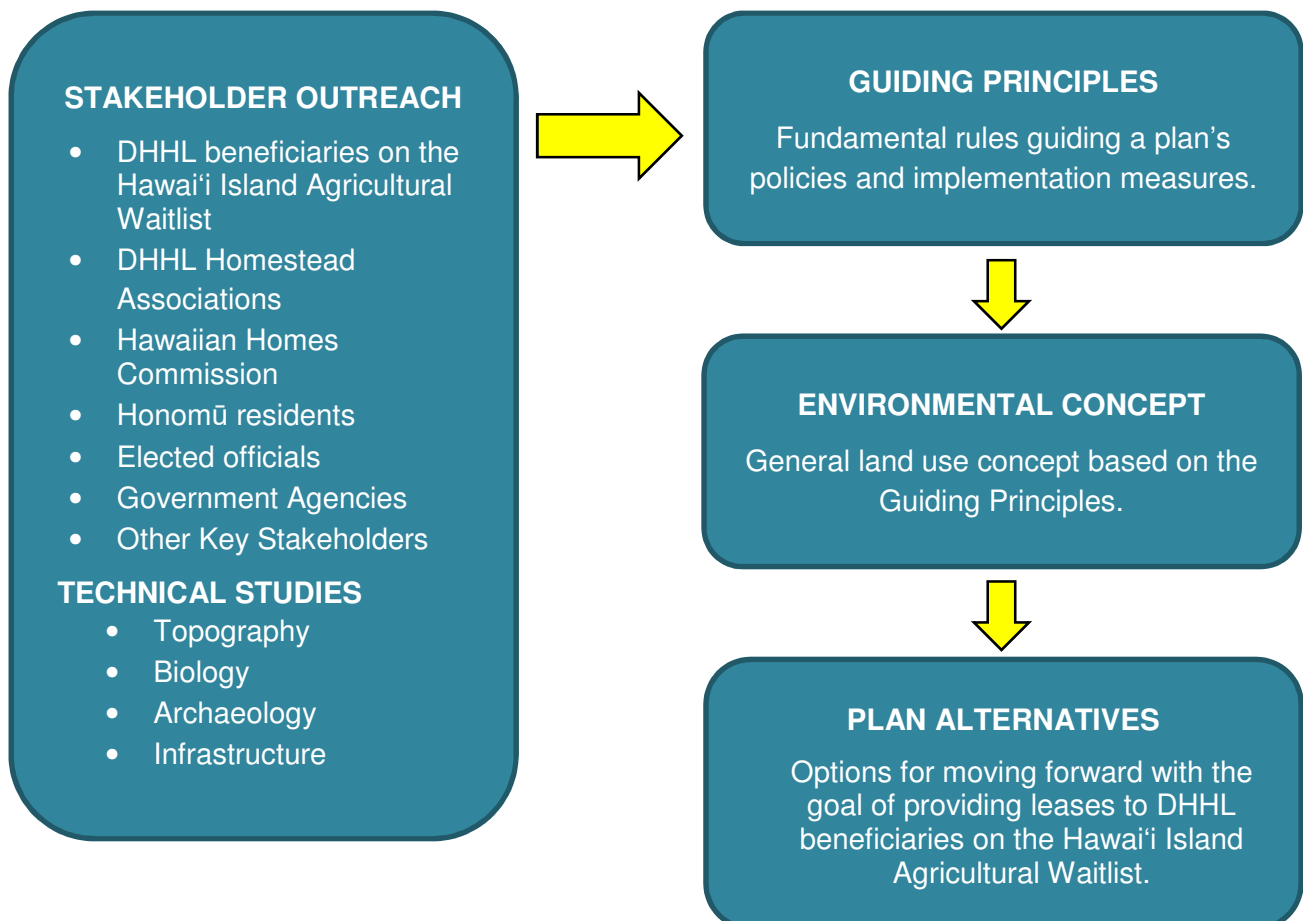


HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY

I. CONCEPTUAL PLAN GUIDING PRINCIPLES

March 16, 2018

During the Honomū Subsistence Agricultural Homestead Community planning process, the planning team commissioned various technical studies and met with DHHL beneficiaries on the Agricultural Waitlist, the Hawaiian Homes Commission, leaders of existing Homestead Associations, Honomū residents, elected officials, government agencies, and other key stakeholders in an effort to understand the land and the needs and concerns of project beneficiaries and the existing community. Comments and information from these sources revealed certain key issues that were folded into Guiding Principles, fundamental rules or doctrines that guide a plan's policies, proposals, standards, and implementation measures. These Guiding Principles were used to develop an Environmental Concept for DHHL's Honomū Lands that reflect the environmental opportunities and constraints of the land and the needs and concerns of the stakeholders. The Guiding Principles will continue to be used to shape project alternatives and future programmatic actions.



