



2024

KAWAIIHAE

REGIONAL PLAN



HAWAIIAN HOME LANDS
HAWAIIAN HOMES COMMISSION • DEPARTMENT OF HAWAIIAN HOME LANDS

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Executive Summary

Regional Plans build a sense of community and capacity, stimulate partnerships for development and improvements, and give beneficiaries within the region an opportunity to have a voice in planning for their future. The existing 23 Regional Plans empower beneficiaries by providing a recurring opportunity to convene as a community and a platform for them to talk to each other about their common issues and concerns in order to identify and solve their own problems.

Working with the Department of Hawaiian Home Lands (DHHL) Planning Office staff and consultants, the community identifies priority projects to respond to issues and areas of concern within existing and planned homestead areas. At a minimum, the Regional Plan documents current conditions and trends and identifies a prioritized list of projects important to the community and the department. In this way, Regional Plans ensure that beneficiaries are an integral part of the solutions to the issues that they have identified. The Hawaiian Homes Commission approves each regional plan for various homestead communities across the state, ensuring that they all have this same opportunity.

Vision. The vision for Kawaihae was developed through a previous planning effort by the Kawaihae community in 2012. During the Regional Plan Update process, beneficiaries confirmed that this vision was still a relevant vision for the community. The purpose of a vision statement is to provide a unified direction for homestead, Departmental and Commission actions in Kawaihae. The vision statement is as follows:

“Ehuehu I Ka Pono,” to “Thrive in Balance.”

Planning Area. All the lands in the Kawaihae region are located within the ahupua’a of Kawaihae in the moku of Kohala on the northwest side of the mokupuni of Hawai‘i. There are two existing DHHL homesteads in the region, the Kailapa Homestead and the Kawaihae Makai Homestead. The DHHL Hawai‘i Island Plan (2002) land use designations include:

2002 Land Use Designation ¹	Total Available Acreage ¹	2022 Land Entitlements ²	Acreage of 2022 Land Entitlements ²
Residential	2,224.9 acres	192 leases	145.1 acres
General Agriculture	7,434.2 acres ³	2 Rights-Of-Entries (ROEs)	9,320.0 acres ⁴
Pastoral		1 lease	300.0 acres
Community Use	81.5 acres	1 license; 1 ROE	86.8 acres ⁵
Commercial	90.5 acres	3 ROEs	1.8 acres
Industrial	265 .5 acres	8 leases	35.3 acres
Total	10,098.6 acres	208 leases/ ROEs/parcels	9,889.0 acres

¹Source: 2002 Department of Hawaiian Home Lands Hawai‘i Island Plan.

²Source: 2022 Department of Hawaiian Home Lands Annual Report (most current available data).

³Includes 300 acres of pastoral land not included in 2002 Island Plan.

⁴Exceeds available acreage; a portion of the pastoral land is located within residential-designated land.

⁵Exceeds available acreage; 14.3-acre Resource Center lot is located within residential-designated land.

Planning Process. This plan updates the 2010 Kawaihae Regional Plan. The process began with a virtual meeting with the Kailapa Community Association Board of Directors. This meeting introduced the Regional Plan Update project and gathered guidance from the leadership on how the process could be tailored to best fit the Kawaihae community. Leadership was able to advise on the format and schedule for beneficiary consultations and offered assistance with publicity for the meetings. Beneficiary Consultation #1 was held on September 27, 2023 at the Kailapa Pavilion. This meeting introduced the Regional Plan Update project to the

community, identified community values for future land uses, and discussed potential language for a vision statement for Kawaihae.

Beneficiary Consultation #2 was held on October 18, 2023 at the Kailapa Pavilion. In this meeting, participants reviewed and revised the draft community values and a draft vision statement developed from Beneficiary Consultation #1. Participants also reviewed and revised a draft list of project ideas into a final project ideas list with a total of seven project ideas. The top five priority projects for the Kawaihae region were selected from this final list.

Selection of the priority projects was conducted through a polling process where homesteaders could participate via postage mail, an online form, e-mail, or over the phone. Notification of the voting process was e-mailed to the Kailapa Community Association (KCA) for distribution within their networks. Information about voting details were also sent to beneficiary consultation attendees and posted on the project page hosted on DHHL's website. Additionally, KCA board members dedicated a weekend to go door-to-door, informing residents about the project voting. Kawaihae beneficiaries and homesteaders were asked to participate in the poll to select the top five priority projects to be included in the update to the Kapolei Regional Plan. The poll was open for participation from October 25, 2023 to November 15, 2023. A total of 105 responses were collected: 69 from beneficiaries and 36 from other members of the homestead.

An informational submittal and draft of the update to the Kawaihae Regional Plan was presented to the Hawaiian Homes Commission (HHC) for feedback on February 20 and 21, 2024. Beneficiary Consultation #3 was held on February 28, 2023 to gather feedback from the community on the draft of the plan as well. Feedback was incorporated into the final document, and a final draft of the Regional Plan Update is scheduled to be presented to the HHC in July 2024 for acceptance and adoption.

Priority Projects. The priority projects summarized in the table below reflect the projects that the community identified as priorities for the Kawaihae region. The issues, desired outcomes, and action steps for these projects are listed below.

Priority Project	Desired Outcomes	Action Steps
Water – Wai Ola	<ul style="list-style-type: none"> • Provide affordable potable water to Kawaihae homesteads. • Find a new water source for the water system currently supplying potable water to Kailapa. • Provide options for non-potable water to be used for agricultural or irrigation purposes. 	<ul style="list-style-type: none"> • Provide a temporary subsidy to Kailapa homesteaders until the water rate schedule can be updated. • Re-assess the water rate schedule approved by the HHC in 2018. • Develop a new potable water source. • Develop a new non-potable water source
Emergency Escape Route & Traffic Safety Measures	<ul style="list-style-type: none"> • Develop an emergency escape route for Kailapa. • Implement traffic calming measures on the existing homestead roads in Kailapa. 	<ul style="list-style-type: none"> • Emergency Escape Route: <ul style="list-style-type: none"> ○ Beneficiary consultations. ○ Conduct due diligence. ○ Operate & maintain. • Install speed humps: <ul style="list-style-type: none"> ○ Determine road eligibility. ○ Application to the County. ○ Submit petition for installation.

Kailapa Resource Center	Develop the Kailapa Resource Center to include: <ul style="list-style-type: none"> • Preschool, • School bus drop-off/pick-up, • Computer and internet access, • Health and wellness programs, • Community garden, • Sports field, • Office space, • Dumpster, • Future kūpuna housing, • Cemetery. 	<ul style="list-style-type: none"> • Update community plan for the 14-acre parcel. • Supplemental Environmental Assessment (if needed). • DHHL sign off on improvements. • Design, permitting, and construction. • Operate and maintain.
Safe Energy Upgrades	<ul style="list-style-type: none"> • Underground existing utility infrastructure • Pursue renewable energy initiatives suitable for Kawaihae. 	<ul style="list-style-type: none"> • Upgrade to underground conduits. • Explore renewable energy.
Improve the Coastal & Marine Resources in Kawaihae through Erosion Mitigation	<ul style="list-style-type: none"> • Control feral goat population. • Reforest mauka lands with native trees of the region. • Revegetate Honokoa gulch. • Establish a firebreak. 	<ul style="list-style-type: none"> • Fund and support ongoing projects. • Select and design preferred projects through beneficiary consultations. • Implement preferred projects.

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Appendix C	Beneficiary Consultation #3 – Meeting Notes
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Appendix E	Community Needs

Glossary of Hawaiian Language Terms

ahupua‘a	traditional Hawaiian land section that typically ran from the mountains to the sea and included coastal and nearshore resources
‘ike	knowledge, referring to knowledge and traditions of the indigenous people of Hawai‘i
keiki	child
kahuna	priest
kūpuna	grandparents, ancestors or elders of the grandparent generation
mākua	plural of makua, parent
moku	district, island
mokupuni	island
‘ohana	family
‘ōlelo no‘eau	proverb, poetic saying
ola	life
‘ōpio	youth or young person

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Introduction

Purpose of a Regional Plan

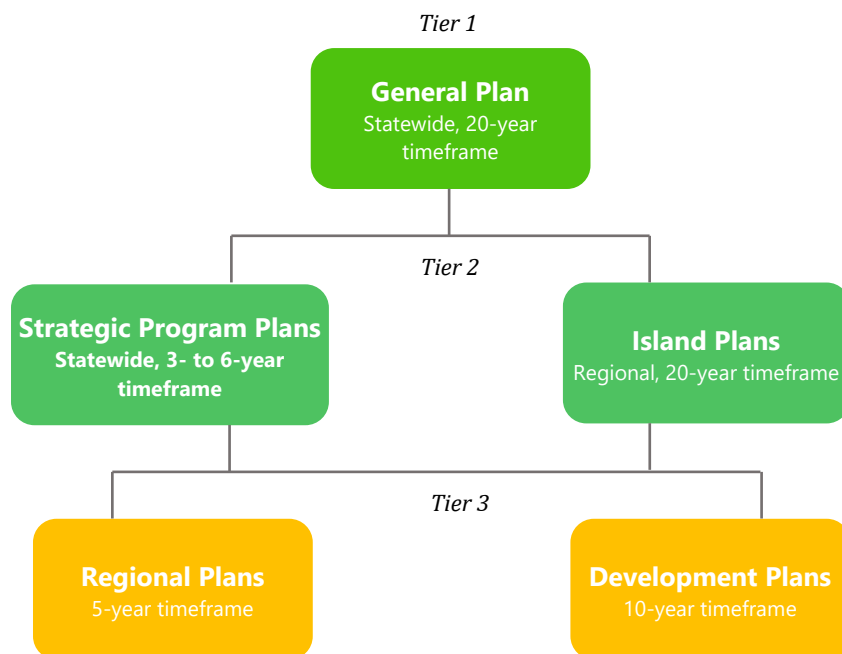
The mission of the Department of Hawaiian Home Lands (DHHL) is to build vibrant homestead communities. Regional Plans provide an opportunity for DHHL to work closely with existing lessees and native Hawaiian beneficiaries to clarify a vision for their community and to build partnerships with government agencies, private landowners, non-profit organizations, homestead associations, and other community groups to achieve that vision.

This Regional Plan is one of 23 Regional Plans that DHHL has helped Hawaiian homesteads to formulate statewide. These Regional Plans assess land use development factors, document issues and opportunities, and identify the region's top priority projects slated for implementation over a five year planning horizon.

Planning System

Regional Plans are part of DHHL's three-tiered Planning System (see Figure 1). At Tier 1 is the General Plan which articulates long-range goals and objectives for the Department. At the second tier, there are Program Plans that are statewide in focus, covering specific topic areas such as the Native Hawaiian Housing Plan and a Native Hawaiian Development Program Plan. Also, at this second tier are the Island Plans that identify the Department's land use designations for each island and which have a function similar to the counties' land use designations. The Regional Plans are located at the third tier in the Department's Planning System which focuses on communities and regions. Development plans carry out second-tier planning recommendations and contain the information necessary to implement area-wide development, such as off-site infrastructure systems and improvements, utilities, estimated costs, and phased implementation.

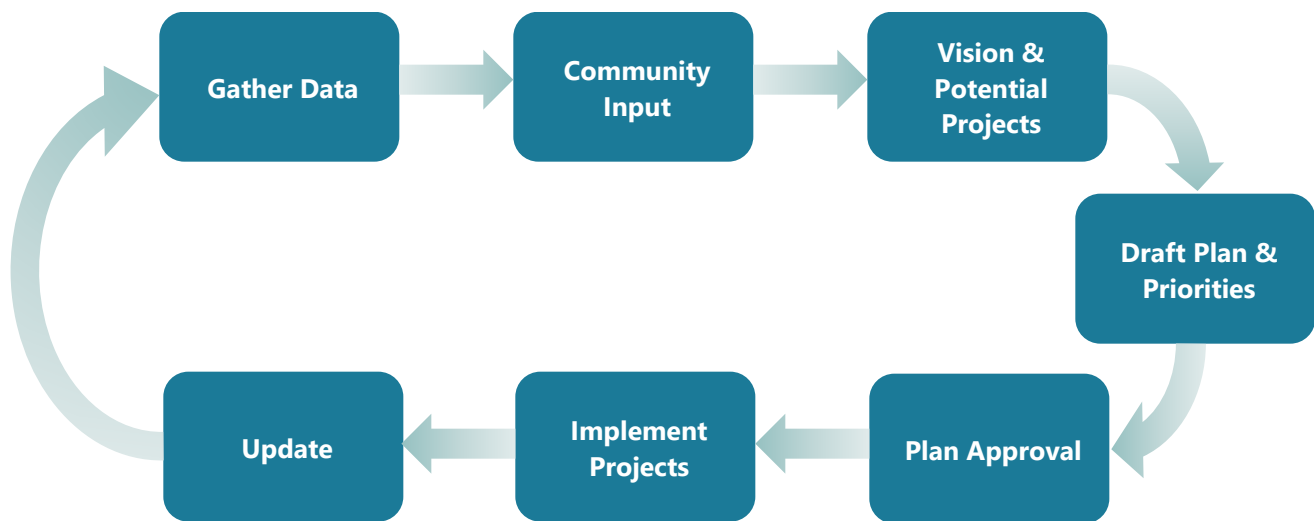
FIGURE 1: DHHL'S PLANNING SYSTEM



The roles of the Regional Plans within the Planning System are to:

- Apply the goals, policies, and land use designations of the General Plan, Program Plans, and applicable Island Plan to specific geographic regions;
- Directly involve the community in planning for their region;
- Compile comprehensive information about the region to provide a factual basis on which to identify needs and opportunities;
- Evaluate changes needed, if any, to the Island Plan as it applies to the region;
- Identify potential resources (e.g., partners, funding sources) to facilitate implementation; and
- Identify priority projects that are important to the community and implementation steps to move these projects forward.

FIGURE 2: THE REGIONAL PLAN DEVELOPMENT AND UPDATE PROCESS



Regional Planning Process

The development of Regional Plans involves seven steps (see Figure 2, The Regional Plan Development and Update Process):

1. **Gather Data.** Pertinent data describe existing conditions and trends, including history of the homestead, land use, infrastructure, natural features, historic/cultural features, surrounding uses, and development trends.
2. **Gather Community Input to Identify Issues and Opportunities.** Existing homesteaders, native Hawaiian beneficiaries, and other stakeholders are invited to a facilitated meeting to discuss issues and opportunities for the region.
3. **Create a Long-Term Vision and Identify Potential Projects.** The input from the community on issues and opportunities provides the basis to craft a draft vision statement that is reviewed and modified, as necessary, to the satisfaction of the community. Potential projects consistent with this vision are identified and prioritized by community consensus.
4. **Review a Draft Plan and Priorities.** Project details, budget estimates, and other pertinent project planning information are written up as part of a draft plan for review by the community.

5. **Approve the Plan.** Draft Regional Plans are then subject to the approval of the Hawaiian Homes Commission, which means that the Commission and Department officially support the priorities identified in the regional plan.
6. **Implement Priority Projects.** Upon approval, the homestead community, the Department, and other development partners can seek necessary funding and pursue the implementation of Priority Projects.
7. **Update.** Finally, since DHHL knows that regional development is a dynamic process with constantly changing opportunities and emerging issues, regular Regional Plan updates are built into the planning process.

Stakeholders and Partners

DHHL is working in partnership with other government agencies, the private sector, and community organizations to develop its lands and improve community life. DHHL believes that partnerships are an effective way to leverage resources and capital investments, mitigate undesirable impacts of development, coordinate area growth, reduce risks associated with large scale community projects, and create broad community benefits.

These partnerships allow for better prioritization and coordination of infrastructure improvements and the development of regional and public residential facilities. This coordination helps individual organizations achieve their goals while bringing long-term benefits to the community and region.

DHHL Master Planning Process and Community Development Goals

Homestead associations are frequently interested in developing capital improvement projects within their communities in order to provide needed social services and enrichment opportunities. The need for these desired projects is often captured in DHHL Regional Plans. While the characteristics of projects proposed are as diverse and unique as the DHHL communities in each region across the state, the overall planning and development process for these projects is the same in most instances.

Successfully implementing any type of land development project requires several basic foundational elements prior to project initiation. A strong organization that has a membership that works well together and has high levels of participation in regular association business ensures that (1) projects are selected based upon agreed upon criteria rather than individual preferences, (2) project plans are created, and (3) large amounts of social capital are built within and outside of the community. Figure 3, Community Organization & Development, briefly describes these elements of organizational capacity and project planning in more detail. The top level represents the steps that the homestead association (project proponent) should complete.

Most organizations go through five main stages of an organization's developmental lifecycle:

1. **Stage One: Imagine and Inspire.** The organization is not yet formalized, but individuals are inspired and united by a common vision or idea.
2. **Stage Two: Found and Frame.** The organization becomes formalized. Governing documents have been drafted and adopted by its members. The organization receives its non-profit status.
3. **Stage Three: Ground and Grow.** Organizations in this stage focus on establishing systems of accountability to its members as well as growing its internal capacity to provide more services or a higher quality of service to its members.
4. **Stage Four: Produce and Sustain.** This is the stage in which the organization is at its peak and is primarily concerned with how it can sustain its level of service over time.

5. **Stage Five: Review and Renew.** The organization re-invents itself in order to adapt to evolving conditions. The primary question the organization is concerned with at this stage is: "How can we do it better?" The organization revisits its mission, vision, services, and management structure.

Social capital can be defined as the networks of relationships among people who live and work in a particular society, enabling that society to function effectively. From time to time, a homestead association should assess its social capital both internally among its members as well as among external stakeholders and potential partners in order to determine the level of potential support for and/or opposition to a proposed land development project. Figure 3 Community Organization and Development illustrates the various social circles that should be engaged to support a land development project. Often, a development idea starts with a core group of individuals on an association board. Gradually that idea is shared with, and incorporates the ideas of, others in larger social circles in order to grow social capital and build support for a development project.

Lastly, Figure 3 illustrates that the association's assessment of its life cycle and existing social capital should be incorporated into a program plan. A program plan clearly articulates a community vision or need, identifies criteria for selecting programs or projects to fulfill that vision or need, and selects appropriate projects and programs based on those criteria. Programs/projects should be selected based on strong community support for the initiatives and the association's organizational capacity.

Once an association has done outreach with its community to identify its vision and goals, established criteria for selecting projects that help them accomplish their vision and goals, and selected project(s) that have strong community support, then the association can begin with the actual physical master planning and development of the project(s). Figure 4, Master Planning and Land Development Process on Hawaiian Home Lands, illustrates the process of master planning and land development on Hawaiian Home Lands.

Project Proponent Tasks:

- The project proponent should focus their time and attention to ensure that the community's vision and needs are integrated into the project.
- The project proponent should conduct a site and infrastructure assessment of the location in which they would like to implement the project in order to ensure that the location is appropriate for what they would like to do.
- A master plan should integrate and synthesize the community's vision and needs with the site and infrastructure assessment. A master plan should also include a financial plan that forecasts initial development costs, long-term operational costs, and how those costs will be financed over time.
- An Environmental Assessment (EA) or Environmental Impact Statement (EIS) needs to be prepared for the Master Plan in accordance with Hawai'i Revised Statutes (HRS) Chapter 343. If federal funds are used for the project, then a federal EA or EIS may need to be completed in accordance with the rules and standards of the federal funding agency.
- Once Chapter 343 and federal environmental regulations are complied with, then the project proponent can proceed with obtaining the necessary permits and approvals and proceed with construction.

The next steps after the Project Proponent Tasks in Figure 4 include various DHHL staff reviews and HHC approvals that the Project Proponent will need to obtain.

Requests by Non-Profit Organizations for Long-Term Use of DHHL Lands

DHHL has begun implementing a process for Internal Revenue Code (IRC) § 501(c)(1) or IRC § (501)(c)(3) non-profit organizations that are interested in long-term utilization of DHHL land for the purposes of providing programs and services to DHHL beneficiaries to further their rehabilitation and well-being. This process implements the Hawaiian Homes Commission Act (HHCA), Sections 204(2) and 207(c), which

authorize DHHL to lease or license lands for non-homesteading purposes on the same terms, conditions, restrictions, and uses applicable to the disposition of public lands as provided in HRS Chapter 171. HRS 171-43.1 authorizes DHHL to dispose of lands to eleemosynary organizations by direct negotiation without requiring a competitive solicitation process. The application process is designed to provide an opportunity for non-profit organizations to conduct due diligence on the project site and vet their conceptual plans in consultation with DHHL prior to requesting HHC approval of a long-term disposition. See "Implementation Action Steps" under "Priority Projects" for a more detailed list of steps and requirements for these types of land use requests.

