

GRANT RFP-21-HHL-002

Wai'ehu Kou Phase 3 Association (WK3) Community Garden Land Use
Feasibility Project for Use of Wai'ehu Kou Vacant Lands Located between
Wai'ehu Kou III and IV, Waihee – Wai'ehu, Wai'ehu Ahupua'a, Wailuku
District, Island of Maui

Feasibility Study, TMK's: (2) 3-002-012:005 and (2) 3-002-026:051
Wai'ehu Ahupua'a, Wailuku District, Island of Maui
State of Hawaii



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EXECUTIVE SUMMARY

The Community Garden Land Use Feasibility Project has been made possible through the State of Hawaii, Department of Hawaiian Home Lands (DHHL) GRANT RFP-21-HHL-002. The Wai'ehu Kou Phase 3 Association (WK3) is a Federally Registered NHO (Native Hawaiian Organization) established in 2005 and Originally Registered in 2012 and is a domestic non-profit homeowners association in the State of Hawaii.

The report discusses the Wai'ehu Kou Phase 3 Association (WK3) community garden. One hundred seventeen WK3 residential homesteads would benefit from the direct effects of the community garden.

The Project aims to improve food security for the neighborhood, implement a fire-wise program to reduce fuel loads, increase food production and contribute to a reduction on dependence for imported goods. This report is a Feasibility Study of the compatibility of the Proposed Action of creating a WK3 Community Garden.



Waiehu Kou Residential Homestead projects - Wai'ehu Kou III and IV

The WK3 will work with the DHHL to acquire a formal disposition of a long-term community license on approximately three (3) acres of vacant, encumbered lands to create a community garden.

The encumbered lands are located between the DHHL's Waiehu Kou Residential Homesteads of the Wai'ehu Kou III and IV neighborhoods in Wai'ehu, Wai'ehu Ahupua'a, Wailuku District, Island of Maui. The subject parcels are identified as Tax Map Key (TMK): (2) 3-002-012:005 (32012005000) which is ~4.88 acres and TMK: (2) 3-002-026:051 or 320260510000 which is ~10.98 Acres.

PART 1. WHY SUPPORT COMMUNITY GARDENS?

The Rev. John A. Hauoliikalaonameahauoli Tomoso (past Executive Director) of the Tri-isle Resource Conservation and Development Council noted,

"living in community means that we have to relate and nurture each other. Getting along has been a sort of mantra that I grew up with. The Community Gardening movement started to gain importance in the mid-60s, in the chaotic yet empowering days of the Civil Rights Movement.

Folk were realizing that living together, in community, needed more of a sense of "togetherness" and "care for one another," which the political and economic chaos of the times was eating away at; folk were seemingly uncaring and drifting apart, even fearful.

The Community Garden became a metaphor for caring, concern and "building community", so that growing things, especially food, would become a sort of balm, to soothe and satisfy the stress and strain of not being community, when community is very much needed, in the face of political, economic chaos, that especially affected the strength and everyday lives of families, living within and in spite of the chaos."

Mr. Tomoso noted many of the community gardens were started under the Tri-isle Resource Conservation and Development Council; the organization focused on protecting, preserving, and developing island communities through fiscal sponsorship with agricultural and environmental projects.

The end objective of the project acquire from the DHHL a formal disposition of a long-term community license to create a community garden. The Project aims to improve food security for the neighborhood, implement a fire-wise program to reduce fuel loads, increase food production and contribute to a reduction on dependence for imported goods.

The Feasibility Study supports the action of creating a WK3 Community Garden to create a resilient Hawaiian community in light of climate change, see the path that lays ahead, and to deal with crisis as they occur. The community will have access to production – such as land and water, and human manpower while contributing a low carbon footprint. The objective includes establishing access rights and the ability to exercise Traditional and Customary practices.

1.1 OBESITY AND HEALTHY INDIVIDUALS

Obesity results from overeating, lack of physical activity, poor diet choices, genetics, metabolism, and culture. An obese person is someone who has a Body Mass Index (BMI) of 30.0% or higher. According to the Center for Disease

Control (CDC) the United States ranks 12th in world for obesity. Obesity rates have risen steadily based on data from 1980's.

The now archived webpage for the National Center for Chronic Disease Prevention and Health Promotion, Community Health, Community Profile in 2013 noted:

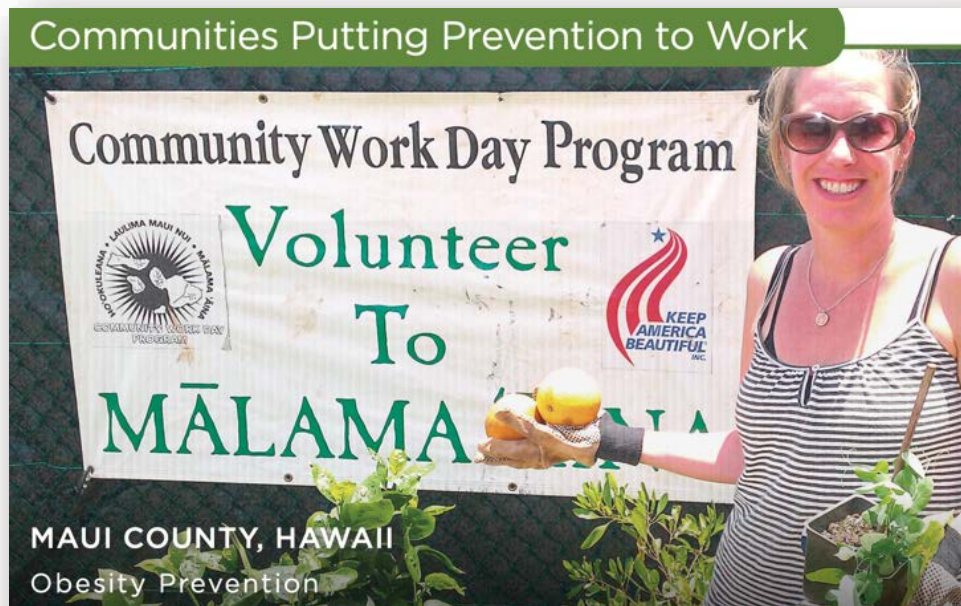
- o Maui County was home to ~154,834 residents.
- o It is designated as a medically underserved area.
- o Twenty-seven percent of adults in the county are obese (greater than the adult obesity rate for the State of Hawaii).
- o Additionally, 35.9 % of the county's adults were overweight.

Statewide, Native Hawaiians are affected disproportionately by obesity - 35.9 % of indigenous adults qualify as obese. Since 2003, obesity in children ages 10 to 17 years grew to 28.5 %.

The report's summary noted of Maui county's adults: 1) approximately half met the federal government's recommended levels of weekly physical activity - which includes moderate-intensity aerobic activity or vigorous-intensity aerobic activity, 2) a quarter of Maui adults have hypertension, and 3) 33 % of the population has high cholesterol which can lead to other medical issues.

The now archived webpage for the Centers for Disease Control and Prevention (CDC) noted the program Communities Putting Prevention to Work (CPPW) was initiated in 2010 by the the US Department of Health and Human Services (DHHS). Maui County was one of 50 communities that worked to reduce obesity and tobacco use.

To make healthy living easier in Maui County the following occurred. The development of trail systems to improve active transportation infrastructure and access to safe and attractive places for physical activity (i.e. Paia Bike Path). Encouraged the promotion of healthy foods at grocery stores and fast food chains through initiatives. The Healthy Eating + Active Living (HEAL) Coalition for Maui County to promote Choose Healthy Now through prompts and product labeling to motivate shoppers to choose healthier options. Initiate and establish community gardens throughout Maui County. Build canoes to accommodate residents of all sizes. Creation of a Facebook page for Maui residents regarding news, events, physical activity and nutrition.



Source: CDC - Communities Putting Prevention to Work (CPPW)

In 2017, Lanai High and Elementary School published the results of their Community Food Assessment in the Hawaii Journal of Medicine and Public Health. Kupuna and community members were asked about their food, culture and health relationship(s). Students also learned skillsets related to communication, graphs, spreadsheets and data analysis. Lanai residents wanted to increase their food security by relying less on transported goods and become more food independent. During plantation times families would have small gardens of fruits and vegetables. Mealtimes were supplemented from fishing and hunting. Lanaians wanted the ability to produce cultural foods. They wanted affordable locally grown produce. Lanai residents were worried the dependence on imported store-bought food would impact their health and identity. Approximately, sixty-six percent of Lanai residents reported being obese or overweight.

A 2018 Maui News article noted Hawaii then ranked 33 in the nation for childhood obesity rates for children ages 10 to 17. While, Hawaii's obesity rate was below the national average the rates are higher than previous generations. The numbers maybe indicative of several factors, such as, of a culture which has become more sedentary, neighborhood safety, eating healthy meals, increased social media and gaming, and less outside activity.

In 2021, the State Department of Health (DOH) launched the Healthy Hawaii Strategic Plan and Healthy Hawaii Vision 2030; a roadmap for improved health and the prevention of chronic disease, such as asthma, cancer, diabetes, high blood cholesterol, high blood pressure, and obesity. Target visioning included

improved recreational bike paths and pedestrian sidewalks, prohibit smoking at the beach and parks, decrease youth vaping, improved access to chronic disease management classes, and sunscreen protection.

For 2025, Maui County is projected to have approximately 164K residents there are ~168,752 Maui County residents. To address obesity and to improve individual health is to eat less simple carbohydrates and have less emphasis on convenient fast food and processed pre-packaged foods. By eating food that is more filling, less calories and more nutrient dense would reduce obesity.

1.2 FOOD SECURITY

It is a startling fact that 1,000 years ago Hawaiian's produced enough food for a population of one million. Today, Hawaii relies heavily on the continental United States or mainland air and marine cargo 2,506 miles to provide store bought foods. Hawaii imports more food than produce.

Up to eighty-five (85) percent to ninety (90) percent of food that Hawaii residents eat is from the mainland and/or elsewhere. The cost to Hawaii to import food and produce approximately \$3 billion per year. Items such as beef (90 %), fresh vegetables (67 %), fresh fruits (65 %), milk (80 %) are all imported.

Air and marine cargo can be disrupted due to natural disasters (fire, hurricane, tsunami), economic disruption. Factors beyond Hawaii's control such as wars in Europe which drive up the price of utilities, gas, and food.

Climate Change will affect food security. Warming oceans, increased air temperatures, sea level will rise, ocean acidification, increased rainfall, over land flooding and storm surge flooding, coastal erosion and increased wind strength will affect water and the land available to grow future produce.

Hawaii's agricultural lands continue to decrease . In 2022, the Department of Agriculture report noted, "the state has 886,211 total agricultural acres; a decrease of 27,050 acres, or minus 3 percent from 2015. Total acres in planted crops in 2020 was 120,632, a decrease of 31,199 acres or minus 21 percent. The loss in planted acres was attributed to the closure of the Hawaii Commercial & Sugar Company on Maui in 2016 which removed 38,810 acres in crop acreage."

With the continued loss in agricultural lands opportunities still exist for community and neighborhood gardens. Planting local crops such as fruits and vegetables could increase food security. By growing food in Hawaii residents are less dependant on barges/transport ships.

In 2014, after the International Union for Conservation of Nature, World Conservation Congress to then Governor Ige pledged to double local food production by 2030.

The Wai'ehu Kou Phase 3 Association would be addressing food security issues within their own homestead. It would lessen the dependance on un-nutritious fast food, increase the ability to eat nutritious food which would lead to less health problems.

The Wai'ehu Kou Phase 3 Association, “are the kanaka maoli of the ili of Waiehu Kou, a united self-reliant community guided by the values of Aloha (love), Ahonui (tolerance), Kuleana (responsibility), Kokua (helpfulness), Laulima (cooperation), Lokahi (harmony), Malama (stewardship), Pono (proper procedure), and who live, work, and play together in a safe environment.”

PART 2. COMMUNITY GARDEN REVIEW

The Wai'ehu Kou Phase 3 Association Community Garden Land Use Feasibility Study looked at two community gardens in southern California – the Carpinteria Community Garden Park and Trinity Gardens Santa Barbara. The study also looked at six community gardens on the neighbor islands of Oahu, and Maui County's Molokai, Lanai and Maui. Review of neighbor island community gardens included the Lanai Community Garden, the Maunaloa Elementary School, the Napili Community Garden, and the Kauluwehi Biocultural Garden. On Oahu, the DHHL Hale Kumuwaiwai Community Resource garden was conceptualized by the agency but was not completed.

COMMUNITY GARDEN COMPARISONS			
DHHL KAUPUNI – Hale Kumuwaiwai Community Resource – Public Land	DOE - Maunaloa Elementary Farm to School - Public Land	Kauluwehi Biocultural Garden - UH Maui College Campus - Public Land	Hailimaile Community Gardens – Private Land Maui Land and Pine
Napili Community Garden – Private Land Maui Land and Pine	Lanai Community Garden – Private Land Pulama Lanai	Carpinteria Community Garden – Public Land	Trinity Gardens Santa Barbara – Private Land

The objective was to compare the land use, common themes, infrastructure and costs associated with each community garden. Section 3.2 contains a data matrix of the community gardens and their defining features.

2.1 OAHU - KAUPUNI - HALE KUMUWAIWAI

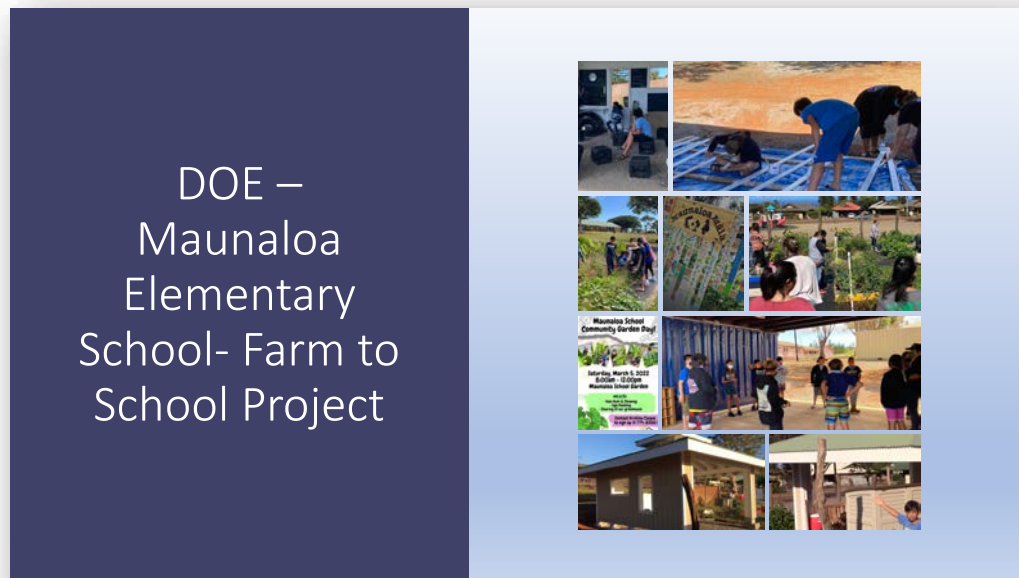
In 2010, nineteen Native Hawaiian families were awarded Single Family Residences (SFR) in the affordable Kaupuni subdivision housing project. The 5,000 square foot lots have three or four bedroom SFR's. The plan meshed Hawaiian cultural practices and was the nation's first affordable housing development awarded LEED Platinum certification (U.S. Green Building Council). The subdivision had a zero-net energy designation and all SFR's had photovoltaic panels, solar water heaters, electric vehicle outlets and energy-efficient appliances.



Source: Ke Kai Planning and DHHL website

The subdivision was anchored by Hale Kumuwaiwai and a community garden. The rationale was members could produce and prepare their "own food, share knowledge and recreate...In order to be a successful community, all community members must work together to develop, maintain and manage the community resources. While this subdivision may not be for everyone, it is a great opportunity for those families committed to a sustainable lifestyle." The community garden was never planted but Hale Kumuwaiwai was constructed.

2.2 MOLOKAI - MAUNALOA ELEMENTARY SCHOOL FARM TO SCHOOL PROJECT



Source: Ke Kai Planning

The University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources (CTAHR) partnered to support for Maunaloa Elementary School's Farm to School Project. Established in 1936, Maunaloa Elementary School has forty (40) students. The Farm to School's semester focus has been on the concept of Mala. Each class has two (2) garden beds for the school year.

Protocols are set in place to continue routine. Students pledge: "I Will: Be Safe, Do my Best, Use my Time Wisely, and Have an Open Mind. " They mama - one word at end of day before going home.

The Maunaloa Elementary School's Principal Joe Yamamoto noted "the Farm to School movement is a statewide movement and is not just about how to grow foods locally but also to grow food for themselves. We talked about sustainability way back in the early 2000 - we gotta do something about it. Even though we are a small school when we can do a little bit of it. When you think about a garden it provides you so many opportunities. It is not just food production it provides you a realistic or authentic way to learn outside the classroom and the content."

A Maunaloa Elementary School 5th grader noted, "I wanted to learn about new plants that I haven't learned about and how to garden because sometimes I don't know all the instructions and directions to make new plants grow. That's why I want to learn about gardening. I was nervous at first as I was the only 5th grader. I had

to do a lot of work, interview the principal, and cleanup the garden heads. I thought it was going to be hard but now it is really easy."

CHTAR staff Mr. Marshall Joy noted "garden education is not just about learning about the plants and the nutrition. It is also opportunity for aina-based education. All students come from ancestors who farm and who live on an island that is surrounded by water. Sustainability and self reliance is inherent in all these kids and many of them live that way today. Putting that seed in the ground, taking care of it and watching it to grow is not a foreign concept, because there is that relevance for students. Teachers can cross cut into math, science and Hawaiian values through concepts of garden education. Really the garden is the classroom, the most effective classroom. Food systems is so important even more so today than ever. Putting that seed in the ground, taking care of it and watching it to grow is not a foreign concept, because there is that relevance for students. Teachers can cross cut into math, science and Hawaiian values through concepts of garden education. Really the garden is the classroom, the most effective classroom."

Maunaloa Elementary School students learn about seed selection, germination, harvesting, proper protocols for tools, washing and weighing the vegetables which they take home. They learn how the composting beds break down material and re-used in garden beds and plant potting mix. The Community Workday had thirty (30) volunteers to plant orchard trees (citrus, avocado, soursop). Other learning service projects was the design and constction of the Hale and the mala gutter water catchment system.

