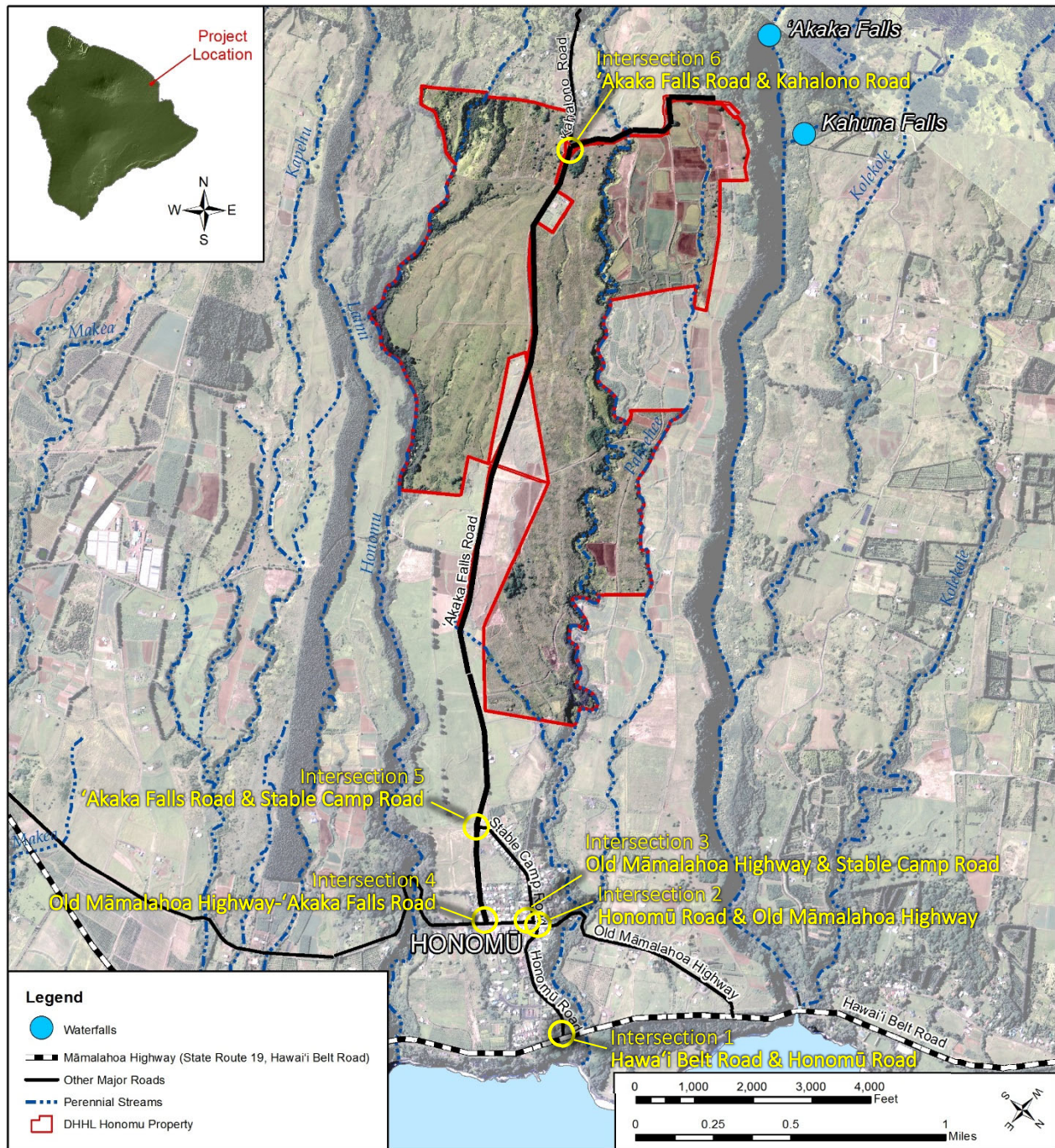
Access to the Project will be provided along 'Akaka Falls Road, which is accessed from Old Māmalahoa Highway, Honomū Road, and Māmalahoa Highway, also known as the Hawai'i Belt Road (State Route 19). To reduce confusion between Māmalahoa Highway and Old Māmalahoa Highway, this document will refer to Māmalahoa Highway as Hawai'i Belt Road. The Project straddles 'Akaka Falls Road (State Route 220), a two-way, two-lane collector road that starts at Old Māmalahoa Highway and ends at 'Akaka Falls State Park (**Figure 2-6**). It is stop-controlled at its Tee (three-way)-intersection with Old Māmalahoa Highway (**Intersection 4 in Figure 2-6**). Old Māmalahoa Highway is a two-way two-lane roadway that provides access to Honomū Town. It is stop-controlled at its intersection with Honomū Road (**Intersection 2 in Figure 2-6**).

Honomū Road is a two-way, two-lane collector road between Hawai'i Belt Road and Old Māmalahoa Highway. Honomū Road is stop-controlled at its Tee-intersection with Hawai'i Belt Road (**Intersection 1 in Figure 2-6**). It also intersects Old Māmalahoa Highway at an unsignalized Tee-intersection (**Intersection 2 in Figure 2-6**).

Hawai'i Belt Road (also known as Māmalahoa Highway and State Route 19) is a two-way, two-lane arterial highway that does not provide exclusive turning lanes at its intersection with Honomū Road (**Intersection 1 in Figure 2-6**). The posted speed limit on Hawai'i Belt Road in the vicinity of Intersection 1 is 55 miles per hour.



Figure 2-6 Honomū Roads and Intersections





## Existing Conditions

The following six intersections were evaluated for the Project: (1) Hawai‘i Belt Road and Honomū Road, (2) Honomū Road and Old Māmalahoa Highway, (3) Old Māmalahoa Highway and Stable Camp Road, (4) Old Māmalahoa Highway and ‘Akaka Falls Road, (5) ‘Akaka Falls Road and Stable Camp Road, and (6) ‘Akaka Falls Road and Kahalono Road. Turning movement traffic count surveys were conducted at the study intersections on April 11 - 12, 2017 during the peak periods of traffic, from 6:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM. Traffic count data may be found in **Appendix F**. The existing peak hour traffic occurred from 7:00 AM – 8:00 AM in the morning and 4:30 PM -5:30 PM in the afternoon.

**Table 2-4 Honomū Existing Peak Hour Traffic**

	Approximate AM Peak Hour Traffic <u>7:00 AM – 8:00 AM</u> in Vehicles Per Hour (VPH) Total for Both Directions	Approximate PM Peak Hour Traffic <u>4:30 PM – 5:30 PM</u> in Vehicles Per Hour (VPH) Total for Both Directions
Hawai‘i Belt Road	500 VPH	600 VPH
Honomū Road	90 VPH	180 VPH
Old Māmalahoa Highway	50 VPH	150 VPH
‘Akaka Falls Road (at Old Māmalahoa Highway)	28 VPH	100 VPH
‘Akaka Falls Road (at Kahalono Road)	10 VPH	80 VPH

During the existing AM and PM peak hour traffic periods, all intersections in the study area operated at a Level of Service of “A,” except at Honomū Road at Hawai‘i Belt Road during both the AM and PM peak hour traffic and southbound Old Māmalahoa Highway during PM peak traffic hour, which operated at LOS “B” (see Table 2-5 for descriptions of the Levels of Service).

The existing left-turn demand from northbound Hawai‘i Belt Road onto Honomū Road represents about 22 percent of the total northbound demand of about 350 VPH. The southbound traffic demand on Hawai‘i Belt Road was about 280 VPH. The existing afternoon peak hour traffic demands met the American Association of State Highway and Transportation Officials guidelines for an exclusive left-turn lane in the northbound direction of Hawai‘i Belt Road at Honomū Road.

**Table 2-5 Level of Service Descriptions**

LOS	Description	Acceptability
A	Control delay is minimal	Satisfactory
B	Control delay is not significant	Satisfactory
C	Stable operation. Queuing begins to occur.	Satisfactory
D	Less stable condition. Increase in delays, decrease in travel speeds.	Acceptable*
E	Unstable operation, significant delays	Worse than acceptable
F	High delays, extensive queuing.	Worse than acceptable

\* The Highway Capacity Manual, 6th Edition (HCM6), published by the Transportation Research Board defines six Levels of Service from the traveler's perspective, ranging from the best LOS "A" to the worst LOS "F." Hawaii County Code §25-2-46 Concurrency requirements state that "Acceptable level of service" means that the level of service of a transportation facility at the a.m. and p.m. peak hours is "D" or better. Intersection LOS is primarily based upon the average delay in seconds per vehicle.

### **Future Traffic Conditions Without the Project**

The Federal-Aid Highways 2025 Transportation Plan for the District of Hawaii (TPDH)<sup>18</sup> developed long-range travel forecasts for the island of Hawai'i. The TPDH forecasted traffic on Hawai'i Belt Road to increase at an average annual rate of 0.9 percent. This rate of increase was applied to the project area through 2035, when full occupancy of the Project is expected. Using this forecast, year 2035 AM and PM peak hour traffic volumes are expected to operate at satisfactory Levels of Service (LOS of "C" or better).

### **Potential Impacts and Mitigation Measures**

The proposed project will have mitigable impacts upon the environment. When the project is fully occupied, anticipated at year 2035, Honomū Road is expected to operate at LOS "D" during both the AM and PM peak hours of traffic at Hawai'i Belt Road. All other study intersections are expected to operate at a LOS of "C" or better.

The roadways within Honomū Village currently carry low volumes of traffic. While the Project is expected to generate relatively significant volumes of traffic during the AM and PM peak hours of traffic, the study intersections are expected to operate at acceptable Levels of Service, as defined by the Hawai'i County Code §25-2-46 Concurrency requirements.

<sup>18</sup> The TPDH was prepared for the State of Hawai'i Department of Transportation in cooperation with the County of Hawai'i Public Works, Planning, and Transit Departments in 2014.

As discussed, existing left-turn demand from northbound Hawai'i Belt Road onto Honomū Road met the American Association of State Highway and Transportation Officials guidelines for an exclusive left-turn lane in the northbound direction of Hawai'i Belt Road at Honomū Road. ~~While~~ Although this is an existing condition and not ~~an impact of the a Project impact~~, DHHL ~~will~~ coordinate ~~is coordinating~~ with the State of Hawai'i Department of Transportation (HDOT), the DLNR Division of State Parks, and other relevant agencies regarding the installation of ~~to install~~ a left-turn lane in the northbound direction of Hawai'i Belt Road at Honomū Road, and joint legislative funding requests.

Additionally, Level of Service at Honomū Road onto Hawai'i Belt Road in the northbound direction is expected to reduce LOS to "D" even in the **Without Project** condition by 2035. Level of Service "D" is still considered "Acceptable" under Hawaii County Code §25-2-46 Concurrency requirements. DHHL will consider improvements to facilitate left turn movements from Honomū Road onto Hawai'i Belt Road in the northbound direction and will discuss options with HDOT.

## 2.12 Public and Private Utilities

### 2.12.1 Sewer Services

There are no existing County of Hawai'i Department of Environmental Management sewer lines in the project vicinity and in Honomū town. Honomū wastewater management is serviced through Individual Wastewater Systems (IWS), which consist of cesspools and septic systems.

#### *Potential Impacts and Mitigation Measures*

The proposed project will have no impact upon the existing sewer system. The Project will not tie into the County wastewater system therefore, the County system will not need to be upgraded. Cesspools will not be allowed; the State DOH does not approve cesspools, per HAR 11-62-36, which states that "No new cesspools shall be constructed after the effective date of this rule unless they have been approved for construction before the effective date of this rule" (effective March 21, 2016). Those lessees that wish to reside on-property will be required to install septic systems or other IWS that meet DOH approval. DHHL will coordinate with DOH on appropriate wastewater planning. The County of Hawai'i Wastewater Division was consulted in preparation for this EA and had no comment.

Should lessees in the Honomū Subsistence Agricultural Homestead Community determine that a community-accessible wastewater disposal facility is needed or desired, they may seek to construct one or more. If and when that situation arises, the Honomū Subsistence Agricultural Homestead Community Association will need to coordinate with the County and DOH to comply with the appropriate rules and regulations.

Lessees that do not construct a residence may also choose to construct or obtain restroom facilities to service their agricultural lots. Commercial farms are required to have access to

restroom facilities but those cultivating crops for in-home consumption may also choose to have a restroom available. Various options are available and in-use in Hawai'i, including mobile trailers and camping toilets, and lessees may discuss the appropriate facility with DHHL's agricultural extension agent or other publicly available entity or program that provides agricultural education.

### **2.12.2 Solid Waste Services**

The County of Hawai'i Honomū Solid Waste Transfer Station is open on Mondays, Thursday, and Saturdays to accommodate solid waste generated in the Honomū region. Solid waste is then taken to the West Hawai'i Sanitary Landfill. The closest green waste recycling facility is the East Hawai'i Organics Facility in Hilo.

#### ***Potential Impacts and Mitigation Measures***

The proposed project will have minimal impact on solid waste services. The County Department of Environmental Management Solid Waste Division had no comment when sent a pre-assessment consultation letter on this project. CTAHR agricultural extension agents, including one dedicated to DHHL Hawai'i Island beneficiaries, if available, may be used to educate Honomū Subsistence Agricultural Homestead Community lessees on the benefits of composting and green waste management. Such technical assistance could also include proper methods and siting of green waste recycling operations.

### **2.12.3 Water Services**

The County of Hawai'i Department of Water Supply (DWS) maintains the Honomū Water System, which provides potable water service to the Honomū Village area. The existing well is located downstream of the Project area and DWS confirmed that there is no existing potable water service in the vicinity of the Project.

There is an existing ductile iron water line within 'Akaka Falls Road that serves as an emergency water source from 'Akaka Falls Spring to Honomū Well. However, the water in this line is not treated and DWS will not allow domestic water service from this water line. Agricultural and residential lots upstream of Honomū Well do not have DWS water service and receive water through individual water catchment systems. Subsequently there are also no existing fire protection lines or fire hydrants in the project vicinity

#### ***Potential Impacts and Mitigation Measures***

The proposed project will have no impact upon the existing potable water system. Lessees will be required to construct their own water catchment tanks for domestic use if a home is built on-property, and/or for supplemental irrigation needs. DHHL will recommend that lessees who build a catchment system include water-efficient fixtures within the home and/or water efficient irrigation methods. ~~Additionally, DHHL will provide~~ has an agricultural extension agent ~~to~~ under

contract that can work with lessees on appropriate agricultural practices, including irrigation water management.

At a future time, potable water service may be needed for the proposed commercial and community land uses. If and when this need arises, DHHL will consider its options, including the possibility of working with the County of Hawai'i to obtain water service. However, commercial and community land uses that require potable water are not anticipated to be implemented until at least eight to ten years from now.

The Project is included in the State Water Projects Plan Update (2017), where it anticipated the need for both potable water for domestic purposes and non-potable water for irrigation. Potable water was expected to come from the County water system and non-potable water was expected to come from ambient rainfall. Water catchment will instead account for most of the potable water needs, but ambient rainfall is still expected to provide most, if not all of the water needed for agricultural irrigation. DHHL will coordinate with both the State Department of Land and Natural Resources and the County of Hawai'i to add this Project and its' water needs into the next update to the State Water Projects Plan and the County's Water Use and Development Plan, respectively.

#### **2.12.4 Power and Communications**

There are existing joint power and communication poles along the south side of 'Akaka Falls Road, outside the road right-of-way, indicating a Hawai'i Electric Light Company (HELCO) utility easement for the maintenance of the utility poles. There is no legal documentation in place for this utility easement, so HELCO remarked that the easement falls under a "grandfather clause" since construction of the utility corridor was performed prior to land turnover from the Honomū Sugar Company. Hawaiian Telcom also has facilities along 'Akaka Falls Road, but their service capacity is very minimal due to the existing landscape of homeowners in the area.

#### ***Potential Impacts and Mitigation Measures***

The existing joint utility poles along 'Akaka Falls Road may serve as the main power and communications trunk for the project area. Utility alignments within the Project and the decision to incorporate overhead or underground utility viaducts will be determined during the phased infrastructure improvements design stages. Utility easements will need to be granted to the respective utility companies so that the companies have lawful use and maintenance rights on these properties.

## 2.13 Public Services

### 2.13.1 Police Protection

The project site is located within the County of Hawai'i Police Department's South Hilo District. Police service in the South Hilo District is provided by the Hilo Police Station located at 349 Kapi'olani Street. The district ranges from Hakalau to the north, to Pāpa'i to the south.