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FIGURE 3: COMMUNITY ORGANIZATION & DEVELOPMENT

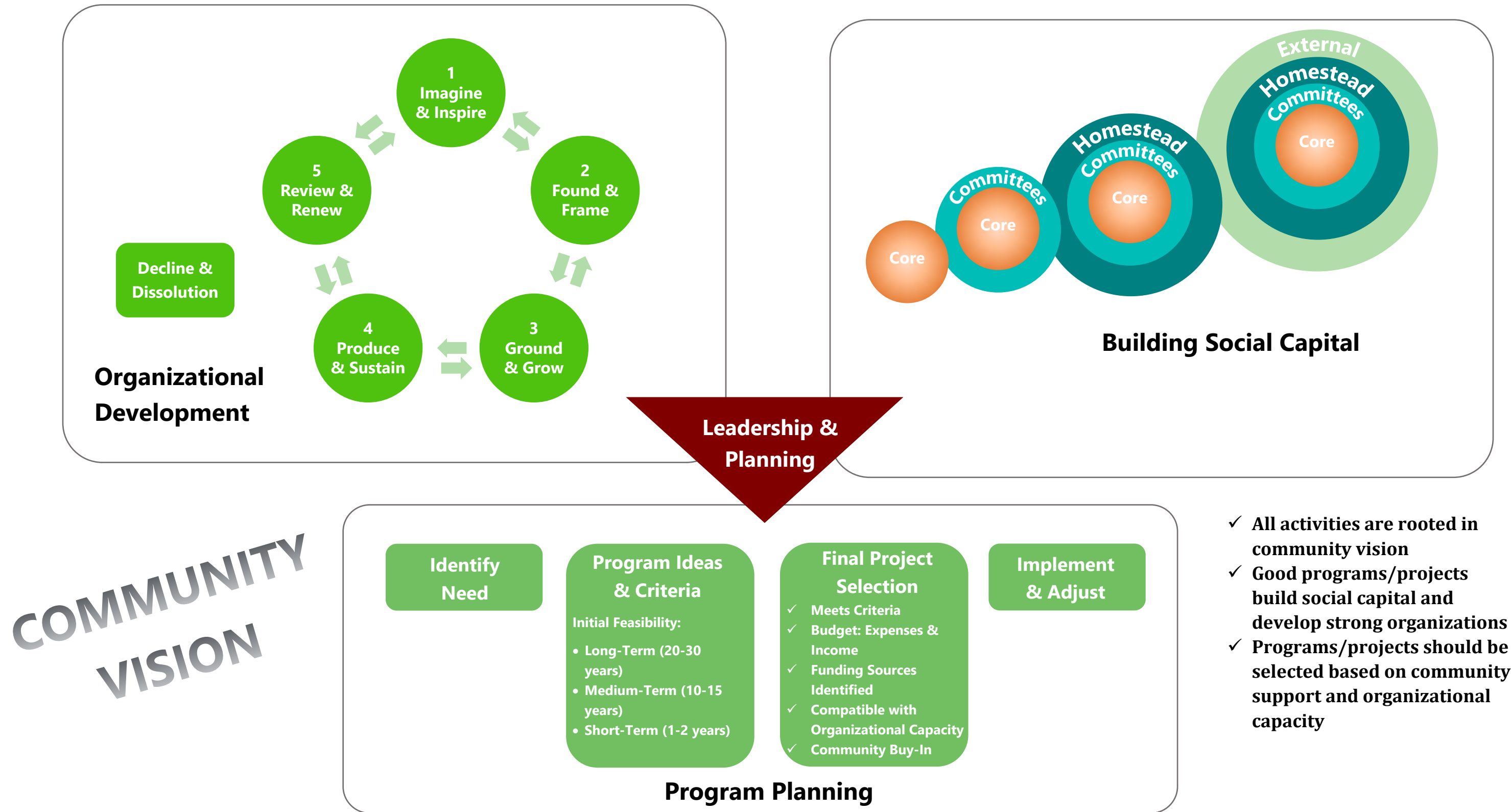
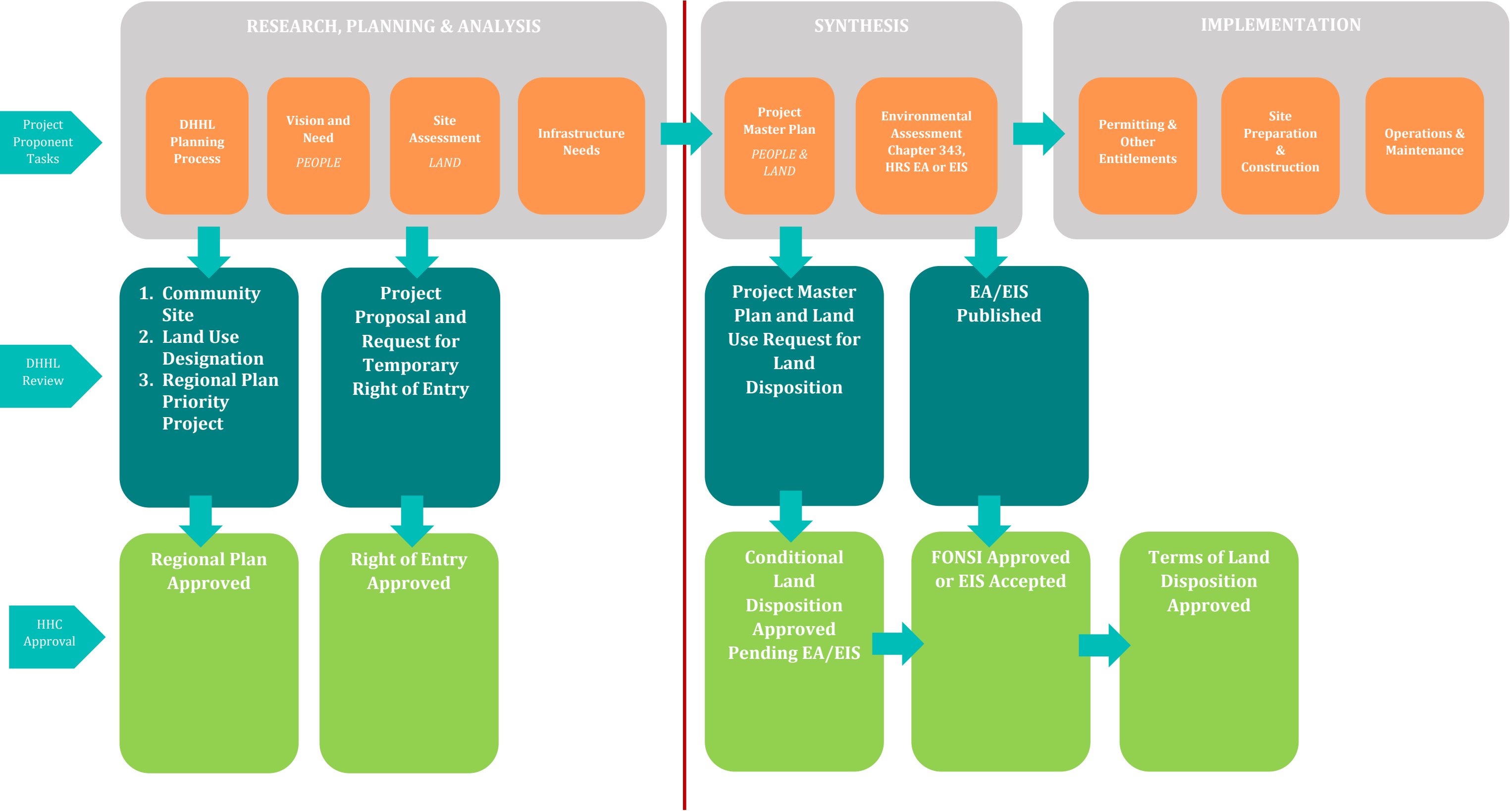


FIGURE 4: MASTER PLANNING AND LAND DEVELOPMENT PROCESS ON HAWAIIAN HOME LANDS



Methods and Approach

The Kawaihae Regional Plan Update began with a meeting with the Kailapa Community Association (KCA) board for insight and guidance on a planning process that would best fit the Kawaihae beneficiary community. They provided input on the times and days for each beneficiary consultation and allowed use of the Kailapa Pavilion for all three beneficiary consultations. The Kailapa Pavilion was a preferred location due to its ease of access and convenient location.

Broad publicity of the beneficiary consultations was accomplished through mail-outs of meeting notices via postal mail and distribution of digital meeting invitations and reminders with assistance from the KCA board.

The approach for the beneficiary consultations included both small group and large group discussions. Detailed notes were captured at all meetings and were posted online on the project website which is hosted by DHHL. A meeting recap for each beneficiary consultation can be found in the appendices of this document.

The timeline for the Regional Plan update was as follows:

August 23, 2023: Leadership Meeting. The purpose of this meeting was to introduce the Regional Plan Update project to the board of the Kailapa Community Association and to ask for their insight and guidance on the planning process. The meeting took place virtually via Zoom.

The board members were asked to assist with guiding the planning process for the regional plan update. They selected tentative dates for the beneficiary consultations and provided support in the distribution and publicity of meeting announcements and invitations throughout the planning process.

September 27, 2023: Beneficiary Consultation #1. The objective of this meeting was to explain the purpose and objective of regional plans in the DHHL planning system and the reason for the update to the Kawaihae Regional Plan and to discuss the planning process and schedule with Kawaihae beneficiaries. Additionally, this meeting was meant to gather input from beneficiaries regarding their long-term vision for Kawaihae, a list of important community values, and information about issues and opportunities in the region.

A total of 189 postcards were mailed to beneficiaries in the Kailapa and Kawaihae Makai Homesteads. The postcards provided information on the location, date, and purpose of both Beneficiary Consultation #1 and #2. Additionally, a meeting flyer and a project fact sheet was sent to the KCA board to distribute to their networks within the community.

The beneficiary consultation was conducted in-person at the Kailapa Pavilion; there were a total of 35 attendees. After some introductory presentations, beneficiaries were split up into two groups for discussion. DHHL presented a list of values and a community vision that was developed for the Kawaihae community in 2012 as part of the planning process for the Ho'okumukapiko Plan. Beneficiaries were asked to define each value for Kawaihae.

Community Values from the 2012 Ho'okumukapiko Plan:

- Ke Ola Pono: Health & Safety
- Noho Kū'oko'a: Self-Sufficiency
- Mālama 'Āina: Resource Management
- Laulima: Community Cohesiveness
- Ka 'Imi Na'auao: Technology & Education

- Ka 'Ike Hawai'i: Native Hawaiian Culture, Knowledge & Traditional Practices
- Piko: Gathering Place

The major ideas and themes that came out of this meeting were used to revise this list of community values and draft a definition for each one. Beneficiaries who attended the meeting decided to keep the community vision from the 2012 Ho'okumukapiko Plan: "Ehuehu I Ka Pono," to "Thrive in Balance." See Appendix A for more information about this meeting.

October 18, 2023: Beneficiary Consultation #2. There were 15 attendees at this meeting. The purpose of this meeting was to present the draft vision statement and values to the community for feedback. This meeting also reviewed the issues and opportunities in the region and identified seven potential project ideas that might address those issues. Meeting participants helped refine the project descriptions and combine projects that complemented each other as well as removed projects that were not of immediate importance to the community. A final list of seven proposed projects was used in a poll for prioritization. See Appendix B for a more detailed record of the meeting.

October 25, 2023 to November 15, 2023: Priority Project Polling. Selection of the priority projects was conducted through a polling process where homesteaders could participate via postage mail, an online form, e-mail, or over the phone. Notification of the voting process was e-mailed to the Kailapa Community Association (KCA) for distribution within their networks. Information about voting details were also sent to beneficiary consultation attendees and posted on the project page hosted on DHHL's website. Additionally, KCA board members dedicated a weekend to go door-to-door, informing residents about the project voting. Kawaihae homesteaders were asked to select the top five priority projects for the region from the list of seven project ideas that were developed in Beneficiary Consultation #2. Participants had a total of five votes, and they were instructed that they could vote for an individual project more than once. This poll was open for participation from Wednesday, October 25, 2023 to Wednesday, November 15, 2023. A total of 105 responses were collected, and the top five priority projects were chosen from the responses in this polling process. The top five projects and the number of votes each one received is displayed below.

Priority Projects	Number of Beneficiary Votes	Number of Votes from Other Members of the Homestead	Total Votes
1. Water – Wai Ola	150	90	240
2. Emergency Escape Route & Traffic Safety Measures	55	26	81
3. Kailapa Resource Center	33	24	57
4. Safe Energy Upgrades	35	18	53
5. Improve the Coastal & Marine Resources in Kawaihae through Erosion Mitigation	36	16	52

February 20 & 21, 2024: HHC Meeting. An informational submittal on the Draft Regional Plan Update will be presented to the Hawaiian Homes Commission (HHC) for feedback at their regular meeting. Input from the Commission will be incorporated into the final Regional Plan Update.

February 28, 2024: Beneficiary Consultation #3. A draft of the Regional Plan Update was presented to beneficiaries for feedback. Input from participants was incorporated into the final draft. See Appendix C for a more detailed record of the meeting. Following the meeting, there was a 30-day public comment period on the draft Regional Plan Update. An email containing a link to the draft plan and instructions on how to submit comments was sent to beneficiary consultation attendees, as well as to the KCA board for dissemination

within their networks. The public had the option to submit comments via postal mail, an online form, email, or phone. A total of 16 comments were received. A summary of these comments, including those from BC #3, along with responses from the planning team, is provided in Appendix D of this document. Comments addressing issues not directly related to the priority projects were included in a Community Needs section, detailed in Appendix E.

May 21, 2024: HHC Meeting. An updated draft of the Regional Plan Update was presented to the HHC for consideration in light of extensive revisions to the Water – Wai Ola priority project. Detailed discussion of this priority project, community input, background and context as well as the proposed implementation actions steps were presented to the HHC for information. Several Kawaihae beneficiaries provided testimony before the Commission, requesting support for the adoption of the update Regional Plan and specifically for the Water – Wai Ola project as written. Staff notified the HHC of its intent to bring the Final Regional Plan to the HHC for adoption at the July meeting of the HHC.

July 15 & 16, 2024: HHC Meeting. Commissioners will vote to adopt the Final Kawaihae Regional Plan Update.

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Vision and Values

"Ehuehu I Ka Pono," to "Thrive in Balance."

This vision statement was developed for the Kawaihae community in 2012 as part of the planning process for the Ho'okumukapiko Plan. It was presented to the Kawaihae homesteaders that attended Beneficiary Consultations #1 and/or #2 where it was confirmed that this is still an accurate reflection of their current vision for Kawaihae. At Beneficiary Consultation #2, drafts of community values were also shared with attendees. Participants refined each of the community values to ensure that they best reflect beneficiaries of the Kawaihae region.

Guiding Principles

The vision statement was based on the following values and guiding principles:

- Ke Ola Pono: Life and Wellbeing
- Noho Kupa 'Āina: Self-Sustaining
- Mālama 'Āina: Resource Management
- Laulima: "Many Hands" Working Together
- Ka 'Imi Na'auao: Seeking Enlightenment
- Ka 'Ike Hawai'i: Ancestral Knowledge as the Foundation

Ke Ola Pono: Life and Wellbeing

A healthy and thriving Kawaihae is one where ola (life) is paramount, and all aspects of wellbeing are pono. The physical, mental, emotional, and spiritual wellness of the homestead community in the region are cared for and balanced for keiki, 'ōpio, mākuā and kūpuna.

Noho Kupa 'Āina: Self-Sustaining

Kawaihae homesteaders live mauka to makai and are able to access all the necessary resources to be self-sustaining and have their 'ohana's needs met. The entire ahupua'a of Kawaihae, extending out into the nearshore fisheries, is restored and stewarded using indigenous practices by the homestead for future generations. Restoration of Kawaihae means self-sufficiency, connectivity to place, equitable access to affordable water, and stewardship of land and ocean resources.

Mālama 'Āina: Resource Management

Resource management goes beyond just caring for the natural environment of Kawaihae, it encompasses the abundance of cultural and historic resources that help to create a thriving ahupua'a. All resources will be cared for in the way of our kūpuna, and in doing so ancestral knowledge will be transferred from one generation to the next.

Laulima: “Many Hands” Working Together

Kawaihae homesteaders will come together as a community alongside one another to achieve their vision for the future. Communication will be clear between one another. Accomplishing goals will be the focus. With the hard work and commitment of the many hands of the Kawaihae region, all dreams are possible.

Ka ‘Imi Na’auao: Seeking Enlightenment

A commitment to continually seek knowledge is vital to the long-term success of Kawaihae. Education and learning opportunities for all, from keiki to kūpuna must be accessible. Educational and support resources will be available to all who need them.

Ka ‘Ike Hawai‘i: Ancestral Knowledge as the Foundation

Traditional Hawaiian knowledge (‘ike Hawai‘i) and ancestral knowledge (‘ike kūpuna) are the foundation of Kawaihae upon which all things can be built. Through the perpetuation of this ‘ike, Kawaihae and its people are grounded in culture, history, traditions & place and are able to better reach their goals for the future.

Planning Area

Location

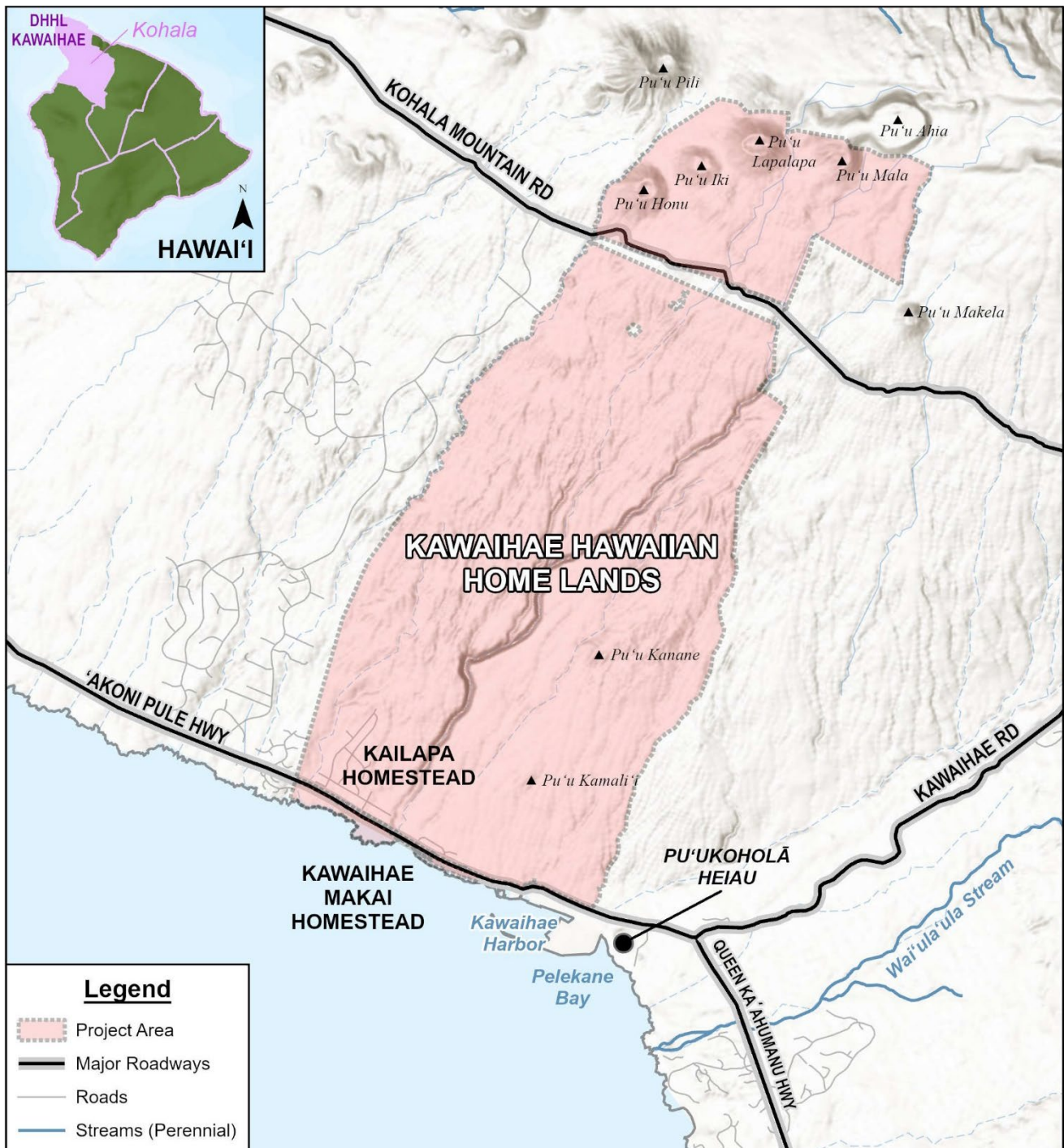
The Kawaihae Region is located in the ahupua'a of Kawaihae, in the moku of Kohala, on the mokupuni of Hawai'i. The ahupua'a encompasses approximately 13,008 acres, with the majority of the ahupua'a, 10,153 acres, owned by DHHL. There are currently 192 active residential homestead leases in Kawaihae and one pastoral homestead lease. The residential lots are primarily located within the Kailapa Homestead, with a smaller development in the Kawaihae Makai Homestead.

The DHHL Hawai'i Island Plan (2002) designated the following land uses within this Planning Area, which are described in the section titled "Existing Land Uses":

- Residential,
- Community Use,
- Commercial,
- Industrial, and
- General Agriculture.

The 2022 update to the DHHL General Plan proposed to remove the "General Agriculture" land use designation and introduced three additional designations: 1) the "Stewardship" designation will open land up to beneficiaries or DHHL for uses that provide immediate benefits to the surrounding community and the Trust, 2) "Community Agriculture" will identify lands for shared community agriculture or gardens, and 3) the "Renewable Energy" designation will identify lands best suited for renewable energy generation. With the removal of General Agriculture, the lands in Kawaihae that are currently designated as General Agriculture will be re-designated during the Island Planning process. The last Island Plan for Hawai'i Island was published in 2002 and has a 20-year timeframe; it is currently undergoing the update process.

FIGURE 5: PROJECT AREA MAP



Kawaihae Regional Plan Update PROJECT AREA

March 2024

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Regional History

Mokupuni

The main Hawaiian Islands are made up of eight distinct mokupuni. From oldest to youngest, their names are Niʻihau, Kauaʻi, Oʻahu, Molokaʻi, Lānaʻi, Maui, Kahoʻolawe, and Hawaiʻi. Known translations for some of these names include: Niʻihau, bound with hau bark; Kauaʻi, the action of placing something; Molokaʻi, twisting current; Lānaʻi, day conquest; Maui, the name of a well-known demigod throughout Polynesia; and Kahoʻolawe, the taking away (as by currents). Hawaiʻi, where Kawaihae is situated, has no known translation. However, it is often referred to as “ka moku o Keawe,” the island of Keawe, in honor of an ancient chief who ruled over the island in the 17th century.

Moku

A total of six moku, or districts, encompass the island of Hawaiʻi. Going clockwise from the north, these moku (and their translations) are Kohala (to pull or drag hala), Hāmākua (back of the island), Hilo (to twist, the first night of a new moon, a famous Polynesia navigator), Puna (spring of water), Kaʻū (the breast), and Kona (leeward sides of the Hawaiian islands).