2.3 MAUI - KAULUWEHI BIOCULTURAL GARDEN

The Kauluwehi Biocultural Garden located at the University of Hawaii Maui College continues to be a labor of love for Mr. Dustin Pavlos.

In 2015 to 2018, the area was known as the Sustainable Living Institute of Maui (SLIM) Community Garden. A drainage basin was transformed into a community garden. Funding and support came from the Department of Water Supply, Ulupono Initiative, Frost Family Foundation, and the Community Work Day. The community garden also contains a demonstration rain garden which gathers stormwater and re-charges annually 270,000 gallons of water into the nearby aquifers.

As Maui is 90% reliant on food imports the community garden goals included food security, community empowerment, education, and a Farm-to-School component. The goal was to create island-grown produce that could be integrated into the UH curriculum, integrate into the UH food system, and support the staff and students. Staff and students grew their own food and learned about sustainable agriculture. Understanding community concerns and needs led to Community Empowerment.



Source: Ke Kai Planning

Kauluwehi Biocultural Garden was re-designed with an emphasis on endemic and indigenous plants. The goal was to highlight the fact "the future of our islands depends on preserving our native species and protection of our watershed...the garden features different zones to showcase plants for ethnobotanical uses, kapa, and lei making, and native species that we need to raise awareness about through education, such as protecting 'ōhi'a lehua from the spread of disease or death."

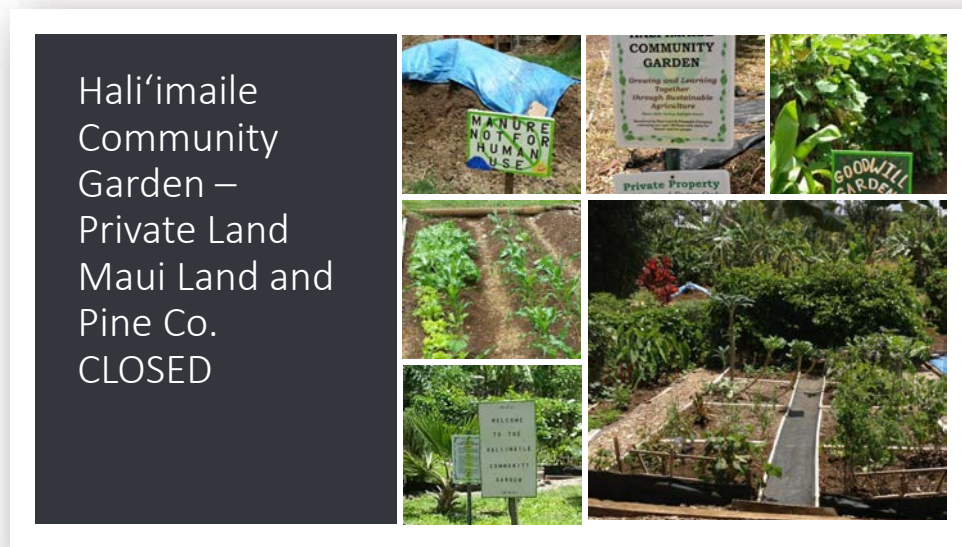
Kauluwehi Ethnobotanical Garden has community/volunteer work days. It gives plants and food product to neighboring communities, organizations and churches.

2.4 MAUI - HALIIMAILE COMMUNITY GARDEN

Established in 2006, the Haliimaile Community Garden was the oldest community garden in Maui. The nonprofit Haliimaile Community Garden's mission was "to build community around food self-sufficiency." The aim was to increase access to fresh and healthy produce, encourage food self-sufficiency and reduce hunger, improve understanding of where food comes from, foster awareness of sustainable and organic environmental practices, connect families through healthy gardening activities, provide garden & environmental educational opportunities, and offer opportunities to socialize and partake in volunteerism."

Approximately, 107 families were provided garden space to produce their own supply of fresh vegetables. Excess food was distributed through community partnerships. The nonprofit garden, "offered educational outreach, allotment plots,

fresh-grown food for hungry families, and a safe space for Maui residents to connect with gardening and sustainability.



Source: Ke Kai Planning

Before it closed, the Haliimaile Community Garden volunteers authored a cookbook titled *Hawaii's Grow Your Own Cookbook: Creative & Simple Ways to Use Healthy Homegrown Produce with Aloha!* in 2013.

Sadly, the Haliimaile Community Garden closed in 2016/2017. Father Tomoso noted, "it was a non-profit whose leadership could not sustain its Mission and then its membership dwindled." After numbers dwindled a key board member left.

2.5 MAUI - NAPILI COMMUNITY GARDEN

The garden started in September 2011 as a 501 (c) (3) nonprofit under the Tri-Isle Resource Conservation and Development District. The Napili Garden's mission was "to cultivate a community rooted in sustainability by providing a place for cooperative organic gardening" on the 3.6 acres of land located above Honoapiilani Highway.

The land was not utilized for a period of time thus was eligible for organic certification. The land is subleased through the Ulupono Initiative. There are individual lots and community farm-style gardening lots which "allows for more people to come in if they don't actually want to tend to a plot, but they want to farm as a community and harvest as a community."

Napili Community Garden – Private Land- Maui Land and Pine Co.

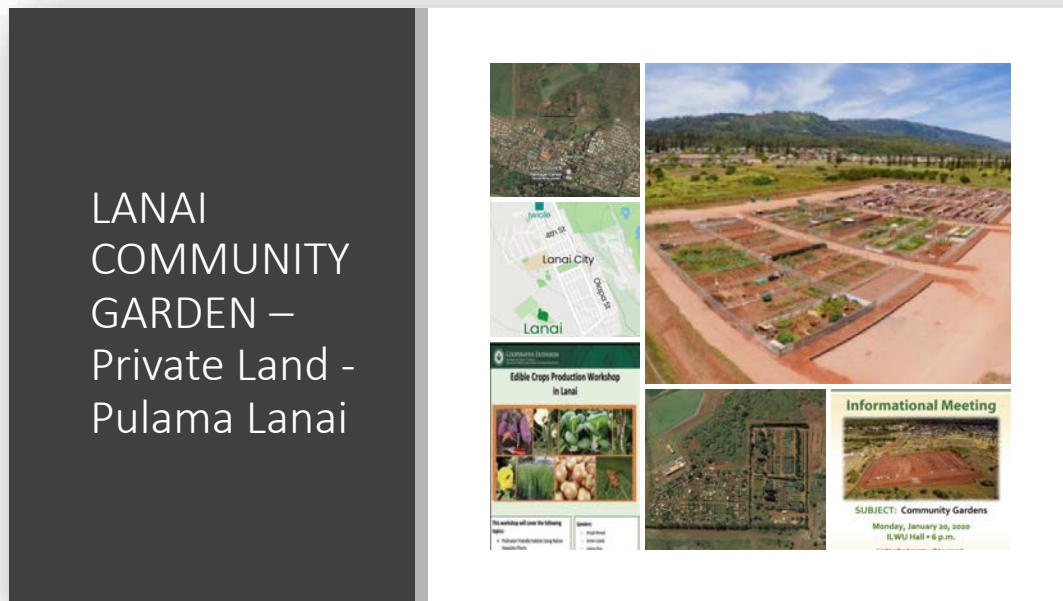


Source: Ke Kai Planning

The Napili Community Garden features the “New Earth Systems” that integrates agriculture with education to create a balance with nature while cultivating the earth. Components include soil building, solar, wind power, water power with a blend of aquaculture, aquaponics, vermiculture, composting and the management of waste.

Mr. Charlie Dofa was instrumental in the gardens development. He noted, “I think people should work together. Leave everything at home, all the problems and everything, and come and meet everybody. See all the different nationalities – the Polynesians, the Filipinos, the Hawaiians, the Chinese, the Portuguese, the Caucasians. Work together, share ideas, share food. Come over here, bring your family, pick out a plot and just enjoy life. Grab the soil, smell the air and feel the energy of the earth. You can grow your own instead of going to the market and spending \$30 on just vegetables. Share, help each other and make sure you plant only the product you really want to enjoy eating. Basically, all my stuff I want to eat. It’s like the tomatoes, the eggplant, the ginger, the green onions, the leeks, the lettuce, three different types of bok choy and peanuts. Okinawan sweet potatoes – they almost like \$3.99 a pound. Grow your own!”

2.6 LANAI - LANAI COMMUNITY GARDEN

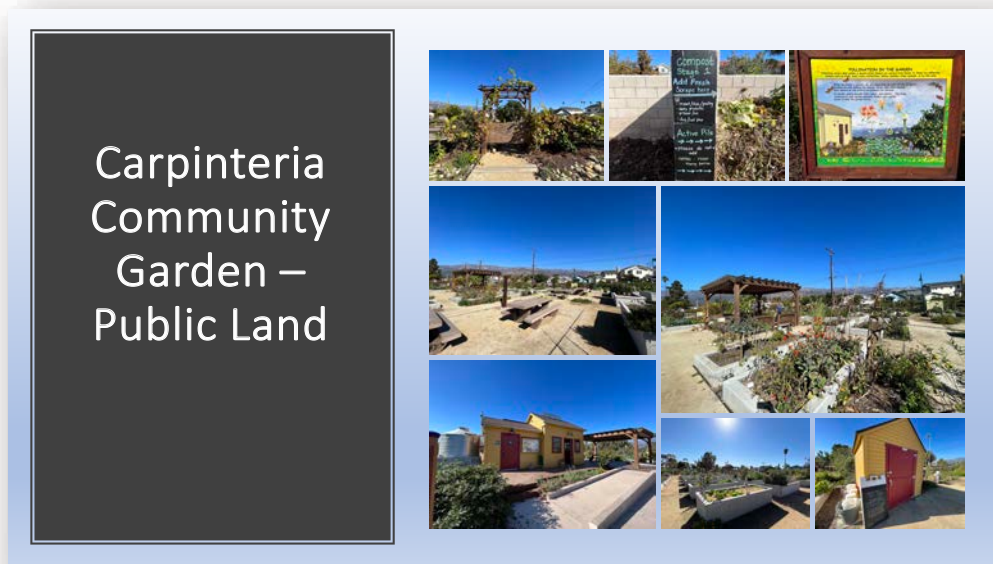


Source: Ke Kai Planning

The Lanai Community Garden was started by Pulama Lanai on two acres that took two years of preparation. Lanai residents have been able to grow food and raise livestock. In 2024, Lanai residents learned about best agricultural practices with plot holders and backyard gardeners.

2.7 CALIFORNIA - CARPINTERIA COMMUNITY GARDEN

In 2017, the City of Carpinteria, Parks and Recreation Department constructed the Carpinteria Community Garden Park. A July 2020 article showcased how community gardens could help the community across different socio-economic backgrounds access food and farming practices. Carpinteria Garden Park Coordinator Ms. Alena Steen noted, "the Carpinteria Garden Park has only increased in importance for the local community, as many members...an increased sense of the importance of fresh, organic produce for both physical and mental health...food security and sustainable agriculture are essential forms of public safety. Carpinteria is a more resilient community if we uplift under-represented voices in food security and farming. "



Source: Ke Kai Planning

Ms. Steen noted practical steps to increased food security included more support local food banks, and combat food insecurity on a county-wide level. Broader goals identified increased access to affordable community gardens and urban food oases, placement of healthy grocery stores in food desert neighborhoods, compensate farmworkers with current living expenses, allow programs to foster and provide financial support to minority farmers without access to the financial benefits of inherited land and/or generational wealth.

The Carpinteria Community Garden Park offered educational classes (Fall Gardening 101), public events (Harvest Story Time, a social media online forum, partners with other organizations that promote biodiversity, online educational classes, and movies on community gardening.

2.8 CALIFORNIA - TRINITY GARDENS SANTA BARBARA

In 2012, Trinity Lutheran Church (Santa Barbara, California) started a mission outreach as Trinity Gardens. The mission to provide space for the community to serve alongside the congregation as the church grew food a community. Donated produce is grown for local food needy organizations.

Trinity Church Gardens Santa Barbara - Private Land



Source: Ke Kai Planning LLC

There are twenty-three individual plots, plus the church's production and donation plots. The donation plots contain the annual crop plots, a "food forest" orchard, greenhouse, and chicken coops which is donated to local partners (food kitchens, schools, shelters).

Trinity Gardens offers routinely scheduled events such as the weekly Sunday harvest days and monthly cooking classes. Yearly scheduled events are offered such as the Easter Egg Hunt, Spring Celebration Plant Sale, Day of Caring, Evening in the Garden, Pumpkin Patch, and October Fall Harvest Field Trip.

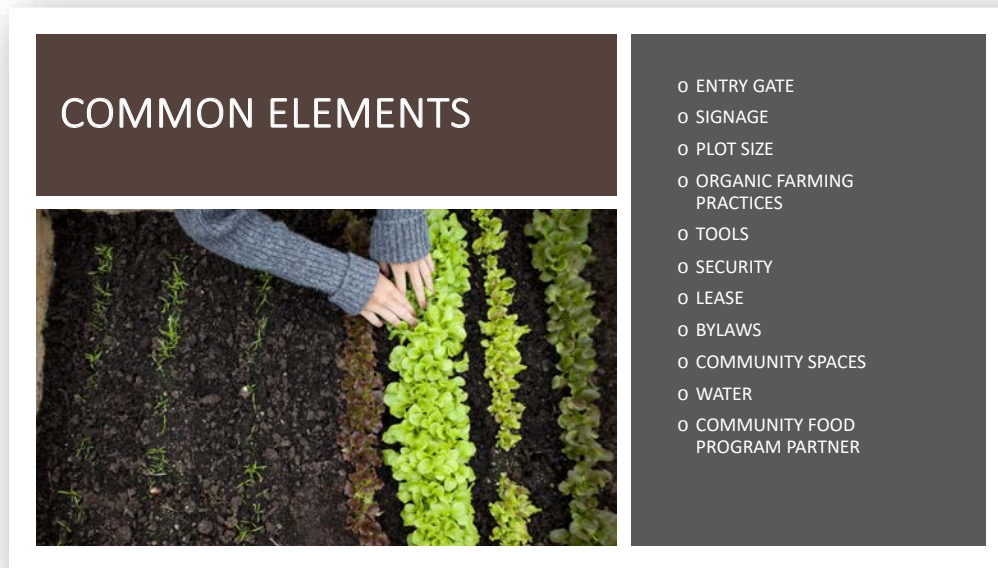
There is an ongoing donation request and fund raising program to support the garden education program(s) and produce. Programs include cooking classes, field trips online, and gardening lessons. The online field trips cover topics such as pumpkin life cycle, garden songs, seed saving, nature appreciation and healthy foods and handouts via school kits are utilized. Gardening lessons deal with composting, seed planting, and crop rotation.

Dewayne Nash the garden manager noted in 2024 Trinity Gardens grew and donated over 7,100 pounds of fruits and vegetables to those in need. "We donate to an organic soup kitchen, a hospice program for the underserved, halfway houses for women, a halfway house for men, a homeless shelter and several food banks in the area. This produce is grown in our central growing area and our orchard. We grow some flowers scattered in the central growing area. We have a

large field in the front where each spring we grow lots of native wildflowers and sunflowers. Individual plots are rented by the community who grow vegetables, flowers, and art classes.”

PART 3. COMMUNITY GARDEN COMMON ELEMENTS

Community gardens contain common elements such as entry gate(s), signage, plot sizes, organic farming practices, tool-sharing, security (gates, locks, hours), lease paperwork, fee(s), bylaws, community spaces, water, and community food sharing programs exist with the gardens.



Source: Ke Kai Planning Powerpoint

A detailed matrix lists below of the community gardens and their defining features such as: location, address, use of community parks located on private land(s) versus public land(s), municipal ordinances, state land use zoning, total area, area of plots, years of preparation, amount of money spent of preparation, organic vegetables and plants, water, composting systems, garden coordinator, education programs, volunteer programs, etc.

The reader is welcome to cross examine the current and closed community gardens to the proposed WK3 Community Garden. As the reader looks at each cell they are welcome to checkmark off what they would like to see in the Proposed Action.

Costs can range in monetary figures to sweat equity and in-kind services from the WK3. There are obvious costs for the placement of infrastructure (pipes, water lines, timers, fences, concrete), land and whether the WK3 has fiscal support.