#### *Potential Impacts and Mitigation Measures*

The proposed project will have mitigable impacts upon Police service. Agricultural theft is identified as a potential issue for the proposed project. The additional presence of lessees in both a residential and agricultural capacity is expected to deter incidents of agricultural theft. Beneficiaries will be educated about agricultural theft and can work with the County of Hawai'i Police Department on deterring this type of criminal activity. In a Pre-Assessment Consultation letter, the County of Hawai'i Police Department stated that it "does not anticipate any significant impact to traffic and/or other public safety concerns."

### 2.13.2 Fire Protection

Fire protection for the project site will be provided by the Central Fire Station #1 located approximately 10 miles south of the project site in Hilo, Hawai'i at 466 Kino'ole Street. There is also a volunteer fire station in Pepe'ekeo, approximately 4 miles south of Honomū.

#### *Potential Impacts and Mitigation Measures*

The proposed project will have mitigable impacts upon Fire Protection services. In a Pre-Assessment Consultation letter, the County of Hawai'i Fire Department requested compliance with Chapter 18 of the Hawai'i State Fire Code, National Fire Protection Association 2006 version, with County of Hawai'i amendments. The project will work with the County of Hawai'i Fire Department to ensure that Federal, State and County standards are incorporated to provide for access, level of service, and special circumstances. The previously mentioned fire code includes requirements for areas where water catchment systems will be used as a water supply for firefighting.

Section 18.3.2 of the National Fire Protection Association 1, Uniform Fire Code, 2006 Edition states that "Where no adequate or reliable water distribution system exists, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the required fire flow shall be permitted." Specifically, where water catchment systems are being used as a means of water supply for firefighting, such systems shall meet the following requirements:

- 1) In that a single water tank is used for both domestic and firefighting water, the water for domestic use shall not be capable of being drawn from the water reserved for firefighting;

- 2) Minimum pipe diameter sizes from the water supply to the Fire Department Connection (FDC) shall be as follows:
  - a) 4" for C900 PVC pipe;
  - b) 4" for C906 PE pipe;
  - c) 3" for ductile Iron;
  - d) 3' for galvanized steel.
- 3) The Fire Department Connection (FDC) shall:
  - a) be made of galvanized steel;
  - b) have a gated valve with 2-1/2 inch, National Standard Thread male fitting and cap;
  - c) be located between 8 ft and 16 ft from the Fire department access. The location shall be approved by the AHJ;
  - d) not be located less than 24 inches, and no higher than 36 inches from finish grade, as measured from the center of the FDC orifice;
  - e) be secure and capable of withstanding drafting operations. Engineered stamped plans may be required;
  - f) not be located more than 150 feet of the most remote part, but not less than 20 feet, of the structure being protected;
  - g) also comply with section 13.1.3 and 18.2.3.4.6.1 of this code.
- 4) Commercial buildings requiring a fire flow of 2000gpm shall be provided with a second FDC. Each FDC shall be independent of each other, with each FDC being capable of flowing 500gpm by engineered design standards. The second FDC shall be located in an area approved by the AHJ with the idea of multiple Fire apparatus' conducting drafting operations at once, in mind.
- 5) Inspection and maintenance shall be in accordance to NFPA 25.
- 6) The owner or lessee of the property shall be responsible for maintaining the water level, quality, and appurtenances of the system.

The full County of Hawai'i Fire Department Pre-Assessment comment letter, with the cited Fire Code requirements, may be found in **Appendix A.**

### **2.13.3 Medical Services**

The major health care facility nearest the project site is the Hilo Medical Center, located at 1190 Waianuenue Avenue. This facility is located approximately 13 miles south of the project site.

#### ***Potential Impacts and Mitigation Measures***

The proposed project will have no impact upon existing medical services in the area. The project will ensure that access for medical emergencies adheres to County standards.

## 2.14 Socio-Economic Conditions

Honomū is located with Census Tract 201, an approximately 97 square mile (6,125 acres) area extending from Paukaʻa-Wailea. The majority of Honomū residents live in Honomū Village, an approximately 295-acre area that is represented by the Honomū Census Designated Place (see Figure 1-2).

The County of Hawaiʻi's resident population was reported to be 196,428 in 2015, a 17% increase over the 2005 resident population of 28,191 and a 62% increase over the 1990 resident population of 121,572.<sup>19</sup> The District of South Hilo, where Honomū is located, experienced a slower population growth of 6.2 % between 1990 and 2000 and a growth of 7.2% between 2000 and 2010. The 2010 population of Honomū Census Designated Place was 509 people. The median age of Honomū residents was 45.1 years old, older in comparison with the Hawaiʻi County median age of 42.1 years old. Native Hawaiians accounted for 8% of the Honomū population in 2010 but 12% of the population County-wide.

There were 213 housing units and 198 households in the Honomū Census Designated Place, accounting for 0.25% of housing units and 0.31% of households in Hawaiʻi County in 2010. Businesses in Honomū are mostly located in the Village area along Old Māmalahoa Highway and are centered around agriculture, retail, and entertainment activities associated with the tourism generated by ʻAkaka Falls State Park. Median household income in the Honomū Census Designated Place was \$55,795 (2012-2016 average) and the unemployment rate was 1.5%.<sup>20</sup>

Based on feedback from community members through interviews, written comments, and discussions at community meetings, it was concluded that residents of Honomū love its natural resources, plantation history, and rural lifestyle. They appreciate the open lands mauka of the Village and make use of its streams and nearshore areas for gathering and recreation. ʻAkaka Falls is an important landmark with historical, cultural, ecological, economic, and spiritual value to the people of Honomū. The high rainfall keeps the landscape green, waters agricultural crops, and maintains the dramatic flows at ʻAkaka Falls.

Many people acknowledge the rich plantation history of the area and treasure those features that reflect that history. Historic landmarks such as Honomū Theatre, Old Mamālahoa Highway, historic buildings, remnant plantation camp houses, and the storage building of the Honomū Sugar Company along Highway 19 are seen as important features of the Village.

---

<sup>19</sup> Hawaiʻi County Data Book 2015. Hilo, Hawaiʻi : County of Hawaiʻi, Department of Research and Development, 2016

<sup>20</sup> U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates



Residents love the rural lifestyle of Honomū, characterized by the small, tight-knit community where people regularly run into one another and catch up at the Post Office or locally-owned storefronts on Old Māmālahoa Highway. With such a small population, most community members know one another and gatherings at the local churches or gym help to maintain connections amongst neighbors.

While the community recognizes the benefits of the natural beauty and rural nature of Honomū, they also acknowledged some of the problems associated with such characteristics as well. The high rainfall that waters agricultural crops, lawns, and ‘Akaka Falls often produces a lot of runoff that sometimes floods downstream homes and properties and may also carry mud from mauka lands. The rural area also experiences a high volume of agricultural theft, which is difficult to prosecute. Crime in general is also a concern and residents now lock their doors, whereas this was not necessary in the past. Vehicle break-ins are especially common at the parking lot at ‘Akaka Falls.

Traffic safety is a concern, particularly at the turnoff into Honomū from Highway 19, where vehicles making a left turn into Honomū hold up the traffic behind them since Highway 19 is one lane in both directions in that area. Community members have also mentioned that virtually all traffic into and out of Honomū is routed through Honomū Road since Old Mamālahoa Highway is in disrepair. Residents have asked for upgrades to Old Mamālahoa Highway, particularly at the bridges south of the Village, which are sometimes flooded during heavy rains, as a secondary access for alternative and emergency access.

Comments from community members in public meetings and in emails and letters to the project team have expressed a desire to maintain the rural lifestyle and open space of the area. Residents want to continue being able to surf and fish along the shoreline without crowds and gather ‘opihi, fish, warabi, o‘opu, ‘ōpae, and prawns sustainably. The peaceful, quiet nature of a small town is what continues to draw people to Honomū.

Residents were hopeful that the mauka lands remain in productive agriculture and are interested in maintaining the retail businesses in the Village area. Residents have been requesting a greater police presence to combat agricultural theft, squatting, and other crimes. Community comments also reflect a desire for improvements to the intersection of Honomū Road and Highway 19 to increase safety concerns and improvements to the Old Mamālahoa Highway to allow for local and emergency access.

In interviews, local kūpuna reported that the Hawaiian community in Honomū has been small for as long as they can remember and that while the project would increase the population, having more native Hawaiian families in the area could bring back many Hawaiian cultural practices, beliefs, and values and revitalize Hawaiian culture as a whole in Honomū.

### ***Potential Impacts and Mitigation Measures***

The proposed project will have mitigable impacts upon the environment. DHHL, under its Administrative Rules, is authorized to provide agricultural lots to beneficiaries. In fulfilling its mission to “to manage the Hawaiian Home Lands trust effectively and to develop and deliver lands to native Hawaiians,” DHHL strives to aid their beneficiaries in becoming an accepted part of the existing neighborhood and community. As of May 31, 2019, there were 45,033 applicants statewide. Of these, 7,237 are applicants on the Hawai‘i Island Agricultural Wait List, 48 percent of the total applications on Hawaii Island, surpassing residential applications (5,868) and pastoral applications (1,915). In 2014, a survey of DHHL applicants on the agricultural wait list was conducted. The survey found that 58 percent had a primary goal of engaging in subsistence farming, or growing enough crops to provide for minimal needs of immediate household members, 25 percent were interested in providing for some, but not all, of the needs of their household members, and 4 percent hoped to engage in commercial farming. Therefore, DHHL is proposing to develop subsistence farm lots to offer to its applicants and is dedicated to assisting its lessees with engaging in successful subsistence agriculture.

Subsistence agricultural lots are meant to be no larger than three acres, with no minimum lot size. For the Honomū community, ~~it was determined that~~ subsistence agriculture lots should will be at least one acre in size to maintain densities typical to some rural and agricultural areas. Lots may also range in size up to three acres. Additionally, the recommended alternative includes conservation, community, special district, and supplemental agricultural land uses that will further reduce the density of the Project and will enhance the Honomū Subsistence Agricultural Homestead Community ~~homestead community~~.

The proposed project will increase the population of Honomū. At full buildout, the Project is anticipated to have a residential settlement of 619 people, more than doubling the 2010 resident population.<sup>21</sup> DHHL plans on a slow initial implementation of this Project with Phase I consisting of ~~only about~~ 15 lots to be able to learn what features are appropriate for this area. Actual phasing size and speed will depend upon site engineering, permitting and approvals, and financing, but DHHL intends on awarding approximately 30% of the lots within the next eight years and the remaining lots by 2032.

---

<sup>21</sup> The projected population of the Project at full buildout was estimated by multiplying the average household size for DHHL beneficiaries (U.S. Census Bureau’s 2008-2012 American Community Survey) with 50% of the total number of lots offered. Based on DHHL’s other agricultural homesteads, fewer than 50% of lessees build houses, even after several decades.

This would positively impact DHHL's homesteading program by reducing the Hawai'i Island agricultural wait list, the longest agricultural wait list among the four larger islands: Hawai'i, Maui, O'ahu, and Kaua'i. DHHL recognizes that those population increases could impact the socio-economic conditions of the community and are discussed within relevant sections below.

~~It is anticipated that the addition of residents to Honomū as a result of this project will provide additional customers to the commercial Village center. During the planning stages of this Project, the Honomū community expressed concern for an earlier proposal to have a larger commercial area designated near 'Akaka Falls Park, fearing that it would create a second commercial center and draw customers away from the Village. The Project has since reduced the size of the commercial area and intends to restrict uses to those that complement 'Akaka Falls State Park.~~

**Archaeology and Cultural Resources.** No surface archaeological features were found on the project site and the main concerns regarding cultural resources were that the Project might disturb historic agricultural features associated with the sugar plantation and impact subsistence gathering. If any archaeological features are found, DHHL will consult with the State Historic Preservation Division to determine what preservation efforts would be needed, if any.

The Project will not develop in and around the streams and gulches, protecting them and their aquatic fauna, which are sometimes gathered. Requests for access to streams for cultural practices will be managed by DHHL's Land Management Division. The existing public hunting area is located mauka of the Project and access will not be impacted by this project. Illegal trespassing and hunting on the Project site will not be allowed.

In interviews, local kūpuna felt that the Project, as a subsistence agricultural homestead, will be consistent with the past and present land use the project area. They reported that the Hawaiian community in Honomū has been small for as long as they can remember and that while the project would increase the population, they believe that there will be positive benefits, such as bringing new projects that could benefit the community, increasing opportunities to sell locally produced products, and leveraging the visitor industry to generate funds for the Honomū Subsistence Agricultural Homestead Community for infrastructure and other projects. Additionally, the potential influx of native Hawaiians into a town where the native Hawaiian population has been in decline, might bring back many Hawaiian cultural practices, beliefs, and values into the area. In the long term, this project might facilitate the revitalization of Hawaiian culture in Honomū

Additional details regarding impacts and mitigation to archaeology and cultural resources may be found in **Sections 2.7 and 2.8.**

**Traffic.** The Project will increase traffic, but area roadways are still expected to operate at acceptable levels of service. Current traffic conditions warrant an exclusive left-turn lane in the northbound direction of Hawai'i Belt Road at Honomū Road. While this is an existing condition and not a result of the Project, DHHL is coordinating with HDOT and the Division of State Parks to jointly seek funding to construct a left-turn lane to address this situation. Impacts and mitigation are more fully discussed in **Section 2.11.**

**Water and Wastewater.** The Project will not connect to the County's potable water or wastewater systems and will therefore not impact those services. Department of Health guidelines will be followed for those lessees who wish to install individual wastewater systems or water catchment tanks. If the Honomū Subsistence Agricultural Homestead Community desires, at some time in the future, to construct a wastewater treatment facility or to develop a potable water source to service the entire community, it will have to follow all appropriate rules and laws. Additional discussion on the Project's impact to water and wastewater systems may be found in **Section 2.12.**

**Police, Fire, and Medical Services.** The Hawai'i County Police Department submitted a letter stating that staff "does not anticipate any significant impact to traffic and/or other public safety concerns." The Hawai'i County Fire Department submitted a comment letter requesting compliance with various codes and standards, including those that allow for access by emergency service vehicles. The Project will comply with all codes and standards, as required to provide for public health and safety. Further discussion may be found in **Section 2.13.**

**Economics.** Businesses in Honomū are mostly located in the Village area along Old Māmalahoa Highway and are centered around agriculture, retail, and entertainment activities associated with the tourism generated by 'Akaka Falls State Park. It is anticipated that additional residents will provide added revenue at the retail establishments in Honomū Village. For the three acres of land within the project designated for commercial uses, DHHL will seek uses that are complementary to the State Park.

**Rural Character.** The Project anticipates a minimum parcel size of one acre, which is denser than the 20-acre minimum parcel size for the lands immediately surrounding the project site. However, DHHL has only designated 55% of the total project site to subsistence agriculture, with 33% of the land designated as conservation and open space, including a 100-foot wide open space buffer along most of 'Akaka Falls Road, in an effort to minimize impacts to Honomū's character. Additionally, the original concept of a 20-acre commercial area near 'Akaka Falls State Park was reduced to three acres in response to community feedback on the size of the previously designated area. Most of the commercial area is expected to be leased to the Division of State Parks which has requested additional land to expand the existing parking lot for 'Akaka

Falls State Park, which regularly overflows. DHHL makes a commitment to seek commercial uses in that area that will be tied to the activities and functions of the State Park.

DHHL recognizes that the Hawai'i County General Plan projects a very limited population increase for Hāmākua and that the Hāmākua Community Development Plan has a policy to preserve large agricultural lots. However, the Department asserts its authority under the Hawaiian Homes Commission Act (HHCA, 1920), adopted into the Hawai'i Revised Statutes, to further the policy of the HHCA "to enable native Hawaiians to return to their lands in order to fully support self-sufficiency for native Hawaiians and the self-determination of native Hawaiians in the administration of this Act, and the preservation of the values, traditions, and culture of native Hawaiians." DHHL maintains that this authority, granted through Federal and State law, allows for the superseding of County policies.

DHHL has the authority to create smaller agricultural lots, or even create a residential subdivision, providing more leases to beneficiaries on the agricultural or residential wait lists. However, DHHL has decided to create an agricultural subdivision with a minimum lot size of one acre, which is in agreement with the State Agriculture Land Use District [HRS §205-5 (b) (5)] designation assigned to these lands. This also exceeds guidelines for the Rural State Land Use District, which calls for "land composed primarily of small farms mixed with very low density residential lots, which may be shown by a minimum density of not more than one house per half-acre and a minimum lot size of not less than one-half acre" [§HRS 205-2(a) (2)]. Additionally, lessees are not required to build a house on their lot. Based on other DHHL agricultural homesteads that have been in place for several decades, approximately 50 percent of agriculture lessees chose to build a residence on their lot.