Kawaihae is located in the moku of Kohala. Kohala is most well known as the birthplace of Kamehameha Paiʻea; he was born in Kokoiki and taken to ʻĀwini, where he grew up in hiding so that he could one day unite the Hawaiian Islands. After conquering Maui, Lānaʻi, and Molokaʻi in 1790, Kamehameha was advised by Kāpoūkahi, a kahuna from Kauaʻi, to construct a heiau dedicated to his family war god, Kūkāʻilimoku, atop Puʻukoholā. Stones were carried over 20 miles from Pololū to Kawaihae until Puʻukoholā Heiau was completed in 1791. Following its completion, Kamehameha invited his cousin, Keōua Kūahuʻula, to the dedication ceremonies. Keōua was slain and offered as a sacrifice, resulting in Kamehameha's control over the island of Hawaiʻi. A resident of Kawaihae recounted that this battle occurred near Puʻukoholā at Waiakapeʻa (Queen's Bath). Through a series of battles and peaceful negotiations, Kamehameha ultimately united the islands in 1810, establishing the Hawaiian Kingdom. Puʻukoholā Heiau still stands today in what is now known as the Kawaihae 2 ahupuaʻa. It is registered as a national historic site and is managed by the U.S. Department of the Interior National Park Service.

FIGURE 6: PUʻUKOHOĻĀ HEIAU



Kohala has always had a commendable reputation, with numerous ʻōlelo noʻeau that express the excellence of both the place and its people. A few ʻōlelo noʻeau from Pukui (1983) are listed below:

- “Lele o Kohala me he lupe la.” *Kohala soars as a kite.* An expression of admiration for Kohala, a district that has often been a leader in doing good work.

- “‘A‘ohe u‘i hele wale o Kohala.” *No youth of Kohala goes empty-handed.* Said in praise of people who do not go anywhere without a gift or helping hand.
- “‘Ike ‘ia no o Kohala i ka pae kō, a o ka pae kō ia kole ai ka waha.” *One can recognize Kohala by her rows of sugar cane which can make the mouth raw when chewed.* When one wanted to fight a Kohala warrior, he would have to be a very good warrior to succeed. Kohala men were vigorous, brave, and strong.
- “He pā‘ā kō kea no Kohala, e kole ai ka waha ke ‘ai.” *A resistant white sugar cane of Kohala that injures the mouth when eaten.* A person that one does not tamper with. This was the retort of Pupukea, a Hawai‘i chief, when the Maui chief Makakūikalani made fun of his small stature. Later used in praise of the warriors of Kohala, who were known for valor.

FIGURE 7: VIEW FROM KAILAPA HOMESTEAD IN KAWAIHAE



Ahupua'a

Kohala is made up of 72 ahupua'a. The Kawaihae Homestead is contained within the Kawaihae 1 ahupua'a, adjacent to Waikā and Kawaihae 2. In the mauka section, the Kawaihae 1 ahupua'a shares a border with the ahupua'a of Pu'ukapu and Honokāne. DHHL also owns a 37-acre parcel further north in the ahupua'a of 'Upolu. The following is a list of all the ahupua'a of Kohala, which is also displayed in Figure 8. Where available, English translations are provided for the names.

- Waimea, Waikoloa (reddish water, duck water)
- 'Anaeho'omalū (protected mullet)
- Lālāmilo, Keanu'i'ōmanō (milo branch, coldness of shark flesh)
- 'Ōuli (omen)
- Pu'ukawaiwai, Pa'ūolu'ukia (the prosperity hill, ornamental canoe float)
- Pauahi (destroyed by fire)
- Momoualua
- Lanikepu
- Keoniki, Kauniho, Wa
- Pu'ukapu (sacred hill)
- Kawaihae (water of wrath)
- Waikā (cleared water)
- Kahuā (the jealousy)
- Makiloa, Pahinahina (press down, grayish enclosure)
- Kalala 1-2, Koki'o (the branch, hibiscus)
- Pōhakulua, Ahulua (hollowed stone, two piles of stones)
- Kaiho'onā
- Ki'iokalani
- Puaiki (little flower)
- Puanui (great flower)
- Kehena (the nakedness)
- Kipi (rebel)
- Kaupalaoa (landing season of whale ivory)
- Makeanehu (a desire for nehu)
- Kaiholena (the yellow core)
- Kaipuha'a, Lamaloloa (the low calabash, long torch)
- Pu'ukole, Koea, Lapakahi (bare hill, to be dry and hard, single ridge)
- Māhukona, Hihui (leeward steam, wild)
- Pu'uokumau
- Nunulunui
- Kamanō (the shark)
- Kou (kou tree)
- Kapa'anui
- Kapa'a (firm)
- Kapunapuna (the mealy substance)
- Hā'ena (red hot)
- Awalua (two harbors)
- Kukuipahu (pierced candlenut)
- Puakea (white flower)
- Honoipu (gourd bay)
- 'Upolu (an island in Sāmoa)
- Kokoiki (little blood)
- Pu'uepa (name of a star)
- 'Opihipau, Hukia'a
- Kealahewa
- Kāhei, Hualua (girdle, two fruits)
- Ka'auhuhu (the fish poison plant)
- Hāwī (time of famine)
- Pāhoa (dagger)
- Honomaka'u (harbor of fear)
- Kapu'a (the whistle)
- Puehuehu, La'aumama (scattered)
- Ohanaula
- Honopueo (owl bay)
- Kapa'au (place where offerings were laid)
- Nunuluiki
- 'Āinakea (white land)
- 'Iole (rat)
- Hala'ula (red *pandanus*)
- Apuakohau, Kukuiwaluhia
- Halelua (tomb)
- Hālawa, Napapa'a (curve)
- 'Ā'amakāō (crowds of black crabs)
- Makapala, Niuli'i (sore beginning to heal, small coconut tree)
- Mekanikahio, Auau (the expurgated wind, to bathe)
- Pololū (long spear)
- Honokāne (Kāne's bay)
- 'Āwini (pointed)

DHHL KAWAIHAE *Kohala*

Legend

- DHHL Lands
- Ahupua'a
- Moku
- Kawaihae 1 Ahupua'a

UPOLU POINT

Kawaihae 1

KOHALA

KONA

HĀMĀKUA

Kawaihae Regional Plan Update
AHUPUA'A

February 2024

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HAWAIIAN HOME LANDS
HAWAIIAN HOME LANDS
TOWNSCAPE

0 10 Miles

Kaulana 'o Kawaihae i ke kai hāwanawana. Famous is Kawaihae for its whispering sea. This is the first line of the song Kaulana Kawaihae, composed by Ka'ilihune Alama Na'ai. This song talks about a few famous features of Kawaihae, including the view of Mauna Kea and the small islet off the coast, Puaka'ilima. Prior to the tsunami of 1946, when the islet fell into the reef, Puaka'ilima housed a garden of native 'ilima, which were used to collect the 'ilima flower, a small golden flower specifically to make lei for the ali'i. Puaka'ilima was also the name of the reef section surrounding the small islet. However, this reef was dredged and destroyed for the construction of Kawaihae Harbor in 1957.

Despite the dredging of Puaka'ilima, there remains a large stretch of reef that creates numerous surf breaks just off the coast. Kawaihae has long been known for its exceptional surfing, a legacy stretching back from ancient times to even today. Its long, peeling waves were perfect for traditional wooden longboards. Even Ka'ahumanu, the favorite wife of King Kamehameha I, was known to surf here while she resided with her husband in Kawaihae.

FIGURE 9: SURFERS ENJOYING THE WAVES OFF THE COAST OF KAWAIIHAE



Kawaihae literally translates to “water of wrath.” It was given this name from a previous battle over one of the springs in the area. Water has always been a valuable resource in Kawaihae; residents along the coast only see about 10 inches of rain per year (Giambelluca et al., 2013) and springs and perennial streams are uncommon. Much of the water is found in the uplands of the ahupua'a, Kawaihae Uka. The highest point in the ahupua'a is 5,400 feet above sea level and here annual rainfall reaches approximately 140 inches per year, though much of this rain flows down the opposite side of the Kohala mountain into Honokāne Nui. The major streams that flow mauka to makai in Kawaihae and empty into the nearshore below are: Keanahalululu, Kaiopae, Honokoa, and Kawaihae, all which flow intermittently.

The rain of Kawaihae was referred to as “ka ua nāulu o Kawaihae,” or the cloudless rain of Kawaihae (Pukui, 1983). It was said that this rain would often surprise visitors because it seemed to come out of a cloudless sky. However, those native to Kawaihae would know what to expect through simply observing the winds and other signs of nature. The winds of Kawaihae are known through an old saying “nā makani paio lua o Kawaihae,” the two conflicting winds of Kawaihae (Pukui, 1983). This refers to the Mumuku wind from the uplands and the Nāulu wind which brings the rains to Kawaihae.

Traditionally, people living in Kawaihae planted sweet potato and grew dryland kalo along the lower elevation areas of the ahupua'a. Wetland kalo was also planted along stream beds. Hawaiians living in Kawaihae relied heavily on ocean resources for sustenance. A great supply of food was obtained from deep sea fishing, along coral reefs, and in brackish water ponds. Salt was also produced and consumed by inhabitants of Kawaihae.

The natural harbor at Kawaihae, a gap in the extensive reef flats, was one of the only suitable landing areas for vessels along the Kohala coast. Kawaihae was initially settled as a small fishing village centered around this landing area near modern day Pelekane Bay. European sailors in the late 1700s noted a grove of coconut trees, salt pans, a small number of traditional houses, and shade structures for building and repairing canoes near the shore. The salt pans were important for preserving fish and meat for trade with an increasing number of European sailors that used the harbor as a provisioning stop. Natural springs and rivers flowed regularly, allowing visiting sailors a chance to resupply their fresh water reserves (Greene, 1993).

As Kamehameha sought to consolidate power and unite the Hawaiian islands, Kawaihae became a place of great strategic and spiritual importance. John Young, a trusted European advisor of Kamehameha, built a house at Kawaihae and oversaw commercial activity there. Accompanying Young was Isaac Davis, another trusted advisor of Kamehameha. Davis played a pivotal role; following several unsuccessful invasion attempts by Kamehameha's forces, he brokered a peace agreement between Kamehameha and Kaumuali'i of Kaua'i, ultimately unifying the Hawaiian Islands. Davis passed away shortly afterward, and Young took in his children (U.S. DOI, 2022). Presently, some residents of Kawaihae trace their lineage back to Isaac Davis.

In 1793, British explorer George Vancouver gifted cattle to Kamehameha, introducing the species to Hawai'i. The cattle industry flourished in nearby Waimea with the development of Parker Ranch, and Kawaihae became the center of landing and shipping cattle and beef in Hawai'i (U.S. DOI, 2023).

Kawaihae thrived as a trading port in the early 1800s. Like cattle, the sandalwood, or 'iliahi, trade became an important feature of the Kawaihae economy as the Kohala Mountain was abundant with 'iliahi forests. Logs were cut and hauled down to the landing at Kawaihae. Whaling ships stopped to trade goods, repair their ships with the wood, and resupply their freshwater reserves from the springs and streams. After peaking in the 1820s, 'iliahi trade collapsed as the forests were nearly depleted. Deforestation from the 'iliahi industry along with intensive grazing from cattle prevented forests from regenerating, leaving Kawaihae as a dry and barren landscape (Greene, 1993).

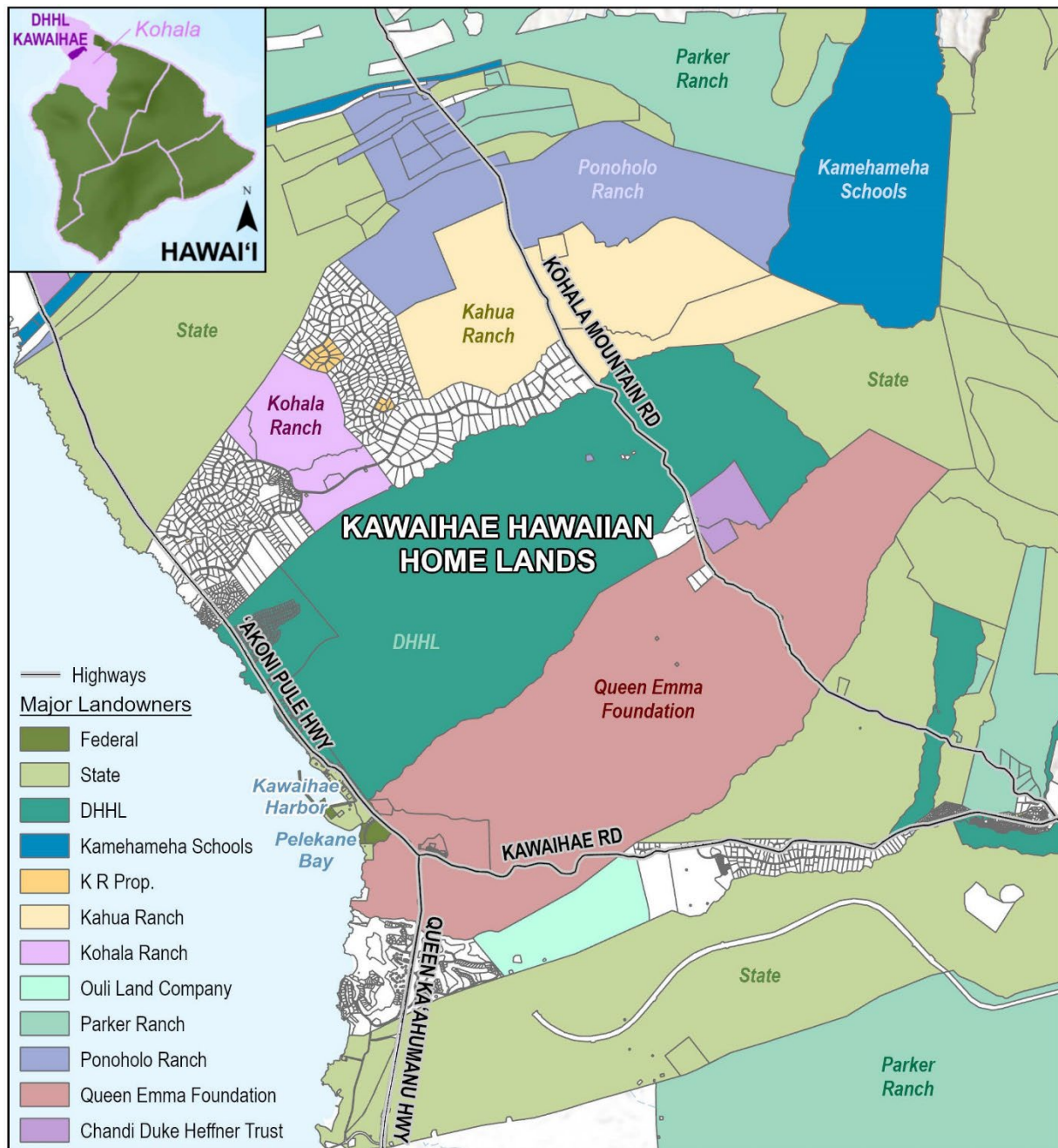
Kawaihae experienced a period of decline after the sandalwood and whaling industries collapsed, but maintained its existence as a landing site for cattle and as a fishing village. In 1949, Kawaihae was identified as a suitable location for a deep-draft harbor. The Army Corps of Engineers constructed this harbor from 1957 to 1959, making Kawaihae the second port on Hawai'i Island that could accommodate container ships (DOT Harbors, 2011).

The development of the harbor meant the displacement of residents in Kawaihae. The remaining coastal inhabitants were forced to move mauka as the harbor overtook residential areas near the coast. In 1972, the Kawaihae Harbor was expanded with Project Tugboat. Nuclear explosives were used to excavate an area for a new small boat harbor and channel entrance, further damaging the nearshore reef ecosystem (Day, 1972). Today, Kawaihae still functions as an important harbor.

Surrounding Land Ownership and Uses

There are a mix of public and private large landowners in the Kawaihae Region, with the State of Hawai'i as the largest landholder in the surrounding area. Makai of DHHL's landholdings, the federal government owns the Kawaihae Harbor as well as the adjacent Pu'ukoholā Heiau National Historic Site. Queen Emma Foundation and Kamehameha Schools are two other large landowners within the vicinity of Kawaihae. Queen Emma Foundation owns the parcels along the southeastern boundary of Kawaihae. Kamehameha Schools owns the upper reaches of Kawaihae and into the eastern valley of Honokāne Nui. There are also numerous ranch lands belonging to Parker Ranch, Kohala Ranch, Kahua Ranch, and Ponoholo Ranch. K R Prop, Ouli Land Company, and the Chandi Duke Heffner Trust are the other remaining large landowners surrounding Kawaihae. Please refer to Figure 10, Large Landowners Map.

FIGURE 10: LARGE LANDOWNERS MAP



Kawaihae Regional Plan Update LARGE LANDOWNERS

March 2024

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Pelekane Bay

Pelekane Bay is located in front of Pu‘ukoholā Heiau and adjacent to Kawaihae Harbor. Since the construction of Kawaihae Harbor in 1959, the water quality in the bay has been consistently degraded. Pelekane Bay was listed as an impaired body of water in the 2022 State of Hawaii Water Quality Monitoring and Assessment Report. A study conducted by Storlazzi et al. (2012) assessed the circulation of water and sediment in Pelekane Bay; they concluded that heavy rainfall events, flooding, and large waves resulted in siltation and deteriorated water quality from runoff. The major source of sediment into Pelekane Bay is erosion due to wildfires and over-grazing by feral goats.

In 2021, DHHL conducted a Kawaihae Goat and Watershed Beneficiary Consultation to inform beneficiaries about the impacts of feral goats and to gather feedback on how to best manage the goat population in Kawaihae. Meeting participants determined that the next step would be for DHHL to develop an action plan based on the feedback received from the beneficiary consultation. A plan must be in place prior to any action to ensure that the feral goat population is removed in an appropriate manner. At this time, the action plan has not yet been completed.

Pelekane Bay is within the Mauna Kea Soil and Water Conservation District, which supported the development of the Pelekane Bay Watershed Management Plan, published in 2005. The Management Plan recommended implementation of the following actions: 1) increase groundcover density and quality, 2) minimize fires within and adjacent to the watershed, 3) restore groundcover in the watershed, 4) reduce sedimentation in Pelekane Bay, and 5) measure the success and effectiveness of watershed restoration and protection activities. For each recommended action, the plan outlines the responsible parties and relative cost and establishes a level of priority. Additionally, the Kohala Watershed Partnership is working to restore native forests in the watershed above Pelekane Bay. They identified soil and watershed management strategies for Kawaihae in their South Kohala Coastal Action Plan for 2030. Strategies included controlling feral goats and identifying highly erosive areas.

FIGURE 11: PELEKANE BAY, KAWAIHAE



Natural Hazards

Wildfire

Between 2003 and 2022, there have been 10 recorded wildfires in the general vicinity of the Kawaihae homesteads (see Figure 13). Most recently, Kailapa residents were evacuated from their homes in August 2023 due to the threat of an adjacent wildfire. A subsequent wildfire occurred nearby in December 2023; fortunately, it did not pose a threat to any structural properties. Following the December wildfire, DHHL, in collaboration with the State of Hawai'i Department of Transportation, constructed an emergency firebreak around the Kailapa Homestead. Figure 12, below, illustrates the extent of the firebreak.