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAIIEHU KOU 3 COMMUNITY GARDEN
LOCATION	CALIFORNIA Carpinteria	CALIFORNIA Santa Barbara	MAUI	MAUI	LANAI	MOLOKAI	MAUI	MAUI	MAUI
ADDRESS	4855 5th St, Carpinteria, CA 93013	909 N La Cumbre Rd, Santa Barbara, CA 93110	Napili, HI, 96761	UH Maui College Campus 310 W Kaahumanu Ave. Kahului, HI 96732	12th Avenue, Lanai, HI maun	128 Maunaloa Rd, Maunaloa, HI 96770	325 Punakea Loop, Lahaina, HI 96767	Aoiki Street, Haliimaile, HI 96768	Kaulana Na Pua Circle, Wailuku, HI, 96793
AHUPUAA	n/a	n/a	KANAPALI	WAILUKU	KAMOKU	KALUAKOI	LAHAINA	HAMAKUAP OKO	WAILUKU
PRIVATE/PUBLIC	Public	Private	Private	Public	Private	Public School	Private	n/a	PUBLIC
MUNICIPAL ORDINANCES/ RULES	YES	NO	NO	NO	NO	YES	n/a	NO	NO
TMK	n/a	n/a	(2) 4-3- 001:001	(2) 3-8- 007:040	(2) 4-9- 014:001	(2) 5-1-002:003	(2) 4-7-001:003	(2) 2-5- 003:005	(2) 3-2-012:005
STATE ZONING	n/a	n/a	AG	URBAN	AG	URBAN	AG	AG	AG
NEIGHBORHOOD CODE	n/a	n/a	4343-5	3863-1	4942-6	5161-1	4751-5	2544-5	3265-5
ZONING	n/a	n/a							
SPECIAL MANAGEMENT AREA	n/a	n/a	NO	YES	NO	NO	NO	NO	YES

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAIIEHU KOU 3 COMMUNITY GARDEN
TOTAL AREA	38,000 Sq. Ft.	2 Acres	5.4 Acres / 1,377 Acres	1 Acres/48 Acres	2 Acres/83.98 Acres	X Acres/8.89 Acres	2 Acres /69 Acres	2 Acres / 41 Acres	X Acres/4.88 Acres
YEARS OF PREP		2 Years		3 Years	2 Years			n/a	
SOIL/MULCH	YES	YES	YES	YES	YES	YES	NO	YES	
TOTAL AMOUNT INVESTED	\$500K	\$125K to \$150K		12K to \$250K	Millions			n/a	
ANNUAL REGISTRATION	\$120 Annual	\$200 Annual	\$600 to \$960 Annual	NO	\$600 Annual	NONE	\$0	\$100 Annual	
PLOT SIZE	10 x 5	10x 10/10x20	10x10/20x20	1 Acre	10 x 20		2 Acres	10 x 20	
PLOTS	Bi- Annual/Annual	Annual	Annual	NO		n/a	n/a	Annual	
NUMBER OF BEDS	100	20 - 24/depend on food program	127 - 200	1 Bed	80 - 40 plots/40 livestock			n/a	
ORGANIC	YES	YES	YES	YES	YES	YES	YES	YES	
FLOWERS	YES	YES	YES	YES	YES		YES	YES	
VEGETABLES	YES	YES	YES	YES	YES	YES	YES	YES	
NATIVE PLANTS	YES	YES	YES	YES	YES	YES			

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOHA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAI'EHU KOU 3 COMMUNITY GARDEN
LIVESTOCK	NO	YES	NO	NO	YES	NO		n/a	
WATER CONSERVATION	YES	YES	YES	YES	YES	YES	YES/NO	n/a	
WATER	YES	YES	YES	YES	YES	YES	YES	YES	
WATER SUPPLIES	YES	YES	YES		YES	YES	YES	n/a	
INFRASTRUCTURE	YES	YES	YES	YES	YES	YES	YES	n/a	
GREEN WASTE COMPOST SYSTEM	YES	YES	YES	YES				n/a	
BULLETIN BOARD	YES	YES	YES	NO				n/a	
TOOL SHED/SHARED TOOLS	YES	YES	YES	NO	YES	YES		n/a	
RAIN GARDEN	NO	NO	NO	YES	NO			n/a	
HALE	n/a	n/a	NO	YES	NO	YES	n/a	n/a	
MAINTENANCE	YES	YES	Yes - Volunteers	YES	YES	YES	YES	YES	
MOWING SERVICE	NO	NO	Yes - Volunteers	NO		NO		YES	
BATHROOM	YES	YES	YES	NO		YES School		n/a	
PARKING	YES	YES	YES	YES		YES School			
FENCING	YES	YES	YES	NO	YES	YES		n/a	
PETS	NO	NO	NO	NO				n/a	YES
CHILDREN	YES	YES		YES		YES		n/a	
PESTS	YES	YES	YES	YES	YES	YES	YES	n/a	

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAIIEHU KOU 3 COMMUNITY GARDEN
GARDEN COORDINATOR	YES	YES	YES	YES	YES	YES	NO	n/a	
GARDEN STEERING COMMITTEE	YES		YES	NO		NO	NO	n/a	
CHURCH SUBCOMMITTEE	NO	YES		NO		NO	NO	n/a	
GARDEN MEETINGS	YES	YES	YES	YES	NO	YES - Daily	NO	n/a	
TEACHER	NO	NO	NO	NO	NO	YES	n/a	na	
PAID STAFF	YES	YES	NO	YES	YES	YES School	NO	n/a	
VOLUNTEERS	YES	YES	YES	YES	NO	YES	YES	n/a	
VOLUNTEER TIME	16 Hr Annual	24 Hr Annual	24 Hrs Annual/\$20 Fine per month	YES	NO	160 Hr Annual Classtime	YES	n/a	
VOLUNTEER TASKS - Events, Maintain Public Spaces/Compost Pile, Community Outreach, Education, Fundraising, Social Media, Weeding	YES	YES	YES	YES	NO	YES - 40 Students	YES	YES	
CLEAN UP DAYS	NO	NO	NO	YES	YES	YES			

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAIIEHU KOU 3 COMMUNITY GARDEN
MEMBERSHIP APPLICATION	YES	YES		NO	YES	NO	NO	n/a	
1 PLOT PER HOUSEHOLD	YES	YES	NO LIMIT	NO	NO LIMIT	SCHOOL	n/a	n/a	
BACKGROUND CHECK	NO	YES	NO	NO	NO	SCHOOL	NO	n/a	
USER AGREEMENT	YES	YES		YES			NO	n/a	
VOLUNTEER APPLICATION FORM	YES		NO	NO	NO	NO	NO	n/a	
LIABILITY INSURANCE	YES	YES	YES	YES	NO	SCHOOL	YES	n/a	
BYLAWS	YES	NO	YES	NO	YES	SCHOOL	YES	n/a	
NUMBER OF ADA BEDS	27		NO	NO				n/a	
ADA ACCESSIBILITY	YES	YES		NO			NO	n/a	
GARDENING START	2 Weeks		3 Weeks	n/a		NO			
USER SELECTION	YES - Point System		NO	NO	NO	NO	n/a	n/a	
TERMINATION	YES	NO	YES	NO		NO		n/a	
2 WEEK WRITTEN NOTICE	YES	NO		NO		NO		n/a	
GARDEN HOURS	YES	YES	YES	YES	YES	YES School	YES	n/a	
WAIT LIST	YES	YES	YES	NO		NO		n/a	

	CARPINTERIA COMMUNITY GARDEN PARK	TRINITY GARDENS	NAPILI COMMUNITY GARDEN	UH MAUI KAULUWEHI ETHNOBOTANICAL GARDEN	LANAI COMMUNITY GARDEN	MOLOKAI - MAUNALOA ELEMENTARY SCHOOL - FARM TO SCHOOL	LAHAINA FAMILY FARMS - CLOSED	HALIIMAILE COMMUNITY GARDEN - CLOSED	WAIIEHU KOU 3 COMMUNITY GARDEN
FOOD DONATIONS	YES	YES	YES	YES	NO	YES	YES	YES	
NON-PROFIT	NO	NO		SCHOOL	NO	SCHOOL	NO	n/a	
FOR PROFIT	NO	NO	NO	SCHOOL	NO	NO	NO	NO	
ORGANIZATIO N/COMMERCIAL USE	YES	NO	NO	NO	NO	NO	NO	n/a	
MONETARY DONATIONS		YES	YES	YES	NO	NO			
MAUI COUNTY FUNDS	n/a	n/a	NO	NO	NO	YES			
STATE FUNDS	n/a	n/a	NO	YES	NO	YES			
501-3-C	YES	NO	YES	NO		NO			
LOW INCOME EXCHANGE	YES - Increase Volunteer Hours		NO	NO			YES	n/a	
SCHOLARSHIP	NO	YES	NO	NO		NO		n/a	
COOKBOOK	NO	NO	NO	NO	NO	NO		YES	
COOKING LESSONS	NO	YES		NO	NO				
EDUCATION PROGRAMS	YES	YES	NO	YES	YES	YES	NO	YES	
PREVIOUS STUDY	NO	NO	NO	NO	YES	YES	NO	NO	

Source: Ke Kai Planning

To assist the WK3 Association a set of draft Bylaws have been attached to the end of the report.

PART 4. WAEHOU KOU 3 ASSOCIATION COMMUNITY GARDEN PROJECT

The Community Garden Land Use Feasibility Project was been made possible through the DHHL GRANT RFP-21-HHL-002 for the Wai'ehu Kou Phase 3 Association.

The Project aims to improve food security for the neighborhood, implement a fire-wise program to reduce fuel loads, increase food production and contribute to a reduction on dependence for imported goods. The Feasibility Study recommends that the creation of a WK3 Community Garden is feasible. How would the WK3 Association envision the community garden? Where would the community garden be located. Initial ideas stemmed from the following questions:

- o What does the WK3 want to plant?
- o Where will the water come from?
- o How many plots are envisioned?
- o Will all 115 residents have a plot?
- o Will there be AG uses such as livestock and crop planting?
- o What are the work days?
- o What are the bylaws?
- o What is currently existing?
- o What are the entitlements and permits to achieve goal (depends on WK3 vision?)
- o What are the work hours?

4.1 COMMUNITY OUTREACH

On February 3, 2022, a PowerPoint presentation was made to the Wai'ehu Kou Phase 3 Association Board. The meeting focused on the feasibility of creating a community garden on the two vacant lots identified as the ~4.88 acres TMK: (2) 3-002-012:005 and ~10.98 Acres TMK: (2) 3-002-026:051.

Guidance was sought from the 2010 DHHL Paukukalo-Waiehu Kou Report, Section V. Homestead Priorities – Community which identified issues and opportunities facing the Paukukalo-Waiehu Kou region. One opportunity was to “utilize the vacant lands between Waiehu Kou III and IV without affecting flood insurance for Waiehu Kou III residents. Potential uses for the land include a community garden, farmer's market, swap meet, community camping grounds, parking for oversized vehicles, permaculture, and agricultural production.”

The Powerpoint focused the two TMK's, review of the DHHL GRANT RFP-21-HHL-002 for a Community Garden Land Use Feasibility Project, identification of the feasibility study topics, examples of Community Gardens, proposed community outreach dates, and future questions about the WK3 Community Garden.

On May 1, 2024 in partnership with the Wai'ehu Kou Phase 3 Association and

Hui No Ke Ola Pono conducted a free Wellness Fair that included pharmaceutical, nutrition, vision, health and dental services. Ke Kai Planning also conducted community outreach with a QR Code survey monkey questionnaire along with a native plant giveaway, and Maui Juice Company.



Source: Ke Kai Planning May 1, 2025 Community Outreach

4.2 SURVEY MONKEY

Ke Kai Planning conducted community outreach with a QR Code survey monkey questionnaire along with a native plant giveaway, and Maui Juice Company.

The Wai'ehu Kou Phase 3 Association Community and other homestead communities gave feedback on the Garden Survey questions via Survey Monkey:

1. Do you live in Wai'ehu Kou ?

Yes
No
Sometimes
When I visit family-friends

2. If yes, what phase of Waiehu Kou ?

One
Two
Three
Four

3. Are you a homesteader in another area ?

Yes

No

4. Where do you live ?

Central Maui

West Maui

Upcountry Maui

East Maui

5. Family Size?

1-3

4-6

6+

6. If WK3 had a community garden, would you use it ?

Yes

Yes

Maybe

I want to but have to find the time

7. What would you like to have in a community garden ?

Facilities – Imu, storage building, bathroom

Infrastructure – water, fencing, electricity

Security – signage – operating hours, etc.

Flowers – fruits – vegetables

ALL OF THE ABOVE

OTHER – NOT IDENTIFIED

8. What would you like to see produced in a community garden ?

Fruits

Flowers

Trees

Crops

Plants

Livestock

OTHER

9. What is the size of garden plot you would need ?

100 to 500 square feet
501 to 1,000 square feet
1,001 +

10. What would be the purpose and intent of your garden plot ?

Supplemental food for home consumption
Hobby
Exercise
Family Education
Cultural Activity
Supplemental Income

11. Other than a community garden, what else would you like to see developed for the Waiehu Kou homestead community ?

Community Center
Park Improvements
Road Improvements
Better Signage

12. What outcomes would you like a community garden accomplish?

Education
Improved Health
Community Gathering
Income Generation
Expanded Cultural Activities

The Survey Monkey Results revealed ninety percent of the Survey Monkey respondents noted they lived in Wai'ehu Kou Three Homestead community. Ten percent noted respondents were visiting family and friends. All respondents noted they lived in Central Maui. Family size had equal numbers of family size ranging between 1 to 6 people. Most respondents noted If WK3 had a community garden they would use it. Some respondents noted they needed to find the time.

The respondents noted they want all of the following in a community garden, such as, Facilities – Imu, storage building, bathroom, Infrastructure – water, fencing, electricity, Security – signage – operating hours, etc., Flowers – fruits – vegetables.

A majority of Respondents noted they want to see fruits and crops produced in a community garden, followed by plants, trees and livestock. A majority of Respondents noted a 100 to 500 square foot plot was sufficient, followed by 500 to 1,000 square feet and 1,001 square feet and above.

A majority of Respondents noted the purpose and intent of the garden plot was for supplemental food for home consumption, followed by cultural activity, as a hobby and for family education.

Respondents noted that other than a community garden they would like to see a community center and park improvements.

Respondents noted that the outcomes they would like to accomplish include improved health and expanded cultural activities followed by community gathering.

PART 5. ALTERNATIVES

The Feasibility Study discusses five (5) alternatives from a No Action Alternative, to relocating the location of the Proposed Action, to the creation of a WK3 Agricultural Park.

4.1 Alternative 1 - No Action

There is No Action. The WK3 would NOT pursue a Right-of-Entry or Land Disposition on vacant unencumbered/encumbered land from the DHHL for the Proposed Action.

4.2 Alternative 2 - Right-of-Entry or Land Disposition

The WK3 would pursue a Right-of-Entry or Land Disposition on vacant unencumbered/encumbered land from the DHHL the Proposed Action.

4.3 Alternative 3 - Right-of-Entry or Land Disposition

The WK3 would pursue a Right-of-Entry or Land Disposition on vacant unencumbered/encumbered land from another State of Hawaii entity and/or the County of Maui for the Proposed Action.

4.4 Alternative 4 - Relocate to Kula Agricultural Park

The WK3 would move all current plans to the Kula Agricultural Park located in Kula. The WK3 would not pursue a Right-of-Entry or Land Disposition on vacant unencumbered/encumbered land from the DHHL the Proposed Action. The Maui County, Office of Economic Development's serves as the Kula Agricultural Park in upcountry Kula. The program was started to promote diversified agricultural development. There are thirty-one (31) farm lots range from ten (10) to thirty (30) acres; total of 445 acres. There are twenty-six (26) farmers with farm lots rented with at a (reasonable) rents and long-term tenure; contributing to Maui's economic growth.

4.5 Alternative 5 - Create WK3 Agricultural Park

Under this action the WK3 would create an Agricultural Park at the proposed action. The WK3 would create a non-profit to manage the lease or get a sponsor (Ulupono Initiative). The WK3 would pursue a Right-of-Entry or Land Disposition on vacant unencumbered/encumbered land from the DHHL. The program would promote diversified agricultural development with the existing remnant macadamia nut orchard. Farm lots can be divided according to membership, crop or land availability. With a reasonable rent and long-term tenure the WK3 will be contributing to Maui's economic growth.

PART 6. ENVIRONMENTAL SETTING

6.1 PHYSICAL ENVIRONMENT

6.1.1 CLIMATE CHANGE

In 2013, the United Nations Intergovernmental Panel on Climate Change (IPCC) noted the climate system is warming; since the 1950's many observed changes are unprecedented over decades to millennia. "The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased."

Climate Change is not limited to warming ocean and air temperatures. It includes a multitude of complex and compounding feedback mechanisms and localized changes to the Earth's natural systems. As surface temperatures of the air and sea rise, sea level will rise, oceans will acidify, increased rainfall, overland flooding, storm surge flooding, coastal erosion and stronger and more frequent tropical storms will bring increased wind strength(s).

Research indicates sea level rise could occur as early as year 2060 under more recently published highest-end scenarios. The overall consensus is there will be an overall global rise in sea level of 3.2 feet by the end of the 21st century proposed by. The global mean sea level rise is predicted at (DLNR, 2017):

- o Year 2030 - around 0.6 foot,
- o Year 2050 - 2 feet, and
- o Year 2100 - 3.2 feet.

Climate Change effects in Hawaii to date:

- o Hawaii's warming air temperature has quadrupled in the last forty (40) years over 0.3 degrees Fahrenheit per decade.
- o Prevailing northeasterly trade winds have decreased.
- o There has been an overall decline in rainfall in the last 30 years.
- o Stream base flow has decreased over the last 70 years.
- o Sea surface temperatures have warmed between 0.13 degree Fahrenheit and 0.41 degree Fahrenheit per decade in the Pacific for the last forty (40) years.
- o Global ocean acidity has increased by thirty (30) percent due to marine uptake of CO₂ which correlates to a pH change of 0.1 Acidification leading to additional pH changes that affect marine life and habitat.
- o Sea level rise over the last century has risen from 0.5 to 1.3 inches per decade.

Climate Change also will affect residents health with increase in heat related illness and vector-borne diseases - dengue, chikungunya, and Zika virus. The Aedes mosquitoes spread through Hawaii has the capability to carry the diseases. Other vector-borne disease can be via the spread of mosquito bites but also parasites, bacteria and/or viruses.

In August 2016, the Council on Environmental Quality (US CEQ 2016) released guidance to federal agencies (withdrawn). Federal agencies should review Climate Change in environmental reviews with consideration of the potential effects of a proposed action of climate change (by assessing greenhouse gas emissions), and the effects of climate change on a proposed action and its environmental impacts. Short and long term effects and benefits in the alternatives should be identified and the projects resiliency to the effects of a changing climate.

For the State, pursuant to Hawaii Revised Statutes (HRS), Chapter 226-109 Climate Change adaptation priority guidelines encourage analysis for climate change. Hawaii Administrative Rules (HAR) Chapter 11-220.1 Environmental Impact Statement Rules and Act 17 Relating to Environmental Protection of the 2018 Hawaii Legislature require analysis in draft and final form of EAs and EIS report(2) to include consideration of sea level rise.

6.1.2 PROJECT AREA

The Valley Isle is the largest and most populous island in Maui County. Towns are located in coastal communities and mountainous areas of West Maui, Upcountry, East Maui, and Central Maui. Since the 1970's, Maui has experienced significant growth in both resident and visitor populations. A near tripling of Maui's population over the last 50 years coupled with a fast paced tourism industry (2.6 million visitors came to Maui in 2016) has placed increased demands on natural resources, critical infrastructure, and basic services. With 148,403 residents the Island of Maui accounts for 10.6% of the State's population.

Hawaii is the only state that lies within the tropics and is surrounded by an ocean. Rainfall is greatest on the windward sides of the islands which exhibit mild temperatures. Temperature(s) are warm year-round and days are sunny days as the length of daylight period changes little throughout the year. Annual rainfall is about ~32-inches in Wailuku. During the summer months of May through September the high is approximately 87 degrees. During winter months October through April the low is approximately 64 degrees. Diurnal weather patterns create breezes that blow from the sea and upslope from the valley bottoms, and night breezes blow from the land, down the mountain slopes.