**Housing.** The Project will provide much-needed opportunities for native Hawaiians to obtain land for agriculture or agriculture and housing. There were approximately 7,237 applicants for DHHL agricultural homesteads on Hawai'i Island on May 31, 2019, which accounted for 48% of the total applicants for that island.

## **2.15 Hazardous Materials**

Pursuant to comments received from the Department of Health during the Pre-Assessment Consultation phase, a Phase I Environmental Site Assessment (ESA) was conducted to identify whether recognized environmental conditions exist in the project area and to recommend further action, if any are found. The draft Phase I ESA report (**Appendix G**) found no evidence of recognized environmental conditions in connection with the Property. However, due to the prior history of the sugarcane cultivation, the report recommends additional environmental work to assess any impacts from arsenic that was typically used in pesticides, lead from paint, and contaminants from former dump sites that were in use during the era that the sugarcane plantation was in operation.

**Potential Impacts and Mitigation Measures**

In response to comments from the State DOH, a Phase I Environmental Site Assessment (ESA) was conducted to identify whether recognized environmental conditions exist in the project area. The Phase I ESA found no evidence of recognized environmental conditions in connection with the Property but noted the potential for the following conditions to exist:

- The Property was used for sugarcane cultivation since from the mid-1880s to 1994. Arsenic containing pesticides were commonly used in plantations. Surface and near surface soil may contain arsenic containing pesticides at concentrations that warrant concern.
- Arsenic containing pesticides were often used for weed and rat control in areas of the former camps. Surface and near surface soil at former camps may contain arsenic containing pesticides at concentrations that warrant concern.
- Lead paint was commonly used pre-1978. Surface and near surface soil around former structures may contain lead at concentrations that warrant concern.
- The former historical waste dump sites. While no evidence of former dumping or contamination was observed during the site inspection, and it is likely any surface debris or contamination may have been washed out, subsurface contamination and debris could be present depending on what was dumped and if any of the contaminants infiltrated into the ground.

The Phase I ESA concluded that future environmental work at the project site is warranted to assess if surface and near surface soil has been impacted with arsenic containing pesticides, lead, and contaminants associated with the former historical dump sites. DHHL is in the process of contracting for a next level environmental site assessment as recommended by the Phase I ESA. As caretakers of the Hawaiian Home Lands Trust, the relationship between DHHL and Trust beneficiaries continues in perpetuity, making the health and safety of DHHL beneficiaries of upmost importance to the Department. Therefore, if contamination is found, DHHL will work with the Department of Health to address the concerns.

*This page intentionally left blank*

### 3 RELATIONSHIP TO PLANS AND POLICIES

#### 3.1 Federal Plans and Policies

##### 3.1.1 Archaeological and Historic Preservation Act (16 U.S.C. § 470(F) and National Historic Preservation Act (16 U.S.C. § 470(F))

The Archaeological and Historic Preservation Act is a federal policy that is meant to provide for the preservation of historic American sites, buildings, objects and antiquities of national significance. The National Historic Preservation Act is a federal policy that is meant to preserve historic federal sites, and established the National Register of Historic Places, National Historic Landmarks list, and the State Historic Preservation Offices.

As outlined in **Section 2.7**, the project area has been used extensively for agricultural operations and there are no known pre-contact archaeological or cultural features that can be seen on the site today. The project will work with the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources to determine what additional historic preservation work might be required, if any, including additional documentation of specific, known plantation and transportation-related features.

##### 3.1.2 Coastal Zone Management Act (16 U.S.C. § 1456(C)(1))

The Coastal Zone Management Act is a national policy meant to preserve, protect, develop and restore or enhance the resources of the Nation's coastal zone for this and succeeding generations. This act encourages coastal states to create a Coastal Zone Management Program to protect and preserve their specific coastal resources.

The proposed project will adhere to the regulation established by the Federal Coastal Zone Management Act, ~~and subsequent State and County regulation~~ for the protection of coastal resources.

##### 3.1.3 Endangered Species Act 16 U.S.C. §1536(A)(2) and (4)

The Endangered Species Act is a national policy that is designed to protect critically imperiled species from extinction as a consequence of economic growth and development. The Act is administered by the United States Fish and Wildlife Services (FWS) and the Commerce Departments National Marine Fisheries Service (NMFS).

The proposed project will adhere to the regulation established by the Federal Endangered Species Act, and subsequent State and County regulation for the protection of endangered species. Due to a history of intensive cultivation, the Project site is dominated by non-native vegetation. A few widespread native plant species were found during a field investigation and the only native animal species observed was a pair of endangered Hawaiian hawks circling overhead, although it is assumed that the native Hawaiian hoary bat is present in the area.



DHHL will protect stream and gulch areas in conservation, as well as a 17-acre site that was identified as having potential for native habitat restoration. Guidance will be provided to Honomū Subsistence Agricultural Homestead Community lessees to minimize potential impacts to native bats and hawks.

### **3.1.4 Fish and Wildlife Coordination Act 16 U.S.C. § 662(A)**

The Fish and Wildlife Coordination Act is a national policy that is meant to protect fish and wildlife from the control or modification of a natural stream or body of water. This Act gives authority to the FWS to evaluate impacts to fish and wildlife from proposed water resource development projects.

The proposed project does not intend to make any changes to the natural streams, gulches or other bodies of water in the project area. Any proposed changes to the streams in the project area will adhere to Federal and State regulations and County ~~regulation and required~~ permitting requirements.

### **3.1.5 Wild and Scenic Rivers Act 16 U.S.C. § 1271-1287**

The Wild and Scenic Rivers Act of 1968 identifies rivers that possess remarkable value and as such shall be preserved in free-flowing condition, and their immediate environments shall be protected for the benefit of present and future generations. Though Hawai‘i does not have any rivers listed at present, several rivers within the State have been recognized as being eligible for designation under this Act, including the three streams in the project area.

The Kolekole stream was listed in 1982 as being eligible to be classified as a Scenic River because it includes the State’s highest waterfall on the island, ‘Akaka Falls, at 420-feet in height. The Honomū and Pāhe‘e streams were listed in 1995 as being eligible for designation due to their diverse populations of sensitive native aquatic species, including the ‘o‘opu ‘alamo‘o (*Lentipes Concolor*), the Hawaiian Freshwater Goby.

## **3.2 State of Hawai‘i Plans and Policies**

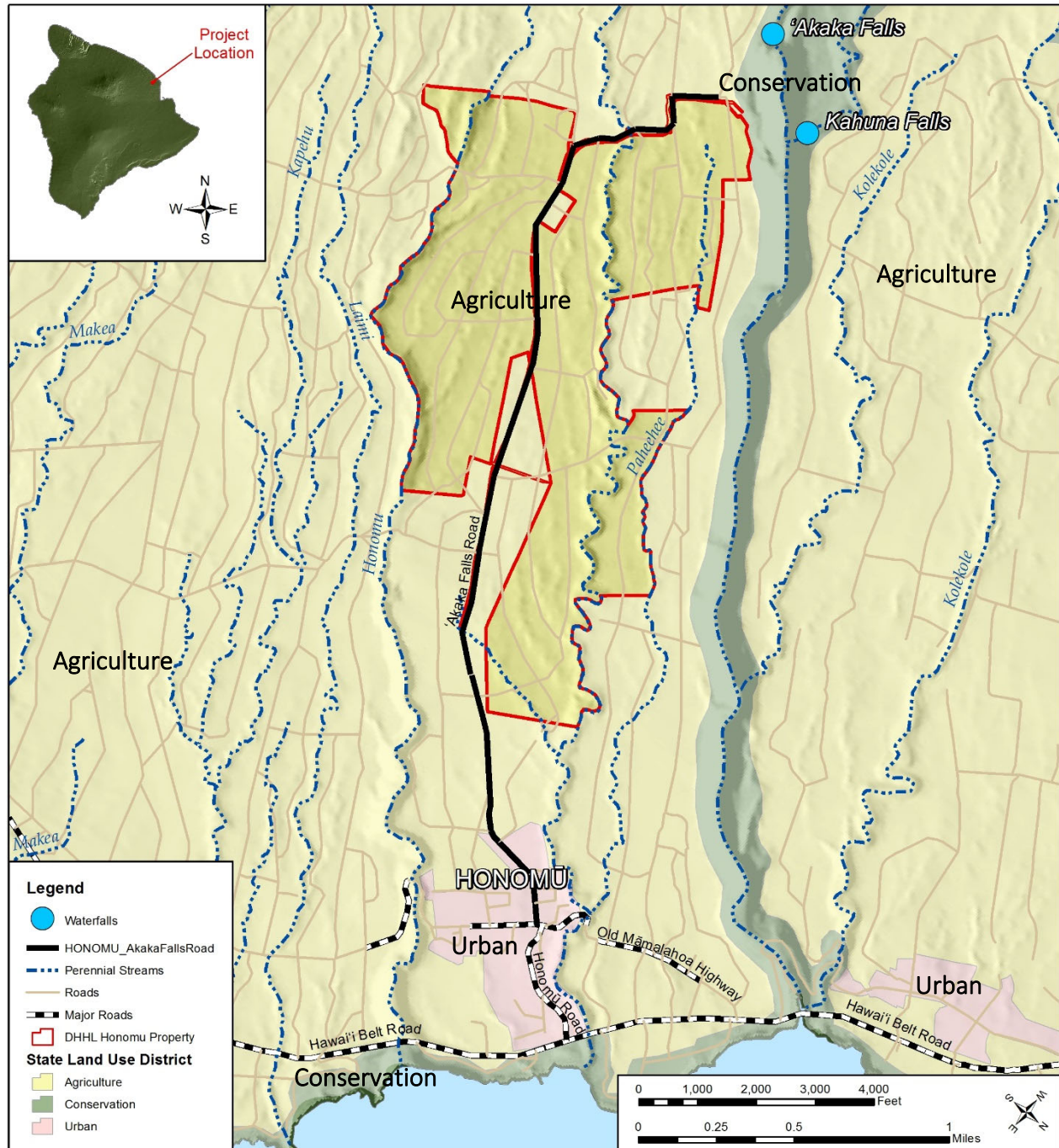
### **3.2.1 State Land Use Law, Chapter 205, HRS**

The State Land Use Law, Chapter 205 HRS, established the State Land Use Commission, which classifies all lands in Hawai‘i into four land use districts: Urban, Rural, Agricultural, and Conservation. The project area is located entirely within the Agricultural district (**Figure 3-1**), which allows for a minimum lot size of one acre (HRS §205-5). The proposed project is for a DHHL subsistence agricultural homestead community with lot sizes of one to three acres, thus being in alignment with the State Land Use Districts intended use of the lands. Lessees will be required to cultivate or reside on and cultivate their land, thus being in alignment with the intended use of State Agricultural Land Use Districts.



Figure 3-1 State Land Use Districts

HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



### 3.2.2 State of Hawai'i Coastal Zone Management Program, Chapter 205A, HRS

The Hawaii Coastal Zone Management (CZM) Program was created in 1977 through the enactment of Chapter 205A, Hawaii Revised Statutes to coordinate federal, state, and county agency efforts in the comprehensive management of Hawai'i's coastal resources. The Hawai'i CZM Program is administered by the Office of Planning, but each of the four counties are responsible for administering the program locally through Special Management Area (SMA) permits and shoreline setback provisions in their respective counties. The coastal zone encompasses the entire state, as there is no point of land more than 30 miles from the ocean. The proposed project supports the following policies of the CZM:

**Recreational Resources.** *Objective: Provide coastal recreational opportunities accessible to the public.* The Project is not located along the coast or within the Special Management Area and therefore is not subject to coastal recreation policies. However, the Project will protect coastal water quality by working with the local Soil and Water Conservation District to develop a Master Conservation Plan with best management practices to minimize soil erosion. Additionally, a National Pollutant Discharge Elimination System permit will be required to ensure compliance with BMPs during construction.

**Historic Resources.** *Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.* An archaeological literature review and field inspection (**Appendix C**) found no pre-Contact archaeological features in the areas identified for development. Historic transportation and sugarcane agriculture-related features were identified, such as 'Akaka Falls Road, Pāhe'ehe'e Mauka Bridge, unpaved cane roads, culverts, minor bridges, and plantation field berms. While no surface remains of the several known historic workers' camps were observed, associated subsurface deposits may still be present.

Coordination with the State Historic Preservation Division will identify any historic preservation measures that need to be undertaken. DHHL contractors will be required to comply with all state and county rules and laws pertaining to historic preservation. If there are any inadvertent findings of archaeological or historic sites during construction, work will stop immediately in that area and the contractor will contact SHPD to report the finding, assess its significance, and recommend appropriate mitigation measures, if necessary.

**Scenic and Open Space Resources.** *Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.* The Project is located one to three miles inland of the coast and is not expected to have impacts on coastal scenic and open space resources.

**Coastal Ecosystem.** *Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on coastal ecosystems.* The Project is not located along the coast and therefore is not expected to impact the coastal ecosystem. However, the Project will protect coastal water quality by working with the local Soil and Water Conservation District to develop a Master Conservation Plan with best management practices to minimize soil erosion. Additionally, a National Pollutant Discharge Elimination System permit will be required to ensure compliance with BMPs during construction.

**Economic Uses.** *Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.* The project is not located on the coastline or within the SMA and is therefore not subject to policies regarding coastal economic development.

**Coastal Hazards.** *Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.* The Project is located inland from the coast and will not exacerbate coastal hazards. On-site and detention/retention features will also control runoff to streams.

**Managing Development.** *Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.* The Project is not located along the coast and will therefore will not exacerbate coastal hazards. Coastal resources are not expected to be negatively impacted but best management practices will be implemented to minimize erosion and runoff downstream. Meetings were held with and in the community and DHHL applicants. Additionally, the environmental review process also offered opportunities for public comment.

**Public Participation.** *Objective: Stimulate public awareness, education, and participation in coastal management.* The Project is not located along the coast or within the SMA. Meetings were held with and in the community and DHHL applicants to share and get feedback on concepts and progress and the environmental review process also offered opportunities for public comment.

**Beach Protection.** *Objective: Protect beaches for public use and recreation.* The Project is not located along the coast or within the Special Management Area and will not impact beaches. However, the Project will protect coastal water quality by working with the local Soil and Water Conservation District to develop a Master Conservation Plan with best management practices to minimize soil erosion. Additionally, a National Pollutant Discharge Elimination System permit will be required to ensure compliance with BMPs during construction.

### 3.2.3 Hawai'i State Plan, Chapter 226, HRS

The Hawai'i State Plan was established as a part of the Hawai'i State Planning Act of 1978 as a guide for future long-range development within the State. The overall theme of the Hawai'i State Plan incorporates the following principles and values (HRS §226-3):

- (1) Individual and family self-sufficiency refers to the rights of people to maintain as much self-reliance as possible. It is an expression of the value of independence, in other words, being able to freely pursue personal interests and goals. Self-sufficiency means that individuals and families can express and maintain their own self-interest so long as that self-interest does not adversely affect the general welfare. Individual freedom and individual achievement are possible only by reason of other people in society, the institutions, arrangements and customs that they maintain, and the rights and responsibilities that they sanction.
- (2) Social and economic mobility refers to the right of individuals to choose and to have the opportunities for choice available to them. It is a corollary to self-sufficiency. Social and economic mobility means that opportunities and incentives are available for people to seek out their own levels of social and economic fulfillment.
- (3) Community or social well-being is a value that encompasses many things. In essence, it refers to healthy social, economic, and physical environments that benefit the community as a whole. A sense of social responsibility, of caring for others and for the well-being of our community and of participating in social and political life, are important aspects of this concept. It further implies the aloha spirit--attitudes of tolerance, respect, cooperation and unselfish giving, within which Hawaii's society can progress.

The proposed project will support the overall theme of the Hawai'i State Plan by allowing beneficiaries to practice self-sufficiency and self-reliance through subsistence agriculture. The Project also includes opportunities for community cohesion (designated community use area) and economic expansion (supplemental agriculture area). A portion of the property is set aside for land uses complementary to 'Akaka Falls State Park, enhancing an existing visitor experience. Additionally, over one-third of the property will be maintained in conservation and open space to protect natural resources and manage runoff and erosion, protecting downstream resources. The streams to be protected in conservation have been identified as being important to cultural gathering practices.

Utilities and infrastructure will be accommodated through coordination with and approval of the appropriate State and County agencies. Solid waste will be accommodated by the existing County solid waste disposal network and wastewater will be accommodated through individual wastewater systems with the approval of the State Department of Health. Water will be provided through ambient rainfall and water catchment systems.