FIGURE 12: COMPLETED FIREBREAK FOR KAILAPA HOMESTEAD (JANUARY 2024)

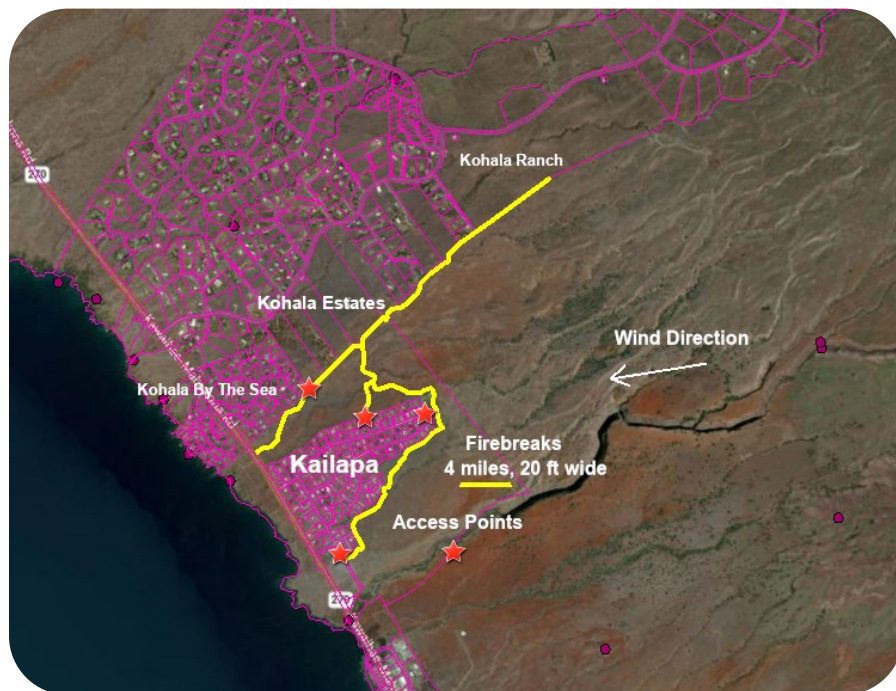
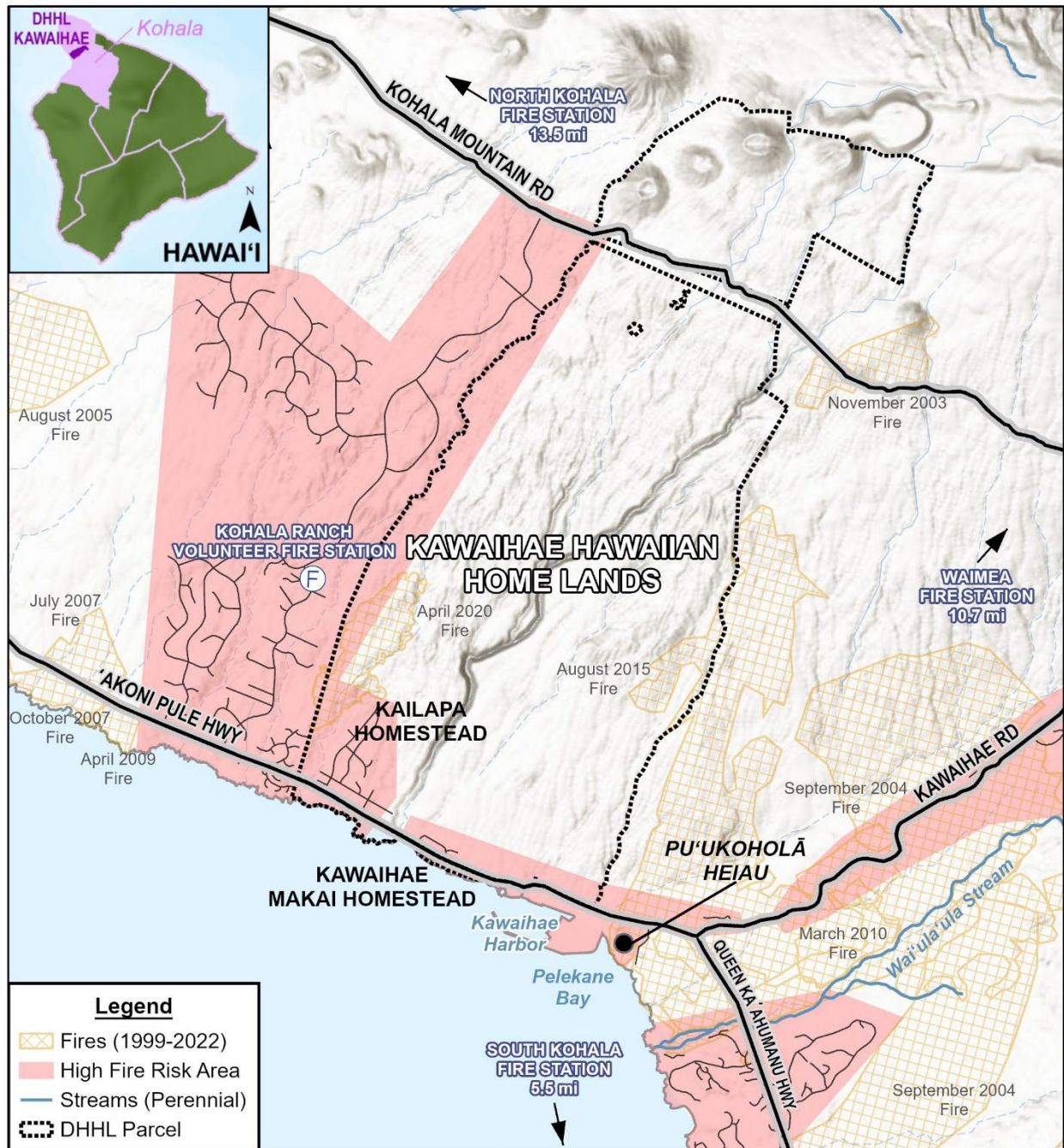


FIGURE 13: WILDFIRE RISK MAP



Kawaihāe Regional Plan Update WILDFIRE RISK

February 2024

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The Hawai'i Wildfire Management Organization is in the process of developing a draft of a wildfire strategy for the greater Kawaihae area, which includes DHHL's Kawaihae lands. Their objectives and goals for the Kawaihae region include:

- OBJECTIVE 1: Create Fire Adapted Communities
 - GOAL: People who live and work in the area are aware and as prepared as possible to deal with wildland fire.
 - GOAL: From residents to businesses to community leaders, and across diverse professions, activities, and neighborhoods, everyone knows they play a role in wildfire prevention, readiness, and safety, and does their part.
 - GOAL: The built environment resists, withstands, and recovers well from wildfire.
- OBJECTIVE 2: Make Landscapes Resilient to Wildfire
 - GOAL: Risk of fire to landscapes are diminished.
 - GOAL: Pre-fire hazards are managed (for example, overgrown dry vegetation is reduced and managed).
 - GOAL: Sensitive resources are not damaged by firefighting.
 - GOAL: Post-fire impacts are addressed (post-fire erosion, flood control, and restoration).
- OBJECTIVE 3: Optimize for Safe & Effective Emergency Response
 - GOAL: Injuries and loss of life for public and firefighters is diminished.
 - GOAL: Adequate infrastructure and capacity: water, access, equipment, training.
 - GOAL: Pre-fire multi-jurisdictional, multi partner planning and coordination occurs.

Drought

Another major threat to the Kawaihae region includes increased drought conditions due to climate change. The U.S. Drought Monitor (2020), a map that displays the intensity of drought across the country, indicated that severe drought affected coastal areas around Kawaihae while there were no drought conditions recorded for the remainder of the leeward side of the island and only moderate drought conditions for the windward side.

As reported in the County of Hawai'i Multi-Hazard Mitigation Plan (2020), the rain gauges in West Hawai'i indicated that the rainfall in April 2010 was only 50 percent of the normal levels or even less. Similarly, the total rainfall from January to April 2010 was also recorded at 50 percent of normal conditions or lower for the majority of rain gauges across the island. The wet-season rainfall from October 2009 to April 2010 marked the driest period in the 30-year recorded history. Since then, ranchers in Kawaihae have reported a number of livestock deaths due to these drought conditions.

Flooding

Flooding is a concern around the area abutting the Kawaihae Road as well as along the Queen Ka'ahumanu Highway from Kawaihae to Puakō. The semi-arid Keawanui, Honokoa, and Kawaihae watersheds that encompass DHHL's land holdings in Kawaihae lack well-defined stream channels and experience infrequent stream flows (see Figure 14). Even with light rainfall, these poorly drained coastal lands can experience flooding.

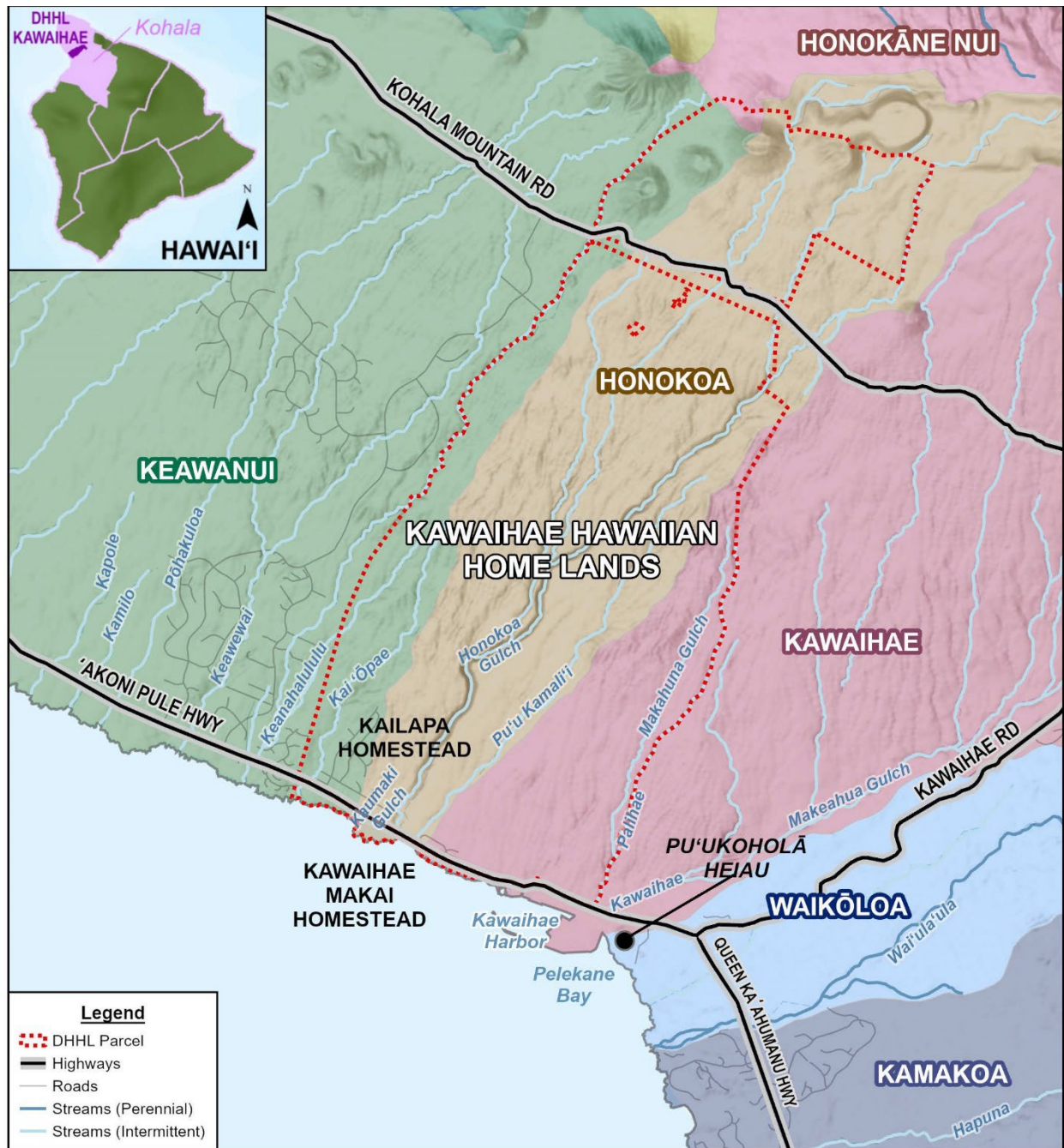
Sea Level Rise

The Hawai'i Highways Climate Adaptation Action Plan and Hazard Tool (2021) identifies risks that may affect highway infrastructure within the project area. Sections of 'Akoni Pule Highway near Kawaihae Harbor will become inundated during multiple natural hazard scenarios such as a 1% Coastal Flood with 3.2 ft Sea Level Rise, Storm Surge, and Hypothetical Tsunami.

Coastal flooding occurs when low-lying land is flooded by seawater during a tropical storm, hurricane, or tsunami. High-risk areas have at least a 1% annual chance of flooding, also known as a 100-year flood. A model that combines a 1% Coastal Flood scenario with a potential 3.2 feet of sea level rise can be used to estimate future coastal flood zones (see Figure 15). These high-risk areas can be further divided into zones by the model's predicted wave heights, indicating areas at risk of damage from storm surge. Zone V indicates wave heights greater than 3 feet in a 1% Coastal Flood scenario. Zone CA indicates wave heights between 1.5 and 3 feet, and Zone A shows areas with waves less than 1.5 feet.

Using this model shows that flood hazards may increase in the future as sea level rises, threatening public infrastructure and access to communities. For Kawaihae, a significant portion of the harbor and multiple points along 'Akoni Pule Highway would be inundated in a 1% Coastal Flood with 3.2 feet Sea Level Rise scenario. The flooded areas shown in Figure 15 point to a need for emergency escape routes for both the Kawaihae Makai Homestead and the Kailapa Homestead, as the 'Akoni Pule Highway is the only route that provides access to these residential areas. While sea level rise will not directly impact homesteads themselves, the impact to road infrastructure may inhibit homesteaders' ability to travel south. The impacts are outside of DHHL's purview so DHHL will have to work with the Department of Transportation and the County on how to address sea level rise impacts on the highway.

FIGURE 14. WATERSHED MAP



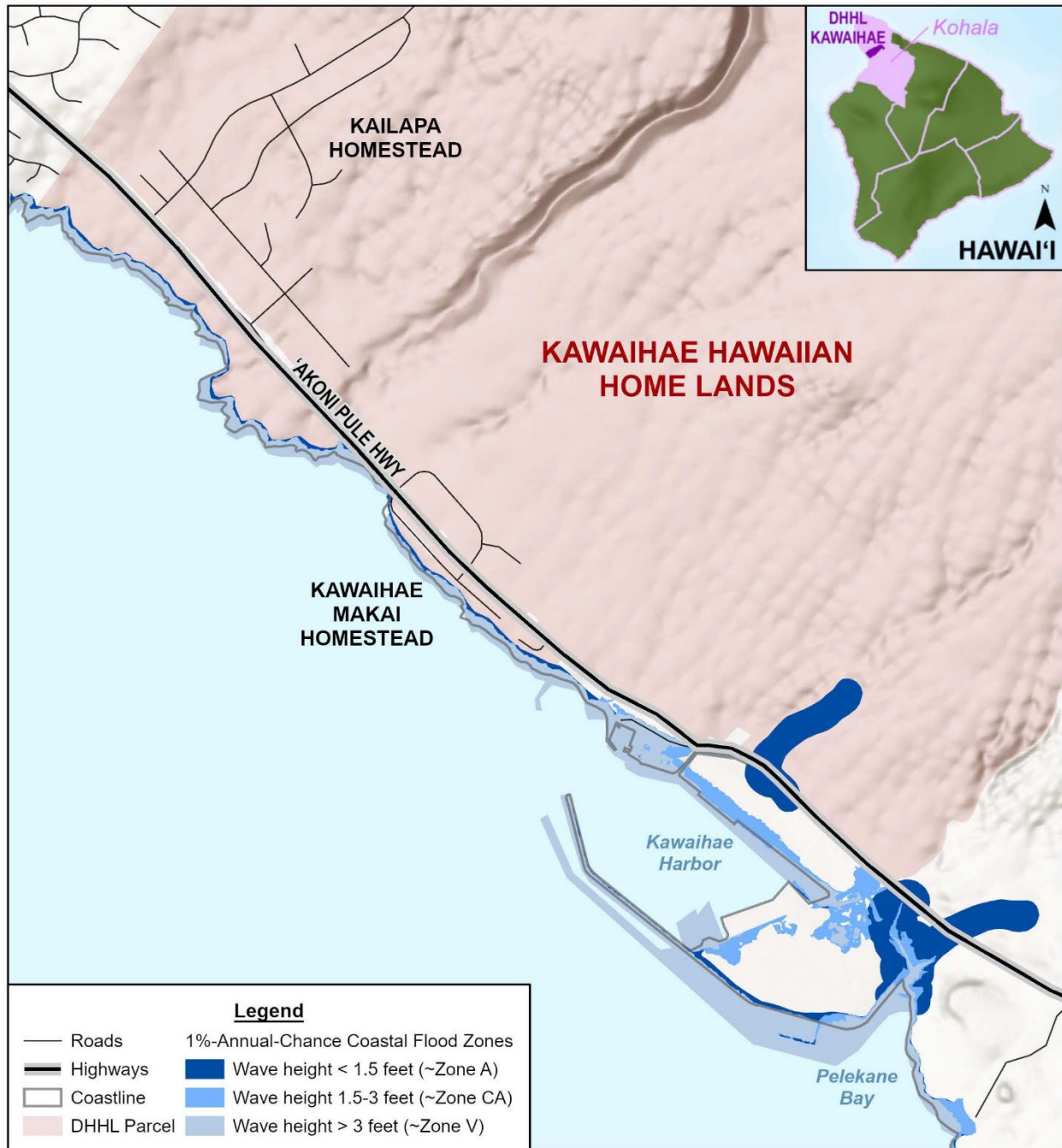
Kawaihae Regional Plan Update WATERSHEDS

March 2024

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FIGURE 15. SEA LEVEL RISE MAP



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SEA LEVEL RISE
 March 2024

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Existing Land Uses

DHHL land use designations are established for all of their lands in the Island Plans. The following are descriptions of the land use designations that are found within the Kawaihae region according to the DHHL Hawai'i Island Plan (2002).

- **Residential:**
 - Residential subdivisions built to County standards in areas close to existing infrastructure.
 - Lots awarded to applicants on the residential waiting list.
- **General Agriculture:**
 - Prime agricultural area. Commercial level agriculture.
- **Pastoral:**
 - Large lot agriculture specifically for pastoral uses. Marginal lands. Some commercial level pastoral activity.
 - Lots awarded to applicants on the pastoral waiting list.
- **Community Use:**
 - Common areas for community use. Includes space for parks and recreation, cultural activities, community based economic development, and other public amenities.
 - No lot size restrictions at present. Infrastructure must meet County standards.
- **Commercial:**
 - Lands suitable for retail, business, and commercial activities.
 - No lot size restrictions at present. Infrastructure must meet County standards.
- **Industrial:**
 - Lands suitable for processing, construction, manufacturing, transportation, wholesale, and warehousing.
 - No lot size restrictions at present. Infrastructure must meet County standards.

Total Lots and Acreage

2002 Land Use Designation ¹	Total Available Acreage ¹	2022 Land Entitlements ²	Acreage of 2022 Land Entitlements ²
Residential	2,224.9 acres	192 leases	145.1 acres
General Agriculture	7,434.2 acres ³	2 Rights-Of-Entries (ROEs)	9,320.0 acres ⁴
Pastoral		1 lease	300.0 acres
Community Use	81.5 acres	1 license; 1 ROE	86.8 acres ⁵
Commercial	90.5 acres	3 ROEs	1.8 acres
Industrial	265 .5 acres	8 leases	35.3 acres
Total	10,098.6 acres	208 leases/ROEs/parcels	9,889.0 acres

¹Source: 2002 Department of Hawaiian Home Lands Hawai'i Island Plan.

²Source: 2022 Department of Hawaiian Home Lands Annual Report (most current available data).

³Includes 300 acres of pastoral land not included in 2002 Island Plan.

⁴Exceeds available acreage; a portion of the pastoral land is located within residential-designated land.

⁵Exceeds available acreage; 14.3-acre Resource Center lot is located within residential-designated land.

Homestead Uses

The Kailapa Homestead is Kawaihae's largest residential subdivision, located mauka of 'Akoni Pule Highway. The 195 subdivided lots encompass a total of 136.4 acres. Average lot size is approximately 32,000 square feet. A second, smaller subdivision is located makai of 'Akoni Pule Highway and consists of 22 house lots. Average lot size is approximately 15,000 square feet. This subdivision covers an area of 8.7 acres.

The remaining 2,079.8 acres designated for residential usage is awaiting further infrastructure improvements. Most of these designated lands, however, are currently in use by cattle ranchers and a small portion is utilized by the Kailapa Community Association.

There is one existing pastoral homestead lessee who has a pastoral lot mauka of Kohala Mountain Road. This lot is approximately 300 acres and is a part of the 1720-acre parcel of HHL located in Kawaihae mauka of the Kohala Mountain Road. The parcel is adjacent to the 1420-acre parcel currently under month-to-month land disposition to Kahua Ranch/ Makani Ua Ranch.

Community Uses

A 72.5-acre parcel along the coast was designated for community use. The Kailapa Community Association had a Right-Of-Entry (No. 684) for this parcel which was issued in 2022 and set to expire after a 12-month period. The community's long-term plan for this parcel is to establish a cultural wellness park with walking and jogging paths, native plant revegetation, a community-managed fishing area, and a few campsites. However, members of the community raised some concerns about people picking up rocks and moving them during surveys for iwi as well as people taking rocks to build rock walls. There is an additional 9.0 acres on the ocean side of the makai homestead that is designated for community use; no plans for these parcels exist at this time.

Although not designated for community use, there is an additional 14.3-acre parcel on the mauka side of the highway, adjacent to the Kailapa subdivision, that serves the community. The vision for this parcel is to create the Kailapa Resource Center, which would provide a location for a preschool, a drop-off and pick-up area for school buses, health & wellness programs, a community garden, and various other community services. Phase I of the Resource Center, which included a pavilion, a cluster mailbox facility, a playground, and a parking lot, was completed in 2017.

General Agriculture

The General Agriculture lands in Kawaihae consist of several large parcels that stretch from mauka to makai and are divided into a northern and southern portion by the Honokoa Gulch. Access to these lands is limited to areas adjacent to 'Akoni Pule Highway and Kohala Mountain Road. Currently, Kahua Ranch and Palekoki Ranch have Rights-of-Entry to pastoral lands in the General Agriculture designated area with additional acreage situated within the Residential designation. Rights-Of-Entries are approved annually by the HHC. More information is provided in the table below.

Type/No.	Use	Permittee	Term	Acre	Annual Rent
Right-Of-Entry (ROE) No. 484	Pastoral	Kahua Ranch, Ltd.	Month-to-month	1,720	\$7,200

ROE No. 485	Pastoral	Palekoki Ranch, Inc.	Month-to-month	7,600	\$31,620
Total Revenue Generated					\$38,820

Grazing and ranching are the primary activities carried out on Kawaihae’s agricultural land, but lack of rainfall in the makai sections may be a limiting factor for ranching capacity in these areas. Generally, areas with rainfall less than 30 inches would be considered “poor” for grazing and economically unfeasible, as a single head of cattle would require 15 acres of land. There is significantly more rainfall in the mauka section of the General Agriculture lands, and the study found that where rainfall exceeded 45 inches per year each head of cattle would require 3 acres of grazing land.

Additionally, throughout the General Agriculture parcel are numerous archeological and historical sites, with many located between the 50 and 250-foot elevation range. Future agricultural activities in those areas may need to be limited to minimize negative impacts on those archeological sites.

Industrial & Commercial

Lands designated for industrial and commercial use are located mauka of ‘Akoni Pule Highway, adjacent to Kawaihae Harbor. DHHL has approved a variety of commercial and industrial tenants. Current tenants include a macadamia nut company, a concrete company, a gravel company, an industrial development corporation, an activated carbon company, and several commercial operations. See the table below for more information.