The Project Area is located on the substrate of the West Maui Mountains or Mauna Kahālāwai. The eroded volcano forms the western quarter of Maui. The volcano was formed through three (3) series of volcanic eruptions during the shield building period. The volcano is ~1.7 millions years old and erupted ~320,000 years ago; no

future eruptions are expected. Wailuku has been identified as lava flow hazard zone four 4 (previously lava flow hazard zone 5); an area of no hazard under a lava-inundation scenario; the rift zones are located nearer to Haleakala Crater, Hana town or Mākena. The geology is composed of olivine basalts, pahoehoe and aa beds, and the Honolua volcanic series.

Maui experiences seismic activity due to its proximity to the Molokai Seismic Zone and Big Island's Kilauea volcano. In 2020, Maui had seven (7) earthquakes. Earthquakes do not usually exceed 6.6 magnitude; the last large earthquake occurred in Hana on January 23, 1938. No lava tubes were observed.

6.1.3 PROJECT SITE

The Proposed Action is located on Wai'ehu Kou unencumbered/encumbered (vacant) lands located in the Wai'ehu Kou III and IV, Waihee in the Wai'ehu, Wai'ehu Ahupua'a, Wailuku District, Island of Maui, State of Hawaii , located on Tax Map Keys (TMKs): (2) 3-002-012:005 (~4.88 Acres) and TMK: (2) 3-002-026:051 (~10.98 Acres).

Only portions of the TMK's will be utilized for the community garden. The two subject parcels are currently serve as drainage channels and ditches for the Waiehu Kou developments.



Source: Maui County Real Property Division TMK: (2) 3-002-026:051 (~10.98 Acres)

Subject parcel TMK: (2) 3-2-026:051 is a grassed parcel with a remnant macadamia nut orchard farm. The subject parcel was retained by the DHHL for the Waiehu Kou communities and serves as drainage ditch and flood channel. The orchard takes up two-thirds of the TMK and is located on the section nearest Halewaiu Road.

To the north of the subject parcel is Halewaiu Road. Beyond Halewaiu Road is the ~277 acre Waihe'e Coastal Dunes and Wetlands Refuge owned by the Hawaiian Islands Land Trust (HILT) (formerly the Maui Coastal Land Trust) in the DHHL Paukūkalo-Wai'edu Kou Document. To the south is Kahekili Highway or Highway Route 340. To the west is the DHHL Wai'ehu Kou Phase 4 Community and the DHHL drainage basin located on TMK: (2) 3-2-026:050. Several subject parcels abut the parcel to the east: TMK: (2) 3-2-013:028 a portion of County of Maui's (County) Wai'ehu Municipal Golf Course, DHHL vacant land TMK: (2) 3-2-012:005, the WK3, and DHHL vacant land's TMK: (2) 3-2-012:004.



Source: Maui County Real Property Division TMK: (2) 3-002-012:005 (~4.88 Acres)

TMK: (2) 3-002-012:005 is landscaped with grass and the beginning stages of the WK3 garden landscaping (fencing, vegetation (trees, plants). The subject parcel was retained by the DHHL for the Wai'ehu Kou communities and serves as drainage ditch and flood channel. To the north and east are TMKs: (2) 3-2-013:028 and TMK: (2) 3-2-013:006 which contain portions of Maui County's Wai'ehu Municipal Golf Course. To the south is the WK3 community and DHHL's drainage basin TMK: (2) 3-2-012:006.

Lateral access from the Proposed Site is available from both DHHL community residents via pedestrian access. The nearest shoreline lateral access is from TMK: (2) 3-002-026:051 to Halewaiu Road to the Waihe'e Coastal Dunes and Wetlands Refuge (located ~ 0.17 miles away) from the project site. Lateral access to the dunes and wetlands is available for the general public, DHHL communities, fisherman, surfers, and cultural practitioners.

The next shoreline access point would be at Waihe'e Beach (0.39 miles), Wai'ehu Beach Park (0.96 miles away), Paukūkalo Beach Park (1.94 miles away), Kahului Beach Park (2.87 miles), Kanaha Pond State Wildlife Sanctuary (4.33 miles), and Kanaha Beach Park (4.77 miles). Parking and beach access for all beaches is available via vehicular parking lots.

Although Wai'ehu-Waihe'e itself is a census-designated place (CDP) in Maui County the nearest commercial area is the Wailuku Town Center located 2.08 miles to the south east from the project site. Located ~ 3.0 miles to the south is

Wailuku Town. Located ~ 3.76 miles away to the southeast is Kahului Town. Located ~ 9.71 miles away to the east is Paia Town.

The Maui County Fire Department is located ~3.01 miles south of the project site in Wailuku. The Maui County Police Department is located to the southeast ~3.19 miles away from the project site in Wailuku.

6.1.4 REMNANT MACADAMIA NUT ORCHARD

An remnant macadamia nut orchard is located on two-thirds of TMK: (2) 3-002-026:051 (~10.98 Acres). The past owner is presumed to be remnant macadamia nut orchards on former Wailuku Agribusiness Company land(s). However, Mr. Carl Hashimoto (Soil Conservation Technician, Natural Resource Conservation Service NRCS) noted the past owner might have been the Wailuku Sugar Company. The land was sold to C. Brewer who kept sugarcane but in 1959 diversified to macadamia nuts. Mr. Hasimoto remembers the surrounding macadamia nuts production was in the 1970's. In 1990, the Mauna Loa Macadamia Nut Corporation produced the majority of the world's nuts.



Source: Maui Tropica



Source: Photograph of a Lot adjacent to WK3 for 2022 Site Visit

Articles indicated the surrounding area was former agricultural land in Wailuku which. An 2002 Star Bulletin article indicated 456 acres of land formerly owned by C. Brewer was developed into two (2) and three (3) acre lots in Wailuku. An 2015 Pacific Business News article indicated a 238 acre parcel sold within a mile of the the former C. Brewer and Company macadamia nut farm.

The state's largest privately-owned mac nut venture is the upland owner of Waihe'e Valley Plantation Mac Nut Farm. The farm is home to 17,000 macadamia nut trees on ~ 11,000 acres. The farm has a high capacity picker, sheller, color sorter and nut drier. The nuts dried at low temperatures (98 to 100 degrees) for ten (10) days that allows the farmer to label the product "raw."

The Feasibility Study notes the WK3 should pursue a lease agreement from the DHHL for the existing remnant macadamia nut orchard in additon to the Proposed Action.

The macadamia nut orchard could be a generating property for the WK3 and generate revenue for Maui County. In 2020, the US Department of Agriculture's, Pacific Region - Hawaii Macadamia Nuts Final Season Estimates July 2020 Report indicated the farm value of the crop was \$48 million; up sixteen (16) percent from the 2018-2019 season. The net farm price was one (1) cent higher than the year before. From 2019-2020 macadamia nut production increased fifteen (15) percent from the last season.

The macadamia nut orchard should be pruned and landscaped to remove the possibility of debris, control overgrowth, and to mitigate and reduce fire load. To

memory there is no maintenance of the area but it is envisioned best management practices (BMPs) for landscaping and pest control will be required. Revenue from the sale of macadamia nuts could contribute to Maui County's economic growth.

Fallow agricultural lands are a major contributor to increased wildfire activity. Because the fields have not been maintained there is vegetation over growth and limited access. Recorded fires in the Wailuku area started in 2014, 2017 and 2020 in former macadamia nut farms near WK3.



Source: Hawaii News Now July 2018 article

In March 2014, a fire started at the top of Malaihi Road in the former Wailulu Agribusiness macadamia nut fields. An uninhibited 1,200 square foot structure was destroyed and damage was estimated at \$24,000; it took three (3) hours to contain the fire.

In November 2014, a fire started makai of Kahekili Highway and Makaala Drive. One fourth (1/4) of an acre was extinguished by the fire department; it took one (1) hour to contain the fire. In July 2017, in the same vicinity another fire started and burned five (5) acres; it took nine (9) hours to contain the fire.

In November 2020, in the same vicinity another fire started and burned one (1) acre; it took three (3) hours to contain the fire. Wailuku and Kahului firefighters responded.

Additional brush fires have been reported since 2020 to present. It is clear that fires will continue to start unless Best Management Practices (BMP) to maintain the macadamia nut orchard are conducted to maintain a fire break/buffer, minimize over growth vegetation to reduce fire load, clear away trash, and extra fire suppression equipment on scene to reduce structural damage.

6.1.5 ARCHEOLOGICAL SITES

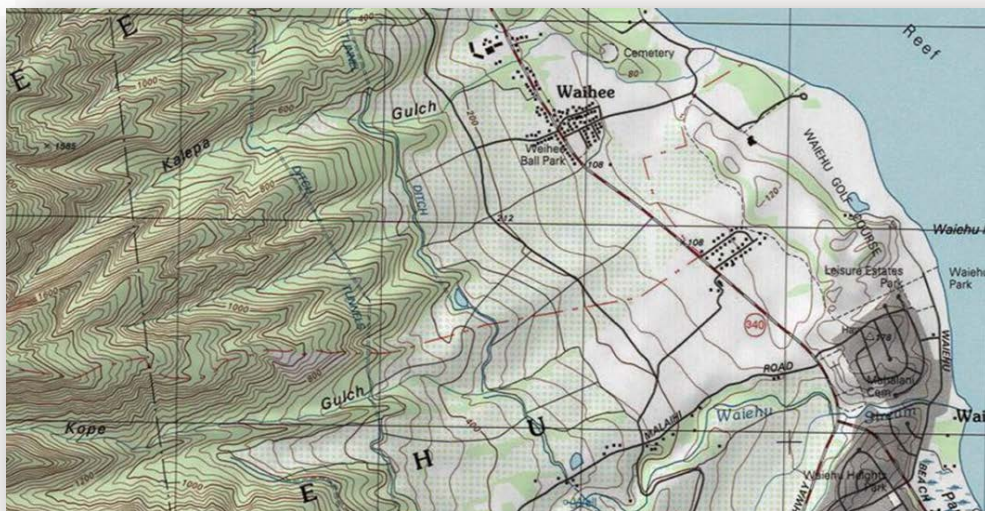
In February 2022, the WK3 was contacted to repatriate Iwi Kūpuna bone fragments to the Project Area. Whether the bone fragments were repatriated is unclear.

6.1.6. DAM EVACUATION ZONE

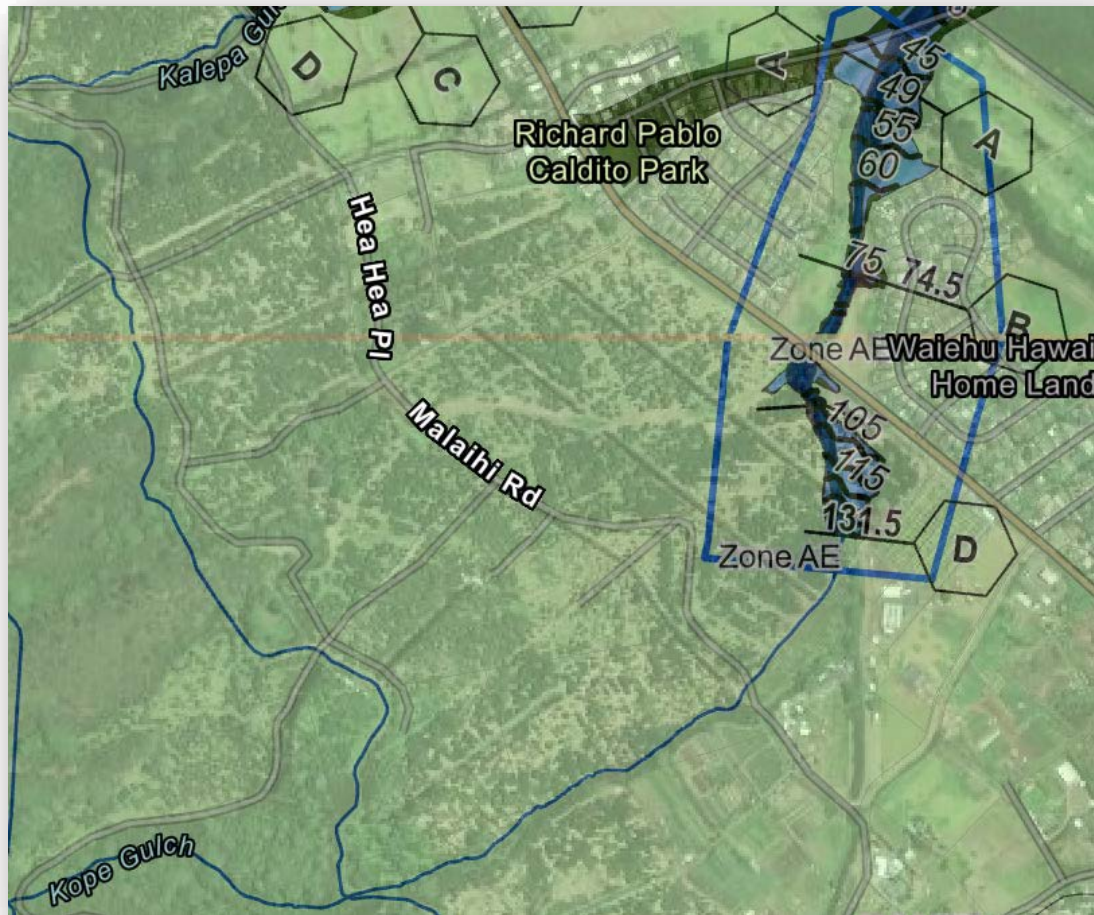
The project area is not located in a Dam Evacuation Zone.

6.1.7. KOPE GULCH

According to Ulukau: the Hawaiian Dictionary Kope means to rake in Hawaiian. Kope Gulch is located directly above the WK 3 community Waihee-Waiehu area on privately-owned Agricultural lands. It has a steam feature that rises at 2,100 feet in elevation and ends at 300 feet. The Kope Gulch itself is at 305 feet above mean sea level (MSL). The USGS has Hydrologic Unit # 20020000 at the site at Longitude: ~ 20°55'37.76 and Latitude: ~ 156°30'25.28" (NAD83) to monitor water usage.



Internet Source: <<https://mapcarta.com/24045024>>



Source: 2025 DLNR, Flood Hazard Assessment Tool website - TMK: (2) 3-2-12:005

Kope Gulch is an important water source for taro farmers and other agricultural land of significance. However, the State of Hawaii, Department of Land and Natural Resources (DLNR) - Flood Hazard Assessment Tool indicates upland flooding from Kope Gulch can and will inundate the land located adjacent to WK3. It is understood the WK3 community is working with the neighboring communities to build a community identity, assert access rights, re-establish community presence and fortifying relationships in balance with the environment and human needs.

6.1.8 ZONING AND FLOOD

Knowing the flood zones and the flood hazard risk for the WK3 Community is key information. The feasibility study has been updated with 2025 DLNR, Flood Hazard Assessment Tool for the Waiehu Kou 3 Association that indicates Moderate to Low Risk and High Risk Areas with Base flood elevations.

The Federal Emergency Management Agency (FEMA) produces the National Flood Insurance Program's Flood Insurance Rate Maps (FIRM) or Flood Hazard Boundary Map assigns floodplain status for most coastal areas of the island of Hawaii.

In November 2021 and May 2024, the Maui County's Planning Department - Zoning Administration and Enforcement Division (ZAED) through the Zoning and Flood Confirmation Form identified the two (2) parcels in the Flood Zones.

The WK3 Association Community Garden is located on both TMK: (2) 3-2-12:005 and Tax Map Key: (2) 3-2-26:051 which are located in the Special Flood Hazard Areas (SFHAs) with Moderate to Low Risk Areas, and High Risk Areas. SFHA are an area with a special flood, mudflow or flood-related erosion hazards shown on a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM). SFHA are identified as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year; the 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

Maui County Flood Hazard Zones website definition:

Moderate to Low Risk Areas:

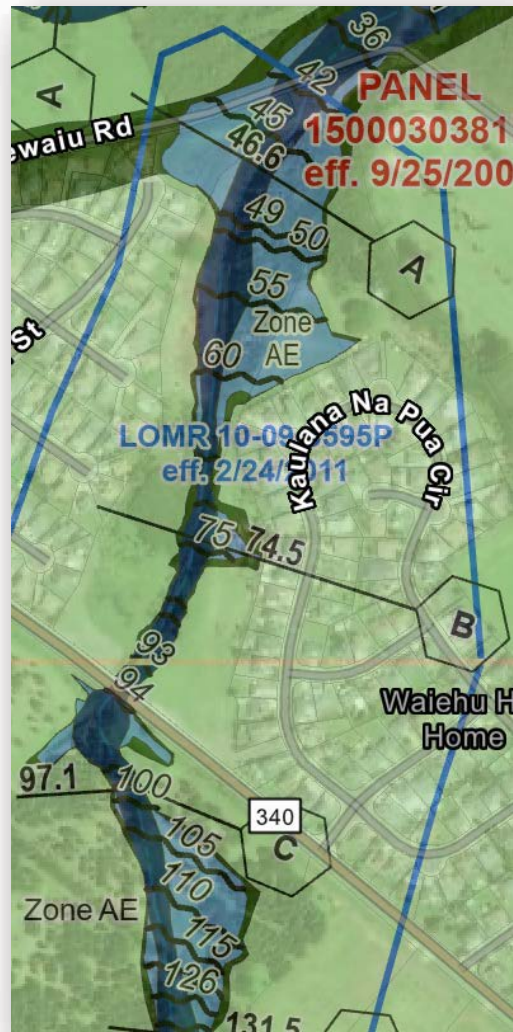
ZONE XS (Shaded X): Areas of 500-year flood (0.2% chance of annual flooding); areas of 100-year flood with average depths of less than one (1) foot or with drainage areas less than one (1) square mile; and areas protected by levees from 100-year flood.

ZONE X: Areas determined to be outside 500-year flood plain.

High Risk Areas:

ZONE AE (45'-60'): Base flood elevations determined at 45-feet to 60-feet.

The upland Kope Gulch contributes to the Waiehu Kou 3 Association flooding. Mauka of Kahekili Highway numbers range from 132 feet to 96 feet in ZONE AE. Directly, adjacent to the Waiehu Kou 3 Association numbers range in ZONE AE. from 74 feet to 50 feet.



Source: 2025 DLNR, Flood Hazard Assessment Tool website - TMK: (2) 3-2-12:005

The feasibility study has been updated with 2025 DLNR, Flood Hazard Assessment Tool for the Waiehu Kou 3 Association that indicates Moderate to Low Risk and High Risk Areas with Base flood elevations.