***Table 3-1 Project's Consistency with the Hawai'i State Plan***

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-4 State Goals.</b>			
In order to ensure, for present and future generations, those elements of choice and mobility that ensure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:			
(1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations.	X		
(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.	X		
(3) Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life.	X		
Notes: The Project supports the State Goals. The Honomū Subsistence Agricultural Homestead Community will provide an opportunity for DHHL beneficiaries to support themselves with food cultivated on their lots or by selling agricultural products to supplement their incomes. Streams and other natural areas are preserved as Conservation areas to protect them, promote community management and use for habitat restoration and cultural practices, and provide open space for passive enjoyment. Those choosing to reside on their lots will have the opportunity to plan and develop community facilities that will complement the particular lifestyle and needs of this DHHL homestead, whether it be for recreation, gathering, economic development, or other types of uses and facilities, as will be determined.			
<b>Section 226-5 Objective and policies for population.</b>			
(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 Hawai'i's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.			X
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.	X		
(3) Promote increased opportunities for Hawai'i's people to pursue their socio-economic aspirations throughout the islands.	X		
(4) Encourage research activities and public awareness programs to foster an understanding of Hawai'i's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawai'i's population.			X
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			X
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			X
(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.	X		
Notes: The Project will allow for DHHL lessees to engage in rural agricultural activities to supplement their families' income and/or food sources. Honomū is a rural, post-sugar plantation town that relies on agriculture and tourism.			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-5 Objective and policies for population (continued).</b>			
Notes: The Project will not significantly increase Statewide population growth, as Project beneficiaries will relocate mainly from other areas within the State. However, the Project will provide an opportunity for beneficiaries to pursue the economic aspirations represented by their application to the DHHL Hawai'i Island agricultural wait list.			
As this project does not anticipate significantly increasing the States population, it does not include research or public awareness programs relating to population and carrying capacity, encourage governmental actions and coordination regarding immigrant distribution, or pursue an increase in federal assistance to states to assist with immigration-related issues. This land use plan is coordinated with the State Water Projects Plan Update with regard to water demand and supply for DHHL lands and projects.			
<b>Section 226-6 Objectives and policies for the economy--in general.</b>			
(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 Hawai'i's people, while at the same time stimulating the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.	X		
(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.	X		
(b) To achieve the general economic objectives, it shall be the policy of this State to:			
(1) Promote and encourage entrepreneurship within Hawai'i by residents and nonresidents of the State.	X		
(2) Expand Hawai'i's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.			X
(3) Promote Hawai'i as an attractive market for environmentally and socially sound investment activities that benefit Hawai'i's people.	X		
(4) Transform and maintain Hawai'i as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.	X		
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawai'i.			X
(6) Seek broader outlets for new or expanded Hawai'i business investments.			X
(7) Expand existing markets and penetrate new markets for Hawai'i's products and services.			X
(8) Assure that the basic economic needs of Hawai'i's people are maintained in the event of disruptions in overseas transportation.	X		
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.			X
(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers, and distributors.	X		
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.	X		
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawai'i.			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-6 Objectives and policies for the economy--in general (continued).</b>			
<u>(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawai'i's employment and economic growth opportunities.</u>	<u>X</u>		
<u>(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.</u>	<u>X</u>		
<u>(15) Maintain acceptable working conditions and standards for Hawai'i's workers.</u>			<u>X</u>
<u>(16) Provide equal employment opportunities for all segments of Hawai'i's population through affirmative action and nondiscrimination measures.</u>			<u>X</u>
<u>(17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.</u>			<u>X</u>
<u>(18) Encourage businesses that have favorable financial multiplier effects within Hawai'i's economy, particularly with respect to emerging industries in science and technology.</u>			<u>X</u>
<u>(19) Promote and protect intangible resources in Hawai'i, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.</u>	<u>X</u>		
<u>(20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new or innovative potential growth industries in particular.</u>	<u>X</u>		
<u>(21) Foster a business climate in Hawai'i--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.</u>	<u>X</u>		
<u>Notes: The Project will provide opportunities for up to 375 DHHL beneficiaries and their families to supplement their diets with agricultural products that they produce on their lots. Beneficiaries may also choose to sell their agricultural products for supplemental income direct to consumers or to existing retail establishments or co-ops, such as the Hawai'i 'Ulu Cooperative. In those cases where lessees can show success, may apply for larger agricultural lots to cultivate for commercial-scale agriculture. Agricultural success will be fostered by agricultural training programs offered by DHHL's agricultural extension agent dedicated to Hawai'i Island beneficiaries. As the primary intent of this DHHL homestead community is subsistence agriculture, this Project does not address employment conditions.</u>			
<b>226-7 Objectives and policies for the economy--agriculture.</b>			
<u>(a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:</u>			
<u>(1) Viability of Hawai'i's sugar and pineapple industries.</u>			<u>X</u>
<u>(2) Growth and development of diversified agriculture throughout the State.</u>	<u>X</u>		
<u>(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawai'i's strategic, economic, and social well-being.</u>	<u>X</u>		
<u>(b) To achieve the agriculture objectives, it shall be the policy of this State to:</u>			
<u>(1) Establish a clear direction for Hawai'i's agriculture through stakeholder commitment and advocacy.</u>	<u>X</u>		
<u>(2) Encourage agriculture by making the best use of natural resources.</u>	<u>X</u>		
<u>(3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.</u>			<u>X</u>
<u>(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.</u>	<u>X</u>		



**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>226-7 Objectives and policies for the economy—agriculture (continued).</b>			
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai'i's economy.			X
(6) Seek the enactment and retention of federal and state legislation that benefits Hawai'i's agricultural industries.			X
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai'i's food producers and consumers in the State, nation, and world.			X
(8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			X
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			X
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.	X		
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.	X		
(12) In addition to the State's priority on food, expand Hawai'i's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.	X		
(13) Promote economically competitive activities that increase Hawai'i's agricultural self-sufficiency, including the increased purchase and use of Hawai'i-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.	X		
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			X
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			X
(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.			X
(17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, māla, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.	X		
(18) Increase and develop small-scale farms.	X		
<b>226-7 Objectives and policies for the economy—agriculture (continued).</b>			
<p>Notes: This project will promote small-scale, diversified agriculture on former sugarcane lands which are still considered fertile and experience high rainfall, minimizing the need for supplemental irrigation. DHHL beneficiaries may choose to sell their products and perhaps take advantage of the existing retail establishments within Honomū Village that cater to the tourists that visit 'Akaka Falls State Park. A commercial area designated near the State Park may also provide commercial opportunities that complement the State Park as well. As this project will serve the native Hawaiian community, applicants have already shown interests in cultivating traditional Hawaiian crops using traditional methods, where possible.</p> <p>While DHHL supports the growth of the agricultural industry, its mission is "to manage the Hawaiian Home Lands trust effectively and to develop and deliver lands to native Hawaiians." Therefore, efforts to promote and expand agriculture in Hawai'i are not included in this project.</p>			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-8 Objective and policies for the economy--visitor industry.</b>			
(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 Hawai'i's economy.			
(b) To achieve the 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.			X
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.			X
(3) Improve the quality of existing visitor destination areas by utilizing Hawai'i's strengths in science and technology.			X
(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.			X
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai'i's people.			X
(6) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the visitor industry.			X
(7) Foster a recognition of the contribution of the visitor industry to Hawai'i's economy and the need to perpetuate the aloha spirit.			X
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai'i's cultures and values.			X
Notes: This project is a subsistence agriculture project; therefore, these policies regarding the visitor industry do not directly apply. However, the Project is adjacent to the 'Akaka Falls State Park and has set aside three acres of land for commercial activities that will complement the State Park's visitor experience.			
<b>Section 226-9 Objective and policies for the economy--federal expenditures.</b>			
(a) Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawai'i's economy.			
(b) To achieve the federal expenditures objective, it shall be the policy of this State to:			
(1) Encourage the sustained flow of federal expenditures in Hawai'i that generates long-term government civilian employment;			X
(2) Promote Hawai'i's supportive role in national defense, in a manner consistent with Hawai'i's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawai'i's economy;			X
(3) Promote the development of federally supported activities in Hawai'i that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai'i's environment;			X
(4) Increase opportunities for entry and advancement of Hawai'i's people into federal government service;			X
(5) Promote federal use of local commodities, services, and facilities available in Hawai'i;			X
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai'i; and			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-9 Objective and policies for the economy--federal expenditures (continued).</b>			
(7) Pursue the return of federally controlled lands in Hawai'i that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties. [L 1978, c 100, pt of §2; am L 1986, c 276, §8; am L 2006, c 65, §3; am L 2009, c 167, §5]			X
Notes: While DHHL supports the policies to direct federal expenditures toward Hawai'i's economy, the purpose of this project is to provide opportunities for subsistence agriculture to DHHL beneficiaries. Therefore, these policies do not apply to the Project.			
<b>Section 226-10 Objective and policies for the economy--potential growth and innovative activities.</b>			
(a) Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawai'i's economic base.			
(b) To achieve the potential growth and innovative activity objective, it shall be the policy of this State to:			
(1) Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawai'i's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors;	X		
(2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawai'i through the export of services or products or substitution of imported services or products;	X		
(3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements;			X
(4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity;			X
(5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus;			X
(6) Expand Hawai'i's capacity to attract and service international programs and activities that generate employment for Hawai'i's people;			X
(7) Enhance and promote Hawai'i's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts;			X
(8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste;			X
(9) Promote Hawai'i's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State;			X
(10) Provide public incentives and encourage private initiative to attract new or innovative industries that best support Hawai'i's social, economic, physical, and environmental objectives;			X
(11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research;			X
(12) Develop, promote, and support research and educational and training programs that will enhance Hawai'i's ability to attract and develop economic activities of benefit to Hawai'i;			X
(13) Foster a broader public recognition and understanding of the potential benefits of new or innovative growth-oriented industry in Hawai'i;			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-10 Objective and policies for the economy--potential growth and innovative activities (continued).</b>			
(14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawai'i's social, economic, physical, and environmental objectives;			<u>X</u>
(15) Increase research and development of businesses and services in the telecommunications and information industries;			<u>X</u>
(16) Foster the research and development of non fossil fuel and energy efficient modes of transportation;			<u>X</u>
(17) Recognize and promote health care and health care information technology as growth industries.			<u>X</u>
Notes: While DHHL supports the policies to grow innovative activities that serve to increase and diversify Hawai'i's economic base, the purpose of this project is to provide opportunities for subsistence agriculture to DHHL beneficiaries. Therefore, these policies do not directly apply to the Project. However, subsistence agriculture would increase diversified agriculture and make beneficiaries more self-sufficient and less reliant on imported agricultural products.			
<b>Section 226-10.5 Objectives and policies for the economy--information industry.</b>			
(a) Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawai'i as a leader in broadband and wireless communications and applications in the Pacific Region.			
(b) To achieve the information industry objective, it shall be the policy of this State to:			
(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawai'i and between Hawai'i and the world, and make high speed communication available to all residents and businesses in Hawai'i;			<u>X</u>
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawai'i to accommodate future growth and innovation in Hawai'i's economy;			<u>X</u>
(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawai'i;			<u>X</u>
(4) Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawai'i, using technology to communicate with their headquarters, offices, or customers located out-of-state;			<u>X</u>
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry;			<u>X</u>
(6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people;			<u>X</u>
(7) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the information industry;			<u>X</u>
(8) Foster a recognition of the contribution of the information industry to Hawai'i's economy;			<u>X</u>
(9) Assist in the promotion of Hawai'i as a broker, creator, and processor of information in the Pacific.			<u>X</u>
Notes: While DHHL supports the policies to promote telecommunications and information technology, the purpose of this project is to provide opportunities for subsistence agriculture to DHHL beneficiaries. Therefore, these policies do not directly apply to the Project.			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-11 Objectives and policies for the physical environment--land-based, shoreline, and marine resources.</b>			
(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:			
(1) Prudent use of Hawai'i's land-based, shoreline, and marine resources.	<u>X</u>		
(2) Effective protection of Hawai'i's unique and fragile environmental resources.	<u>X</u>		
(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 Hawai'i's natural resources.	<u>X</u>		
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.	<u>X</u>		
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.	<u>X</u>		
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.	<u>X</u>		
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			<u>X</u>
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.	<u>X</u>		
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			<u>X</u>
(8) Pursue compatible relationships among activities, facilities, and natural resources.	<u>X</u>		
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.	<u>X</u>		
Notes: The Project designated stream corridors, major drainages, and areas that have the highest potential for native plant and animal habitat restoration as "Conservation," keeping them out of development. These conservation areas are also intended to help protect water quality if the streams and nearshore waters. The Project is located inland and will therefore not directly impact the shoreline and is not located within the State Conservation Land Use District and will therefore not impact watershed functions.			
<b>Section 226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources.</b>			
(a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai'i'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.			<u>X</u>
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			<u>X</u>
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.			<u>X</u>
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage.	<u>X</u>		
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.	<u>X</u>		

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources (continued).</b>			
Notes: The Project does not promote the preservation and restoration of significant natural and historic resources, but it does seek to preserve such resources, where possible. An archaeological reconnaissance study identified no above-surface historical or cultural sites but the Project will continue to coordinate with the State Historic Preservation Division to ensure that the proper protocols are followed should anything be found. Cultural practices are associated with gathering in the streams, which are designated as conservation areas. Access to streams to engage in cultural practices may be coordinated through the DHHL Land Management Division. There are no federal or state-recognized significant landscapes in the vicinity of the Project. Visual impacts to the rural landscape will be mitigated by buffers around streams, gulches, and the makai portions of the property. A 100-foot wide corridor will be maintained along most of 'Akaka Falls Road, providing an open space buffer as one views the property from the road and conservation-designated lands will provide open space along the perimeter of nearly the entire project site.			
<b>Section 226-13 Objectives and policies for the physical environment--land, air, and water quality.</b>			
(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 Hawai'i's land, air, and water resources.	X		
(2) Greater public awareness and appreciation of Hawai'i's environmental resources.	X		
(b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:			
(1) Foster educational activities that promote a better understanding of Hawai'i's limited environmental resources.	X		
(2) Promote the proper management of Hawai'i's land and water resources.	X		
(3) Promote effective measures to achieve desired quality in Hawai'i's surface, ground, and coastal waters.	X		
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai'i's people.	X		
(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.	X		
(6) Encourage design and construction practices that enhance the physical qualities of Hawai'i's communities.	X		
(7) Encourage urban developments in close proximity to existing services and facilities.			X
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawai'i's people, their cultures and visitors.	X		
<b>Section 226-14 Objective and policies for facility systems--in general.</b>			
(a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.			
(b) To achieve the general facility systems objective, it shall be the policy of this State to:			
(1) Accommodate the needs of Hawai'i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.			X
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.	X		
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.	X		
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-15 Objectives and policies for facility systems--solid and liquid wastes.</b>			
(a) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.	X		
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.	X		
(b) To achieve solid and liquid waste objectives, it shall be the policy of this State to:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.	X		
(2) Promote reuse and recycling to reduce solid and liquid wastes and employ a conservation ethic.	X		
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			X
Notes: DHHL's Hawai'i Island agricultural extension agent will provide technical assistance to DHHL's Honomū agricultural lessees, including for soil and water conservation practices and green waste recycling. Assistance is also available from other, non-DHHL dedicated CTAHR agricultural extension agents, the local Soil and Water Conservation District, and regional non-profit organizations.			
<b>Section 226-16 Objective and policies for facility systems--water.</b>			
(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.	X		
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			X
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			X
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.	X		
(5) Support water supply services to areas experiencing critical water problems.			X
(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.	X		
Notes: Project lessees will utilize water catchment systems to provide irrigation and domestic water. Thus, it will not impact the County water supply system. DHHL's Hawai'i Island agricultural extension agent will provide technical assistance to Honomū agricultural lessees, including for soil and water conservation practices. Assistance is also available from other, non-DHHL dedicated CTAHR agricultural extension agents, the local Soil and Water Conservation District, and regional non-profit organizations.			
<b>Section 226-17 Objectives and policies for facility systems--transportation.</b>			
(a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:			
(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			X
(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			X
Notes: The project will utilize an existing, well-maintained State Highway to provide access.			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-17 Objectives and policies for facility systems--transportation (continued).</b>			
<u>(b) To achieve the transportation objectives, it shall be the policy of this State to:</u>			
<u>(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;</u>			<u>X</u>
<u>(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;</u>			<u>X</u>
<u>(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;</u>	<u>X</u>		
<u>(4) Provide for improved accessibility to shipping, docking, and storage facilities;</u>			<u>X</u>
<u>(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;</u>			<u>X</u>
<u>(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;</u>			<u>X</u>
<u>(7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;</u>			<u>X</u>
<u>(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;</u>			<u>X</u>
<u>(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;</u>			<u>X</u>
<u>(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai'i's natural environment;</u>			<u>X</u>
<u>(11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;</u>			<u>X</u>
<u>(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; and</u>	<u>X</u>		
<u>(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.</u>			<u>X</u>
<u>Notes: This project is not a transportation project, but as it utilizes a State highway to access its parcels, DHHL will work with HDOT, Hawai'i County, and the Division of State Parks, which manages 'Akaka Falls State Park and also utilizes the same highway for access, to make necessary traffic improvements.</u>			
<b>Section 226-18 Objectives and policies for facility systems--energy.</b>			
<u>(a) Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:</u>			
<u>(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;</u>			<u>X</u>
<u>(2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawai'i's dependence on imported fuels for electrical generation and ground transportation;</u>			<u>X</u>
<u>(3) Greater diversification of energy generation in the face of threats to Hawai'i's energy supplies and systems;</u>			<u>X</u>
<u>(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use;</u>			<u>X</u>
<u>(5) Utility models that make the social and financial interests of Hawai'i's utility customers a priority.</u>			<u>X</u>