1. No net increase in runoff from the 10-year storm.

The Honomū area receives very high amounts of rainfall (150" – 250" per year average annual rainfall) and residents have experienced problems in the past with runoff and flooding issues.

Design actions:

- (a) Set aside roughly 10% of each lot for stormwater detention.
- (b) Design several small detention/retention and infiltration structures, rather than a few large ones to maintain the rural nature of the area.

DHHL and Lessee Kuleana: *(Currently being developed, could include--)*

- (a) Develop hands-on training workshops for all lessees on best management practices to retain and utilize stormwater within individual lots.
- (b) Assist lessees in developing programs to manage existing waterways.
- (c) Explore the applicability of using traditional methods, such as lo'i cultivation, to slow down and detain runoff.

2. Minimize erosion and polluted runoff.

Erosion and polluted runoff have the potential to impact downgradient neighbors and streams, nearshore waters, and their associated aquatic habitats.

Design actions:

- (a) Create buffers around drainage features, such as perennial streams, drainage swales, and steep slopes.
- (b) Encourage green and multi-use runoff control infrastructure.

DHHL and Lessee Kuleana: *In development*

3. Minimize visual, sound, and dust impacts from new land uses.

The homestead community will be denser than the surrounding community and will possibly host new types of land uses.

Design action: Provide a project buffer and make it multi-functional and productive, whenever possible.

DHHL and Lessee Kuleana: *In development*

4. Protect biologically sensitive environments.

Several areas along Honomū Stream and Pāhe'ehe'e Stream were identified as being of high and moderate priority for protection by the biological consultant. These areas have some native plant species and could potentially be restored for native species habitat.

Design action: Exclude biologically sensitive areas identified in technical studies from development.

DHHL and Lessee Kuleana: *In development*

5. Support community cohesion.

Although residence on the lots is optional, some of the lessees will build homes. Spaces for socializing, organizing, celebrating, and recreating allow for community building.

Design action: Provide spaces for community gathering. Specific uses should be determined by the homestead community.