COUNTY OF MAUI
DEPARTMENT OF PLANNING
One Main Plaza Building
2200 MAIN STREET, SUITE 315
WAILUKU, HAWAII 96793



Zoning Administration and
Enforcement Division (ZAED)
Telephone: (808) 270-7253

LAND USE DESIGNATION FORM

TAX MAP KEY <u>2320120050000</u>		PLAN NUMBER <u>LUD2024-00478</u>	
PROPERTY ADDRESS _____			
☐ Yes ☒ No Will this Land Use Designation Form be used with a Subdivision Application? IF <u>YES</u>, answer questions A and B below and comply with instructions 2 & 3 below: A) ☐ Yes ☒ No Will it be processed under a consistency exemption from Section 18.04.030(B), MCC? IF <u>YES</u>, which exemption? (No. 1, 2, 3, 4 or 5) _____ B) State the purpose of subdivision and the proposed land uses (ie 1-lot into 2-lots for all land uses allowed by law): N/A			
(This section to be completed by ZAED)			
LAND USE DISTRICTS/DESIGNATIONS (LUD) AND OTHER INFORMATION:¹		☒ (SMA) Special Management Area	
STATE DISTRICT: ☐ Urban ☐ Rural ☒ Agriculture ☐ Conservation			
MAUI ISLAND PLAN Growth Boundary: ² ☒ Urban ☐ Small Town ☐ Rural ☐ Planned Growth Area ☐ Outside Growth Boundaries			
Protected Area: ² ☐ Preservation ☐ Park ☐ Greenbelt ☐ Greenway ☐ Sensitive Land ☒ Outside Protected Areas			
COMMUNITY PLAN: ² AGRICULTURE & OPEN SPACE			
COUNTY ZONING: AGRICULTURE & INTERIM			
OTHER/COMMENTS: DEPARTMENT OF HAWAIIAN HOMELANDS			
FEMA FLOOD INFORMATION: A Flood Development Permit is required if any portion of a parcel is designated V, VE, A, AO, AE, AH, D, or Floodway, and the project is on that portion.			
FLOOD HAZARD AREA ZONES ³ & BASE FLOOD ELEVATIONS: ZONE: X,XS,AE(45'-60')			
☐ FEMA DESIGNATED FLOODWAY		For Flood Zone AO, FLOOD DEPTH:	
SUBDIVISION LAND USE CONSISTENCY: ☐ <u>Not Consistent</u> . (LUDs appear to have NO permitted uses in common). (Signature) _____ ☐ <u>Not Applicable</u>. (Due to processing under consistency exemption No. ☐ 1, ☐ 2, ☐ 3, ☐ 4, ☐ 5). ☐ <u>Interim Zoning</u>. (The parcel or portion of the parcel that is zoned interim shall not be subdivided). ☐ <u>Consistent</u>. (LUDs appear to have ALL permitted uses in common). ☐ <u>Consistent</u>. upon obtaining an SMA, PD, or PH subdivision approval from Planning. ☐ <u>Consistent</u>. upon recording a permissible uses unilateral agreement processed by Public Works (See Pg. 2).			
NOTES: 1) The conditions and/or representations made in the approval of a State District Boundary Amendment, Community Plan Amendment, County Change in Zoning, SMA Permit, Planned Development, Project District and/or a previous subdivision, may affect building permits, subdivisions, and uses on the land. 2) Please review the Maui Island Plan and the Community Plan document for any goals, objectives, policies or actions that may affect this parcel. 3) Flood development permits might be required in zones X and XS for any work done in streams, gulches, low-lying areas, or any type of drainage way might require the following designations to be shown on the subdivision map: 100-year flood inundation limits; base flood elevations; drainage reserves, 4) Subdivisions will be further reviewed during the subdivision application process to verify consistency, unilateral agreement requirements, and the conditions associated with a unilateral agreement [Section 18.04.030.D, Maui County Code]			
REVIEWED & CONFIRMED BY:			
 _____ Jacob Alison		05/13/2024 _____ Date	
For: Planning Program Administrator, Jordan E. Hart		DESIGNATIONS MAY CHANGE	

Page 1 of 1

Source: Maui County Land Use Designation Form - TMK: (2) 3-2-12:005

COUNTY OF MAUI
DEPARTMENT OF PLANNING
One Main Plaza Building
2200 MAIN STREET, SUITE 315
WAILUKU, HAWAII 96793



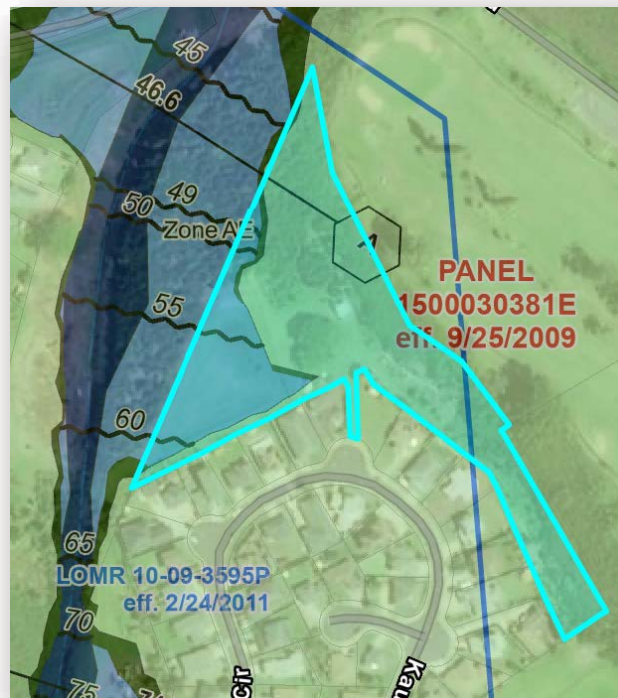
Zoning Administration and
Enforcement Division (ZAED)
Telephone: (808) 270-7253

LAND USE DESIGNATION FORM

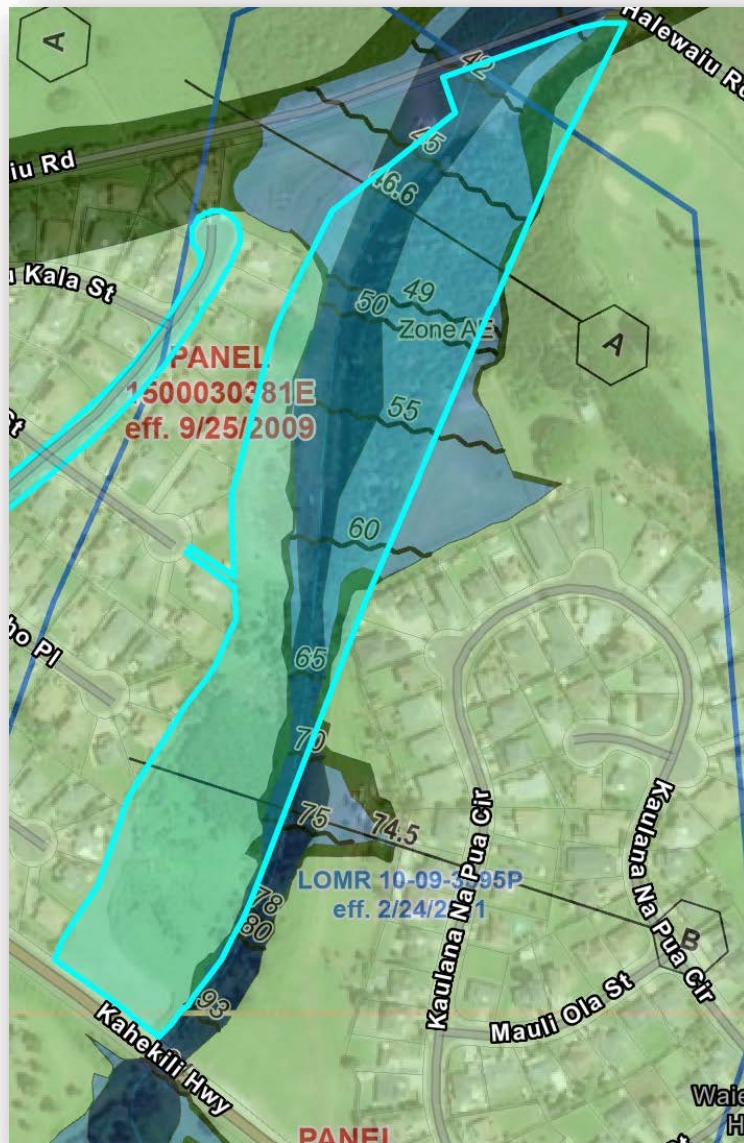
TAX MAP KEY <u>2320260510000</u>		PLAN NUMBER <u>LUD2024-00477</u>	
PROPERTY ADDRESS _____			
☐ Yes ☒ No Will this Land Use Designation Form be used with a Subdivision Application? IF YES, answer questions A and B below and comply with instructions 2 & 3 below: A) ☐ Yes ☒ No Will it be processed under a consistency exemption from Section 18.04.030(B), MCC? IF YES, which exemption? (No. 1, 2, 3, 4 or 5) _____ B) State the purpose of subdivision and the proposed land uses (ie 1-lot into 2-lots for all land uses allowed by law): _____			
(This section to be completed by ZAED)			
LAND USE DISTRICTS/DESIGNATIONS (LUD) AND OTHER INFORMATION:¹		☒ (SMA) Special Management Area	
STATE DISTRICT: ☐ Urban ☐ Rural ☒ Agriculture ☐ Conservation			
MAUI ISLAND PLAN Growth Boundary: ² ☒ Urban ☐ Small Town ☐ Rural ☐ Planned Growth Area ☐ Outside Growth Boundaries			
Protected Area: ² ☐ Preservation ☐ Park ☐ Greenbelt ☐ Greenway ☐ Sensitive Land ☒ Outside Protected Areas			
COMMUNITY PLAN: ² PROJECT DISTRICT 4 (WAIHEE) & OPEN SPACE		☐ (PD) Planned Development ☒ (PH) Project District ☐ See Additional Comments (Pg. 2) ☐ See Attached LUD Map	
COUNTY ZONING: WK-PD4 (WAIHEE) (CONDITIONAL)			
OTHER/COMMENTS: DEPARTMENT OF HAWAIIAN HOMELANDS			
FEMA FLOOD INFORMATION: A Flood Development Permit is required if any portion of a parcel is designated V, VE, A, AO, AE, AH, D, or Floodway, and the project is on that portion. FLOOD HAZARD AREA ZONES³ & BASE FLOOD ELEVATIONS: ZONES X, XS, AE (36'-70'), AEF (36'-93')			
☒ FEMA DESIGNATED FLOODWAY		For Flood Zone AO, FLOOD DEPTH:	
SUBDIVISION LAND USE CONSISTENCY: ☐ Not Consistent. (LUDs appear to have NO permitted uses in common). ☐ Not Applicable. (Due to processing under consistency exemption No. ☐ 1, ☐ 2, ☐ 3, ☐ 4, ☐ 5). (Signature) ☐ Interim Zoning. (The parcel or portion of the parcel that is zoned interim shall not be subdivided). ☐ Consistent. (LUDs appear to have ALL permitted uses in common). ☐ Consistent. upon obtaining an SMA, PD, or PH subdivision approval from Planning. ☐ Consistent. upon recording a permissible uses unilateral agreement processed by Public Works (See Pg. 2).			
NOTES: 1) The conditions and/or representations made in the approval of a State District Boundary Amendment, Community Plan Amendment, County Change in Zoning, SMA Permit, Planned Development, Project District and/or a previous subdivision, may affect building permits, subdivisions, and uses on the land. 2) Please review the Maui Island Plan and the Community Plan document for any goals, objectives, policies or actions that may affect this parcel. 3) Flood development permits might be required in zones X and XS for any work done in streams, gulches, low-lying areas, or any type of drainageway might require the following designations to be shown on the subdivision map: 100-year flood inundation limits; base flood elevations; drainage reserves. 4) Subdivisions will be further reviewed during the subdivision application process to verify consistency, unilateral agreement requirements, and the conditions associated with a unilateral agreement [Section 18.04.030.D, Maui County Code]			
REVIEWED & CONFIRMED BY:			
 _____ Sheila Nakagawa		05/13/2024 _____ Date	
For: Planning Program Administrator, Jordan E. Hart		DESIGNATIONS MAY CHANGE	

The Feasibility Study for the WK3 Association Community Garden notes the majority of the action should be located on TMK: (2) 3-2-012:005 – away from the flood zone and adjacent to the residences.

The SFHAs indicate the majority of the parcel lies within an area with Moderate to Low Risk Areas. A portion lies in a High Risk Areas ZONE AE (45'-60') where the Base flood elevations is determined at 45-feet to 60-feet. This area is the existing drainage basin is located to catch flooding events.



Source: 2025 DLNR, Flood Hazard Assessment Tool website - TMK: (2) 3-2-12:005

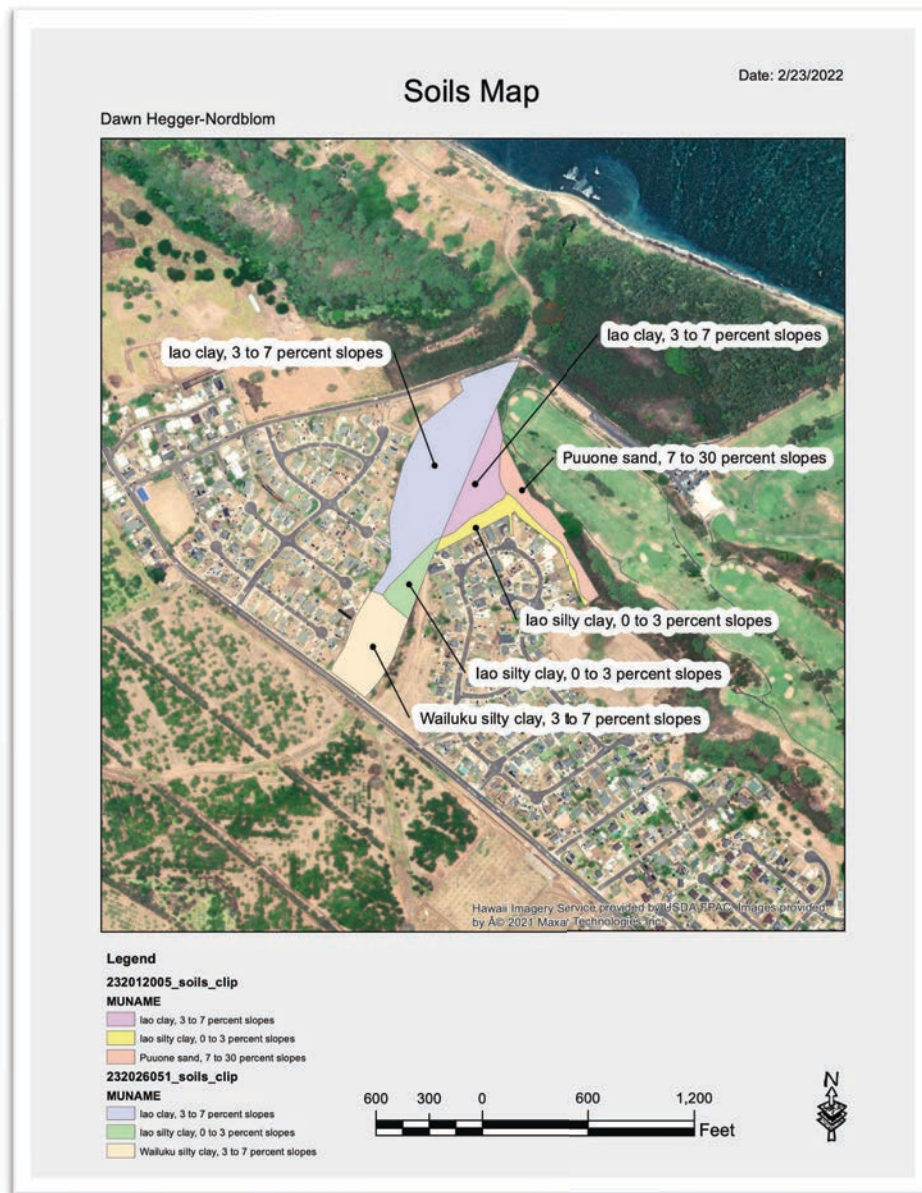


Source: 2025 DLNR, Flood Hazard Assessment Tool website - TMK: (2) 3-2-12:005

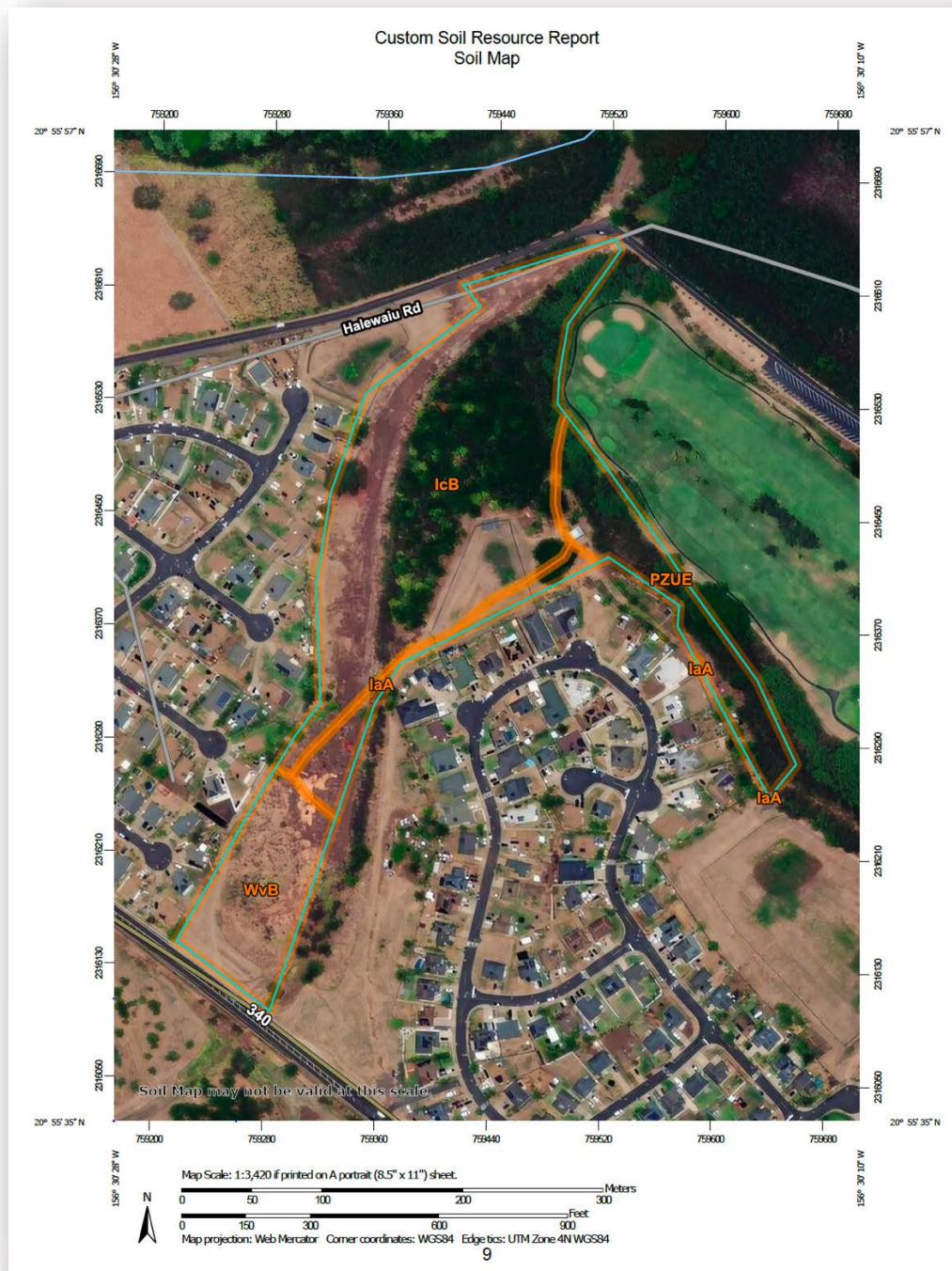
The Feasibility Study recommends to the Waiehu Kou 3 Association should manage the existing macadamia nut orchard located in the High Risk Areas: 1) ZONE AE (36'-70') where Base flood elevations is determined at 36-feet to 70-feet, and 2) ZONE AEF (36'-93'); flood way areas in Zone AE. The flood way is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1 % annual chance flood can be carried without increasing the Base Flood Elevation (BFE).