**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-18 Objectives and policies for facility systems--energy (continued).</b>			
<u>(b) To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably priced, and dependable energy services to accommodate demand.</u>			
<u>(c) To further achieve the energy objectives, it shall be the policy of this State to:</u>			
<u>(1) Support research and development as well as promote the use of renewable energy sources;</u>			<u>X</u>
<u>(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;</u>			<u>X</u>
<u>(3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;</u>			<u>X</u>
<u>(4) Promote all cost-effective conservation of power and fuel supplies through measures, including:</u> <u>      (A) Development of cost-effective demand-side management programs;</u> <u>      (B) Education;</u> <u>      (C) Adoption of energy-efficient practices and technologies; and</u> <u>      (D) Increasing energy efficiency and decreasing energy use in public infrastructure;</u>			<u>X</u>
<u>(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies;</u>			<u>X</u>
<u>(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies;</u>			<u>X</u>
<u>(7) Promote alternate fuels and transportation energy efficiency;</u>			<u>X</u>
<u>(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;</u>			<u>X</u>
<u>(9) Support actions that reduce, avoid, or sequester Hawai'i's greenhouse gas emissions through agriculture and forestry initiatives;</u>			<u>X</u>
<u>(10) Provide priority handling and processing for all state and county permits required for renewable energy projects;</u>			<u>X</u>
<u>(11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity generation and does not impede the development and use of other cost-effective renewable energy sources;</u>			<u>X</u>
<u>(12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawai'i.</u>			<u>X</u>
<u>Notes: This project is not an energy systems project. Electrical power will be made available to the project site by extending existing power lines, but it will be up to each individual DHHL lessee to determine if electrical service is desired.</u>			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-18.5] Objectives and policies for facility systems--telecommunications.</b>			
(a) Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.			
(b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand.			
(c) To further achieve the telecommunications objective, it shall be the policy of this State to:			
(1) Facilitate research and development of telecommunications systems and resources;			<u>X</u>
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			<u>X</u>
(3) Promote efficient management and use of existing telecommunications systems and services;			<u>X</u>
(4) Facilitate the development of education and training of telecommunications personnel.			<u>X</u>
<b>Section 226-19 Objectives and policies for socio-cultural advancement--housing.</b>			
(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 Hawai'i's people to secure reasonably priced, safe, sanitary, and 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 rental and for sale affordable housing is made available to extremely low-, very low-, lower-, moderate-, and above moderate-income segments of Hawai'i's population.	<u>X</u>		
(2) The orderly development of residential areas sensitive to community needs and other land uses.	<u>X</u>		
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawai'i's people.			<u>X</u>
(b) To achieve the housing objectives, it shall be the policy of this State to:			
(1) Effectively accommodate the housing needs of Hawai'i's people.	<u>X</u>		
(2) Stimulate and promote feasible approaches that increase affordable rental and for sale housing choices for extremely low-, very low-, lower-, moderate-, and above moderate-income households.	<u>X</u>		
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.	<u>X</u>		
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing rental and for sale housing units and residential areas.			<u>X</u>
(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.	<u>X</u>		
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.	<u>X</u>		
(7) Foster a variety of lifestyles traditional to Hawai'i through the design and maintenance of neighborhoods that reflect the culture and values of the community.	<u>X</u>		
(8) Promote research and development of methods to reduce the cost of housing construction in Hawai'i.			<u>X</u>
Notes: This Honomū Subsistence Agricultural Homestead Community will provide an opportunity for DHHL beneficiaries to build a house, if they so choose.			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-20 Objectives and policies for socio-cultural advancement--health.</b>			
(a) Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:			
(1) Fulfillment of basic individual health needs of the general public.			<u>X</u>
(2) Maintenance of sanitary and environmentally healthful conditions in Hawai'i's communities.	<u>X</u>		
(3) Elimination of health disparities by identifying and addressing social determinants of health.			<u>X</u>
(b) To achieve the health objectives, it shall be the policy of this State to:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			<u>X</u>
(2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.			<u>X</u>
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			<u>X</u>
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			<u>X</u>
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			<u>X</u>
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.	<u>X</u>		
(7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.	<u>X</u>		
Notes: This project will provide opportunities for native Hawaiians to engage in agriculture that will provide physical activity, food or supplemental income, and land security. DHHL lessees will also be able to build a house on their lot, if they so choose, providing housing security.			
<b>226-21 Objective and policies for socio-cultural advancement--education.</b>			
(a) Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.			
(b) To achieve the education objective, it shall be the policy of this State to:			
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.			<u>X</u>
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.	<u>X</u>		
(3) Provide appropriate educational opportunities for groups with special needs.			<u>X</u>
(4) Promote educational programs which enhance understanding of Hawai'i's cultural heritage.			<u>X</u>
(5) Provide higher educational opportunities that enable Hawai'i's people to adapt to changing employment demands.			<u>X</u>
(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.			<u>X</u>

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>226-21 Objective and policies for socio-cultural advancement--education (continued).</b>			
<u>(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.</u>			<u>X</u>
<u>(8) Emphasize quality educational programs in Hawai'i's institutions to promote academic excellence.</u>			<u>X</u>
<u>(9) Support research programs and activities that enhance the education programs of the State.</u>			<u>X</u>
<u>Notes: The Honomū Subsistence Agricultural Homestead Community is not an education project, but DHHL currently provides for an agricultural extension agent to service its Hawai'i Island beneficiaries. This extension agent will provide agricultural technical assistance to DHHL's Honomū lessees.</u>			
<b>Section 226-22 Objective and policies for socio-cultural advancement--social services.</b>			
<u>(a) Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.</u>			
<u>(b) To achieve the social service objective, it shall be the policy of the State to:</u>			
<u>(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.</u>			<u>X</u>
<u>(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.</u>			<u>X</u>
<u>(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawai'i's communities.</u>			<u>X</u>
<u>(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.</u>			<u>X</u>
<u>(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.</u>			<u>X</u>
<u>(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.</u>			<u>X</u>
<b>Section 226-23 Objective and policies for socio-cultural advancement--leisure.</b>			
<u>(a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.</u>			
<u>(b) To achieve the leisure objective, it shall be the policy of this State to:</u>			
<u>(1) Foster and preserve Hawai'i's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.</u>			<u>X</u>
<u>(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.</u>			<u>X</u>
<u>(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.</u>			<u>X</u>
<u>(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.</u>	<u>X</u>		
<u>(5) Ensure opportunities for everyone to use and enjoy Hawai'i's recreational resources.</u>			<u>X</u>
<u>(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.</u>			<u>X</u>
<u>(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawai'i's people.</u>			<u>X</u>

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-23 Objective and policies for socio-cultural advancement--leisure (continued).</b>			
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			X
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawai'i's population to participate in the creative arts.			X
<b>Section 226-23 Objective and policies for socio-cultural advancement--leisure (continued).</b>			
(10) Assure adequate access to significant natural and cultural resources in public ownership.	X		
Notes: This project is not a recreation project, but it is designed to protect recreational values by conserving open spaces along the highway, streams, and gulches. Access to streams for cultural purposes may be requested from DHHL.			
<b>Section 226-24 Objective and policies for socio-cultural advancement--individual rights and personal well-being.</b>			
(a) Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.			
(b) To achieve the individual rights and personal well-being objective, it shall be the policy of this State to:			
(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.			X
(2) Uphold and protect the national and state constitutional rights of every individual.			X
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			X
(4) Ensure equal opportunities for individual participation in society.			X
<b>Section 226-25 Objective and policies for socio-cultural advancement--culture.</b>			
(a) Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawai'i's people.			
(b) To achieve the culture objective, it shall be the policy of this State to:			
(1) Foster increased knowledge and understanding of Hawai'i's ethnic and cultural heritages and the history of Hawai'i.			X
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai'i's people and which are sensitive and responsive to family and community needs.	X		
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai'i.			X
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawai'i's people and visitors.			X
Notes: This project will provide DHHL beneficiaries with an opportunity to exercise agriculturally-based cultural activities, values, and customs. Access to streams for cultural practices may be requested from DHHL.			

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-26 Objectives and policies for socio-cultural advancement--public safety.</b>			
(a) Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
(1) Assurance of public safety and adequate protection of life and property for all people.			<u>X</u>
(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.			<u>X</u>
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawai'i's people.			<u>X</u>
<b>Section 226-27 Objectives and policies for socio-cultural advancement--government.</b>			
(a) Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all levels in the State.			<u>X</u>
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			<u>X</u>
(b) To achieve the government objectives, it shall be the policy of this State to:			
(1) Provide for necessary public goods and services not assumed by the private sector.			<u>X</u>
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			<u>X</u>
(3) Minimize the size of government to that necessary to be effective.			<u>X</u>
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawai'i.			<u>X</u>
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			<u>X</u>
(6) Provide for a balanced fiscal budget.			<u>X</u>
(7) Improve the fiscal budgeting and management system of the State.			<u>X</u>
(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			<u>X</u>

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Hawai'i State Plan Hawai'i Revised Statutes Chapter 226 Part III. Priority Guideline</b>			
<b>Section 226-101 Purpose.</b> The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
<b>Section 226-102 Overall direction.</b> 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 seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.			
<b>Section 226-103 Economic priority guidelines.</b>			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i'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;			X
(ii) Rely on economic linkages within the local economy;			X
(iii) Diversify the economy;	X		
(iv) Reinvest in the local economy;	X		
(v) Are sensitive to community needs and priorities;			X
(vi) Demonstrate a commitment to provide management opportunities to Hawai'i residents;			X
(B) Encourage investments in innovative activities that have a nexus to the State, such as:			
(i) Present or former residents acting as entrepreneurs or principals;	X		
(ii) Academic support from an institution of higher education in Hawai'i;			X
(iii) Investment interest from Hawai'i residents;			X
(iv) Resources unique to Hawai'i that are required for innovative activity;			X
(v) Complementary or supportive industries or government programs or projects.			X
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			X
(3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.			X
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			X
(5) Streamline the processes for building and development permit and review and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where scientific evidence indicates that public health, safety, and welfare would not be adversely affected.			X
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawai'i's small-scale producers, manufacturers, and distributors.			X
(7) Continue to seek legislation to protect Hawai'i from transportation interruptions between Hawai'i and the continental United States.			X
(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:			
(A) An industry that can take advantage of Hawai'i's unique location and available physical and human resources.	X		
(B) A clean industry that would have minimal adverse effects on Hawai'i's environment.	X		

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-103 Economic priority guidelines (continued).</b>			
<u>(C) An industry that is willing to hire and train Hawai'i's people to meet the industry's labor needs at all levels of employment.</u>	<u>X</u>		
<u>(D) An industry that would provide reasonable income and steady employment.</u>	<u>X</u>		
<u>(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawai'i business.</u>	<u>X</u>		
<u>(10) Enhance the quality of Hawai'i's labor force and develop and maintain career opportunities for Hawai'i's people through the following actions:</u>			
<u>(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.</u>	<u>X</u>		
<u>(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.</u>			<u>X</u>
<u>(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.</u>			<u>X</u>
<u>(D) Promote career opportunities in all industries for Hawai'i's people by encouraging firms doing business in the State to hire residents.</u>			<u>X</u>
<u>(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on- the-job training opportunities.</u>			<u>X</u>
<u>(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.</u>			<u>X</u>
<u>(b) Priority guidelines to promote the economic health and quality of the visitor industry:</u>			
<u>(1) Promote visitor satisfaction by fostering an environment which enhances the aloha spirit and minimizes inconveniences to Hawai'i's residents and visitors.</u>			<u>X</u>
<u>(2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.</u>			<u>X</u>
<u>(3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.</u>	<u>X</u>		
<u>(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai'i's significant natural, scenic, historic, and cultural resources.</u>	<u>X</u>		
<u>(5) Develop and maintain career opportunities in the visitor industry for Hawai'i's people, with emphasis on managerial positions.</u>			<u>X</u>
<u>(6) Support and coordinate tourism promotion abroad to enhance Hawai'i's share of existing and potential visitor markets.</u>			<u>X</u>
<u>(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.</u>			<u>X</u>
<u>(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.</u>			<u>X</u>
<u>(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.</u>			<u>X</u>
<u>(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:</u>			
<u>(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.</u>		<u>X</u>	



**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-103 Economic priority guidelines (continued).</b>			
(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawai'i.			X
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			X
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.	X		
(2) Assist in providing adequate, reasonably priced water for agricultural activities.	X		
(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.	X		
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			X
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawai'i's agricultural community.			X
(6) Seek favorable freight rates for Hawai'i's agricultural products from interisland and overseas transportation operators.			X
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.	X		
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.	X		
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.	X		
(10) Support the continuation of land currently in use for diversified agriculture.	X		
(11) Encourage residents and visitors to support Hawai'i's farmers by purchasing locally grown food and food products.	X		
(e) Priority guidelines for water use and development:			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.	X		
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			X
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			X
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			X
(g) Priority guidelines to promote the development of the information industry:			
(1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability, that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawai'i.			X
(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-103 Economic priority guidelines (continued).</b>			
(3) <u>Encourage the development of small businesses in the information field such as software development; the development of new information systems, peripherals, and applications; data conversion and data entry services; and home or cottage services such as computer programming, secretarial, and accounting services.</u>			<u>X</u>
(4) <u>Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.</u>			<u>X</u>
(5) <u>Encourage research activities, including legal research in the information and telecommunications fields.</u>			<u>X</u>
(6) <u>Support promotional activities to market Hawai'i's information industry services.</u>			<u>X</u>
(7) <u>Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.</u>			<u>X</u>
Notes: This project will provide DHHL lessees with an opportunity to produce agricultural products that can supplement family income.			
<b>226-104 Population growth and land resources priority guidelines.</b>			
(a) <u>Priority guidelines to effect desired statewide growth and distribution:</u>			
(1) <u>Encourage planning and resource management to ensure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawai'i's people.</u>			<u>X</u>
(2) <u>Manage a growth rate for Hawai'i's economy that will parallel future employment needs for Hawai'i's people.</u>			<u>X</u>
(3) <u>Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.</u>			<u>X</u>
(4) <u>Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.</u>			<u>X</u>
(5) <u>Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.</u>			<u>X</u>
(6) <u>Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.</u>			<u>X</u>
(7) <u>Support the development of high technology parks on the neighbor islands.</u>			<u>X</u>
(b) <u>Priority guidelines for regional growth distribution and land resource utilization:</u>			
(1) <u>Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.</u>			<u>X</u>
(2) <u>Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.</u>	<u>X</u>		
(3) <u>Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.</u>			<u>X</u>
(4) <u>Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.</u>			<u>X</u>
(5) <u>In order to preserve green belts, give priority to state capital-improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.</u>			<u>X</u>

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>226-104 Population growth and land resources priority guidelines. (continued).</b>			
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.			X
(7) Pursue rehabilitation of appropriate urban areas.			X
(8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.			X
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.			X
(10) Identify critical environmental areas in Hawai'i to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.	X		
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.			X
(12) Utilize Hawai'i'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.	X		
(13) Protect and enhance Hawai'i's shoreline, open spaces, and scenic resources.	X		
Notes: The Honomū Subsistence Agricultural Homestead Community will provide agricultural lots to native Hawaiians on land that is identified as State Land Use Agriculture.			
<b>Section 226-105 Crime and criminal justice. Priority guidelines in the area of crime and criminal justice:</b>			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			X
(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.			X
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			X
(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.			X
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			X
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			X
Notes: While the purpose of this project is not to reduce crime, DHHL is open to suggestions and coordination with law enforcement in order to minimize incidents of criminal activity. DHHL homestead lessees are encouraged to form community associations, if they so choose. These associations may coordinate with local law enforcement entities to implement neighborhood programs that prevent criminal activities.			
<b>Section 226-106 Affordable housing. Priority guidelines for the provision of affordable housing:</b>			
(1) Seek to use marginal or nonessential agricultural land, urban land, and public land to meet housing needs of extremely low-, very low-, lower-, moderate-, and above moderate-income households.			X
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			X