Type/No.	Use	Lessee	Term	Acre	Annual Lease Rent
General Lease (GL) No. 136	Industrial	Hamakua Macadamia Nut Co.	65 years (expires 2033)	5.80	\$90,343.00
GL No. 177	Industrial	Oasis Enterprises, LLC	55 years (expires 2026)	1.00	\$26,100.00
GL No. 178	Industrial	Hokuloa, Inc.	65 years (expires 2037)	6.13	\$55,829.76
GL No. 204	Industrial	Pacific Waste, Inc.	55 years (expires 2033)	2.00	\$42,000.00
GL No. 205A	Industrial	Edwin DeLuz Gravel & Trucking, c/o Kohala Coast Concrete & Precast, LLC	18 years (expires 2033)	2.00	\$47,015.88
GL No. 206	Industrial	Kohala Coast Concrete & Precast, LLC	55 years (expires 2033)	2.588	\$58,400.00
GL No. 217	Industrial	Kawaihae Industrial Dev Corp, c/o Harborside Investors	55 years (expires 2039)	2.858	\$45,000.00
GL No. 275	Industrial	Millennium Carbon, LLC	55 years (expires 2064)	12.961	\$168,000.00

Right-of-Entry (ROE) No. 461	Commercial	Edward J. and Maomi Laau	Month-to-month	0.540	\$13,497.00
ROE No. 462	Commercial	Kawaihae Spirits, Inc.	Month-to-month	0.670	\$12,916.00
ROE No. 483	Commercial	Guy Startzman	Month-to-month	0.560	\$6,600.00
Total Revenue Generated					\$565,701.64

The Kawaihae Harbor Master Plan was updated in 2011 and recommends the construction of a new cargo terminal, including a pier for two barges, and a cargo handling and storage yard at the Coral Flats. Increased harbor activity may create a demand for more industrial and commercial activity adjacent to the harbor. However, archeological surveys indicate a large number of burial sites behind the existing industrial and commercial parcels.

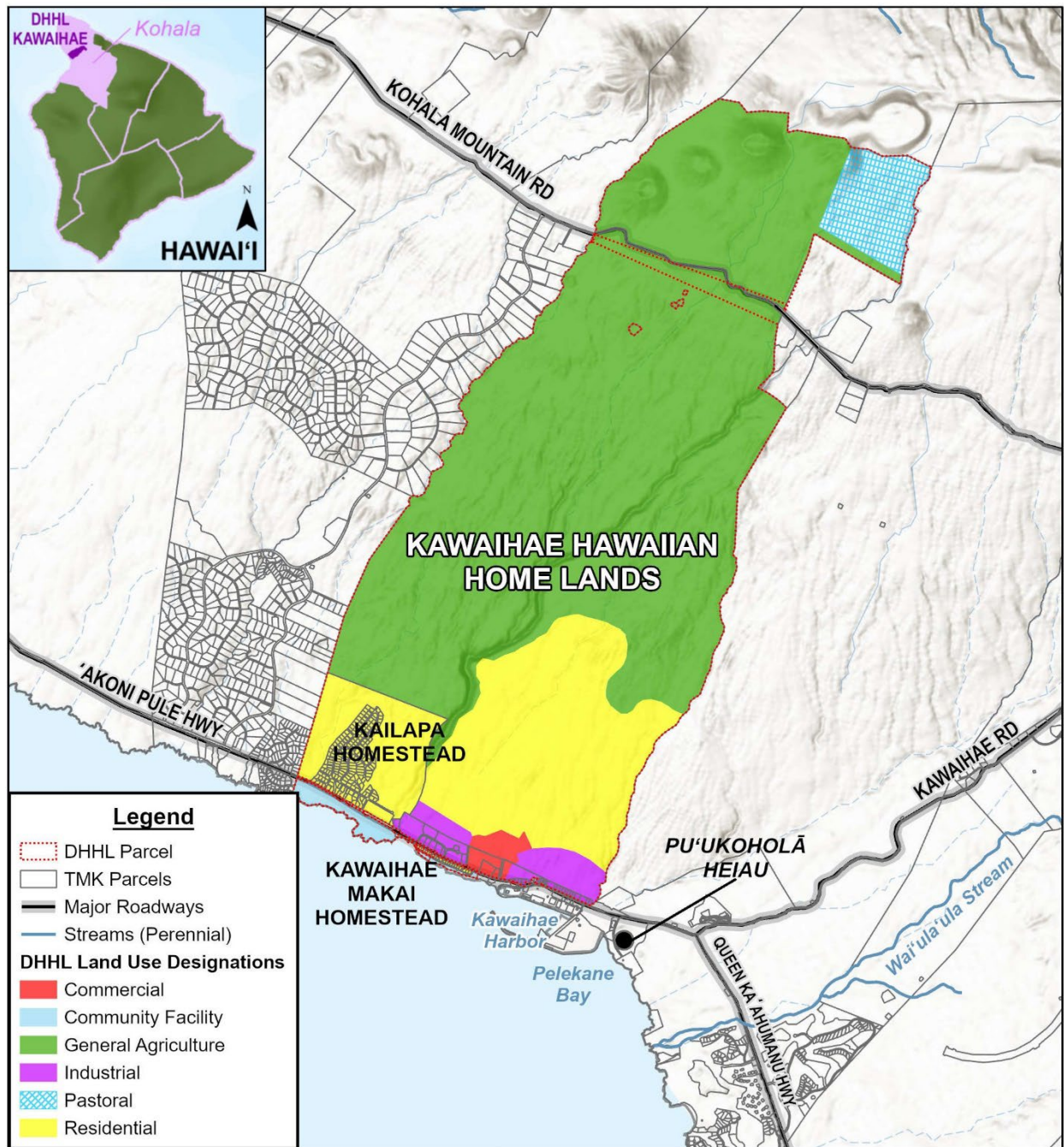
Regional Revenue Generation

There are a variety of land uses that generate revenue through annual lease rent payments to the Department. The following table lists the types of land uses and annual lease rents included in the 2022 DHHL Annual Report. This table excludes revenue and acreage from homestead residential uses, as well non-revenue generating acreage for lands used for community use, easements, and public service. This table only includes lands that generated revenue for the Department according to the DHHL Annual Report for 2022. The DHHL land inventory in the Kawaihae region generated a total of \$604,521.64 in 2022. The total land inventory for General Leases, Rights-Of-Entry, and Licenses on Hawai'i Island is 41,984 acres, with Kawaihae's 9,357 acres making up approximately 22.3% of the lands generating revenue on the island. Total revenue from all DHHL General Leases, Rights-Of-Entry, and Licenses Statewide is \$17,950,775, with Kawaihae generating approximately 3.4% of this revenue.

Kawaihae Regional Revenue in 2022

Land Use	Annual Lease Rent
Commercial	\$ 33,013.00
Industrial	\$ 532,688.64
Pastoral	\$ 38,820.00
TOTAL	\$ 604,521.64

FIGURE 16: DHHL LAND USE DESIGNATION MAP



Kawaihae Regional Plan Update
DHHL LAND USE DESIGNATION
 March 2024

This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.



0 1
 Mile



FIGURE 17: DHHL LAND USE DESIGNATION MAP – CLOSE UP



Kawaihae Regional Plan Update
DHHL LAND USE DESIGNATION
March 2024

This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.



0 0.5 Miles



State and County Land Use Designations

In general, the DHHL Island Plan land use designations are consistent with State Land Use Districts and County Zoning. Where they may be inconsistent, DHHL may exempt itself from the State Land Use Law and County land use regulations pursuant to the HHCA, Section 204.

State Land Use Districts

The State Land Use Agricultural District includes lands for crop cultivation; aquaculture; raising livestock; wind energy facilities; timber cultivation; agriculture-support activities, such as mills, employee quarters, etc.; and land with significant potential for agricultural uses. The lands in Kawaihae are mostly zoned as agriculture (~9,900 acres) with a small portion along the coast, roughly 240 acres, zoned as urban.

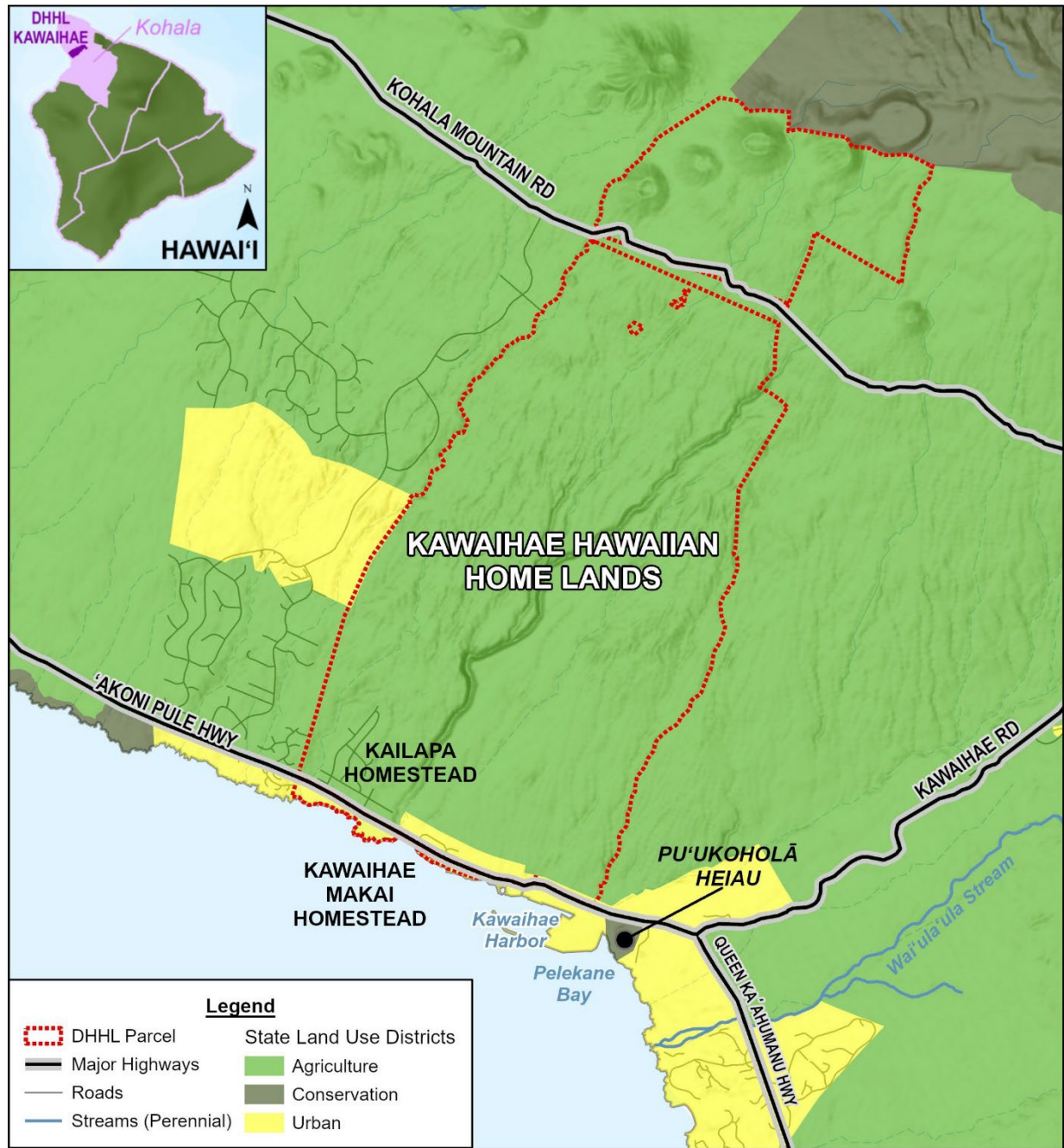
The State Land Use Urban District is generally for lands characterized by “city-like” concentrations of people, structures, or services and includes vacant lands for future development. Please refer to Figure 18, State Land Use Districts Map, on the following page.

Land Use Pattern Allocation Guide

The Hawai'i County Land Use Pattern Allocation Guide (LUPAG) visually displays land uses identified in the County of Hawai'i General Plan (2005). It is not a zoning map and does not regulate the use of land. Rather it depicts potential future land uses and acreage amounts.

- Extensive Agriculture: ~7,830 acres
 - Lands not classified as Important Agricultural Land.
 - Includes lands that are not capable of producing sustained, high agricultural yields without intensive application of modern farming methods and technologies due to certain physical constraints such as soil composition, slope, machine tillability and climate.
 - Other less intensive agricultural uses such as grazing and pasture may be included in this category.
- Important Agricultural Land: ~1,000 acres
 - Lands with better potential for sustained high agricultural yields because of soil type, climate, topography, or other factors.
- Low Density Urban: ~270 acres
 - Residential, with ancillary community and public uses, and neighborhood and convenience-type commercial uses.
 - Overall residential density may be up to six units per acre.
- Medium Density Urban: ~40 acres
 - Village and neighborhood commercial and single family and multiple family residential and related functions.
 - Multiple family residential density may be up to 35 units per acre.
- Urban Expansion: ~460 acres
 - Allows for a mix of high density, medium density, low density, industrial, industrial-commercial and/or open designations in areas where new settlements may be desirable, but where specific settlement pattern and mix of uses have not yet been determined.
- Industrial: ~530 acres
 - Includes uses such as manufacturing and processing, wholesaling, large storage and transportation facilities, light industrial and industrial-commercial uses.
- Open Area: ~35 acres
 - Parks and other recreational areas, historic sites, and open shoreline areas.

FIGURE 18: STATE LAND USE DISTRICTS MAP



Kawaihae Regional Plan Update STATE LAND USE DISTRICTS

February 2024

This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.



County Zoning

The entire upland portion of the Kawaihae region in addition to one of the coastal parcels is zoned A-40a Agricultural use. Lot sizes in A-40a are restricted to a minimum of 40 acres. The Kailapa Homestead is zoned R-22 Single Family Residential use with a minimum lot size of 22,000 square feet. The Kawaihae Makai Homestead is zoned RS-15 Single Family Residential use with a minimum lot size of 15,000 square feet. The coastal parcel separating the makai homestead from the ocean is zoned Open. Open lands are areas that contribute to the general welfare, the full enjoyment, or economic well-being of open land type use which has been established or is proposed. The opposite side of the highway is zoned MG-1a General Industrial use with a minimum requirement of 1 acre for each building site. General Industrial is for uses that are generally considered to be offensive or have some element of danger. South of the industrial area is zoned CV-10 Village Commercial use which requires a minimum lot size of 10,000 square feet for each building site. This area is designated for a variety of commercial and light industrial uses in rural areas.

Water Quality Standards

Inland and Marine waters are regulated by the State of Hawai'i Department of Health Clean Water Branch. The Clean Water Branch uses categories defined in the Hawai'i Administrative Rules (HAR) Section 11-54 to classify waters and apply water quality standards. The following Water Quality Standards Classes apply in the Kawaihae region:

INLAND WATERS

Class 1 – The objective of Class 1 is for waters to remain in their natural state. The wilderness character of these waters is to be protected to the extent possible. Waste discharge and any activity that increases contamination is prohibited.

Class 2 – The objective of Class 2 is to protect uses for recreation, support the propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation. No new sewage or industrial discharges are permitted within estuaries with several exceptions defined in the Hawai'i Administrative Rules.

MARINE WATERS

Class AA – The objective of Class AA is to keep waters in their natural pristine state as nearly as possible. Within Class AA areas there is to be minimum pollution or alteration of water quality from any human-caused source or actions. Protected uses are oceanographic research, propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and aesthetic enjoyment.

Class A – The objective of Class A is to protect recreational purposes and aesthetic enjoyment. Other uses can be permitted if they are compatible with protection and propagation of wildlife, and recreation. No new sewage or industrial discharges are to be permitted within embayments with several exceptions listed in the Hawai'i Administrative Rules.

The map displays the Kawaihae Hawaiian Home Lands, bounded by Kohala Mountain Rd to the north and Kawaihae Rd to the east. The land is divided into several zoning districts, each represented by a different color: Family Agricultural District (FA) in light green, Agricultural 1-5 acres (A) in medium green, Agricultural 5-80 acres (A) in dark green, Single Family Residential (RS) in yellow, Multi-Family Residential (RM) in orange, Industrial (MG) in red, Commercial (CV) in pink, Open District in grey, and Resort (V) in blue. The map also shows major highways, streams (perennial), and roads. Key locations include Kailapa Homestead, Kawaihae Makai Homestead, Kawaihae Harbor, Pelekane Bay, and Pu'ukoholā Heiau. The map includes an inset map of Hawaii showing the location of Kawaihae in the state of Hawaii. A legend in the bottom left corner defines the symbols used on the map.

Legend

- DHHL Parcel
- Major Highways
- Stream (Perennial)
- Roads

Zoning

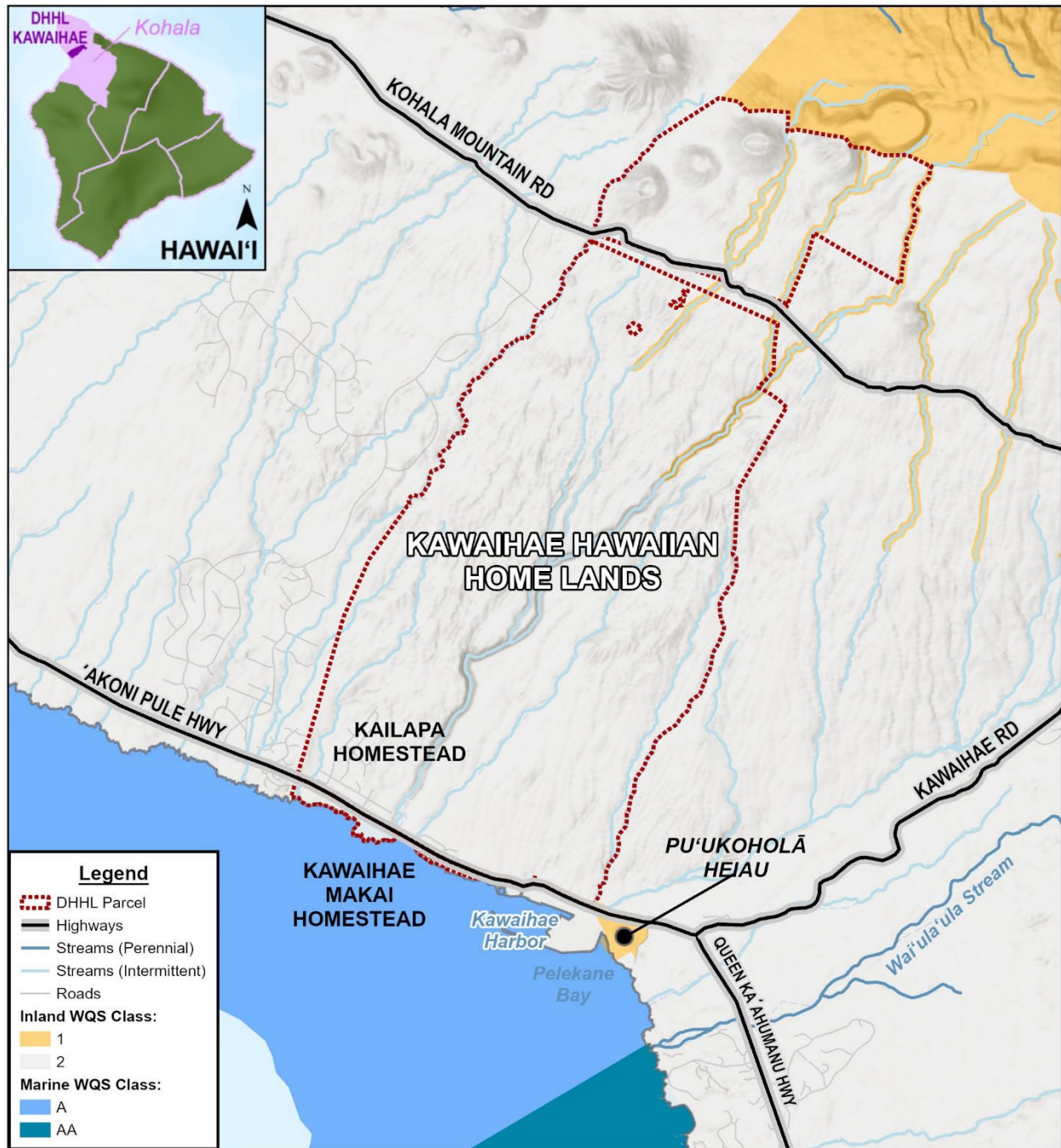
- Family Agricultural District (FA)
- Agricultural 1-5 acres (A)
- Agricultural 5-80 acres (A)
- Single Family Residential (RS)
- Multi-Family Residential (RM)
- Industrial (MG)
- Commercial (CV)
- Open District
- Resort (V)

February 2024

A north arrow pointing towards the top-left and a scale bar labeled '0' and '1 Mile'.