6.1.9 SOIL

In February 2022, a Custom Soil Resource Report was generated by the US Department of Agriculture, Natural Resource Conservation Service (NRCS), Pacific Islands Area office for the project.

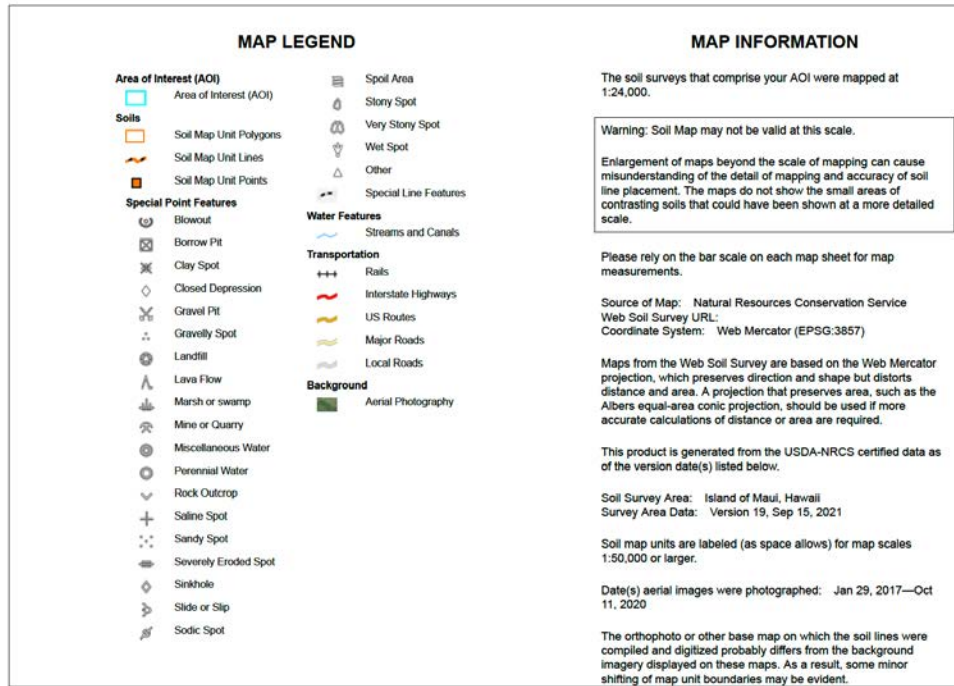


Source: USDA- NRCS 2022 Custom Soil Resource Report



Source: USDA- NRCS 2022 Custom Soil Resource Report

Custom Soil Resource Report



Source: USDA- NRCS 2022 Custom Soil Resource Report

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
IaA	IaA silty clay, 0 to 3 percent slopes, MLRA 163	0.9	6.1%
IcB	IcB clay, 3 to 7 percent slopes, MLRA 163	9.5	62.9%
PZUE	PZUE sand, 7 to 30 percent slopes	2.3	15.1%
WvB	WvB silty clay, 3 to 7 percent slopes, MLRA 163	2.4	15.9%
Totals for Area of Interest		15.1	100.0%

Source: USDA- NRCS 2022 Custom Soil Resource Report

The action will be located on TMK: (2) 3-2-12:005 and TMK: (2) 3-2-26: 051; the two (2) parcels contains four (4) soil types. Subject Parcel 051 has an existing remnant macademia nut orchard. The soil is comprised mainly of one (1) soil - lao clay, 3 to 7 percent slopes. Subject Parcel 005 is landscaped with the existing remnant macademia nut orchard, grass, vegetation (shrubs, flowers, vegetables) and aquaponic tanks. The soil is comprised of three (3) soils - lao silty clay, 0 to 3 percent slopes, lao clay, 3 to 7 percent slopes, and Puuone sand, 7 to 30 percent slopes.

laA - lao silty clay, 0 to 3 percent slopes

The soil type is found at elevation of one (100) hundred to five (500) hundred feet. The mean annual precipitation is twenty-five (25) to forty (40) inches. Mean annual air temperature is seventy-three (73) to seventy-five (75) degrees Fahrenheit. The Farmland classification is Prime farmland if irrigated. The landform setting is mountain slopes and alluvial fans. The typical profile is mostly clay with some silty clay. The soils is well drained. Runoff class is Low. The depth to a water table is more than eighty (80) inches. Frequency to flooding or ponding is none.

lcB - lao clay, 3 to 7 percent slope

The soil type is found at elevation of one (100) hundred to five (500) hundred feet. The mean annual precipitation is twenty-three (23) to thirty-six (36) inches. Mean annual air temperature is seventy-three (73) to seventy-five (75) degrees Fahrenheit. The Farmland classification is Prime farmland if irrigated. The landform setting is mountain slopes and alluvial fans. The typical profile is mostly clay with some silty clay. The soils is well drained. Runoff class is Medium. The depth to a water table is more than eighty (80) inches. Frequency to flooding or ponding is none.

PZUE - Puuone sand, 7 to 30 percent slopes

The soil type is found at elevation of fifty (50) to three-hundred fifty (350) feet. The mean annual precipitation is twenty (20) to thirty (30) feet. Mean annual air temperature is seventy-three (73) to seventy-five (75) degrees Fahrenheit. The Farmland classification is Not prime farmland. The landform setting of Puuone sand soils is Backslope. The typical profile is sand and cemented material. The soils is somewhat excessively drained. Runoff class is Medium. The depth to a water table is more than eighty (80) inches. Frequency to flooding or ponding is none.

The NRCS soil survey report highlighted the soil limitations affecting the Proposed Action and can be used to protect and enhance the environment.

6.1.10 BIOLOGICAL

Seabirds such as the endangered Hawaiian petrel (*Pterodroma sandwichensis*), the threatened Newell's shearwater (*Puffinus auricularis newelli*) and the endangered band-rumped storm-petrel (*Oceanodroma castro*) are listed on both federal and State of Hawaii endangered species statutes.

Threatened and endangered seabirds are included in the summary as they utilize terrestrial habitat on Maui and are not localized to a specific area; they may be harmed by common human activities and structures.

The endangered Hawaiian petrel populations are greatest on Maui however the endangered band-rumped storm-petrel and Newell's shearwater are in low densities throughout the island. Migratory seabirds such as White terns and Wedge-tail shearwaters have not been seen in the project site.

Hawaiian seabirds may traverse the project area at night during breeding, nesting and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, injury or mortality. Exterior lighting not shielded can disorient the seabirds and fledglings with exterior lighting in the summer and fall. Seabirds are attracted to light and after circling light may become exhausted and collide with manmade objects (wires, buildings, structures).

Downed seabirds are subject to increased mortality due to collision with automobiles. Starvation, predation by dogs and cats and other predators. Fledglings traversing the project area between September 15 to December 15 from the first flight from the nests to the sea are particularly vulnerable.

The endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) roosts in exotic and native woody vegetation across Maui. They may leave young unattended in trees and shrubs when they forage. They forage for insects from between three (3) feet to higher than 500 feet above ground. This is the only native land mammal in Hawaii. They are vulnerable to disturbance during the summer birthing and pup rearing season when mothers with pups may be unable to flee if the trees they are roosting in are cut or trimmed. The Hawaiian hoary bat is likely to be seen in the project area.

The Blackburn's sphinx moth (*Manduca blackburni*) is known to Maui island. It may be in the vicinity of the proposed project if a host native plant's nectar is present such as beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*), and maiapilo (*Capparis sandwichiana*). Moth eggs and larvae feed upon non-native tree tobacco (*Nicotiana glauca*) and native aiea (*Nothocestrum sp.*). The larvae burrow into the soil to pupate and can remain in a state of torpor for a year or more thus soil disturbance can result in death. The Blackburn's sphinx moth is likely to be seen in the project area.

The Hawaiian goose or Nene (*Branta sandvicensis*) are found on Maui. They prefer open areas such as pastures, golf courses, wetlands natural grasslands and shrublands, and lava flows. Threats to them are introduced mammalian and avian predators, wind facilities and vehicle strikes. The Hawaiian goose is likely to be seen in the project area.

Hawaiian waterbirds such as the Hawaiian stilt (*Himantopus mexicanus knudseni*), Hawaiian coot (*Fulica alai*) and Hawaiian duck (*Anas wyvilliana*) are found in fresh and brackish-water marshes and natural or man-made ponds. Hawaiian waterbirds are likely to be seen in the project area.

On October 2021, the United States Department of the Interior, Fish and Wildlife Service (FWS), Pacific Islands Fish and Wildlife Office (PIFWO) provided a Technical Assistance letter for the Proposed Action.

The list below identifies a list of Mammals, Birds, Anthropods, and Plants identified under the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 *et seq.*), as amended, threatened and/or endangered species that may occur in the vicinity of the project:

T - Threatened
E - Endangered

Mammals:

E - Hawaiian hoarybat/'ōpe'ape'a (*Lasiurus cinereus semotus*)

No Reptiles

Birds:

E - Hawaiian duck/koloa (*Anas wyvilliana*)

T - Hawaiian goose/nēnē (*Branta sandvicensis*)

E - Hawaiian coot/'alae ke'oke'o (*Fulica alai*)

E - Hawaiian stilt/ae'o (*Himantopus mexicanus knudseni*)

E - band-rumped storm-petrel/Hawai'i DPS/'akē'akē (*Oceanodroma castro*)

E - Hawaiian petrel/'ua'u (*Pterodroma sandwichensis*)

T - Newell's shearwater/'a'o (*Puffinus auricularis newelli*)

Arthropods:

E - Blackburn's sphinx moth (*Manduca blackburni*)

Plants:

E - dwarf naupaka (*Scaevola coriacea*)

Because of the lack of native ecosystems or threatened or endangered terrestrial species on the project site, the Proposed Action would have no adverse impacts to native vegetation or habitat.

The following avoidance measures will be instituted in order to minimize the potential impacts to the Hawaiian hoary bats, Hawaiian seabirds, Hawaiian goose and Blackburn's sphinx moth for the Proposed Action:

- o Seabirds - Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
- o Seabirds – avoid nighttime construction during seabird fledging period (September 15 through December 15).
- o Seabirds – if fencing is utilized three (3) strands of polytape will be integrated into the fence to increase visibility.
- o Seabird – survey the project site during the Wedge-tailed shearwater breeding season (march through November) to determine if littoral vegetation contain nests.
- o Bat - No clearing of woody vegetation taller than fifteen (15) feet during the bat birthing and pup rearing season (June 1 through September 15).
- o Bat – avoid utilizing barbed wire fencing.
- o Any additional lighting will conform to the Maui County Outdoor Lighting Ordinance to reduce the risk to seabirds bring attracted then disoriented by the light.
- o Moth – a biologist will survey the area for the Blackburn sphinx moth and the potential for larval host plants prior to work imitation.
- o Moth – surveys for eggs, larvae and larvae feeding will take place during the wet season (November through April) or several weeks after a significant rain and within 4-6 weeks prior to construction.
- o Moths – inhibit the growth and remove any non-native tobacco tree(s) if located.
- o Moth – if moths or the native aira or non-native tobacco tree over three feet is found the USFW will be contacted for additional guidance.
- o Goose – A biologist will survey the project area twice if Nene are found loafing or foraging within the project area during the feeding season (September through April) to look for nene nests. Nene will not be approached, fed or disturbed.
- o Goose – The USFW will be contacted if a nest is discovered within 150 feet of the project site.

6.1.11 MAKAMAE NATIVES REPORT

On February 2022, Makamae Natives LLC conducted a site visit to view the current agricultural uses and reintroduction of native plants. Several natives and ethnobotanical plants were seen including Kalo, Aalii, Koa'ai, and Pua kala. In addition non-native agriculture were noted including Avocado, Citrus tree species, Eggplant, Mango, Macadamia nut and Tomato.

The ETHNOBOTANICAL AND AGRICULTURE SUGGESTIONS FOR THE HOMESTEAD COMMUNITY OF WAIEHU KOU 3 Report created recommendations for:

- o Hawaiian plant species (non-agricultural and non-medicinal) that considers xeriscaping and restoration of native plant community,
- o native ethnobotanical species for project area, and
- o agricultural sustainable plants that consider xeriscaping (landscape an area in a style which requires little or no irrigation), soil types and limited nutrient introductions.

HAWAIIAN NATIVE PLANTS FOR RESTORATION

The recommended native plants represent a natural ecosystem for the area of Waiehu Kou 3's soil types. Most of the plants can be used to retore the Puuone sand area of the project area (refer Soil Map), as this is the least desirable area for agriculture crops.

Native plants are adaptive to the high drainage soil, limited nutrients, and slope. The ground cover natives: Hinahina, 'Ilima papa, Dwarf naupaka, Naupaka kahakai, Ohai, and Pohinahina could be useful in reducing slope collapse into the agriculture cultivated areas, erosion control and reducing moisture from leaving the soils. Shrub species: 'Aalii, Akia, Koaia, Kokio ula, Kooloa 'ula, and Mau hau hele should be planted interspersed between the groundcovers. These shrub species can also act as erosion control, provide seasonal flower blooms, and shade for groundcover. Tree species Kou, Naio, and Ohia Lehua are excellent shade trees and do not require much water after establishment. The moisture held in to the sandy Puuone soil by the ground cover and shrubs will nurture these trees once they have taken to the soil.

Listing of Hawaiian native plants for restoration considerations

SCIENTIFIC NAME	HAWAIIAN NAME	STATUS
<i>Abutilon menziesii</i>	Kooloa 'ula	Threaten
<i>Acacia koaia</i>	Koaia	Least Concern
<i>Cordia subcordata</i>	Kou	Least Concern
<i>Dodoneae viscosa</i>	Aalii	Least Concern
<i>Hibiscus brackenridgei</i>	Mau hau mele	Endangered
<i>Hibiscus clayi</i>	Kokio ula	Endangered
<i>Heliotropium anomalum</i>	Hinahina	Least Concern
<i>Metrosideros spp.</i>	'Ohi'a lehua	Threaten
<i>Myoporum sandwicense</i>	Naio	Least Concern
<i>Scaevola coriacea</i>	Dwarf naupaka	Threaten
<i>Scaevola taccada</i>	Naupaka kahakai	Least Concern
<i>Sesbania tomentosa</i>	Ohai	Endangered
<i>Sida fallax</i>	'Ilima papa	Least Concern
<i>Vitex rotundifolia</i>	Pōhinahina	Least Concern
<i>Wikstromia uva-ursi</i>	Akia	Least Concern

Source: Makamae Natives LLC Report February 2022

HAWAIIAN ETHNOBOTANICAL PLANT RECOMMENDATIONS

Recommended ethnobotanical plants can be integrated into the agricultural plan of the Waiehu Kou 3 project area. Ethnobotanical plants such as 'Awa, Kalo (dependent on variety used), Mai'a (dependent on variety used), Makamki, Olena, and Ulu (dependent on variety used) will need to be within proximity to a water source. Root crops: 'Uala and Uhi may be planted between orchard rows of the established Macadamia nut trees in the lao clay soil, it is recommended that turning of the soil occur before 'Uala and Uhi are planted, possibly with a pig tractor. All other Ethnobotanical crops do not have soil or irrigation restrictions.

Medicinal ethnobotanical plants can be used externally or internally to treat many common illness: 'Awa (for the treatment of muscle pain, as a sedative, sore throat, and rheumatism), Kukui (for the treatment of constipation, wounds, infections, eczema, sore throat, and arthritis), Mamaki (for the treatment of thrush, healing sores, constipation, and stress), Noni (for the treatment of boils, constipation, head lice, kidney problems, high blood pressure, diabetes, kidney and bowel problems), Olena (for the treatment of muscle pains, ear aches, nasal congestion, and mouth ulcers), and Pua kala (for the treatment of tooth aches, ulcers and as a topical anesthetic).