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-106 Affordable housing. Priority guidelines for the provision of affordable housing (continued).</b>			
(3) Improve information and analysis relative to land availability and suitability for housing.			X
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawai'i's extremely low-, very low-, lower-, and moderate-income households and residents with special needs.			X
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawai'i's people for the purchase of initial owner-occupied housing.			X
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.			X
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.	X		
(8) Give higher priority to the provision of quality housing that is affordable for Hawai'i's residents and less priority to development of housing intended primarily for individuals outside of Hawai'i.	X		
Notes: While this project is primarily an agricultural homestead project, DHHL lessees will have the option to build a home on their lot. Eligible beneficiaries are native Hawaiians who have priority on the Hawai'i Island Agricultural Waitlist.			
<b>Section 226-107 Quality education. Priority guidelines to promote quality education:</b>			
(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;			X
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;			X
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education workforce;			X
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities;			X
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:			
(A) The electronic exchange of information;			X
(B) Statewide electronic mail;			X
(C) Access to the Internet.			X
Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;			X
(6) Pursue the establishment of Hawai'i's public and private universities and colleges as research and training centers of the Pacific;			X
(7) Develop resources and programs for early childhood education;			X
(8) Explore alternatives for funding and delivery of educational services to improve the overall quality of education;			X
(9) Strengthen and expand educational programs and services for students with special needs.			X
<b>Section 226-108 Sustainability. Priority guidelines and principles to promote sustainability shall include:</b>			
(1) Encouraging balanced economic, social, community, and environmental priorities;	X		
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;	X		
(3) Promoting a diversified and dynamic economy;			X
(4) Encouraging respect for the host culture;	X		

**Table 3-1 Project's Consistency with the Hawai'i State Plan (continued)**

<b>S = Supportive, N/S = Non Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>Section 226-108] Sustainability. Priority guidelines and principles to promote sustainability shall include (continued).</b>			
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;	X		
(6) Considering the principles of the ahupuaa system;	X		
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawai'i.	X		
Notes: This project was designed to provide for housing, economic well-being, community, and the environment. Natural resources, such as streams and native habitat, are conserved and drainage and runoff are considered in neighborhood design. A community gathering space has been set aside and cultural access to common areas, such as streams, may be requested.			
<b>Section 226-109] Climate change adaptation priority guidelines. Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:</b>			
(1) Ensure that Hawai'i's people are educated, informed, and aware of the impacts climate change may have on their communities;			X
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;			X
(3) Invest in continued monitoring and research of Hawai'i's climate and the impacts of climate change on the State;			X
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;			X
(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;	X		
(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;			X
(7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;	X		
(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;			X
(9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans;			X
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.			X
Notes: This project addresses the potential climate change impact of more frequent and larger rain events by protecting streams, gulches, and major drainageways throughout the property. Areas that could potentially flood are set aside as "conservation." DHHL homestead lessees are encouraged to form community associations, if they so choose. These associations may coordinate additional appropriate climate change adaptation initiatives with and for their members.			

### 3.2.4 Complete Streets, Hawai‘i State Act 54, Session Laws of Hawaii (SLH) 2009

In 2009, State Act 54, SLH 2009 was passed, requiring state and county transportation departments to “adopt a complete streets policies that seeks to reasonably accommodate convenient access and mobility for all users of the public highways within their respective jurisdictions...including pedestrians, bicyclists, transit users, motorists, and persons of all ages and abilities. The Project is a subsistence agriculture homestead, intended for DHHL beneficiaries who will cultivate the land. Therefore, road standards will include 10-foot wide travel lanes and 4-foot wide grassed shoulders to reflect the rural nature of this project. Under these rural standards, DHHL will maintain ownership and maintenance of the roads. The grassed shoulders would allow for pedestrian travel and the low amounts of traffic that will be generated by the maximum 375 lots would allow bicyclists to ride along the roads.

### 3.3 County of Hawai‘i Plans and Policies

#### 3.3.1 Memorandum of Agreement Between the County of Hawaii and the Department of Hawaiian Home Lands (2002)

In 2002, the County of Hawai‘i and DHHL signed a Memorandum of Agreement (MOA), found in Appendix H, “to clarify the respective roles, responsibilities, and obligations of the County of Hawaii (County) and the Department of Hawaiian Home Lands (DHHL) relating to land use planning, infrastructure maintenance, enforcement of laws, and collection of taxes and other fees on Hawaiian home lands.” The following general principles guided the development of the MOA:

- A. The Hawaiian Homes Commission is responsible for determining land use on Hawaiian home lands. The County may not use its land use and zoning powers to prevent the Hawaiian Homes Commission from controlling the use of Hawaiian home lands.
- B. The County and DHHL share common goals in planning for the use of Hawaiian home lands: both support the orderly development of those lands for the benefit of native Hawaiians and both are committed to the integration of planning by DHHL and Hawaii County.
- C. The County should manage and maintain all infrastructure built to County standards.
- D. The County is authorized to enforce criminal laws and applicable County ordinances and regulations on Hawaiian home lands.
- E. Hawaiian homestead lessees are residents of the County of Hawaii and should be treated in a manner consistent with all other residents of the County.
- F. Hawaiian homestead lessees should pay all taxes and fees required by law.
- G. The County and DHHL acknowledge that there are areas where agreement will not be reached, and agree to continue to work together toward a mutually acceptable resolution of such issues.

### 3.3.2 County General Plan

The County of Hawaiʻi's General Plan sets forth the long-range objectives and policies for the welfare of the Hawaiʻi Island community and provides direction and a framework to guide programs and activities within the County of Hawaiʻi. The current General Plan was adopted in 2005, with amendments in 2006, 2007, 2009, 2012, and 2014.

The County of Hawaiʻi **General Plan Land Use Pattern Allocation Guide (LUPAG)** is intended to guide future development in the County of Hawaiʻi. The LUPAG designates the project site as Important Agricultural Lands (**Figure 3-2**), which are suited for sustained high agricultural yields. As the proposed project is a DHHL subsistence agricultural homestead community, the land use is aligned with the County LUPAG as the primary use of the land is for agriculture.

County General Plan goals and policies supported by the Project include:

## Section 5: Flooding and Other Natural Hazards

### 5.2 GOALS

- (e) Reduce surface water and sediment runoff.

### 5.3 POLICIES

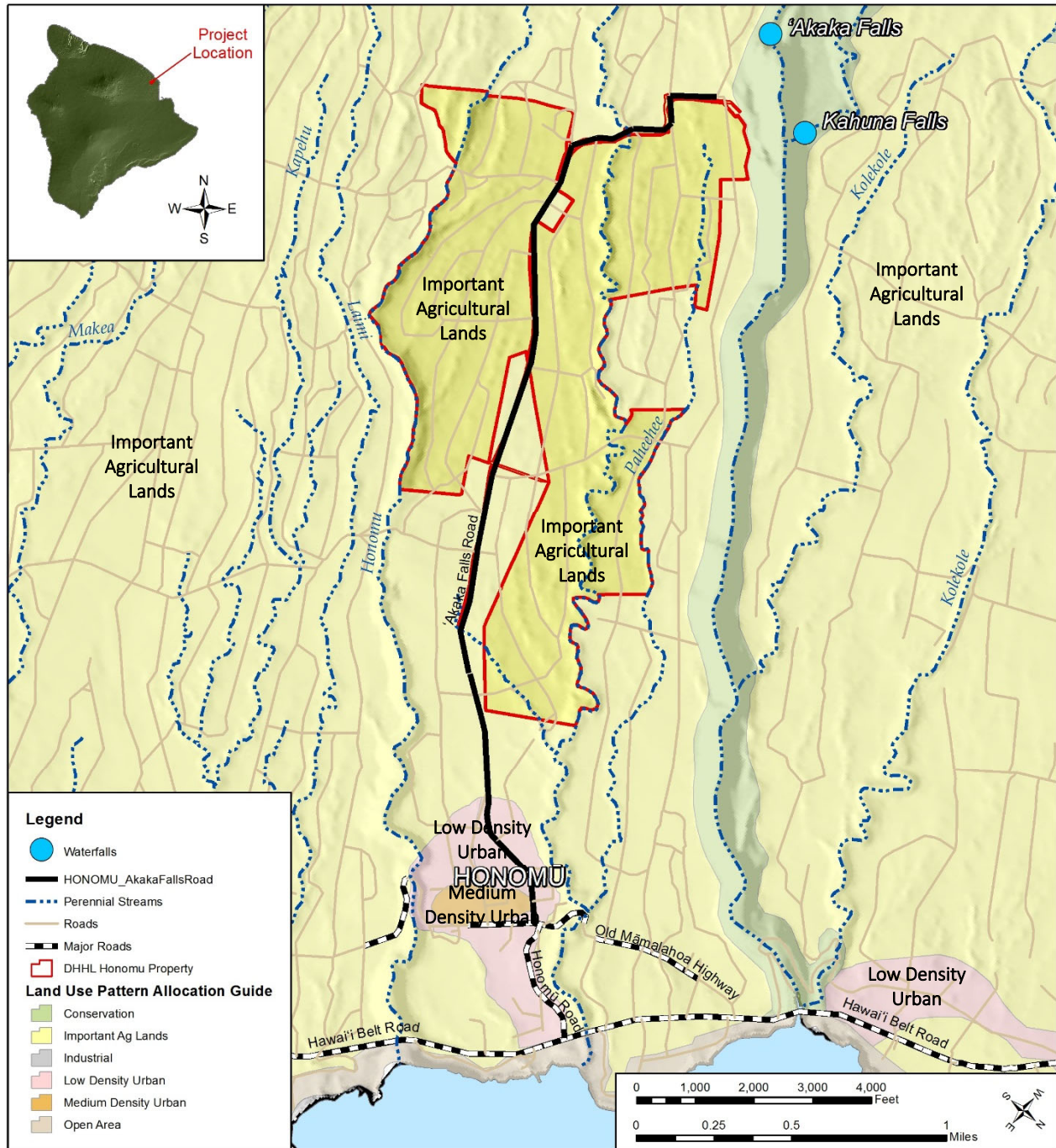
- (e) Promote and provide incentives for participation in the Soil and Water Conservation Districts' conservation programs for developments on agricultural and conservation lands.
- (f) The "Drainage Master Plan for the County of Hawaii" shall be reviewed and updated to incorporate new studies and reflect newly identified priorities.
- (g) Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.
- (h) Develop a comprehensive program for the coordinated construction of a drainage network along a single drainage system.
- (m) Encourage grassed shoulder and swale roadway design where climate and grade are conducive.
- (n) Develop drainage master plans from a watershed perspective that considers nonstructural alternatives, minimizes channelization, protects wetlands that serve drainage functions, coordinates the regulation of construction and agricultural operation, and encourages the establishment of floodplains as public green ways.
- (o) Encourage and provide incentives for agricultural operators to participate in Soil and Water Conservation District Programs.
- (p) Where applicable, natural drainage channels shall be improved to increase their capacity with special consideration for the practices of proper soil conservation, and grassland and forestry management.
- (q) Consider natural hazards in all land use planning and permitting.





Figure 3-2 Land Use Pattern Allocation Guide (LUPAG) Map

HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY



The proposed project will consider previous and existing drainage patterns and features to minimize impacts to on-site drainage patterns. Existing streams and major drainages will also be protected as conservation lands. On-site retention features, best management practices, and a Master Drainage Plan, developed in cooperation with the Soil and Water Conservation District (SWCD), will also minimize increases in runoff and erosion from the Project. Lessees will be encouraged to develop conservation plans for their agricultural areas with the SWCD. Proposed road designs include four-foot grassed shoulders and swales to control runoff from the roadway.

## **Section 8: Natural Resources and Shoreline**

### **8.2 GOALS**

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

The proposed project will maintain a third of the site in conservation to protect streams, drainageways, and an area identified for possible native plant restoration. Grading will consider previous and existing drainage patterns and a Master Drainage Plan will include BMPs to minimize runoff and erosion. Retention features will also help to contain on-site runoff.

## **Section 9: Housing**

### **9.2 GOALS**

- (d) Create viable communities with affordable housing and suitable living environments.
- (h) Make affordable housing available in reasonable proximity to employment centers.
- (i) Encourage and expand home ownership opportunities for residents.

### **9.3 POLICIES**

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

The proposed project will create a viable subsistence agricultural community in the Honomū area. As the lands are designated to be used for the fulfillment of the Hawaiian Homes Commission Act, these lands will be available for the native Hawaiian ethnic population as defined by the Act. While DHHL applicants are not required to live on-property, those that choose to do so will have the opportunity to create community spaces within the project and supplement household income and food production on-site. Honomū is located approximately 13-14 miles north of Hilo, making it accessible to a main employment center on the island.

## Section 13.2: Roadways

### 13.2.2 Goals

- (a) Provide a system of roadways for the safe, efficient and comfortable movement of people and good.

### 13.2.3 Policies

- (j) Transportation and drainage systems shall be integrated where feasible.
- (l) Adopt street design standards that accommodate, where appropriate, flexibility in the design of streets to preserve the rural character of an area and encourage a pedestrian-friendly design, including landscaping and planted medians.
- (m) Develop minimum street standards for homestead and other currently substandard roadways that are offered for dedication to the County to ensure minimal levels of public safety.

The Project proposes rural standard roadways that are appropriate for the agricultural setting of the project and include grassed shoulders and swales or other controls that will help to manage and convey runoff. A right-of-way of 50 feet will be established to allow for upgrades that may make the roadways eligible for future dedication to the County.

## Section 14: Land Use – Overview

### 14.1.2 Goals

- (a) Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.
- (b) Protect and encourage the intensive and extensive utilization of the County's important agricultural lands.
- (c) Protect and preserve forest, water, natural and scientific reserves and open areas

The proposed project is primarily a DHHL subsistence agricultural homestead that will keep the former sugar plantation lands in agricultural cultivation. It will also include community spaces and agricultural expansion areas to promote community cohesion and provide opportunities to expand economic agricultural opportunities. Natural drainageways and areas identified as having the best potential for native plant restoration have been designated as conservation lands that will remain undeveloped.

## Section 14: Land Use – Agriculture

### 14.2.2 Goals

- (a) Identify, protect and maintain important agriculture lands on the island of Hawaii.
- (b) Preserve the agricultural character of the island.

### 14.2.3 Policies

- (a) Implement new approaches to preserve important agricultural land.
- (d) Agricultural land may be used as one form of open space or as green belt.
- (j) Ensure that development of important agricultural land be primarily for agricultural use.