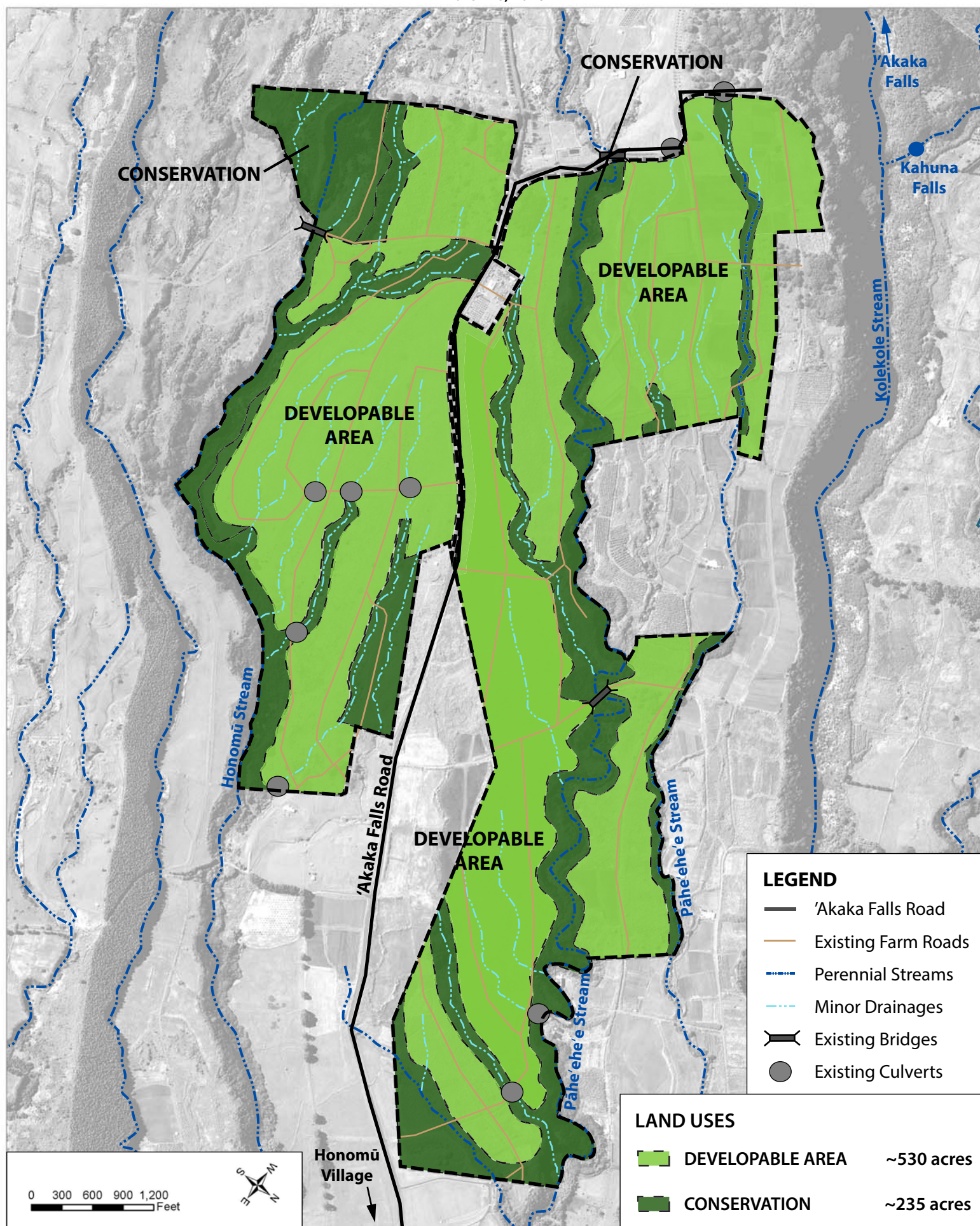
DHHL and Lessee Kuleana: *In development*

6. Provide for agriculture-related economic opportunities.

While this homestead community is meant to promote subsistence agriculture, if lessees are successful within their lot, there should be opportunities to request additional acreage to expand crop production for sale or for creating value-added products. There are opportunities to capitalize on the existing tourism market in the area surrounding 'Akaka Falls State Park, which is directly adjacent to the property and experiences high volumes of tourists.

Design action: Provide spaces for agriculture-related economic opportunities.

DHHL and Lessee Kuleana: *In development*





HAWAIIAN HOME LANDS TRUST
DEPARTMENT OF HAWAIIAN HOME LANDS

HONOMŪ SUBSISTENCE AGRICULTURAL HOMESTEAD COMMUNITY
II. CONCEPTUAL PLAN DRAFT ALTERNATIVES

March 16, 2018

The Conceptual Plan Alternatives provide different ways to meet the goal of providing leases to DHHL beneficiaries on the Agricultural Waitlist while respecting the Guiding Principles and Environmental Concept. Three alternatives are proposed for evaluation:

Alternative A: Maximizes Subsistence Agriculture Lots;

Alternative B: Provides a Variety of Agricultural Lease and Land Use Options; and

Alternative C: No Action.

The table below identifies the acreage allocated to the proposed land uses and an estimated subsistence agricultural lot count for each alternative. This section also includes brief narrative descriptions and accompanying maps that depict the spatial layout of the proposed land uses under each alternative. Comments received will be used to finalize the alternatives, which will be evaluated in an environmental review document. The environmental review will identify potential impacts and mitigation measures for each alternative.

PROPOSED LAND USES BY ALTERNATIVE

PROPOSED LAND USE	ALT. A Maximize Subsistence Agriculture Lots (acres)	ALT. B Variety of Agricultural Lease and Land Use Options (acres)	ALT. C No Action (acres)
Conservation	235	250	---
Subsistence Agriculture	510	400	---
<i>[Estimated no. of lots]</i>	<i>[460 lots]</i>	<i>[120 to 360 lots]</i>	<i>[0 lots]</i>
Supplemental Agriculture	---	45	---
Commercial	20	20	---
Special District	---	40	---
Community Use	---	10	---
Pasture and Agriculture	---	---	766
TOTAL	766	766	766

NOTE: Acreages are rounded and may not total exactly to 766 acres.