List of Hawaiian ethnobotanical plants for consideration

SCIENTIFIC NAME	COMMON NAME	USE
<i>Aleurites moluccana</i>	Kukui	Medicinal
<i>Argemone glauca</i>	Pua kala	Medicinal
<i>Artocarpus altilis</i>	Ulu, Breadfruit	Food crop
<i>Broussonetia papyrifera</i>	Wauke	Fiber, Bark cloth
<i>Colocasia esculenta</i>	Kalo, Taro	Food crop
<i>Cordyline fruticosa</i>	Ki, Ti	Fiber
<i>Curcuma longa</i>	Olena, Turmeric	Medicinal, Dye
<i>Dioscorea alata</i>	Uhi, Yam	Food Crop
<i>Eugenia malaccensis</i>	'Ohi'a 'ai, Mountain apple	Food crop
<i>Ipomea batatas</i>	'Uala, Sweet Potato	Food crop
<i>Morinda citrifolia</i>	Noni	Medicinal, Food crop
<i>Musa acuminata</i> var.	Mai'a, Banana	Food crop
<i>Piper methysticum</i>	'Awa, Kava	Medicinal
<i>Pipturus</i> spp.	Mamaki	Medicinal
<i>Saccharum officinarum</i>	Ko, Sugarcane	Food crop

Source: Makamae Natives LLC Report February 2022

RECOMMENDED AGRICULTURAL FLORA

The recommended agricultural plants with irrigation may be cultivated in all clay type soil from the soil report. It is recommended that herb crops (chives, cilantro, green onion, lemon grass, oregano, parsley, rosemary, sage, and thyme) be planted in the proposed raised garden area. Row crops (beets, cabbage, carrots,

eggplants, garden peas, kale, lettuce, pole beans, squash, and tomato) should be planted within 50% shaded areas of the agriculture plan, or within raised gardens. Recommended row crops could include into a rotational crop system enhancing the soil's nutrients and microbe community, for example nitrogen fixing crops such as pole beans or garden pea (*Leguminosae*) in a rotational crop system after 1 year can be cut as cover crop for the planting of Brassica species such as kale or cabbage.

Tree recommendation can be planted on edges or in rows within the sustainable agriculture plots, as soil moisture retention and shade for row crops. Large trees create a canopy that reduces water loss from surface watering. The lao clay with the 0-3 slope seems to be the best at water absorption, it is recommended that tree crops be planted mostly within this area of the sustainable agriculture landscape plan. More dry condition tolerant plants (avocado, citrus tree species, dragon fruit, kalamansi, mango and papaya).

Listing of Agricultural Flora for consideration	
SCIENTIFIC NAME	COMMON NAME
<i>Allium fistulosum</i>	Green onion
<i>Allium schoenoprasum</i>	Chives
<i>Annona muricata</i>	Soursop
<i>Beta vulgaris</i>	Beet
<i>Brassica sp.</i>	Cabbage, Kale, Lettuce
<i>Carica papaya</i>	Papaya
<i>Citrofortunella microcarpa</i>	Kalamansi
<i>Citrus sp.</i>	Citrus tree species
<i>Coriandrum sativum</i>	Cilantro
<i>Cucurbita sp.</i>	Squash
<i>Cymbopogon citratus</i>	Lemon grass
<i>Daucus carota subsp. sativus</i>	Carrot
<i>Hylocereus undatus</i>	Dragon fruit, Pitahaya
<i>Laurus nobilis</i>	Bay Leaf
<i>Mangifera idica</i>	Mango
<i>Mentha sp.</i>	Mint
<i>Ocimum sp.</i>	Basil
<i>Origanum sp.</i>	Oregano
<i>Persea americana</i>	Avocado
<i>Petroselinum crispum</i>	Parsley
<i>Phaseolus sp.</i>	Pole beans
<i>Pisum sativum</i>	Garden pea
<i>Rosmarinus officinalis</i>	Rosemary
<i>Salvia officinalis</i>	Sage
<i>Solanum lycopersicum</i>	Tomato
<i>Solanum melongena</i>	Eggplant
<i>Thymus vulgaris</i>	Thyme

Source: Makamae Natives LLC Report February 2022



Source: <https://www.nature-squared.org/pig-tractor-allows-pig-farming-to-travel-through-the-countryside/>

The introduction of a pig tractor or a mobile pig pen system to be located within the area of the established macadamia nut grove the system would be beneficial using the natural rooting behavior of pigs to till the soil and their leaving to fertilize for future planting.

It is recommended that pig tractoring be tested in the first 5 rows of cleared macadamia nut rows before expanding the operation to the rest of the grove. Beginning in a small area of known tree count and area size will allow the WK3 to gauge the ability of the pig tractor system to clear under the macadamia grove for planting of crops. A similar system could use chickens in the raised garden beds.

PART 7. CONSISTENCY WITH GOVERNMENT PLANS AND POLICIES

7.1 HAWAII STATE PLAN

The Hawaii State Plan serves as a guide for the future long range development of Hawaii. Pursuant to Hawaii Revised Statutes, Chapter 226 the Hawaii State Planning Act (1978) sets forth the Hawaii State Plan which is a long-range comprehensive plan. The overall themes of the plan are - individual and family self-sufficiency, social and economic mobility and community or social well-being which drive the theme, goals, objectives, policies, priority guidelines, and implementation.

The proposed action is in line with the Hawaii State Plan's goals and there are no adverse environmental or social impacts. It promotes the WK3 ability to pursue the Proposed Action and not affect the general welfare of society. Corollary to self-sufficiency is the ability to choose social and economic fulfillment, quality-of-life, and community and social well-being.

7.2 STATE FUNCTIONAL PLANS

The Hawaii State Plan establishes a statewide planning system to coordinate and guide all major state and county activities. The system implements the state plan through the development of functional plans and county general plans.

Pursuant to HRS, Chapter 226 there are thirteen (13) functional plans; each functional plan has been developed by the state agency responsible for their particular area. Each plan identifies statewide priority concerns, defines current strategies for each functional area, identifies major relationships among functional areas, provides direction and strategies for departmental policies, programs and priorities, provides an allocation of resources, and coordinates state and county roles and responsibilities in the implementation of the Hawaii State Plan.

Department of Agriculture:

Agriculture Functional Plan (1991)

Department of Business, Economic Development and Tourism:

Tourism State Functional Plan (1991)

Energy State Functional Plan (1991)

Department of Education:

Education State Functional Plan (1989)

Department of Labor and Industrial Relations:

Employment State Functional Plan (1990)

Department of Health:
Health State Functional Plan (1989)

Hawaii Housing Finance and Development Corporation:
Housing State Functional Plan (1989, 2017)

Department of Human Services:
Human Services State Functional Plan (1989)

Department of Land and Natural Resources:
Conservation Lands State Functional Plan (1991)
Historic Preservation State Functional Plan (1991)
Recreation State Functional Plan (1991)

Department of Transportation:
Transportation State Functional Plan (1991)

University of Hawaii:
Higher Education Functional Plan (1984)

The 1991 Department of Agriculture, Agriculture Functional Plan has yet to be updated by the department. The plan identified agriculture was once the centerpiece of the island economy. Pressure existed in 1991 to place agricultural land, water and human resources into other Hawaii sectors. Global markets have increased pressure on the agricultural industry. The plan committed to assisting the agricultural industries with serves to farmers, increase efforts to manage pests and crop disease and to protect Hawaii's land and water resources.

In 2022, the Hawaii State Legislature, 31st Legislature introduced House Bill 1346 HD1 which required the department to coordinate with the Office of Planning and Sustainability to update the agricultural functional plan and include wild seafood as a viable food source; the bill was carried over to the 2022 Regular Session.

The Agriculture Functional Plan's two (2) objectives are: 1) continued viability in Hawaii's sugar and pineapple industries, and 2) continued growth and development of diversified agriculture throughout Hawaii. Located on the project area is the remnant macadamia nut orchard which if utilized correctly will meet the last objective. In line with the last objective is the proposed action for a WK3 community garden.

The Department of Land and Natural Resources (DLNR), Historic Preservation State Functional Plan identifies the preservation of historic properties, records, artifacts and oral histories and provides the public with information/education on the ethnic and cultural heritages and history of Hawaii. Historic sites that requires consultation with the WK3 and the DLNR, SHPD.

The project site does not provide direct public access to the ocean. However lateral public access from other properties is accessible. Recognized in the DLNR, Recreational State and Functional Plan is managing the use of recreational resources. The Proposed Action will not hinder ocean and shoreline recreation and public access to the shoreline can continue will. The Proposed Action does not affect the majority of the functional plans policies, statewide guidelines and priorities.

7.3 HAWAII STATE LAND USE LAW

Pursuant to Hawaii Revised Statutes (HRS), Chapter 205 and 205-2 the State Land Use Law was adopted by the Hawaii State Legislature in 1961. The Land Use Law established an overall framework of land use management where all lands were classified as Agriculture, Conservation, Rural and Urban.

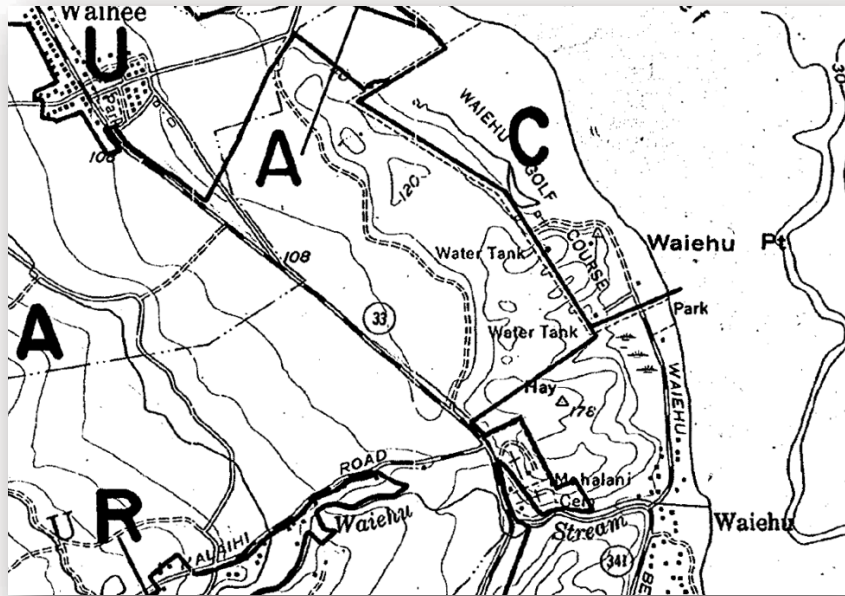
These land use categories were to protect the land from short-term gain for the few which would result in long-term loss to the income and growth of Hawaii's economy via reduced public services and the conversion of prime agricultural lands to residential use. The Land Use Commission is responsible for preserving and protecting Hawaii's land(s) and encouraging land uses.

The promulgated rules identify the Land Use Commission duties and abilities pursuant to the Hawaii Administrative Rules (HAR), Title 15, Chapter 15, titled "Land Use Commission Rules," identify the permissible land uses in Section 15-15-23 and Section 15-15-25 respectively. According to the State Land Use Commission the two (2) parcels for the WK3 community garden are located in the State Land Use Agricultural District.

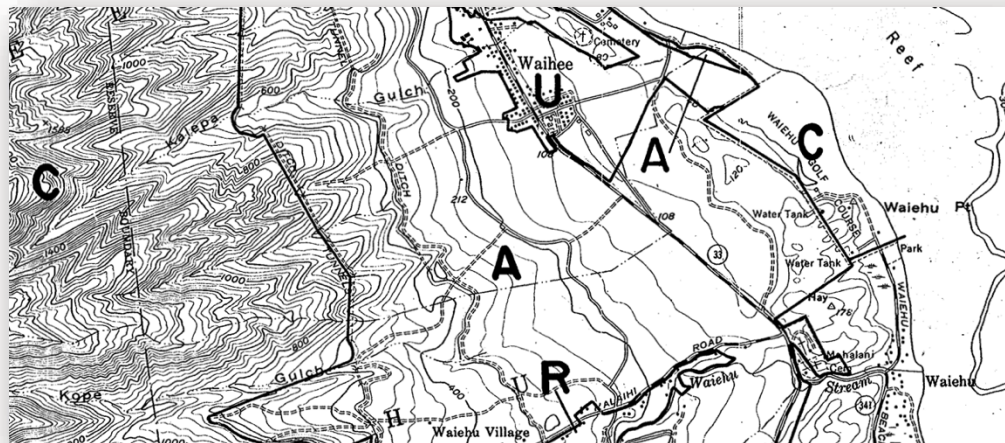
The Proposed Action is consistent with intended uses for the State Land Use Agricultural District.

7.4 STATE LAND USE AGRICULTURAL DISTRICT

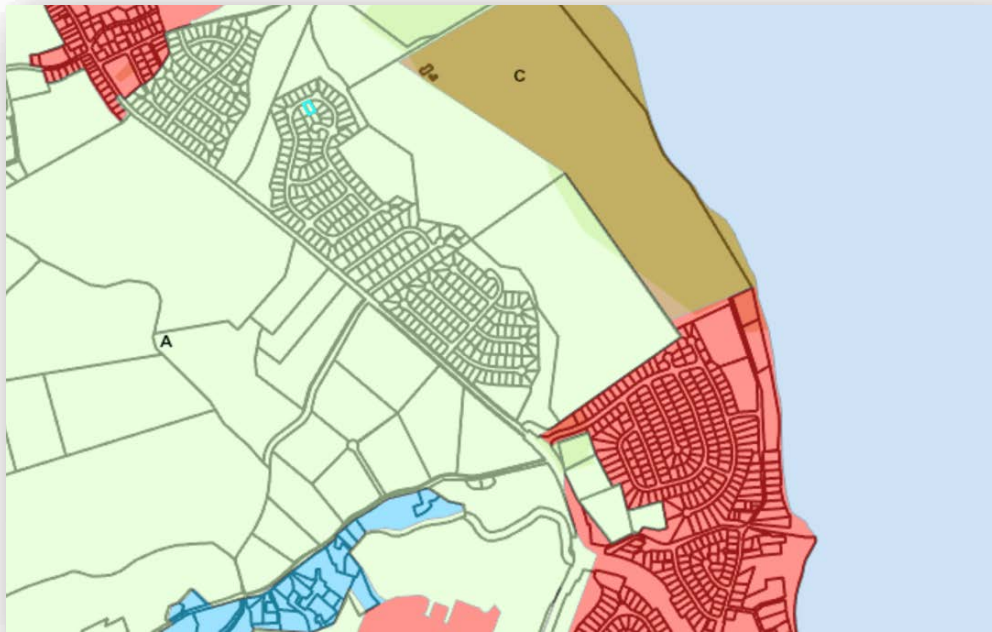
The proposed action is consistent with intended uses for the State Land Use Agricultural District.



Source: State Land Use Commission website



Source: State Land Use Commission website



Source: Maui County Real Property Assessment Division website

The Proposed Action is in line with the Agricultural District land uses. Past uses of the land were former pineapple and sugarcane lands and now consists of a remnant macadamia nut orchard farm is a product of past agriculture.

Future land uses may be agroforestry, coffee and macadamia nut farms and diversified agriculture - flowers, nursery products, vegetables, melons, cattle, milk, fruits, poultry, forage, grain, forest products, hogs, coffee, taro and livestock are encouraged.

7.5 MAUI COUNTY ZONING AND PROPERTY DESIGNATIONS

The Maui County, Planning Department - Zoning Administration and Enforcement Division (ZAED) form gave the following information:

Tax Map Key: (2) 3-2-12:005 is zoned State Land Use Agricultural District. The Maui Island Plan Growth Boundary is Urban and Outside Protected Areas. The Community Plan is Agriculture and Open Space. County Zoning is Agriculture and Interim. Flood Hazard Zones and Base Elevations: ZONES X, XS, AE (45'-60'). It is located in the Special Management Area.

Tax Map Key: (2) 3-2-26: Parcel 51 is zoned State Land Use Agricultural District. Maui Island Plan Growth Boundary is Urban and Outside Protected Areas. The Community Plan Project District 4 (WAIHEE) and Open Space. County Zoning

WK-PD4 (Conditonal) Ord. 2201. Flood Hazard Zones and Base Elevations: ZONES X, XS, AE (36'-70') and AEF (36'-93'). It is located in the Special Management Area.

7.6 COUNTYWIDE POLICY PLAN, MAUI ISLAND PLAN AND WAILUKU-KAHULUI COMMUNITY PLAN

The Maui County Charter indicated the purpose of the general plan shall:

... indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density; land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development."

The Maui County Code, Chapter 2.80B relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a Maui Island Plan.

2010 COUNTYWIDE POLICY PLAN

The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010. The 2010 Countywide Policy Plan provided board goals, objectives, policies and implementing actions that portray the desired direction of the County's future.

The Countywide Plan provided the policy framework for the Maui Island Plan and the nine (9) community plans; the project site's location is located in the Wailuku-Kahului Community Plan region. Three (3) broad policies and objectives are included in the plan: vision for the County, statement of core themes and principles for the County, and a list of countywide objectives and policies for population, land use, the environment, the economy and housing.

Ten (10) core principles included: excellence in the stewardship of the natural environment and cultural resources, compassion for and understanding of others, respect for diversity, engagement and empowerment of Maui County residents, honor for all cultural traditions and histories, consideration for past generations as well as the needs of future generations, commitment to self-sufficiency, wisdom and balance in decision making, thoughtful island appropriate innovation and nurturance of the health and well-being of our families and our communities.

The following goals, objectives, policies and implementing actions are illustrative of the project's compliance with the Countywide Policy Plan.

The Proposed Action will preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources. The Proposed Action will adhere to Maui County codes. Construction BMPs will be utilized during construction to preserve the terrestrial and marine flora and fauna. No endangered and threatened species occur on the project site however BMPs address critical habitat protections.

The Proposed Action will not create housing opportunities but it will create outdoor, open space for the WK3 to gather who live in the community.

The Proposed Action will increase Native Hawaiian culture and traditions.

The Proposed Action will not create short term effects but long term has the ability to generate revenue to Maui County with the potential plant product sales.

The Proposed Project is located on lands with the appropriate underlying land use designations as the Project Site is located within the Growth Boundary identified as Urban and a Protected Area identified as Outside Protected Areas as designated in the Maui Island Plan and is identified on lands suitable for development and use. The Proposed Action has been sited appropriately for the WK3.

The following goals, objectives, policies and implementing actions are non-applicable to the Countywide Policy Plan: Education, Good governance, Parks and public facilities, Physical infrastructure, Social and healthcare services and Transportation options.

2012 MAUI ISLAND PLAN

The Maui Island Plan delineates areas for future urban and rural growth as part of a Directed Growth Strategy and was adopted as Ordinance No. 4004 on December 28, 2012.