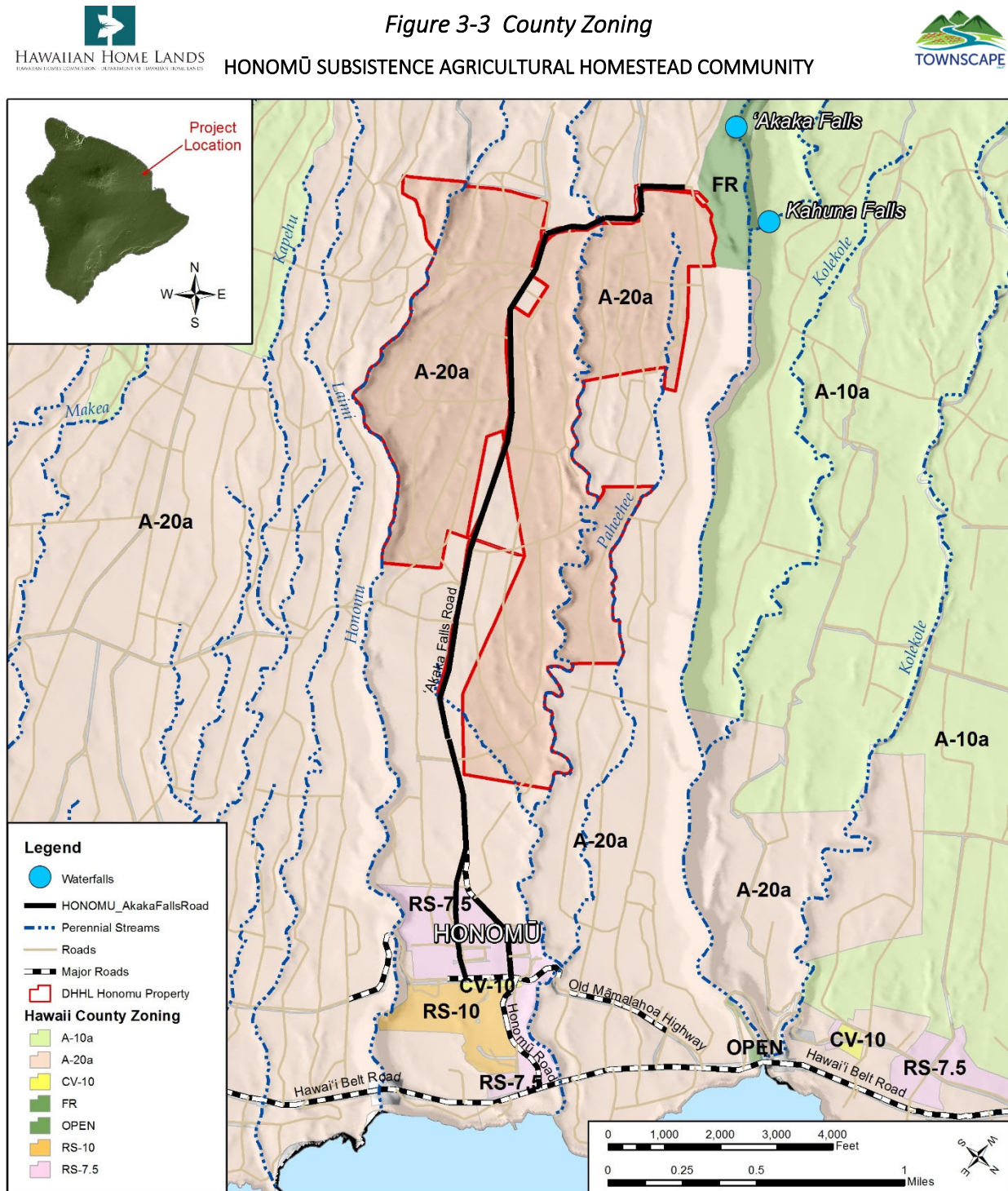
The proposed project is primarily a DHHL subsistence agricultural homestead that will keep the former sugar plantation lands in agricultural cultivation. It will also include community spaces and agricultural expansion areas to promote community cohesion and provide opportunities to expand economic agricultural opportunities. The course of action identified by the General Plan for North Hilo/Hāmākua is to “Encourage large landowners to make agricultural lands available for agriculture.” DHHL is making their lands available to applicants on the Hawai‘i Island agricultural wait list.

### 3.3.3 Zoning, Chapter 25, Hawai‘i County Code

Chapter 25 of the Hawai‘i County Code is known as the zoning code. It is applied and administered within the framework of the County General Plan, a long-range plan that guides the future development of the County. The project site is zoned A-20a, which is an agricultural district with a minimum building site area of 20 acres. The proposed project will have lots that are between one and three acres in size and will therefore have lots that are smaller than the minimum lot size dictated by the County zoning.

Attorney General Opinion 72-21 found that “Hawaiian home lands needed for purposes of the [Hawaiian Homes Commission] Act are to be used and disposed of in accordance with the Act and are not subject to county zoning requirements.” Therefore, because these lands are to be used to fulfill the purposes of the HHCA, DHHL is not subject to county zoning. However, according to Hawaii Revised Statutes Chapter 205 Land Use Commission, Article 5 Zoning, the minimum lot size for agricultural district lands is no less than one acre. The proposed project will meet this minimum lot size of one acre.





- A-10a Agricultural District, 10-acre minimum building site area
- A-20a Agricultural District, 20-acre minimum building site area
- CV-10 Village Commercial District, 10,000 square foot minimum building site area
- FR Forest Reserve
- OPEN
- RS-10 Single-family residential district, 10,000 square foot minimum building site area
- RS-7.5 Single-family residential district, 7,500 square foot minimum building site area

Additionally, based on the 2002 Memorandum of Agreement Between the County of Hawaii and the Department of Hawaiian Home Lands (Appendix H), described in Section 3.3.1, DHHL and its lessees are required to follow County zoning standards and land use controls once DHHL has communicated its zoning to the County, which for this project, will be Family Agriculture for the subsistence agricultural lots. Family Agricultural (FA) zones are meant to provide for “small-scale agricultural operations associated with residential activities and which may be characterized by farm estates, small acreage farms, or subsistence lots” (Section 25-5-60, Hawai‘i County Code). Additionally, Family Agricultural zones are intended to be primarily comprised of agricultural lands less than five acres in size within State land use agricultural districts and not classified as A or B under the land study bureau’s master productivity rating, which these lands all comply with. FA zoned lands also are primarily intended for areas that are not classified as prime, unique, or other important agricultural lands. This property is classified as prime agricultural land. The County will enforce land use codes and regulations, with the assistance of DHHL.

### 3.3.4 Hāmākua Community Development Plan (CDP)

The Hāmākua Community Development Plan (CDP) is an official plan authorized by the County of Hawai‘i General Plan that translates the broad goals and objectives of the General Plan to the unique needs and conditions of the region. CDPs are adopted by County ordinance and are long-range plans with 20-year planning horizons. The proposed project supports the following objectives of the *Planning Director’s Recommended Hāmākua CDP (2018)*:

#### Section 1.8.1 Community Objectives

##### ‘Āina

**Objective 1:** Protect, restore, and enhance watershed ecosystems, sweeping views, and open spaces from mauka forests to makai shorelines, while assuring responsible public access for recreational, spiritual, cultural, and sustenance practices.

**Objective 2:** Protect and restore viable agricultural lands and resources. Protect and enhance views and open spaces that exemplify Hāmākua’s rural character.

The proposed project is aligned with the ‘Āina Objectives as the project will protect watershed resources, which will be outlined in the Master Drainage Plan for the site. The project will protect viable agricultural lands and resources by the creation of a DHHL subsistence agricultural homestead community which will utilize the lands primarily for agriculture. The project will attempt to minimize the loss of views and open spaces to the extent possible by keeping the land in agriculture and providing buffers along the streams and roadway.

## Community

**Objective 4:** Protect and nurture Hamakua's social and cultural diversity and heritage assets, including sacred places, historic sites and buildings, and distinctive plantation towns.

**Objective 6:** Develop and improve critical community infrastructure, including utilities, healthcare, emergency services, affordable housing, educational opportunities and recreational facilities to keep our 'ohana safe, strong, and healthy.

The proposed project will provide opportunities for native Hawaiians to return to their agricultural roots. Necessary infrastructure including roadways and electricity will be provided and the Honomū Subsistence Agricultural Homestead Community will be provided with the land and opportunity to shape community, recreational, and economic facilities within the project site.

## Economy

**Objective 8:** Promote, preserve and enhance a diverse, sustainable, local economy.

**Objective 9:** Encourage the increase and diversity of employment and living options for residents, including living wage jobs and entrepreneurial opportunities that allow residents to work and shop close to home and that complement Hamakua's ecology, rural character, and cultural heritage.

**Objective 11:** Enhance and promote local and sustainable agriculture, farming, ranching, renewable energy, and related economic support systems.

**Objective 12:** Preserve traditional subsistence practices and encourage a reciprocity (e.g. bartering) economy as a sustainable complement to Hāmākua's resource-based economy.

As the proposed project is for the establishment of a DHHL subsistence agricultural homestead community, the project will enhance and promote local and sustainable agriculture, farming, ranching, and related economic systems. As a subsistence community, it is aligned with the objective to preserve traditional subsistence practices and provides DHHL homesteaders with the opportunity to supplement their incomes with agricultural products grown on their lots. DHHL's agricultural extension agent will provide technical assistance to DHHL agricultural homesteaders to maximize successful agricultural operations.



Additionally, the Hāmākua CDP includes the following land use policy (Policy 4), “In order to preserve larger lot agricultural lands for productive agricultural use, allow rural development on lands near urban areas where an intermediate land use between residential and productive agricultural areas is consistent with the surrounding uses and rural character. This is reflected in the location of “Rural” ( R) areas on the CDP Land Use Guide Map, which is intended to facilitate changes of zone to the “ Family Agricultural District” ( FA).” However, DHHL does not own vacant, productive, and accessible agricultural lands to covert to subsistence agriculture in Rural areas or Family Agricultural Districts. Therefore, the Department asserts its authority under the Hawaiian Homes Commission Act (HHCA, 1920), adopted into the Hawai‘i Revised Statutes, to further the policy of the HHCA “to enable native Hawaiians to return to their lands in order to fully support self-sufficiency for native Hawaiians and the self-determination of native Hawaiians in the administration of this Act, and the preservation of the values, traditions, and culture of native Hawaiians.” While this authority allows for the superseding of County policies, DHHL has decided to designate a minimum lot size of one acre, which is in agreement with the State Agriculture Land Use District [HRS §205-5 (b) (5)] designation assigned to these lands. Additionally, not all lessees will build a house on their lot, as only about 50% of current DHHL agricultural lessees reside on their lots.

### 3.3.5 County of Hawai‘i Special Management Area (SMA)

The Special Management Area (SMA) permitting system is a county regulatory function that is a part of the CZM program. The SMA permit was established in 1975 with the enactment of Act 176 on shoreline protection. SMA lands are those lands that are in close proximity to the shoreline. SMA permits regulate land uses within these designated areas. The project site is not located within the SMA.

## 3.4 Approvals and Permits

The following approvals and permits are anticipated to be needed for completion of the Project:

### U.S. Army Corps of Engineers

- Section 404 Clean Water Act Permit, Discharge of Dredge or Fill Material
- Section 10 Rivers and Harbors Act Permit, Construction in Navigable Waters

### Commission on Water Resource Management

- Stream Channel Alteration Permit

### State Historic Preservation Division

- HRS §6E, Historic Preservation Review Clearance

### **Office of Environmental Quality Control**

- HRS Chapter 343 compliance

### **State Department of Health**

- National Pollutant Discharge Elimination System (NPDES) General Permit
- Individual Wastewater System Approval
- Noise Variance (possible for construction)

### **State Department of Transportation**

- Permit to Perform Work Within a State Highway Right-of-Way

### **County Planning Department**

- Agricultural Project District approval

### **County Department of Public Works**

- Grading and Grubbing Permit
- Building Permit

*This page intentionally left blank*

## 4 PROJECT ALTERNATIVES

Three alternatives to the proposed action were considered to meet the purpose of the Project, which is to provide agricultural homesteads to native Hawaiians on the Hawai'i Island Agricultural Waitlist. The purpose of considering project alternatives is to see if there are other options that can meet the purpose of the project while having a lesser detrimental effect on the environment. The three alternatives to the proposed action are:

- No Action Alternative
- Maximum Density of Subsistence Agricultural Lots Alternative
- Alternative Location

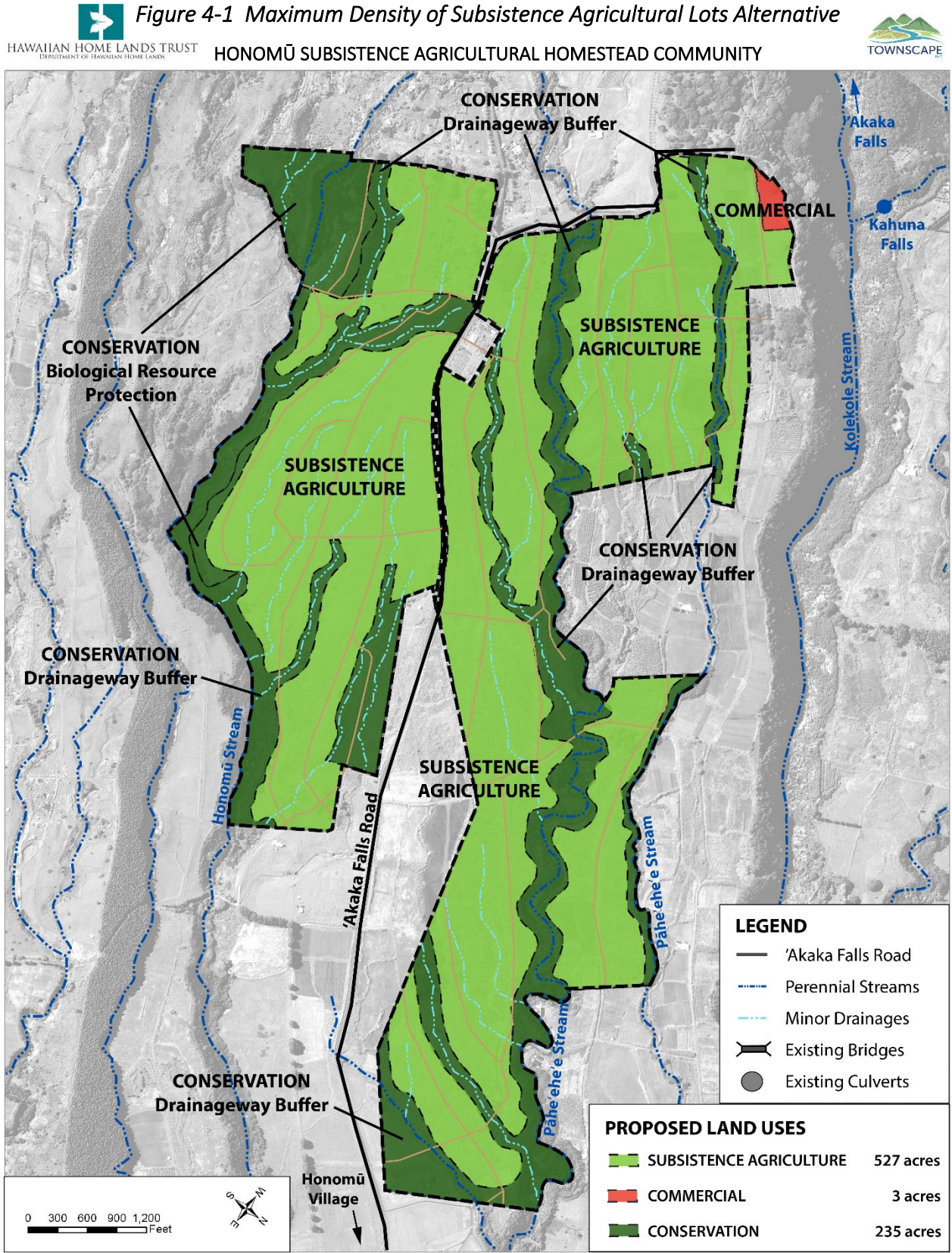
### 4.1 No Action Alternative

Under the “No Action” alternative, there would be no change from the current situation where the land is used by a few licensees. Meanwhile, DHHL beneficiaries, some of whom have been on the waitlist for over 30 years, continue to wait for agricultural leases. The 7,000+ long agricultural Waitlist for Hawai'i Island will continue to grow while good farm land is used by few farmers/ranchers who may not necessarily be beneficiaries of the Hawaiian Homes Trust. Additionally, no land use improvements would be made to further protect waterways and mitigate runoff, as the Department could not justify substantial investments in land that does not directly meet its mandate “to enable native Hawaiians to return to their lands.”

### 4.2 Maximum Density of Subsistence Agricultural Lots Alternative

Another alternative would be to maximize the number of agricultural leases that could be awarded, providing the greatest benefit to the over 7,000 applicants on the Agricultural Waitlist for Hawai'i Island. This alternative commits 527 acres (67%) of developable lands to subsistence agricultural homesteading (**Figure 4-1**).

In order to maximize the number of lots available to applicants, all lots would be approximately one acre in size, resulting in approximately 474 lots that would be available to applicants on the Waitlist. This alternative would result in 99-349 more lots being made available to applicants on the DHHL's Hawai'i Island agricultural waitlist than in the preferred alternative. During the planning process, some of the applicants on the Waitlist advocated for this alternative and while providing more leases was a compelling reason to select this alternative, DHHL also considered environmental and social impacts when making its decision.



From a social standpoint, the additional lots would potentially increase the 2010 residential population of Honomū by 780 people, an increase of 153%. This is 161 more residents than in the higher estimate of new residents projected in the preferred alternative (**Table 4-1**). DHHL sought to balance their mandate “to enable native Hawaiians to return to their lands,” with impacts to the existing community.