1. Alternative A: Maximize Subsistence Agricultural Lots

Alternative A maximizes the number of agricultural leases that could be awarded, providing the greatest benefit to over 7,000 applicants on the Agricultural Waitlist for Hawai'i Island. Based on the Guiding Principles, 235 acres (31%) of the property is dedicated to Conservation, including lands identified for biological resources protection and lands surrounding the streams, gulches, and main drainageways that run along and through the property. These conservation areas are intended to protect water quality and aquatic habitat associated with the streams.

Alternative A commits most of the developable lands, 510 acres (66%), to subsistence agricultural homesteading. With one-acre lots, approximately 460 lots would be available to applicants on the Waitlist. The alternative also includes a 20-acre site directly adjacent to the 'Akaka Falls State Park for commercial use. 'Akaka Falls State Park reports a steady number of over 30,000 out-of-state vehicles paying for parking annually. This commercial site could support agriculture-related commercial and training opportunities, such as a farmers' market, demonstration garden, agricultural products processing facility, and/or an agricultural training center.

Acres available for Subsistence Agriculture:	510 acres
Acres set aside for roads (~10%):	50 acres
Acres available for lots:	460 acres
Estimated number of lots:	~460 lots

The lot size of one-acre was determined based on 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 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.

2. Alternative B: Provide for a Variety of Agricultural Lease and Land Use Options

Alternative B increases the amount of Conservation Land by 15 acres, for a total of 250 acres, which removes irregular areas from the subsistence agriculture inventory. In order to accommodate a variety of land uses, 123 acres identified in Alternative A for subsistence agriculture are re-allocated to the following uses:

Supplemental Agriculture	45 acres
Community Facilities	20 acres
Project Buffer	24 acres
Stormwater Detention	13 acres
Open Space	<u>21 acres</u>
TOTAL	123 acres

This allocation addresses four of the Guiding Principles to a greater extent than is addressed in Alternative A including:

- #1. No net increase in runoff from the 10-year storm (Stormwater Detention)
- #3. Minimize visual, sound, and dust impacts (Project Buffer)
- #5. Support community cohesion (Community Use), and
- #6. Provide for agriculture-related economic opportunities (Supplemental Agriculture).

Additional open space is set aside to provide more options for stormwater detention. Project Buffers provide separation between the roadway and subsistence agriculture lots and may provide opportunities for community supported agriculture, such as orchards, or training plots for agricultural practices. Community Use areas could provide further opportunities for training in agricultural practices, as well as space for community gathering and recreation. Finally, 45 acres are set aside for Supplemental Agriculture to provide opportunities for lessees to expand to larger lot commercial operations, should they prove successful at subsistence agriculture.

Alternative B provides greater flexibility in the size of the lots, within the constraints of the subsistence agriculture designation (no larger than three-acre lots), providing a wider range of agricultural options to lessees. The raising of farm animals is allowed under the subsistence agriculture rules, but in general, one cow (or about four sheep or goats) requires about two and one-half to four acres (2-1/2 to 4 acres), making the option of raising farm animals practical only under **Alternative B**, where larger subsistence agriculture lots are provided and supplemental agriculture could also account for community pasture areas.

Alternative B is expected to result in somewhere between 120 to 360 lots being made available to applicants, depending on the mix of lot sizes. A low end of approximately 120 lots is expected if all lots are three acres in size, while a high end of approximately 360 lots is expected if all lots are one-acre in size. This results in 100 to 340 fewer lots than expected to be provided by Alternative A.