FIGURE 20: WATER QUALITY



Kawaihae Regional Plan Update WATER QUALITY STANDARDS

February 2024

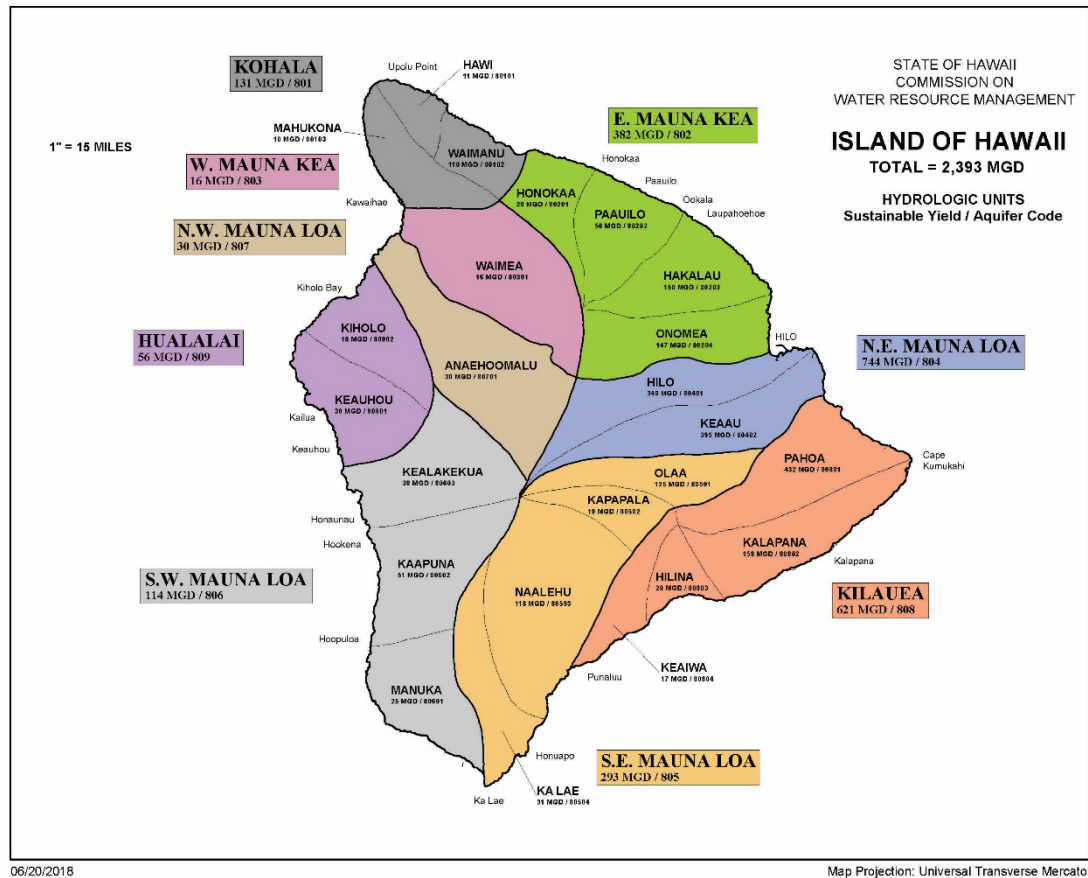
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Infrastructure

FIGURE 21: HAWAII ISLAND AQUIFER MAP



Water Source and System

Kawaihae is located within the Kohala Aquifer Sector Area (ASA), which includes the Hāwī, Waimanu, and Māhukona Aquifer System Areas (ASYA). The southern boundary of the Kohala sector stretches from Kawaihae on the leeward coast to Waipi'o Bay on the windward coast. The total sustainable yield for the Kohala ASA is 131 million gallons per day (MGD). The Māhukona ASYA, which encompasses the drier leeward side of Kohala, only accounts for 8% of the sustainable yield at 10 MGD.

Potable Water

Potable water needs for the Kawaihae makai homesteads are supplied by the County of Hawai'i Department of Water Supply (DWS) through their Lālāmilo Water System (see Figure 24). The Lālāmilo Water System has approximately 718 connections throughout the coastal areas of South Kohala from the Mauna Lani Resort to the commercial/industrial areas of Kawaihae. Water is supplied to the system by six wells, located within the Waimea ASA, through two booster pump stations, nine storage tanks, and a series of transmission lines. In December 2023, DWS broke ground on a new 10-million-gallon reservoir for the Lālāmilo Water System. This reservoir will provide added storage for adequate reserve water, energy efficient critical redundancy, and additional water for fire protection.

Potable water for DHHL's Kailapa homestead is provided by the Kawaihae Unit #1 Water System. The Kawaihae Water System is owned by DHHL and currently operated by Pural Water Specialty Company, contracted by DHHL for daily operations, repair and maintenance. The water source for the Kawaihae Water System is a groundwater well owned and operated by the Kohala Ranch Water System (KRWS), located on privately owned lands adjacent to DHHL lands in Kawaihae to the north. Water from the KRWS is piped from the source well to the adjacent DHHL lands, where it is transmitted via an interconnection point into the Kawaihae Unit #1 Water System owned by DHHL. From this transmission point, water carried to homesteaders in Kailapa is transported via the DHHL water system. The Kawaihae Water System serves a small customer base of approximately 164 connections in the Kailapa subdivision, including the Kailapa Community Association pavilion. DHHL is required to purchase the water sourced from KRWS via a master meter located at the interconnection point between the two water systems. The water is then distributed to the homestead lots in Kailapa, at the expense of the Department for the operation, maintenance and repair. Water use is calculated via individual water meters located at each homestead connection. Water billing is calculated based on bimonthly water usage over a sixty (60) day period, and water billing is handled by DHHL staff. Homesteaders in Kawaihae are billed based on the water rates approved by the Hawaiian Homes Commission in 2017. These water rates increase on a graduated step system, increasing each year on July 1st from 2019 through 2029. The water rates in Kawaihae are some of the most expensive water rates for consumers in the entire State of Hawai'i. The rates are well above what water users served by the County water system pay, and these exorbitant rates have caused undue hardship on the homesteaders of Kailapa.

Non-Potable Water

Non-potable water is currently not available in Kawaihae. Homesteaders have requested the availability of agricultural or irrigation water to 1) Allow homesteaders to lessen their use of potable water for non-potable needs such as irrigation and other outdoor water uses and 2) To provide agricultural water at a more reasonable rate than the current cost of potable water.

Wastewater Systems

Kawaihae is currently not serviced by the County's sewer system. Homes and local businesses rely on on-site sewage disposal systems (OSDS) for their wastewater needs. There are approximately 88,000 cesspools across the State of Hawai'i; 50,000 of them are on the island of Hawai'i. Cesspools, which discharge untreated waste, have a negative impact on nearby streams, oceans, and groundwater sources. Pathogens from untreated sewage can contaminate drinking water or nearshore swimming/surfing areas. Additionally, a high density of on-site sewage disposal systems, even with treatment, can release excess nutrients (i.e., nitrates) into the surrounding area, damaging the land or aquatic resources such as coral reefs. In 2017, legislation was passed requiring all cesspools of any size to be upgraded, converted, or closed by January 1, 2050.

Within the Kawaihae region there are a total of 165 on-site sewage disposal systems. Cesspools are the primary OSDS with a total of 126 across the Kailapa and Kawaihae Makai residential areas as well as the industrial areas. Additionally, there is a cesspool located adjacent to Honokoa Gulch at approximately the 1,600-foot elevation. There are also 35 soil treatment systems, which includes disposal types listed as bed, trench, and infiltration/chambers, located along the coast in the residential and industrial areas. The last four OSDS are septic systems which are located in both Kailapa and Kawaihae Makai.

Electrical Infrastructure

The Hawai'i Electric Light Company, Inc. (HELCO), supplies electricity for the entire County. HELCO purchases a total of 112 megawatts of power from three privately-owned companies; Hilo Coast Power Company (22 megawatts), Hāmākua Energy Partners (60 megawatts), and Puna Geothermal Venture (30 megawatts).

HELCO uses 34.5kV as a sub-transmission voltage. Distribution voltages are 2.4kV, 4.16kV, 7.2kV, and 13.8kV. Distribution substations, which transform power from transmission systems to distribution systems, are located island-wide in proximity to communities and other developments.

The Kawaihae homestead's electricity is carried along a 69kV transmission line that follows Kawaihae Road. Between Mile Marker 63 and 64, the transmission line splits into two directions: Kona and Kawaihae. The Kawaihae portion of the electric transmission line runs parallel to Kawaihae Road and along the 'Akoni Pule Highway. The transmission line then continues northward and terminates at the Kohala Estates Subdivision Power Sub-Station.

Telecommunications

Internet and phone service is provided to Kawaihae by Hawaiian Telcom. Fioptics internet, Hawaiian Telcom's fastest internet service with speeds up to 1G, is available to both Kailapa and the Kawaihae Makai Homesteads.

Road System

Existing

Kawaihae is accessible through a small network of major roadways. The primary link between Kawaihae and Kona is Queen Ka'ahumanu Highway that runs along the Kona Coast. It terminates just mauka of Spencer Beach Park, where it intersects with Kawaihae Road. Kawaihae Road runs east and west from Waimea to Kawaihae. At Kawaihae Harbor, it turns into 'Akoni Pule Highway. 'Akoni Pule Highway follows the coast of North Kohala, through the small towns of Hāwī and Kapa'au, until it ends at Pololū.

The Kohala Mountain Road crosses the mauka portion of the Kawaihae homestead. With an elevation of above 3,000 feet, the Kohala Mountain Road provides a panoramic view of the Kohala and Kona coasts. The road extends further to Hāwī in North Kohala. Homestead land adjacent to the Kohala Mountain Road is currently used for cattle grazing.

Planned

The State of Hawai'i Department of Transportation Harbors (HDOT Harbors) received federal funding to make improvements to Kawaihae Harbor. The harbor is experiencing an increase in shipping container volume, which requires more trucks to use the road infrastructure in Kawaihae. Traffic often stacks up in front of Kawaihae Harbor, which negatively affects residents who need to commute to work or school. The improvement project, scheduled to be completed by 2026, are expected to ease highway congestion in Kawaihae while accommodating a higher volume of cargo at the port. A description of the improvement project is provided below:

- Design and construct an 875-foot left-turn and storage lane at the harbor main gate;
- Relocate five utility poles in the highway right of way toward the harbor facility;

- Relocate 900 feet of security perimeter fencing inward to the harbor;
- Install a box culvert in the existing open drainage channel;
- Maintain a six-foot right of way between the harbor perimeter fence and the highway shoulder for the Ala Kahakai National Historic Trail; and
- Re-design the main gate accessway to accommodate a wider truck turn radius.

Kawaihae Harbor

Kawaihae became a significant port for Hawai'i Island during the 1800s; large amounts of sandalwood and cattle were exported. The Kawaihae Deep Draft Harbor and breakwater were constructed in 1959 for the purpose of allowing larger ships to service the west side of the island. The Kawaihae Small Boat Harbor was constructed in 1998 and is located adjacent to the Kawaihae Deep Draft Harbor.

The Hawai'i Island Harbors 2035 Master Plan contains plans for Hawai'i Island's two commercial harbors, Hilo and Kawaihae. The Kawaihae Harbor 2035 Master Plan recommends the construction of a new Pier 3 cargo terminal, including a pier for two barges, and a cargo handling and storage yard at the Coral Flats. The area between National Park Service (NPS) Pu'ukoholā Heiau and the Coral Flats is leased to NPS as a buffer zone to minimize harbor impacts.

FIGURE 22: KAWAIIHAE HARBOR



Overall, the Kawaihae Harbor 2035 Master Plan aims to increase the shipping capacity of Kawaihae Harbor. As one of the major landowners near the harbor, the Master Plan states that DHHL intends to develop industrial lots for harbor compatible users. It recommends that additional liquid fuel storage be located off harbors' property, to be reviewed on a case-by-case basis.

Additionally, two roadway improvements are included as "Committed Improvement Projects for Kawaihae Harbor." The first is new turning lanes for the connection of Kawaihae Road to Queen Ka'ahumanu Highway. The second is connections between Kawaihae Road and the Kawaihae Bypass Road, which was being planned by the Highways Division in 2011 when the Master Plan was published. The status of this bypass road is unknown at this time.

Project List

Projects identified by the community are meant to address the issues and concerns that were expressed by the participants in Beneficiary Consultation #1. Priority projects identified in the 2010 Kawaihae Regional Plan were discussed by participants in Beneficiary Consultation #2 in order to determine the relevance of those priority projects to the community today. In addition to the previously identified priority projects, the community discussed issues that were not addressed by the existing list of projects and suggested additional projects that might address those issues. All project ideas considered by the community are described in the following two sections.

Previous Priority Projects

The first Regional Plan for Kawaihae was completed in 2010. The five priority projects identified in that plan and their status updates are described below.

Kawaihae Regional Plan Priority Project	Project Champion	Status
Kailapa Resource Center	Kailapa Community Association (KCA)	In-Progress. The HHC approved a Finding Of No Significant Impact (FONSI) for KCA's Final Environmental Assessment in February 2016 for KCA's plans on the 14-acre parcel. KCA has completed the construction of its pavilion and playground area.
Kawaihae Water and Energy Research and Development	DHHL	In-Progress. DHHL completed a Kawaihae Water Assessment Study in June 2015. The assessment identified potential options for water development in the Kawaihae region. In Fiscal Year 2022, DHHL awarded KCA a grant to explore the potential for the desalination of water from an existing well. Studies being conducted under the grant are still in progress.
Kawaihae Bypass Highway	Department of Transportation (DOT)	Awaiting funding. DOT reports that it has postponed its planning and feasibility study of the project due to the lack of construction funding in the foreseeable future.
Improve the Marine Water Quality at Pelekane Bay	DHHL/Kailapa Community Association/Kohala Mountain Watershed Partnership	In-Progress. The Kohala Mountain Watershed Partnership received Rights-Of-Entry to install ungulate fences on DHHL property. Fence installation is completed. The Kailapa Community Association has also completed its Resilient Hawaiian Community Plan that looks at improved stewardship of the mauka portion of the ahupua'a. DHHL Land Management Division and Planning Staff conducted two consultation meetings on ungulate management in 2021.
Management and Maintenance of Kawaihae Reinternment Site		Not started.

Final Project Ideas List

The following project ideas list came from the discussions in Beneficiary Consultation #1 and #2. These project ideas are meant to address the needs and concerns of the community. A draft project list was refined by participants at Beneficiary Consultation #2. This project list was shared in an online survey on the project website, and beneficiaries were asked to select their top five priority projects for the Kapolei Regional Plan Update from this list of seven projects.

1. Water – Wai Ola

Provide affordable potable water to Kawaihae homesteads, create affordable agricultural/irrigation water options for Kawaihae homesteaders, provide water for fire hazard mitigation for the safety of the Kawaihae homesteads, and continue to identify and develop new & alternative water sources in the region.

2. Kailapa Resource Center

The Resource Center will be located on the 14-acre parcel adjacent to the existing Kailapa Pavilion. It would provide a location for a preschool, a drop-off and pick-up area for school buses, health & wellness programs, a community garden, access to computers & printers, a sports/outdoor activities area, an outpatient clinic, a dumpster, and office space for staff from different government agencies to be able to visit and answer questions from the community. The 14-acre parcel could also include space for a future 50upuna housing project and a cemetery for the region.

3. Emergency Escape Route & Traffic Safety Measures

Increase safety in the homestead by providing a vehicular escape route for homesteaders from the Kailapa Homestead up mauka to Kohala Mountain Road in the event of an emergency that cuts off access to 'Akoni Pule Highway. Address safety hazards by implementing traffic calming measures such as speed bumps to mitigate speeding in the homestead.

4. Improve the Coastal & Marine Resources in Kawaihae through Erosion Mitigation

Restore the ahupua'a system concept of land and resource management in Kawaihae which uses indigenous knowledge for stewardship, conservation and restoration from a mauka to makai perspective. Restore the coastal & marine resources in Kawaihae from Pelekane to Kai'ōpae. Control wild ungulates in the mauka areas of Kawaihae to mitigate erosion & sedimentation. Support restoration efforts such as reforestation in Kawaihae Uka & fishpond restoration along the shoreline.

5. Management and Maintenance of the Kawaihae Reinternment Site

The reinternment site is a 5-acre permanent burial site that was established by DHHL in 1994 for any 'iwi that may be inadvertently discovered within the ahupua'a. Provide maintenance of the reinternment site to keep vegetation under control. Plant native trees at the site as a pilot project for reforestation of the ahupua'a.

6. Safe Energy Upgrades

Promote safety and self-sufficiency through upgrades to the energy infrastructure in Kawaihae such as moving overhead powerlines underground to mitigate the risk of wildfire and decrease power outages from high-winds. Provide clean energy initiatives for homesteaders in Kawaihae that are aligned with their vision & values.

7. Bypass Route

Create a bypass roadway on DHHL land, mauka of 'Akoni Pule Highway, that begins just north of Kawaihae Harbor (across from the lighthouse) and connects to Queen Ka'ahumanu Highway.

PRIORITY PROJECTS

1. Water – Wai Ola

PROJECT DESCRIPTION

Beneficiaries who attended the beneficiary consultations in Kawaihae for the update to the Regional Plan expressed that their highest priority is addressing the critical need for affordable water in Kawaihae. This project is comprised of three primary components:

- Provide affordable potable water to Kawaihae homesteads.
- Provide options for non-potable water to be used for agricultural or irrigation purposes.
- Find a new water source for the water system currently supplying potable water to Kailapa.

The Kailapa Homestead, where the majority of Kawaihae beneficiaries live, is currently served by the Kawaihae Unit #1 Water System which is a potable water system and provides water to each homestead lot in Kailapa and the community space located at 61-4016 Kai'ōpae Place. Kailapa relies on this potable water system as it is the only water system available to the homestead. The Kawaihae makai homesteads are serviced by the County of Hawai'i Department of Water Supply (DWS), and do not have an option for non-potable water either.

The potable water for the DHHL Kawaihae Unit #1 water system is supplied by Kohala Ranch Water Company (KRWC) from their groundwater well sources located on Kohala Ranch lands. The KRWC also provides potable water to Kohala subdivisions, like the Kohala Estates subdivision and Kohala by the Sea, located to the north of DHHL's Kawaihae lands. Water that is used by Kailapa homesteaders is pumped from the KRWC groundwater wells and piped south to DHHL's Kawaihae lands. The water passes through an interconnection point with DHHL's water system, and then travels from there in DHHL-owned water transmission lines to the Kailapa homestead. DHHL purchases potable water from KRWC at the metered interconnection point at a rate of \$7.03366 per 1,000 gallons of water. In addition to the water usage rate, DHHL is also charged a Power Cost Adjustment rate of \$2.2074 per 1,000 gallons of water. A flat rate maintenance fee of \$300 is also included in KRWC's monthly billings to DHHL. DHHL maintains a temporary water commitment with KRWC, which can be terminated by either party with two years notice.

At present, there are a total of 164 users of the DHHL water system including homestead lots and the community parcel. The operation and maintenance of the DHHL Kawaihae Unit #1 water system is contracted to Pural Water Specialty Company (PWSC), who handles the day-to-day operation as well as any repair and maintenance needed for the system. In addition to maintenance and repair, PWSC also provides meter readings to the DHHL West Hawai'i District Office (WHDO) for individual bimonthly billings for each water user on the system. DHHL's WHDO staff is tasked with handling the individual billing invoices for each user of the Kawaihae Unit #1 water system.

The Hawaiian Homes Commission approved new service rates in 2018, increasing water service fees for residential lessees each year over the next decade, from 2019 to 2029. These water rates were set in an effort for the Department to break even, as for years the Department had been spending millions of Trust funds on providing subsidies to water users all three of its water systems, including the Kawaihae Unit #1 water system. Water users in Kailapa are charged as follows:

1. A residential lessee meter service (base) fee, a flat rate billed bimonthly (for a 60-day period), and
2. A residential lessee service delivery (usage) fee, a fee calculated based on total gallons used per month, charged per 1,000 gallons, and calculated using the residential lessee service delivery (usage) tiers below. Currently, water users on DHHL's Kawaihae water system are being charged based on the FY24 rates in the tables below.

At the time that this water rate policy was adopted, the position of DHHL was that the end goal for the water rates was to “break even”, where the billing collections for water users should equal the expenses for operation and maintenance of the system. Though Kawaihae water rates are the highest, this water policy addresses all three of the water system’s owned by DHHL and any amendments to the water rate schedule should be inclusive of the other systems, its water users, and the potential expense to the Home Lands Trust. A water rate schedule should be equitably applied to all three water systems and its users, to the extent possible. Unlike other water purveyors, DHHL does have other funding sources besides bill collection, like commercial and industrial lease rents, that could be utilized to offset the cost of the water system and operation.

It has been more than five years since the rate increases began taking effect, enough time to assess the impact the 2018 rate increases have had on Kailapa residential lessees. Below is a comparison of DHHL Kawaihae water system delinquency rates compared to other municipal systems in Hawai‘i.

KAWAIHAE WATER SYSTEM SERVICE RATES
APPROVED ON MAY 15, 2018

Residential Lessee Service Rates:

Residential lessee meter service (base) fees:

Meter size (inches) Bi-Monthly	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
5/8"	\$49.07	\$63.37	\$77.70	\$92.06	\$106.46	\$120.90	\$135.37	\$149.88	\$164.42	\$179.01

Residential lessee service delivery (usage) tiers:

	Gallons Bi-Monthly
Tier 1	0 - 10,000
Tier 2	10,001 - 30,000
Tier 3	30,001 - 80,000
Tier 4	Over 80,000

Residential lessee service delivery (usage) fees:

Per 1,000 gallons	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Tier 1	\$3.67	\$4.73	\$5.81	\$6.88	\$7.95	\$9.03	\$10.11	\$11.20	\$12.28	\$13.37
Tier 2	\$4.92	\$6.35	\$7.79	\$9.23	\$10.68	\$12.12	\$13.58	\$15.03	\$16.49	\$17.95
Tier 3	\$6.89	\$8.90	\$10.92	\$12.94	\$14.96	\$16.99	\$19.02	\$21.06	\$23.10	\$25.15
Tier 4	\$8.30	\$10.73	\$13.15	\$15.58	\$18.02	\$20.46	\$22.91	\$25.37	\$27.83	\$30.30

Water usage data for households is not readily available for Hawai'i Island users, though it is available for O'ahu Island households. According to the Honolulu Board of Water Supply, on O'ahu the Average Water User uses 9,000 gallons per month, the Median Water User uses 6,000 gallons per month, and the High Water User uses 35,000 gallons per month. Despite Kailapa residents reporting higher water consumption during beneficiary consultations, paying approximately \$600 monthly, a statewide average will serve as the benchmark for comparing costs between Kailapa and County of Hawai'i rates. Based on this average usage, a Kailapa homesteader with a similar water usage on the DHHL system can expect to be billed in FY24:

- \$120.90 per bill for the base fee for meter service for 60-days of service.
- \$187.26 per bill for 18,000 gallons of water used over 60-days of service.

A total of \$308.16 per bill for 60-days of service based on the Average Water User of 9,000 gallons per month or 18,000 gallons for 60-days of service.