**Table 4-1 Comparison of Acres, Lots, Houses, and New Residents between the Maximum Density of Subsistence Agricultural Lots Alternative and the Preferred Alternative**

	Maximum Density of Subsistence Agricultural Lots Alternative	Preferred Alternative
Acres available for Subsistence Agriculture	527	417
Estimated number of subsistence agricultural lots	474	125-375
Estimated number of houses	237	63-188
Estimated number of new residents	780	207-619

Additionally, 110 acres of various land uses were converted to subsistence agriculture in this alternative, resulting in the loss of opportunities for economic expansion, open space, visual buffers, and community cohesion. These outcomes are presented in more detail in **Table 4-2**.

**Table 4-2 Outcomes of Converting Some Land Uses to Subsistence Agriculture**

Acres	Land Use in the Preferred Alternative	Land Use in This Alternative	Outcomes
45	Supplemental Agriculture	Subsistence Agriculture	Lessees would lose the opportunity to expand successful subsistence agriculture to commercial farming within the same homestead community
15	Conservation	Subsistence Agriculture	Loss of open space in areas that are more difficult to either access or develop within the property.
10	Community Use	Subsistence Agriculture	Lessees would lose the opportunity to develop facilities for gathering and other community uses.
40	Special District	Subsistence Agriculture	Loss of an open space area that could be utilized for additional surface water <u>retention</u> /detention and open space buffers that would shield views from ‘Akaka Falls Road to the Honomū Subsistence Agricultural Homestead lots.

### 4.3 Alternative Location

The DHHL Hawai'i Island Plan (2002) identifies Lower Pi'ihonua as the preferred location for subsistence agriculture in the East Region of Hawai'i Island. This tract was selected because it has vehicular access, good rainfall, moderate slopes, and a history of agricultural use. DHHL did evaluate this tract for a subsistence agricultural homestead community, but upon further study, it found that access to the site was hindered by an insufficiently sized bridge that cannot handle significant increases in traffic volume. Improvements necessary to accommodate the projected traffic increases were determined to be cost-prohibitive. DHHL then reexamined their inventory of suitable agricultural lands and found that Honomū provided an opportunity for subsistence agriculture, as it had similar favorable qualities as the Lower Pi'ihonua tract.

Honomū was an even more attractive site due to the high quality of the soils in comparison to the marginal ones identified at Pi'ihonua. DHHL and its beneficiaries have typically had to make due with marginal and low-quality lands with little access to resources. The Honomū site, with its access to water, fertile soils, and markets, provided the best opportunity for applicants to be successful at subsistence agriculture.

## 5 Findings and Anticipated Determination

### 5.1 Anticipated Determination

Based upon an analysis of the affected environment, potential impacts, and mitigation measures, the Department of Hawaiian Home Lands ~~anticipates~~ has issued a Finding of No Significant Impact (FONSI). A discussion of this analysis against 13 significance criteria is provided below.

### 5.2 Significance Criteria

A project is evaluated against 13 significance criteria outlined in Hawai'i Administrative Rules §11-200-12 to determine if a project ~~will~~ may have significant effect on the environment.<sup>22</sup> As defined in Hawai'i Revised Statutes §343-2, "Significant effect' means the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State." The expected impacts of the Honomū Subsistence Agricultural Homestead Community have been evaluated and discussion on how the Project relates to the significance criteria is provided below.

#### (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

A biological survey found no threatened or endangered plants or animals and few native species. However, streams and gulches are designated as conservation areas within the project, protecting native habitat. Additionally, DHHL lessees will be informed of the potential for native plants and animals, primarily birds, to inhabit and pass through the property. Proper protocol for managing such species will be developed with lessees.

The property was previously under intensive sugar cultivation and has since been used for farming and pasture, limiting the expectation of finding pre-Contact archaeological or cultural features, or significant native habitats. An archaeological reconnaissance study found no pre-Contact features but did recognize historic features relating to sugar plantation infrastructure: plantation roads, culverts, and berms. While few archaeological features are still visible on-site, DHHL will work with the State Historic Preservation Division to develop an acceptable path forward for those plantation-era features that are determined to be historic in nature. Any additional features found during construction will similarly be referred to SHPD for proper compliance with regulatory requirements.

---

<sup>22</sup> Governor Ige signed new Administrative Rules on July 30, 2019, repealing HAR §11-200 and bringing HAR §11-200.1 into effect on August 9, 2019. Actions that published a Draft EA prior to the new rules being enacted must comply with the requirements of HAR §11-200 to complete environmental review.



Interviews with kūpuna mentioned few native Hawaiian residents historically living in Honomū and the only cultural practices mentioned were pig hunting and gathering of 'ōpae in the streams. Hunting on the DHHL property will not be allowed but DHHL will not restrict access to the State public hunting area (Hilo Forest Reserve, Kaiwiki Section), located mauka of the site. The streams will be designated as conservation areas, protecting their biological integrity. Access to streams for cultural practices may be negotiated with the DHHL, lessees, and community association, if one is created.

**(2) Curtails the range of beneficial uses of the environment;**

The Project seeks to provide a more beneficial use of the site by placing native Hawaiians on the land and by designating streams, gulches, and areas with the potential for native habitat restoration as conservation.

**(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;**

The purpose of the policy established by HRS Chapter 344 is to “encourage productive and enjoyable harmony between people and their environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii.” This proposed project does not conflict with the state's long-term environmental policies or goals and guidelines.

Potential adverse impacts are associated with short-term construction activities that will be mitigated through compliance with regulatory guidelines and use of best management practices. In the long term, the Project conserves natural resources by protecting potentially sensitive environments on the property and provides an opportunity for native Hawaiians to improve their quality of life through agricultural subsistence.

**(4) Substantially affects the economic or social welfare of the community or State;**

The proposed project will be beneficial to the economy and social welfare of the state by providing opportunities for native Hawaiian beneficiaries to obtain low-cost leases for lots to engage in subsistence agriculture and to possibly reside. The lessees are expected to provide an additional customer base for the existing commercial businesses within Honomū Village and other nearby towns.

**(5) Substantially affects public health;**

The proposed project will have short-term construction-related impacts on noise and air quality, but they will be mitigated by compliance with Department of Health regulations. Wastewater disposal will be accommodated by individual wastewater disposal systems that are approved by the DOH.

Surface water runoff will comply with the County floodplain management regulations. Additionally, DHHL will work with the Soil and Water Conservation District to develop a master drainage plan to address runoff and erosion issues. DHHL is also providing an agricultural extension agent to work with its Hawai'i Island agricultural lessees on crop selection and agricultural practices on a long-term basis.

In response to comments from the State DOH, a Phase I Environmental Site Assessment (ESA) was conducted to identify whether recognized environmental conditions exist in the project area. The Phase I ESA found no evidence of recognized environmental conditions in connection with the Property but concluded that future environmental work at the project site is warranted to assess if surface and near surface soil has been impacted with arsenic containing pesticides, lead, and contaminants associated with the former historical dump sites. DHHL is in the process of contracting for a next level environmental site assessment as recommended by the Phase I ESA and will coordinate with the State DOH as necessary to ensure the health and safety of its beneficiaries and the environment.

**(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;**

The Project will increase the population of Honomū, and while DHHL asserts its authority under the Hawaiian Homes Commission Act to “enable native Hawaiians to return to their lands in order to fully support self-sufficiency for native Hawaiians and the self-determination of native Hawaiians in the administration of this Act, and the preservation of the values, traditions, and culture of native Hawaiians,” DHHL has mitigated impacts, as discussed below.

The Project anticipates a minimum parcel size of one acre, which is denser than the 20-acre minimum parcel size for the lands immediately surrounding the project site. However, DHHL has only designated 55% of the total project site to subsistence agriculture, with 33% of the land designated as conservation and open space, including a 100-foot wide open space buffer along most of 'Akaka Falls Road, in an effort to minimize impacts to Honomū's character. Additionally, the original concept of a 20-acre commercial area near 'Akaka Falls State Park was reduced to three acres in response to community feedback on the size of the previously designated area. Most of the commercial area is expected to be leased to the Division of State Parks which has requested additional land to expand the existing parking lot

for 'Akaka Falls State Park, which regularly overflows. DHHL makes a commitment to seek commercial uses in that area that will be tied to the activities and functions of the State Park.

DHHL has the authority to create smaller agricultural lots, or even create a residential subdivision, providing more leases to beneficiaries on the agricultural or residential wait lists. However, DHHL has decided to create an agricultural subdivision with a minimum lot size of one acre, which is in agreement with the State Agriculture Land Use District [HRS §205-5 (b) (5)] designation assigned to these lands. This also exceeds guidelines for the Rural State Land Use District, which calls for "land composed primarily of small farms mixed with very low density residential lots, which may be shown by a minimum density of not more than one house per half-acre and a minimum lot size of not less than one-half acre" [§HRS 205-2(a) (2)]. Lessees are not required to build a house on their lot. Based on other DHHL agricultural homesteads that have been in place for several decades, approximately 50 percent of agriculture lessees chose to build a residence on their lot. After seven years, all of the lessees, regardless of whether or not they ultimately reside in Honomū, will be required to pay property taxes on their lot, which will contribute toward public facilities and services.

Traffic improvements will be necessary and DHHL will work with the State DOT and County Department of Public Works to determine the appropriate mitigation necessary. Wastewater will be managed through DOH-approved individual wastewater systems so there will be no impact on public wastewater treatment facilities. Similarly, water will be supplied by individual catchment systems, so that the current County water system will not be impacted.

**(7) Involves a substantial degradation of environmental quality;**

Construction activities will cause some impacts to air quality, noise, and traffic in the area of the project, but these are temporary in nature and will be mitigated by best management practices in accordance with the State Department of Health, State Department of Transportation, and County of Hawai'i guidance.

Potential impacts to surface water and drainage will be mitigated by a master drainage plan that is being developed to minimize erosion and manage runoff. DHHL will design its drainage features to accommodate, at a minimum, the 25-year storm, which is a higher standard than required by the County Code, which only requires developments to provide for the 10-year storm. Preliminary calculations estimate that an additional 1.67 cubic feet per second of runoff will need to be accommodated for every acre of the site.

DHHL is also providing an agricultural extension agent to work with its Hawai'i Island agricultural lessees on crop selection and agricultural practices on a long-term basis. Furthermore, roughly 30 percent of the project site will be dedicated to conservation to

protect streams and drainageways and to provide areas for surface water detention/retention during high rainfall events.

**(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;**

The project will reestablish farming on the property, which was previously an intensive large-scale sugar plantation. DHHL does not have any other projects in the vicinity and this project does not commit DHHL or others to additional actions.

**(9) Substantially affects a rare, threatened, or endangered species, or its habitat;**

Other than a pair of endangered Hawaiian hawks that were observed circling overhead, there are no known threatened or endangered species or associated habitats on or near the property. Even then, the stream gulches and southwestern corner of the property, which has the potential for native plant habitat restoration, is proposed for conservation. Additionally, best practices will be carried out to protect against potential impacts to the Hawaiian hoary bat, Hawaiian hawk, and seabirds that may fly over the property.

**(10) Detrimentially affects air or water quality or ambient noise levels;**

Construction activities will cause some impacts to air quality, noise, and surface water in the area of the project, but these are temporary in nature, will follow appropriate regulations, and will be mitigated by best management practices in accordance with State Department of Health and County of Hawai'i guidance. Potential impacts to surface water quality will be mitigated by a master drainage plan that is being developed to minimize erosion and manage runoff.

After construction, the Project is not expected to have a detrimental impact on air quality or noise levels. Noise levels are not expected to exceed Department of Health noise standards, but to minimize impacts, DHHL has designated conservation land and project buffers to provide open space between agricultural lots and most neighboring properties.

There may be a slight increase in impervious surface areas due to the construction of roads, houses, and community facilities. However, any additional runoff will be contained on-site through drainage features identified during the development of a master drainage plan. This master drainage plan will identify features and practices to minimize erosion. DHHL has an agricultural extension agent under contract to work with its Hawai'i Island agricultural lessees on agricultural practices on a long-term basis. The designation of Conservation lands around streams and major drainages, as well as Special District-designated lands, will also provide an additional buffer from runoff.

- (11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;**

The Project is not located in an environmentally sensitive area. It is located outside of the flood plain, tsunami zone, beach area, geologically hazardous land, estuary and coastal water. While there are perennial streams that run through and near the property and there is the potential for some erosion on-site and in the gulches, a master drainage plan is being developed to manage both runoff and erosion. Conservation areas have also been designated around the gulches.

- (12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or,**

The site is not located in an area that has been identified as a scenic view plane or area of natural beauty by the County or State and it contains no significant geographical points, such as pu'u. The area was previously under intensive sugar cultivation and is proposed for subsistence agriculture. Lessees may choose to build a house on their lots, but they will be restricted to single family homes. An open space buffer is proposed to shield views from most of 'Akaka Falls Road to the subsistence agricultural lots.

- (13) Requires substantial energy consumption.**

The new agricultural activities and homes will increase energy consumption but is not anticipated to require substantial energy requirements when compared with other similar projects.

## 6 REFERENCES

- County of Hawai'i. 2018. *Hāmākua Community Development Plan, Planning Director's Recommended CDP*. As recommended by the Hāmākua CDP Steering Committee or Adoption by the County of Hawai'i and incorporating the Planning Director's recommendations (2/1/18).
- County of Hawai'i. 1983, 2016 Edition, as Amended. *Hawai'i County Code (Unofficial Online Version)*. Accessed at: <http://www.hawaiicounty.gov/lb-countycode/>
- Dorrance, William H. and Francis S. Morgan. 2000. *Sugar Islands: The 165-Year Story of Sugar in Hawai'i*. Mutual Publishing, Honolulu.
- Fukunaga and Associates, Inc. August 2010. *Hawaii County Water Use and Development Plan Update*. Prepared for the County of Hawaii Department of Water Supply.
- Fukunaga and Associates, Inc. May 2017. *State Water Projects Plan Update*. Prepared for the Department of Land and Natural Resources, State of Hawai'i.
- Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte, 2013: *Online Rainfall Atlas of Hawai'i*. Bull. Amer. Meteor. Soc. 94, 313-316, doi: 10.1175/BAMS-D-11-00228.1.
- Handy, E.S. Craighill and Elizabeth G. Handy. 1972. *Native Planters in Old Hawai'i: Their Life, Lore, and Environment*. Bishop Museum Bulletin 233. Bernice Pauahi Bishop Museum, Honolulu.
- Juvik, Sonia P. and James O Juvik (editors). 1998. *Atlas of Hawai'i, Third Edition*. University of Hawai'i Press, Honolulu.
- Kalākaua, David. 1972. *The Legends and Myths of Hawai'i*. Charles E. Tuttle Company, Rutland, Vermont and Tokyo, Japan
- Maly, Kepa and Onaona Maly, 2006. *HILO PALIKŪ—HILO OF THE UPRIGHT CLIFFS: A Study of Cultural-Historical Resources of Lands in the Laupāhoehoe Forest Section, Ahupua'a of the Waipunalei-Maui Region, North Hilo District, Island of Hawai'i*. Kumu Pono Associates, Hilo, Hawai'i.
- McEldowney, Holly. 1979. *Archaeological and Historical Literature Search and Research Design: Lava Flow Control Study, Hilo, Hawai'i*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Pukui, Mary Kawena and Samuel H. Elbert. 1986. *Hawaiian Dictionary. Revised and expanded edition*. University of Hawaii Press, Honolulu.
- Pukui, Mary Kawena, Samuel H. Elbert, and Esther Mookini. 1976. *Place Names of Hawaii. Revised and expanded edition*. University of Hawaii Press, Honolulu.

- Sato, H., Warren Ikeda, Robert Paeth, Richard Smythe, and Minoru Takehiro, Jr. 1973. *Soil Survey of the Island of Hawai'i*. U.S. Department of Agriculture and University of Hawai'i Agricultural Experiment Station, Honolulu.
- Soehren, Lloyd. 2014. *A Catalog of Hawaiian Place Names. Compiled for the Records of the Boundary Commission and The Board Commissioners to Quiet Land Titles of the Kingdom of Hawai'i*. Available at <http://ulukau.org>.
- USDA (U.S. Department of Agriculture). 2001. *Soil Survey Geographic (SSURGO) database*. U.S. Department of Agriculture, Natural Resources Conservation Service. Fort Worth, Texas. <http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/> (accessed March 2005).
- Walker, Alan T. and Paul H. Rosendahl. 1994. *Archaeological Inventory Survey, Chin Chuck Road Project Area, Land of Hakalau Nui, South Hilo District, Island of Hawai'i (TMK 2-9-02:23 and 2-9-04:56)*. Paul H. Rosendahl, Ph.D., Inc., Hilo, Hawai'i.