Acres available for Subsistence Agriculture:	400 acres
Acres set aside for roads (~10%):	40 acres
Acres available for lots:	360 acres
Estimated number of lots (range):	~120 lots (3-acre lots) to ~360 lots (1-acre lots)

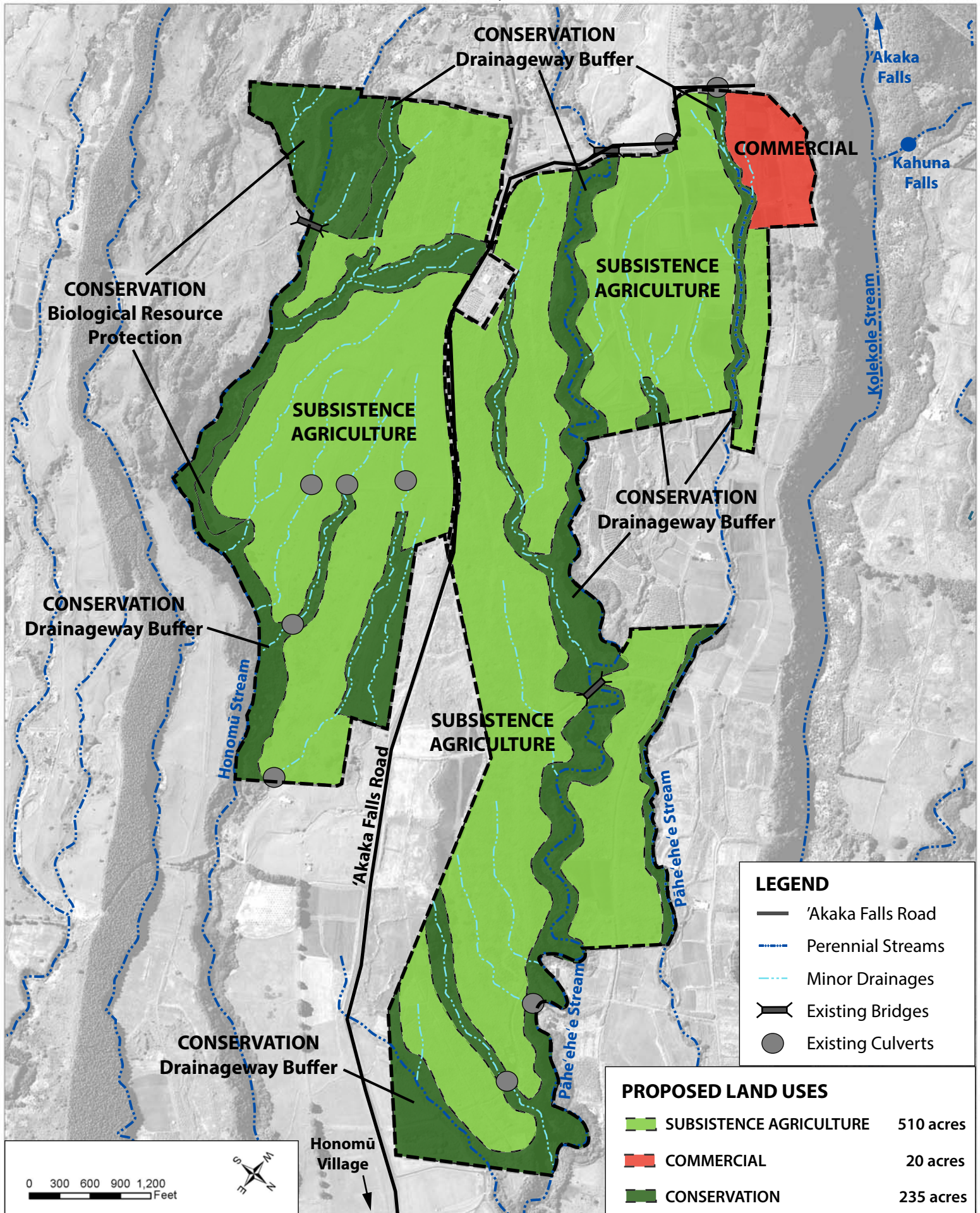
This alternative results in fewer Hawaiian Homes Trust beneficiaries receiving leases than in Alternative A, but more agricultural options for lessees and greater opportunities for community-building and expansion and enhancement of agricultural practices and businesses.

3. **Alternative C: No Action**

Alternative C results in 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.

Honomū Subsistence Agricultural Homestead Community CONCEPTUAL PLAN ALTERNATIVE A

March 16, 2018



Honomū Subsistence Agricultural Homestead Community CONCEPTUAL PLAN ALTERNATIVE B

March 16, 2018