In comparison, a monthly water bill for customers on the County of Hawai'i DWS water system who use 9,000 gallons monthly is \$69.88 per month or \$139.76 for a 60-day billing period. Homesteaders in Kailapa are paying more than double what County water users are charged for a comparable service, and the DHHL water rates are scheduled to increase year after year. Based on the water system service rates approved by the HHC for Kawaihae, in four years a homesteader in Kailapa with the same water usage will be billed \$456.31 a 48% increase of what homesteaders are currently paying. At these rates, some homesteaders may not be able to afford water for their homes.

The County of Hawai'i DWS as of January 2024 has a delinquency rate of 12% for customers on their system who are delinquent over 90 days. For Honolulu's Board of Water Supply (BWS) in 2021, the delinquency rate for their system was 11%. For Maui County Department of Water Supply, the average for Fiscal Year 2023 was 8.13%, and the average for the first six months of 2024 is 8.8%. In 2023, a first notice of delinquency was sent out to 57 of the 164 users of the Kawaihae Unit #1 water system, a delinquency rate of 34.75%. One month later, a second notice of delinquency was sent out to 27 of the 164 users of the system, which is 16.46% of the system users. Shut off notices went out nearly two months after the second notices were sent to 17 users who had yet to remit payment or make arrangements for a payment plan with DHHL, which is 10% of the system users. The initial delinquency rate, prior to DHHL issuing delinquency notices is extremely high in comparison to these other major water purveyors in the State. A cause of the higher delinquency rate on the DHHL Kawaihae system compared to other municipal water purveyors can be partly attributed to the high water rates charged to homestead users.

Kawaihae homesteaders have asked for water rates that align with the rates paid by residential water users in the rest of the County. They would also like to see any options for affordable agricultural/irrigation water. If there were an option for agricultural/irrigation water available to homesteaders in Kailapa, they could reduce their use of potable water for non-potable uses, which would conserve precious potable water and decrease their water bill for potable water. As KRWC's water rates for DHHL are some of the highest water rates in the State, another way to decrease the cost of water for Kailapa homesteaders is to find another water source to supply the potable water system. A water source that costs less than \$7.03366 per 1,000 gallons would allow for lowered water usage rates to be passed along to Kailapa homesteaders.

New Water Source Development

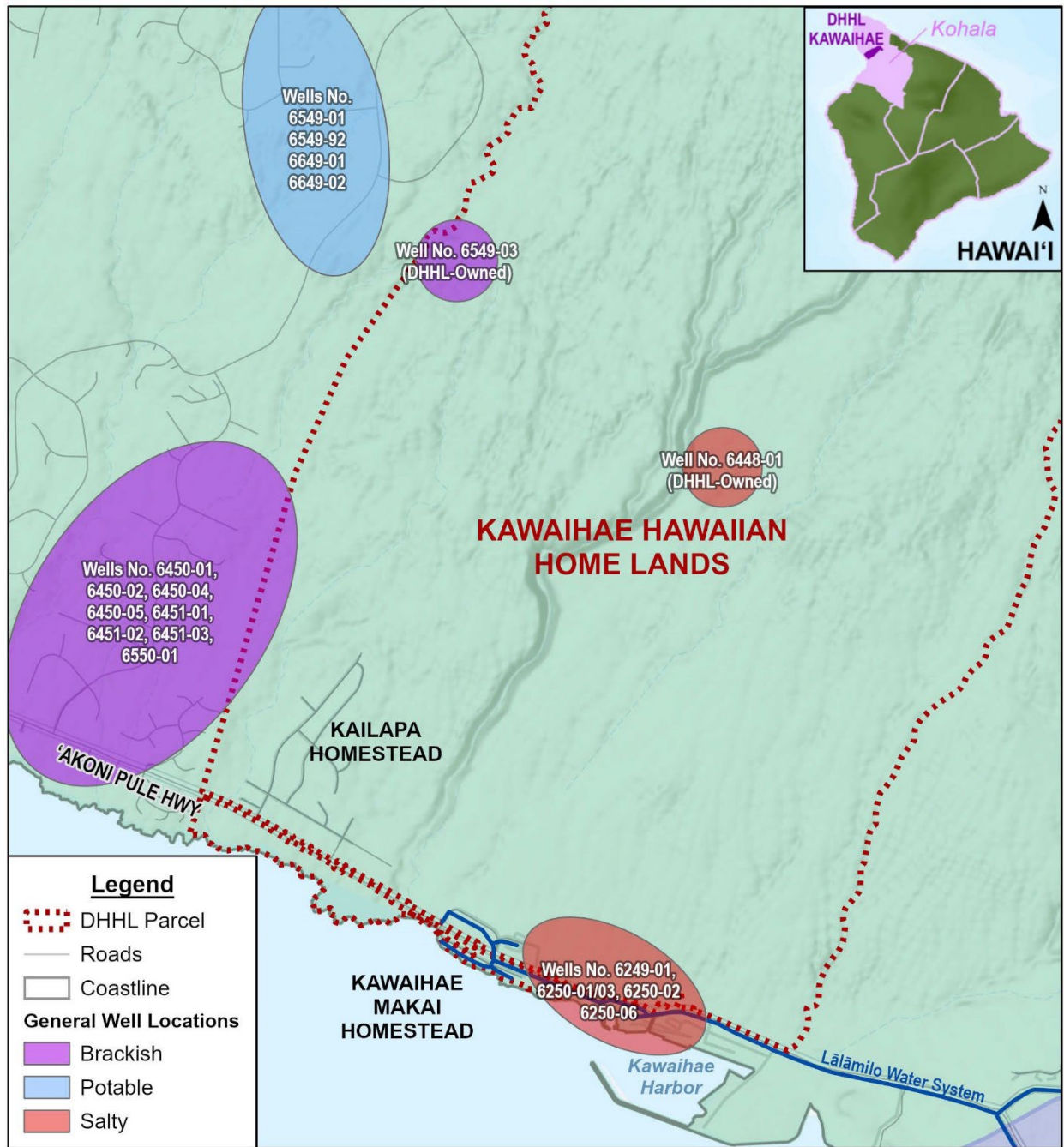
In 2015, DHHL commissioned a water source development feasibility study, conducted by R.M. Towill Corp. The purposed of the study was to identify potential potable water source development options for the Kawaihae lands.

Option	Description	Cost (2013 dollars)
Develop existing exploratory well on DHHL land	An existing exploratory well is located at higher elevation on DHHL lands. But, water produced from the well is near the upper limit of salinity levels and desalinization would be required	\$14.9M
Develop existing exploratory well on DHHL land and connect to Kohala Ranch Water System	Similar to the above option, but involves connecting to the Ranch system and expanding the Ranch's service area. However, water rates would still be controlled by the Ranch and desalinization may still be required to connect to the Ranch system. The Ranch has not indicated any interest in this option.	\$6.6M
Capture Surface Water from Kehena Ditch	Kehena Ditch is located mauka of the DHHL Kawaihae tract and traverses through DLNR and private property. The source is not constant. Improvements needed include transmission lines, 60 MG open reservoir, treatment facility, and 0.50 MG tank. DHHL would need approvals from CWRM and also enter into agreements with Kahua Ranch.	\$27M
Extend DWS System Along Akoni Pule Hwy.	DWS system ends near the DHHL industrial lots south of the Kailapa Homestead Subdivision. Extension of the County system would have to go through Honokoa Gulch and additionally County has indicated a new well would need to be developed. Easements through private property may also be needed to extend the County line to DHHL property.	\$18.5M to \$28.1M not including land acquisition
Development of Kawamata Well and transmission lines	The well is located 8 miles from the Kailapa subdivision on private property. The well is drilled and cased but has not been pump tested. DHHL would need to purchase the well and develop transmission lines to DHHL property.	\$24M not including land acquisition costs

Source: Water Development Options 2015 R.M. Towill Study

In addition to sustaining residential and community needs, securing adequate water resources is essential for fire hazard mitigation to ensure the safety of the Kawaihae homesteads. Between 2003 and 2022, there have been 10 recorded wildfires in the general vicinity. Most recently, Kailapa residents were evacuated from their homes in August 2023 due to the threat of an adjacent wildfire. A subsequent wildfire occurred nearby in December 2023; fortunately, it did not pose a threat to any structural properties.

FIGURE 23. AQUIFERS, WELLS, AND DWS WATER SYSTEM MAP



Kawaihæ Regional Plan Update
AQUIFERS, WELLS &
DWS WATER SYSTEM
March 2024

This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.



0 1 Mile



PAST ACTIONS

- 1990 – An exploratory well (Well No. 6448-01) was drilled at the 1,400 ft elevation on the south side of Honokoa Gulch.
 - It was determined that this well could never produce potable quality water.
 - At most, this well could potentially produce brackish water suitable to irrigate salt tolerant plants and grasses.
- 1992 – A second exploratory well (Well No. 6549-03) was drilled at the 1,650 ft elevation near DHHL's north property boundary.
 - Chloride levels were found to be at the upper limit of acceptability for drinking water in Hawai'i.
- 2013 – Tom Nance Water Resource Engineering completed an assessment of water supply alternatives for DHHL's Kawaihae property.
 - Recommendation: develop a water system using existing Well No. 6549-03.
- 2015 – A Kawaihae Water Assessment Study by R.M. Towill Corporation outlined water resource development options for DHHL.
 - Recommendation: develop Well No. 6549-03 and an accompanying storage and distribution system. Total cost was projected to be approximately \$14.9 million.
 - Disadvantage: additional desalination treatment of Well No. 6549-03 is recommended.
- 2022 – DHHL awarded the Kailapa Community Association a grant to explore the potential for desalination of water from an existing DHHL groundwater well. The studies being conducted under the grant are still in progress.

COMMUNITY INPUT

Attendees of beneficiary consultations #1, #2, and #3 unequivocally expressed that affordable access to water was their number one priority; every discussion consistently circled back to the pressing need for water. One beneficiary highlighted that water has always been an issue in Kawaihae, noting that even the name Kawaihae, meaning “water of wrath,” originated from a dispute over water. Kawaihae homesteaders have been challenged by the lack of accessible/affordable water throughout their entire time living in Kawaihae and are ready for improvements.

To further underscore the community's sentiment regarding water, the “Water – Wai Ola” project received nearly three times as many votes as the next closest project during the priority project voting. Furthermore, among the 40 written comments received during the voting process, 31 of them emphasized the immediate need for affordable water. A few of the comments are listed below:

- “We want to pay county rate for water like the rest of the homesteaders!”
- “Water rates have soared and currently we have no alternate water source besides Kohala Ranch Wells. Our water source could be discontinued at any time.”
- “Although water is available at Kailapa, the rates we pay are ridiculous. Bring the water down from mauka...so we don't have to be dependent on Kohala Ranch and so that it supplies the ag/ranch land above Kailapa. We currently cannot even provide our own sustainment or take care of landscaping needs.”

Additional comments were provided in beneficiary consultation #3; a selection of them is listed below:

- How much does our water/water system cost DHHL? We want to see some transparency.
- DHHL is responsible for providing water. Why give the land to us? We didn't agree to the highest water rate in the State when we accepted our awards.

- No residents voted in support for the DHHL increase in water rates, and nobody knew about it before it happened.
- "I'm being punished for using water."
- "I've been here for 2 years; you can hear the pain in their voices for those who have been here for years. As I'm looking at past actions, we're just going in circles like a washing machine."
- "I cannot even grow a mango tree; it's too expensive."
- "Please help Kailapa get reliable, affordable water so native Hawaiians can grow native Hawaiian plants on native Hawaiian lands."
- "Our service charges are increasing and the concerns for the future are the compromise between food on the table and/or running water in our homes. Our families and majority of our community's economic means will not be able to keep up with these rising costs."
- "I pay \$200 [per month] for water, and I don't even live on property."
- Why should residents pay so much for water? "We don't even drink the water."
- Kailapa water meters and pipes are breaking down and leaking, DHHL should look into smart meters which can also test the quality of the water.
- The water fee is split into two parts: a service fee and a usage fee. DHHL should pay the service fees as a short-term solution.
- "With so much revenue being generated from Kailapa, the industrial/commercial and agricultural, please consider allocating a portion to subsidizing water costs until a permanent solution for affordable water can be found."
- The Land Management Division should review the commercial/industrial lease rates since they are 30 years old.
- Desalination technology has become more advanced and cost effective. Kailapa could use desalination on the water from the brackish wells.
- "The most viable, long-term option for affordable water for Kailapa is county water."

OBJECTIVE

This project aligns with all the community values of Kawaihae. Water, being essential for life, is indispensable for the community's survival and prosperity. It is a vital resource for cultivating food and without it, Kawaihae cannot achieve self-sufficiency in its agricultural endeavors. Traditional land stewardship, or mālama 'āina, requires water to restore the natural environment of Kawaihae. The proposed community garden at the Kailapa Resource Center, intended to foster community connections, would be impracticable without access to water. Similarly, the construction of the Resource Center, which would provide educational opportunities for keiki to kūpuna, would be impossible without water access. Finally, water is essential for Kawaihae beneficiaries to transmit ancestral knowledge through daily activities such as food cultivation.

IMPLEMENTATION ACTION STEPS

The following are the proposed solutions to addressing the issues identified in this priority project:

- Provide a temporary subsidy for Kailapa homesteaders until the water rate schedule can be updated.
- Re-assess DHHL water billing rates to provide more affordable potable water to Kailapa homesteads on the DHHL Kawaihae water system.
- Find a new water source for the water system currently supplying potable water to Kailapa.
- Provide options for non-potable water to be used for agricultural or irrigation purposes.

As this priority project has various components, the implementation action steps articulated here will address each proposed solution separately. These proposed solutions are ordered as short-term, mid-term and long-term solutions.

SHORT-TERM: Provide a temporary subsidy for Kailapa homesteaders until the water rate schedule can be updated.

As the timeframe for updates to the water rate schedule will likely take approximately two (2) years to complete, a temporary subsidy should be implemented for Kailapa homesteaders to provide immediate relief for the high water rates they are facing and make water more in the interim.

1. Go to HHC for approval of a subsidy for users of the Kawaihae Water System in Kailapa.
 - The subsidy for users should cover the base rate for meter service, currently at \$120.90 and scheduled to increase to \$139.37 as of July 1, 2024. This amount is approximately \$138,000 for 164 users for FY24 and \$148,000 for 164 users for FY25.
 - The source of the subsidy could come from a variety of sources including:
 - A portion of the revenue generated from commercial/industrial and pastoral land dispositions in the Kawaihae Region.
 - DHHL land dispositions in Kawaihae generated \$604,521.64 in revenue in 2022.
 - Less than 25% of the annual revenue generated in Kawaihae could subsidize the basic meter fee for Kailapa homesteaders.
 - Currently, DHHL homesteads in Kawaihae have no community benefit agreements and receive 0% of revenue generated from land dispositions in the region.
 - HHL Trust Funds.
 - Other.
2. Continue working on long-term solutions to ensure the subsidy is only necessary as a short-term solution.
3. Upon revision of the water rate schedule, terminate the temporary subsidy and effectuate the water rate schedule as revised.

MID-TERM: Provide affordable potable water to Kawaihae homesteads.

- Re-assess the water rate schedule approved by the HHC in 2018.
 1. Go to HHC to seek budget approval to do update cost of service and water rate studies for the Kawaihae water system. Study should also identify potential solutions to lower the rates for water users in Kailapa homestead and should determine potential annual cost to DHHL trust to subsidize rates to match County rates.
 2. Conduct the analysis.
 3. Present results to HHC.
 4. Based on results, create Draft Rules Version #1, prepared by DHHL staff based on the analysis.
 5. Go to HHC with draft rules for approval to proceed.
 6. Conduct a beneficiary consultation for input on draft rules.
 7. Revise draft rules based on beneficiary input & create Draft Rules Version #2.
 8. Send Draft Rules Version #2 for external review:
 - Legislative Reference Bureau
 - Attorney General
 - Small Business Regulatory Review Board
 9. Go to HHC for approval of Draft Rules Version #2.

10. Seek Governor approval of a Public Hearing Request.
11. Conduct Public Notice & Hearing.
12. Prepare Final Rules based on input from Public Hearing.
13. Go to HHC for adoption of Final Rules.
14. Seek external approvals:
 - Attorney General
 - Small Business Regulatory Review Board
 - Governor
15. Filing and publication of Final Rules.

*As a note, the average timeframe for updates to Administrative Rules is approximately two (2) years and this potential timeframe should be taken into account when reviewing the above implementation action steps.

LONG-TERM: Find a new water source for the water system currently supplying potable water to Kailapa.

- Develop a new potable water source.
 1. Revisit 2015 feasibility study options for providing potable water to Kawaihae.
 2. Schedule consultations with the community to select a preferred option for DHHL to pursue.
 - Meeting 1 – review the options discussed, share information & updates on water sources, water development, and review water matrix.
 - Meeting 2 – discuss & prioritize the options for water source development.
 - Meeting 3 – select a preferred option for water source development for DHHL to pursue.
 3. Water Source development steps
 - Secure funding
 - Due diligence
 - Water credit agreement (if needed)
 - Design & construction
 - Agreement for long-term operation

LONG-TERM: Provide options for non-potable water to be used for agricultural or irrigation purposes.

- Develop a new non-potable water source.
 1. Feasibility study on potential water supply options
 - Desalination
 - Water catchment
 - Kehena Ditch
 2. Schedule meetings with the community to select a preferred option for DHHL to pursue.
 - Meeting 1 – review the options discussed, share information & updates on water sources, water development, and review water matrix.
 - Meeting 2 – discuss & prioritize the options for water source development.
 - Meeting 3 – select a preferred option for water source development for DHHL to pursue.
 3. Water Source development steps
 - Secure funding
 - Due diligence
 - Design & construction
 - Agreement for long-term operation

2. Emergency Escape Route & Traffic Safety Measures

PROJECT DESCRIPTION

Kawaihae homesteaders have identified traffic safety related issues as a priority for the homesteads. This includes both the need for an emergency escape route to create an alternate vehicular access for homesteaders, and the need to implement traffic calming measures on the existing homestead roads in Kailapa.

Homesteaders who live in both Kailapa and the Kawaihae Makai Homestead are in need of an emergency escape route to be able to safely evacuate in the event of an emergency. Like many coastal communities in Hawai'i, the Kawaihae homelands are connected to the broader transportation network by a single coastal highway: 'Akoni Pule Highway. While the Kohala Mountain Road runs through the mauka section of DHHL owned lands, there is no vehicular connection between this road and the residential homesteads in Kawaihae. An emergency access road is needed in the event that escape via 'Akoni Pule Highway is not possible. A potential route could connect the Kailapa subdivision to Kohala Mountain Road directly or via the existing road network in the Kohala Ranch Estates subdivision to the north.

Kawaihae is at risk of several emergency events that would warrant an evacuation. 'Akoni Pule Highway is located within the tsunami evacuation zone along with the nearby port infrastructure and a tsunami event could isolate the community by severing its only access routes. The area is also at risk of other natural disasters such as hurricanes and wildfires, which could obstruct roads and ocean access, potentially cutting off the community from essential aid efforts.

Traffic calming measures are needed in the Kailapa homestead in order to mitigate risk from speeding which takes place on the homestead roads. Many children and youth in the homesteads walk along the roadways and sometimes play along the roadways, which is also an issue that should be addressed. Some vehicles in the homestead travel well above safe speeds, and beneficiaries are concerned with preventing all accidents in the homestead. Installing traffic safety measures in Kawaihae would help to mitigate this concern. One potential traffic calming measure to address these issues is the installation of speed tables or speed bumps in high risk areas.

PAST ACTIONS

- n/a

COMMUNITY INPUT

The emergency escape route and traffic safety measures were originally listed as two separate projects, but during Beneficiary Consultation #2, participants agreed to combine these two traffic-related issues since their solutions would both require modification of the roadway network in Kawaihae and contribute to the overall safety of the community. Community members in BC #2 also highlighted the immediate need for a second evacuation route as the community was recently evacuated in August 2023 due to a wildfire. One beneficiary, through a written comment in the polling process, expressed their concern that speed bumps could delay the arrival of emergency vehicles. This is something that should be taken into consideration during the planning and design phase of this project.

OBJECTIVE

The objective of this priority project is to increase safety within the community by providing a vehicular escape route and traffic calming measures within the neighborhood. For the community to realize its vision to “thrive in balance” it must be a safe place for all residents. This project contributes to the overall vision of the community by increasing access, resilience, and safety. The project fulfills the value of Laulima because in an emergency, all community members must work together to protect each other. With an additional escape route, the community can better plan for the different emergencies that may impact them, such as wildfire, hurricane, or tsunami.

This project also fulfills the value of Noho Kupa ‘Āina, as a mauka access road would create a more resilient and connected ahupua‘a. The emergency escape route would also serve as a regular road that would allow Kawaihae residents to practice Mālama ‘Āina by giving homesteaders greater access to restore the ahupua‘a’s mauka areas.

IMPLEMENTATION ACTION STEPS

Establish an emergency Escape Route for Kailapa homestead.

1. Establish an agreement with neighboring landowners for access to the existing road network in the Kohala Ranch Estate subdivision.
2. Schedule meetings with the community to select a preferred option for DHHL to pursue.
 - a. Option 1: Create route using existing firebreaks
 - b. Option 2: Extend firebreak along ahupua‘a boundary to connect to Kohala Mountain Road
 - c. Option 3: Create a new route to connect from Kailapa to Kohala Mountain Road via DHHL lands
3. Due diligence for preferred option
 - a. Planning, design and permitting
4. Operate & Maintain

Implement Traffic calming measures in the Kailapa homestead.

1. For speed tables/bumps, follow the County of Hawaii process
 - a. Eligibility for Speed Humps. All roads in the homestead should meet the following criteria established by the County to approve speed humps (<http://traffic.hawaiicounty.gov/speed-hump-installation/>):
 - i. Residential local road;
 - ii. Posted speed limit not exceeding 25 mph;
 - iii. Overall street grade not exceeding 13%;
 - iv. Average daily traffic (ADT) between 200 and 3,000 vehicles per day;
 - v. 85th percentile speed over the posted speed limit;
 - vi. Minimum 67% support of the adjacent property owners and 100% support of the property owners with a speed hump in front of their property;
 - vii. Support of the installation by the HPD and HFD; and
 - viii. Traffic study and design performed by the Department of Public Works.

- b. Application to the County to Install Speed Humps. The residents along the subject road should designate a contact person. The contact person would fill out the application form provided in the Speed Humps Application Package and submit to the County Department of Public Works Traffic Division. The Traffic Division would review the application to confirm eligibility, check with HPD and HFD, prepare the traffic study, and notify the applicant whether to proceed with the petition.
- c. Petition By Affected Property Owners/Lesseees. Every property owner/lessee along the subject street must submit the petition form included in the Application Package. On the petition, the property owner/lessee would indicate whether the owner/lessee approves or does not approve the installation of speed humps, and whether the owner/lessee approves or does not approve the installation of speed humps fronting their property. Hence, a property owner/lessee could approve speed humps but not fronting their property. The sinusoidal design of the speed humps allows engineering flexibility to space the speed humps to accommodate the areas where owners/lessees disapprove a speed hump fronting their property. At least 67% of the owner/lessees must approve the installation of speed humps.

3. Kailapa Resource Center

FIGURE 24: KAILAPA PAVILION



PROJECT DESCRIPTION

The Kailapa Resource Center was selected by Kawaihae beneficiaries as a priority project in the 2010 Kawaihae Regional Plan, and it remains a priority to the community today. The Resource Center will be located on a 14-acre parcel at the southernmost end of Kailapa Street. Phase I of the Resource Center, a pavilion, cluster mailbox facility, playground, and parking lot, was completed in 2017.

Phase II of the Kailapa Resource Center will include a new preschool on the premises so that families in Kawaihae do not have to commute to Waikoloa or Kamuela to take their children to school, as they currently do. In conjunction with the preschool, plans include the establishment of a dedicated drop-off and pick-up area for school buses catering to students in grades K-12. This initiative will provide an alternative transportation option, alleviating the need for parents to undertake a lengthy drive to take their children to school. Moreover, the Resource Center will serve as a hub for educational support, offering tutoring and homework assistance to students. It will also provide essential amenities such as internet access, computers, a fax machine, and a printer for use by the entire homestead community.

The community's vision for the Resource Center extends to encompass a full range of health and wellness programs, with an emphasis on the needs of kūpuna in the community. This involves creating a space for classroom learning, offering programs such as nutrition classes. Additionally, the community would like to establish an outpatient clinic to enhance healthcare accessibility. This clinic would provide a venue for doctors and nurses to treat patients and conduct educational workshops for the community. Other health initiatives include a new community garden, ensuring residents have access to fresh foods, and an outdoor field area for sports, games, and other physical activities to promote overall physical health.

Kawaihae homesteaders recognize their challenges in navigating government processes, uncertain about required permits and procedures and unsure about whom to approach with their concerns. To address this, Phase II of the Resource Center would also include an office space for staff members from various

government agencies to visit regularly to respond to questions from the community. The suggested monthly visits from each agency would not only offer in-person assistance but also help to foster stronger connections between government and community, alleviating the frustration that homesteaders feel because they lack an understanding of government processes.

The final component of Phase II for the Kailapa Resource Center involves the installation of a dumpster on-site. This addition aims to provide convenience for kūpuna, who must currently drive to either Puakō or Waimea to dump their rubbish.

Phase III of the Kailapa Resource Center includes long-term ideas for the 14-acre lot. These ideas will need to be revisited in the next regional plan update, scheduled to start in roughly five years. Initial ideas for Phase III include a future kūpuna housing project and a potential cemetery for the region, allowing beneficiaries to stay in Kawaihae as they age and even after they pass.

PAST ACTIONS

- 2012 – A conceptual plan was completed for the Kailapa Resource Center by the Kailapa Community Association and the University of Hawai'i at Mānoa Department of Urban & Regional Planning.
- 2015 – An Archaeological Inventory Survey was completed for the Kailapa Resource Center by Keala Pono Archaeological Consulting, LLC.
 - Two archaeological sites were found in the southern portion of the property. The first site was the Kawaihae-Pu'uhue Trail, and the second site was a complex of seven features. Avoidance and archaeological monitoring for this site was recommended.
- 2015 – The Kailapa Community Resource Center Master Plan was completed by R.M. Towill and Kalaoa, Inc.
- 2016 – A Final Environmental Assessment was accepted for the Kailapa Resource Center, declaring a Finding Of No Significant Impact (FONSI) on the surrounding environment.
- 2017 – Construction of the Kailapa pavilion, cluster mailboxes, a playground, and a parking lot were completed.

COMMUNITY INPUT

In the 2010 Kawaihae Regional Plan, the Kailapa Resource Center was proposed to include an emergency shelter. Beneficiary consultation participants indicated that this is no longer a priority of the community. In past emergencies, such as the recent wildfires, homesteaders instinctually wanted to leave Kawaihae rather than stay put. Another aspect of the Resource Center that was removed from the 2010 Regional Plan was shoreline access through the drainage culverts underneath 'Akoni Pule Highway. Kawaihae homesteaders indicated that the existing shoreline access is sufficient for their needs.

A key theme throughout the discussions in beneficiary consultations #1 and #2, was that in order to proceed with any of the proposed development for Phases II and III of the Kailapa Resource Center, water would need to come first! The community wanted to highlight that despite choosing the Kailapa Resource Center as a priority project, water is their main priority.

OBJECTIVE

Development of the Kailapa Resource Center will fulfill the values of Ke Ola Pono, Noho Kupa 'Āina, Laulima, and Ka 'Imi Na'auao. The Resource Center will promote health and wellbeing through a variety of wellness programs for keiki to kūpuna. The new community garden will increase Kawaihae's self-sufficiency by

allowing residents to grow and consume their own food. Working collectively in the garden or participating in wellness programs will help to strengthen homesteaders' relationships with one another and to foster a sense of community. Additionally, the Resource Center will serve as an educational hub, supporting the community's desire to continually seek knowledge.

IMPLEMENTATION ACTIONS STEPS

1. Obtain funding to update the community plan for the 14 acres.
2. Depending on the revised plan, additional chapter 343 compliance may be necessary. If the new plan proposes more uses than what was covered in the previous EA, then a supplemental EA will be needed.
 - a. Obtain funding for a supplemental EA.
 - b. Obtain Commission approval of the Final EA.
 - c. Obtain SHPD concurrence prior to construction or any ground disturbing activities.
3. DHHL to sign off on improvements.
 - a. DHHL will have to approve building plans prior to submission to the County for building permits.
 - b. DHHL will also have to consent to any financial encumbrances using the leasehold interest as collateral.
4. Design, permitting and construction.
5. Operate & maintain.

4. Safe Energy Upgrades

PROJECT DESCRIPTION

Kawaihae homesteaders are advocating for a safe energy system that meets their needs. High winds cause frequent power outages and the downed power lines cause fires as they send sparks into the nearby dry shrubland. A downed power line is suspected of causing the destructive Lahaina fire in August 2023, emphasizing the urgent need for a safer energy delivery system to prevent similar disasters in Kawaihae.

Residents of Kawaihae would also like to explore renewable energy alternatives to contribute to climate change mitigation, aligning with state and global clean energy initiatives. The 2010 Regional Plan listed energy research and development as a priority project, focusing on the potential for energy production at both the residential subdivision and individual home levels. These initiatives remain an ongoing priority for the community as they seek a more sustainable and resilient energy future.

Upgrades to the energy system would involve the installation of underground power lines with the goal of reducing power outages and wildfire risk. Additional upgrades, including renewable energy alternatives, will still need to be explored. Given the substantial solar irradiance received at the lower elevations of Kawaihae, the area presents itself as a potentially ideal location for the development of a solar farm. Although this option was previously considered by DHHL, the Commission deferred its decision until the Department could complete its due diligence.

PAST ACTIONS

- 2020 – DHHL identified a 21-acre parcel in Kawaihae for renewable energy development located on the mauka side of ‘Akoni Pule Highway.

COMMUNITY INPUT

Homesteaders who participated in the beneficiary consultation process expressed concerns that a large-scale solar project on beneficiary land might not bring them the anticipated benefits. They also felt that the land could be used for better purposes. While recognizing that there is opportunity for solar power generation in Kawaihae, some members of the community opposed the idea of a large solar farm and instead wished for installation of solar panels on their individual homes. The overarching desire among homesteaders is for the energy system to contribute to a more self-sufficient ahupua‘a, ensuring that the community’s needs are met sustainably.

OBJECTIVE

Safe and renewable energy upgrades fulfil the community values of Noho Kupa ‘Āina, Ke Ola Pono, and Mālama ‘Āina. By proving a clean energy source that is produced within Kawaihae, residents would no longer rely on outside energy resources for their daily needs. This transition brings them closer to achieving self-sufficiency and accessing all essential resources locally, fostering an environment where they can thrive. Reducing the risk of wildfires will help to improve the overall health of the community as well as allow them to feel safer at home. Additionally, a reduction in wildfires would improve the natural environment of Kawaihae.

IMPLEMENTATION ACTIONS STEPS

Upgrade the existing utility infrastructure from overhead to underground conduits.

1. Research burying the utility infrastructure, including:
 - a. Process & approval for altering existing overhead utility lines.
 - b. Cost estimates.
 - c. Funding options.

Explore renewable energy initiatives that may be suitable for Kawaihae.

1. Schedule meetings with the community to select a preferred option for DHHL to pursue.
2. Research preferred option and potential implementation in Kawaihae.

5. Improve the Coastal & Marine Resources in Kawaihae through Erosion Mitigation

PROJECT DESCRIPTION

Kawaihae is home to an extensive nearshore coral reef system. The health of this reef system and its surrounding waters serve as an indicator of the health of the land above. Unfortunately, the nearshore water quality in Kawaihae has been consistently impaired from erosional runoff due to over-grazing by feral goats, proliferation of invasive plants, and wildfire.

This erosional runoff has detrimental consequences for the reef, adversely affecting the habitats of many coral and fish species. The uncontrolled grazing by feral goats has played a significant role in this issue by reducing vegetative ground cover, resulting in heightened sediment deposits into the ocean during heavy rainfall. Furthermore, this unregulated grazing has not only decreased native vegetation in the ahupua'a but has also facilitated the spread of invasive plants. Unlike their native counterparts, these invasive plants are notably less effective at trapping and retaining sediment. Wildfires also leave large swaths of land uncovered, exacerbating erosion during rainfall events and resulting in large sediment deposits into the nearshore waters.

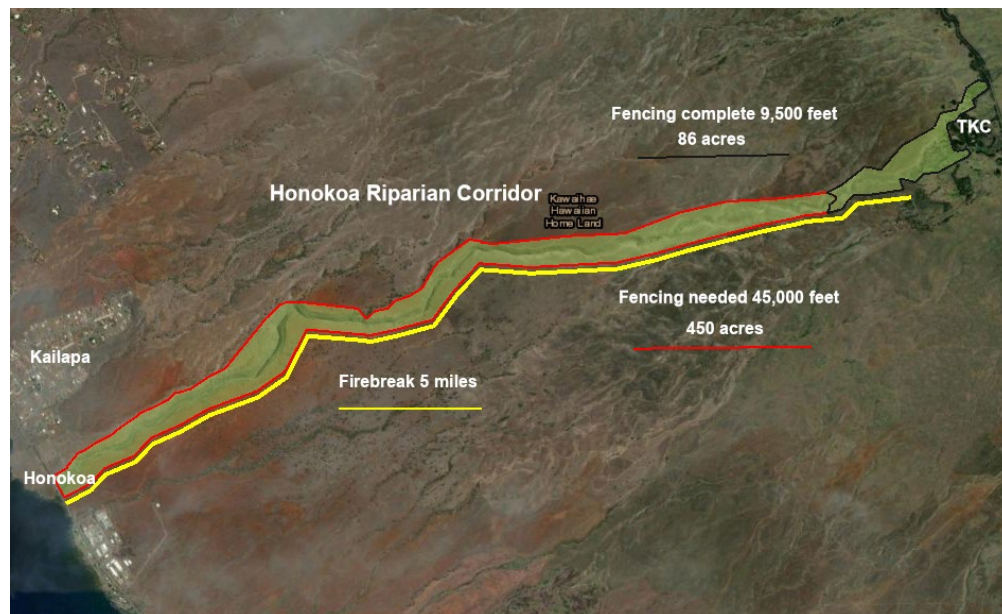
This project would support ongoing efforts for reforestation in Kawaihae. The Kohala Center, a community based non-profit organization, is engaged in a five-year project to protect and improve the nearshore marine ecosystem of Kawaihae by removing feral goats, installing fencing, reforesting riparian corridors, and conducting community education. The Kohala Center has received grants from The Office of Hawaiian Affairs (OHA) and the National Oceanic and Atmospheric Administration (NOAA) to conduct their reforestation and land management programs in partnership with beneficiaries in Kawaihae.

New efforts to improve the coastal and marine resources in Kawaihae will still need to be explored. Homesteaders would like restoration efforts to be led by members of the community. It will be important to include the voices of cultural practitioners from Kawaihae as well as other cultural experts who can advise on how to properly restore the ahupua'a. Initial ideas from the community include limu out-planting in the nearshore reefs as well as monitoring of various marine species. However, for these initiatives to occur, the community must establish partnerships with schools, researchers, and non-profit organizations, in addition to securing the necessary funding.

In 2024, DHHL staff in collaboration with the University of Hawai'i's Sea Grant Program is pursuing a funding opportunity for a project to improve marine quality makai of Kohala moku. The project is the DHHL Kohala Moku Marine Sediment Reduction project, and the primary purpose of the project is to restore healthy reef and near shore marine ecosystems from Pelekane Bay to Upolu Point. Marine Sediment Reduction will be accomplished by:

- Completing all Federal and State compliance requirements needed to undertake proposed physical actions for sediment reduction listed below.
- Excluding feral goats from Honokoa Gulch and riparian areas through 45,000 feet of ungulate fencing.
- Establishing a 5-mile firebreak protecting Kawaihae communities as well as the Honokoa Watershed from fire, which contributes greatly to erosion by eliminating vegetation.
- Providing 11,000 feet of fencing infrastructure to support vegetation management and wildfire mitigation through grazing of 310 acres surrounding the Kailapa community.

FIGURE 25: HONOKOA GULCH FIREBREAK AND PROPOSED RIPARIAN CORRIDOR MAP

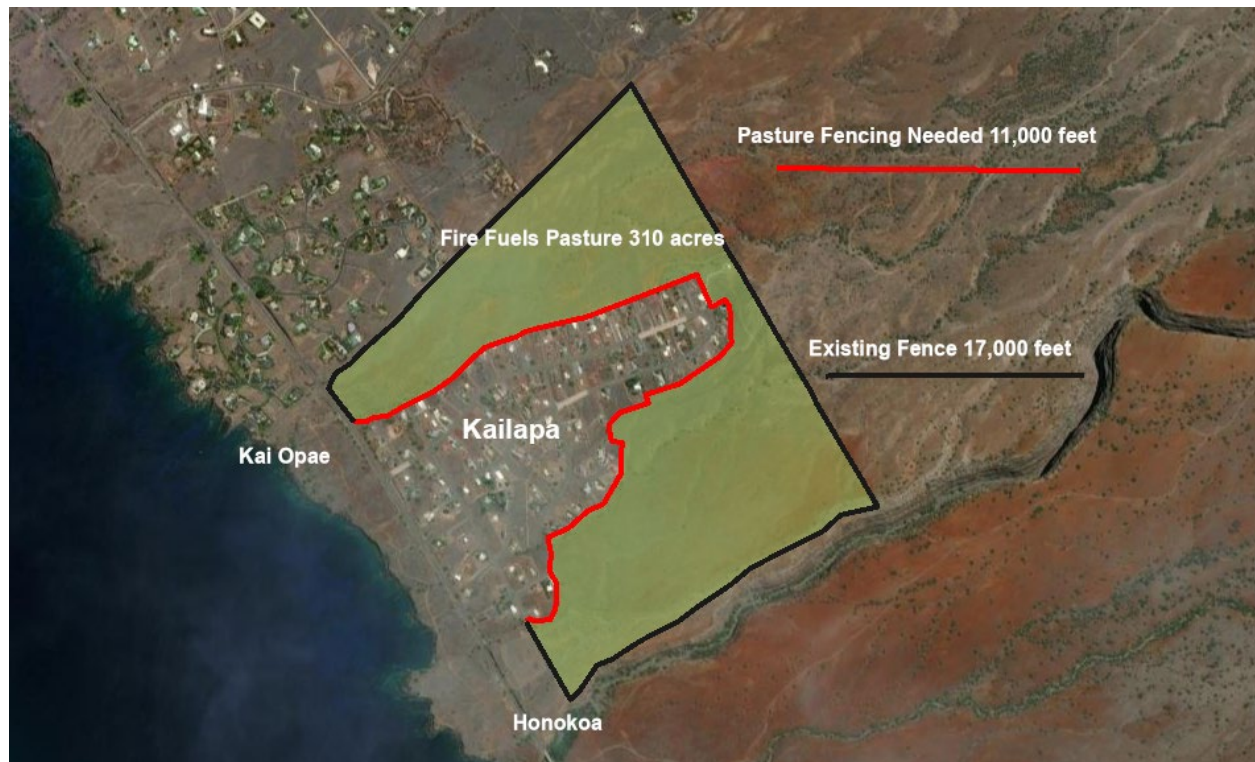


Honokoa gulch and the surrounding DHHL lands in Kawaihae have a very large population of feral goats which denude the landscape causing erosion. Due to many factors, Honokoa gulch specifically has been identified as a major source of sediment erosion and transport to the Kohala coastal waters. Removing and excluding goats from Honokoa Gulch and revegetating of a 450 acre corridor along the gulch will significantly reduce sedimentation of the marine environment, while minimizing the amount of land that will be taken out of active ranching and other potential future land uses. Fencing Honokoa will require fencing across 5 significant streams, which may be compromised in storm events. Specially designed stream crossings will be needed to reduce the likelihood of fence being compromised. Removing goats would allow the landscape to revegetate passively, active reforestation is not currently planned through this funding opportunity, but could and should be considered in future restoration efforts.

4 foot woven (hog) wire fencing would be installed on both sides of Honokoa gulch approximately 300 feet from the gulch edge. On the south side of Honokoa a 20 foot wide firebreak would be installed with heavy machinery prior to fencing along fence alignment to protect Kawaihae communities from fire and as an access way for Honokoa Corridor construction and long term management.

The Kawaihae Community has been identified as extremely high risk due to dry and windy conditions and its location on the wildland/urban interface. Kawaihae has experienced many fires that have threatened homes and property. Currently the vegetation surrounding the DHHL Kailapa community is unmanaged. Besides threatening homes and property, fire burned landscapes have been shown to greatly increase erosion, sediment surrounding Kailapa flow into Kai Opae and Honokoa streams. By putting in the fencing infrastructure and working with the community to find a partner to manage grazing, fire fuels can be managed long term while producing food and empowering the community to manage the lands surrounding their homes.

FIGURE 26: EXISTING AND NEEDED FENCING SURROUNDING KAILAPA



4 foot woven (hog) wire fence would be installed along Homestead lease boundaries creating a 310 acre pasture. Community members or partner would obtain and manage livestock at their own expense including identifying a water source for livestock. Heavy duty, wide entrance gates will be needed to secure area from trespass, contain livestock, and provide suitable access for emergency vehicles and machinery.

PAST ACTIONS

- 2010 - The Kailapa Community Association completed its Resilient Hawaiian Community Plan that looks at improved stewardship of the mauka portion of the ahupua'a.
- 2010 - The Kohala Mountain Watershed Partnership received Rights-Of-Entry and installed ungulate fences on DHHL property.
- 2021 - Kawaihae Goat and Watershed Beneficiary Consultation informed beneficiaries on the impacts of goats and sought feedback on how to best manage the goat population in Kawaihae.
- 2022 - The Kohala Center received a grant from OHA for their "Ho'olauna Kawaihae: Building Pilina Through Respectful Engagement" project which focused on dryland forest restoration.
- 2023 - The Kohala Center partnered with DHHL community members and NOAA to build fencing, remove feral goats, restore riparian corridors, and conduct community outreach.
- 2024 - DHHL is pursuing a grant opportunity in collaboration with the University of Hawai'i Sea Grant College Program to fund the DHHL Kohala Moku Marine Sediment Reduction project.

COMMUNITY INPUT

In the 2010 Regional Plan, improving marine water quality at Pelekane Bay was a priority of the community at the time. For this update to the plan, participants in the beneficiary consultation process felt that these efforts should be extended across the entire coast of Kawaihae. Community members shared that they depend on a thriving ocean ecosystem to sustain their way of life; they rely on the ocean for subsistence fishing, gathering, and the continuation of traditional Hawaiian activities like surfing and paddling. Kawaihae homesteaders also expressed a desire to incorporate indigenous knowledge into future land stewardship/protection of Kawaihae, which would provide the space and opportunity to pass down generational knowledge to the youth. Their primary emphasis, however, was on the crucial point that water must come first to allow for any protection/restoration activities to occur.

OBJECTIVE

This project will fulfil the community values of Mālama ‘Āina, Ka ‘Ike Hawai‘i, and Noho Kupa ‘Āina. Improving the coastal and marine resources of Kawaihae will enhance the natural environment and increase the abundance over the ‘āina. Restoration and protection of the ahupua‘a will be based on traditional Hawaiian practices of land stewardship, allowing for ancestral knowledge to be transferred from one generation to the next. Additionally, reforestation would provide additional cultural and subsistence resources for homesteaders, allowing them to truly live mauka to makai and be able to access all the necessary resources to thrive.

IMPLEMENTATION ACTIONS STEPS

Improve the Coastal & Marine Resources in Kawaihae through Erosion Mitigation

1. Continue to pursue funding opportunities to support on-going projects.
2. Schedule meetings with the community to select other preferred potential projects to pursue.
3. Research preferred potential projects and implementation in Kawaihae.

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