The 2012 Maui Island Plan is applicable only to the island of Maui. It established urban and rural growth areas where development is intended and will be supported. Identified growth areas will provide for less costly services, reduced commuting, protection of community character and agriculture, open space and cultural and natural resources preservation. It is specific to policy based strategies for population, land use, transportation, public and community facilities, water and wastewater systems, visitor destinations, urban design and the future growth. The directed growth plan provides a management framework for future fiscal, environmental and growth.

The proposed project is located in the Growth Boundary identified as Urban and a Protected Area identified as Outside Protected Areas. It is consistent with the directed growth strategy defined via growth maps adopted in the Maui Island Plan.

Heritage Resources: The DLNR has not returned any phone calls and/or emails during the Draft stage.

WAILUKU-KAHULUI COMMUNITY PLAN 2002

The Wailuku-Kahului Community Plan is twenty-two (22) years old as it was last approved by the Maui County Council in 2002. The plan identified requirements by Maui County, land use, socioeconomic, infrastructure and facilities assessments locally and regionally. It recognizes the historic values and significance of the plan area's cultural significance and proposes recommendations.

The plan recognizes the Wailuku-Kahului region encompasses the business and civic centers, Maui Community College, War Memorial Center, community theatres, sports facilities and parks, the major seaport and airport, and the surrounding agricultural lands of Central Maui. Residential development is recognized in the urban areas of Waihee, Waikapu and Puunene. More importantly, the rich of the Wailuku-Kahului area has housed historically significant population evidenced by remnant 'auwai and lo'i, archeological reports, and heiau (Haleki'i, Pi'ihana) and koa.

The problems recognized in the report with infrastructure (public facilities), roadway and transportation access for all users (vehicle, pedestrian, bicycle), littering, care for keiki and kupuna, recreational facilities, housing and water.

The Proposed Action meets the goal to support agriculture production. The proposed goal will contribute to the economy if commercial uses are monetized, and support the establishment of an agricultural park for piggery operations and other diversified agricultural operations. There is no work proposed for the existing archeological sites on the subject parcels. The Proposed Action is in line with minimizing police and fire services due to the potential for fire in the remnant macadamia nut orchard farm. The Proposed Action is in line with the land use goal; adequate available land(s) will support the regions agricultural activities. The Proposed Action is not located in a drainage basin but adjacent to it; having a rainwater and/or organic community garden will have the potential to re-charge the aquifer.

7.7 SPECIAL MANAGEMENT AREA



Source: Maui County Real Property Assessment Division

Maui County's Department of Planning/Maui Planning Commission is the designated agency with regulatory authority over development landward of the shoreline within the Special Management Area (SMA), pursuant to Hawaii Revised Statutes (HRS) Chapter 205A.

The HRS Chapter 205A Coastal Zone Management objectives and policies are aimed at minimizing negative and potentially adverse impacts and to preserve, protect and restore the natural resource(s) of the Coastal Zone of Hawaii where possible regarding recreational, historical, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach and coastal dune protection and marine and coastal resources

Since 1975, pursuant to Hawaii Revised Statutes (HRS), Chapter 205A, the Coastal Zone Management (CZM) law addresses the Coastal Zone and the effective management, beneficial use, protection and its development.

In 1975, the Special Management Area permit was established through Act 176 - the Shoreline Protection Act which stated special controls on development were necessary along the shoreline to avoid the permanent losses of valuable resources, the foreclosure of management options, access to public-owned beaches, recreation areas and natural reserves. It is the State of Hawaii's policy to protect, preserve and restore the natural resources of the coastal zone of Hawaii.

Pursuant to Hawaii Revised Statutes (HRS), Chapter 205A-5 Maui County shall enforce the CZM objectives and policies pursuant to HRS, Section 205A-2. The

community development plans, zoning designations and county general plans regulate land use(s).

Maui County administers the SMA permits and shoreline setback provisions to address land use issues in proximity to the shoreline. The Maui County Planning Commission is the permit approver. The Project Area - TMK's: (2) 3-002-012:005 and (2) 3-002-026:051 are located in the SMA. Proposed and/or current land uses should be discussed with Maui County.

7.8 HAWAII 2050 SUSTAINABILITY PLAN

The State of Hawaii, Department of Business, Economic Development and Tourism, Office of Planning and Sustainable Development (formerly the Office of Planning, Statewide Sustainability Program) produced the Hawaii 2050 Sustainability Plan.

The updated plan serves as the state's sustainability and climate strategic action plan. It recommends sustainability and climate change actions for 2020-2030 and aligns itself with the United Nations Sustainable Development Goals. Pursuant to Hawaii Revised Statutes, Section 226-65, the revised plan will guide the coordination and implementation of Hawaii's sustainability and climate adaptation goals, principles, and policies.

There are eight (8) Focus Areas Recommended for 2020 - 2030:

- Promote a Sustainable Economic Recovery:

 - through strategies that support local agriculture, green workforce development and education, and regenerative and sustainable tourism.

- Reduce Greenhouse Gas Emissions:

 - by continuing to monitor the state's emissions and reduce greenhouse gas emissions through strategies in the energy, transportation and waste sectors.

- Improve Climate Resilience:

 - by continuing to monitor and adapt to climate impacts and take actions to increase the resilience of the natural and built environments and their occupants.

- Advance Sustainable Communities:

 - through strategies that improve land use and access to green space, advance sustainable practices in schools, and encourage sustainable buildings and infrastructure.

- Advance Equity:

 - by ensuring equitable access to resources, addressing affordable housing and homeless crises, and improving gender equity.

- Institutionalize Sustainability Throughout Government:

by increasing the government's capacity through institutionalized collaboration to address sustainability and greening government operations.

Preserve the Natural Environment:

by including a focus on clean water, marine resources and ecosystems, and natural resource protection.

Perpetuate Traditional Ecological Knowledge and Values:

Throughout Hawaii as the state tackles sustainability and climate challenges.

7.9 WAIEHU MAKĀ'ALA PROJECT

The WAIEHU MAKĀ'ALA PROJECT: A Vision of a Resilient Hawaiian Community in Light of Climate Change report noted the object was to to create a resilient Native Hawaiian community in light of climate change.

"A community that has the ability to makaala, to see the path(s) that lay ahead and to have the capacity to effectively deal with crisis as it may occur...we envision a resilient Hawaiian community to be one that has access to the basic means of production, namely land, water and a source of energy while maintaining a low carbon footprint. This includes the established right to access and exercise traditional and customary practices in balance with use of modern technology."

The report identified the community garden and working with the DHHL. The community garden will improve food security for the neighborhood, create a fire-wise program to reduce fuel loads, increase food production, and contribute to a reduction on dependence for imported goods.

The Waiehu Makā'ala Project was a community-based adaptive planning effort that aimed to understand the effects of Climate Change in Waiehu. Past, current and anticipated changes in climate will strengthen strategies to deal with the changes and tools and a working document will be used to guide the Waiehu community to engage in policy initiatives, programs, and projects to lead the community to a more resilient future. Participants had two (2) goals: 1) build the intellectual, social and organizational capacity of the Native Hawaiian community by engaging participants in adaptation planning, and 2) develop a community adaptation plan.

The target audience was the Waiehu - Waihee area residents of 700 households or 3,000 people. One (1) general flyer and (3) flyer updates were distributed to the community, as well as community bulletin board usage, Akaku production, community association meetings, social events, email, social media, website and

also the You Tube channel Waiehu Makaala Project. Three (3) separate workshops were held in Waihee town. Workshop follow up was done in the form of guided hikes based on the three (3) themes of kuahiwi, aina, and kahakai focused on three (3) different geographic areas. State, federal, and county as well as reports, books, and map resources were used that engage in Climate Change.

The community was encouraged to STOP, LOOK, and LISTEN; recognize what is happening before it is too late. The

"awareness of our connection/relationship to the land and sea and all the elements within and between those two great beings that shape who we are as people. It is the ongoing practice of keen observation and having a clear understanding of the elements within ecosystems and how by improving our knowledge of and access to these elements that will sustain the values we share as a Native Hawaiian community."

The Waihee-Waiehu Kou's awareness to the effects of Climate Change will help Native Hawaiian in the face of rising sea level rise, coastal flooding, increased air and surface temperatures, ocean acidification, drought, and increased rain events and help the community to plan accordingly.

PART 8. HAWAIIAN HOMES COMMISSION ACT & DEPARTMENT OF HAWAIIAN HOME LANDS

8.1 HAWAIIAN HOMES COMMISSION ACT (HHCA)

In 1921, President Harding signed into law the Hawaiian Homes Commission Act, 1920 as amended (chapter 42, 42 Stat.108). The effort was spearheaded by Prince Jonah Kūhiō Kalanianaʻole and advocates of the act. Prince Kūhiō noted, "after extensive investigation and survey on the part of various organizations organized to rehabilitate the Hawaiian race, it was found that the only method in which to rehabilitate the race was to place them back upon the soil."

The Hawaiian Homes Commission Act returned Native Hawaiians with 50% Hawaiian blood on ~200,000 acres of leased land so they could become self-sufficient. The Act also included financial assistance through direct or loan guarantees for home construction (replacement, repair), development of farms and ranches, technical assistance (farmers, ranchers) and water system(s) operations.

8.2 HAWAIIAN HOMES COMMISSION

Hawaiian Homes Commission members be Hawaii residents for three (3) years. Four (4) members must have not less than one-fourth Hawaiian blood. Pursuant to Section 202 of the Hawaiian Homes Commission Act the administrator of the DHHL is Chairman of the Commission. The nine (9) commission members are appointed by the Governor and Senate. The ratio of the members is the Commissioner, City and County of Honolulu (3); County of Maui (2), County of Hawaii (2), and County of Kauai (1).

8.3 DEPARTMENT OF HAWAIIAN HOME LANDS (DHHL)

The DHHL serves the beneficiaries and manages ~ 200,000 acres on the islands of Hawaiʻi, Maui, Molokai, Lanai, Oahu, and Kauai. Beneficiaries may receive 99-year homestead leases at \$1.00 per year for residential, agricultural, or pastoral purposes. These leases may be extended for an aggregate term not to exceed 199 years. Beneficiaries may receive financial assistance through direct loans, insured loans, or loan guarantees for home purchase, construction, home replacement, or repair. Aquacultural leases have not been awarded.

The DHHL is governed by the 1920 Hawaiian Homes Commission Act. The Act was incorporated as a provision in the State Constitution in 1959 when Hawaii was granted statehood. Responsibility was then transferred to the State. To amend the law consent is required by Congress.

DHHL also leases trust lands not in homestead (land) use at market value. Revocable permits, licenses, and rights-of-entry are issued and the income from the enterprises supplements the DHHL.

The DHHL has three (3) main goals to ensure the Hawaiian Home Lands Trust is moving forward to serve the beneficiaries. They are: 1) reaffirm and assert the Trust status, 2) ensure the financial well-being of the Trust, 3) provide excellent customer service, and 4) deliver diverse homesteading opportunities.

8.4 DHHL EXEMPTION LISTS - 1992, 2015 and 2021

The former Department of Health (DOH), Office of Environmental Quality Control (OEQC), which housed the State Environmental Council (EC) was transferred and renamed via Act 152 by the Hawaii Governor's signature on July 1, 2021. The former OEQC is known as the Office of Planning and Sustainable Development, Environmental Review Program (ERP). Both former and current programs accept the state and county updated and/or proposed Exemption List(s). The ERP send the lists to EC's Exemption Committee to review and gather public comments via The Environmental Notice and agendaizes the item to be heard by the EC for concurrence.

The Feasibility Study analyzed the State of Hawaii, Department of Hawaiian Home Lands April 6, 2021 exemption list which covers the department's following eight (8) divisions and offices: 1) Office of the Chairperson (OCH), 2) Planning Office (PO), 3) Administrative Services Office (ASO), 4) Fiscal Office (FO), 5) Information and Community Relations (ICRO), 6) Homestead Services Division (HSD), 7) Land Development Division (LDD) and 8) Land Management Division (LMD).

The March 2, 2021 Exemption Committee draft meeting minutes indicated the initial list had been provided to the Chair in mid-December 2020. DHHL responded and reorganized the list in January 2021 after review. As the DHHL engaged in many activities the list was comprehensive and extensive. A motion was made to advance to the EAC which released the list for public comment in The Environmental Notice. The DHHL submitted February 3, 2021 list was published in the TEN on March 8, 2021; the 15-day comment period was until March 23, 2021. No comments were received.

On April 6, 2021, the DHHL exemption list was concurred upon by the EAC.

The Feasibility Study notes the DHHL considered activities listed in Part 1: De Minimis Activities to be routine and ordinary functions within the DHHL's jurisdiction. These activities do not have the potential to individually or cumulatively adversely affect the environment more than negligibly. Part 1 activities are exempt from the preparation of an EA and the requirements of HAR Section 11-200.1-17 because the activities are considered de minimis.

8.5 DHHL EXEMPTION AND DEMINIMUS

The Feasibility Study notes the DHHL list was concurred upon by the Environmental Council.

Community Gardens are identified on the DHHL Exemption List under Type 4 - Minor alteration in the conditions of land, water, or vegetation.

Number # 3 identifies Community Gardens:

"landscaping alongside roadways, around buildings, and within existing parks and community use areas, including, but not limited to, planting of groundcover, grass, shrubs, and trees, sodding of bare areas for dust and erosion control, and installation of **community gardens**, involving minimal or no grading."

Type 4. Minor alteration in the conditions of land, water, or vegetation.

1. Removal and/or cutting of trees that are burned, destroyed or diseased, or otherwise endanger life or property
2. Removal of gravel, rocks, trees (non-endangered species) and/or other materials necessary to make agricultural lands more productive and useful for grazing, farming and other related agricultural purposes
3. Landscaping alongside roadways, around buildings, and within existing parks and community use areas, including, but not limited to, planting of groundcover, grass, shrubs, and trees, sodding of bare areas for dust and erosion control, and installation of community gardens, involving minimal or no grading

Source: April 4, 2021 DHHL concurred list by Environmental Council

Chapter 343, Hawaii Revised Statutes (HRS) authorized the Environmental Council "to establish procedures to exempt specific types of actions from the need to prepare an environmental assessment because the actions will have minimal or no significant effect in the environment¹."

The DHHL, will need to determine through analysis and "its judgement and experience, that a proposed action will individually and cumulatively probably have minimal or no significant effects, and the action is one that is eligible for exemption under Hawaii Administrative Rules (HAR) 11-200.1, subchapter 8, DHHL, may prepare an exemption notice in accordance with subchapter 8. An action shall be determined to have a significant effect on the environment and will not be exempt, if it may:

¹ http://oeqc2.doh.hawaii.gov/Agency_Exemption_Lists/State-Department-of-Hawaiian-Home-Lands-Exemption-List-2021-04-06.pdf#search=dhhl

- 1) Irrevocably commit a natural, cultural, or historic resource;
- 2) Curtail the range of beneficial uses of the environment;
- 3) Conflict with the State's environmental policies or long-term environmental goals established by law;
- 4) Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and state;
- 5) Have a substantial adverse effect on public health;
- 6) Involve adverse secondary impacts, such as population changes or effects on public facilities;
- 7) Involve a substantial degradation of environmental quality;
- 8) Be individually limited but cumulatively have substantial adverse effect upon the environment or involves a commitment for larger actions;
- 9) Have a substantial adverse effect on a rare, threatened, or endangered species, or its habitat;
- 10) Have a substantial adverse effect on air or water quality or ambient noise levels;
- 11) Have a substantial adverse effect on or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach ,eorison-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
- 12) Have a substantial adverse effect on scenic vistas and view planes, during day or night, identified in county or state plans or studies; or
- 13) Require substantial energy consumption or emit substantial greenhouse gases."

Actions declared exempt from the preparation of an EA by DHHL are not exempt from complying with any other applicable statutes or rules.

Pursuant to HAR §11-200.1-8, all exemptions under Subchapter 8 are inapplicable when the cumulative impact of planned successive actions in the same place, over time is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.

Pursuant to HAR §11-200.1-16, DHHL considers activities listed in Part I to be routine and ordinary functions within its jurisdiction and that by their nature do not have the potential to individually or cumulatively adversely affect the environment more than negligibly.

Examples of routine activities and ordinary functions may include, among others: routine repair, routine maintenance, purchase of supplies, and continuing administrative activities involving personnel only, nondestructive data collection, installation of routine signs and markers, financial transactions, personnel-related matters, construction or placement of minor structures

accessory to existing facilities; interior alterations involving things such as partitions, plumbing, and electrical conveyances. DHHL does not consider these activities to rise to the level of requiring chapter 343, HRS, environmental review. Part I activities are exempt from the preparation of an EA and the requirements of HAR §11-200.1-17 because the activities are considered de minimis²."

The Feasibility Study notes any actions declared exempt from the preparation of an EA by DHHL are not exempt from complying with any other applicable statutes or rules from the State or County agencies.

Pursuant to HAR, Section 11-200.1-8, all exemptions under Subchapter 8 are inapplicable when the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.

² http://oeqc2.doh.hawaii.gov/Agency_Exemption_Lists/State-Department-of-Hawaiian-Home-Lands-Exemption-List-2021-04-06.pdf#search=dhhl

PART 9. POTENTIAL PROJECT FUNDING

9.1 FUNDING

US DEPARTMENT OF THE INTERIOR (DOI)

The WK3 recieved past funding under the U.S. Department of the Interior (DOI) Service First Authority.

The Resilient Hawaiian Communities (RHC) initiative was a two (2) year effort developed and funded by the U.S. Department of the Interior (DOI) under the Service First Authority. The purpose was to assist two (2) communities in Hawaii to develop resilience plans in partnership with Native Hawaiian, State and Federal organizations such as the Pacific Islands Climate Change Coooperative (PICCC), Department of the Interior's Office of Native Hawaiian Relations (ONHR), National Park Service Pacific Islands Office (NPS), and Ka Huli Ao Center for Excellence in Native Hawaiian at the University of Hawai'i Mānoa.

The effort built on existing DOI supported projects and aligned with the Service First goals to enhance mission delivery through interagency collaboration and bringing knowledge, information and decision support via a singular initiative.

The Waiehu Kou Phase III was selected for the RHC through a competitive application process in 2017; active project implementation occurred between the Resilient Hawaiian Communities Working Group (RHCWG) and the Waiehu community (March 2018).

US DEPARTMENT OF AGRICULTURE (USDA)

The USDA was established in May 15, 1862; considered the people's department the DOA works on food, agriculture, economic development, science, natural resource conservation and other issues. Specific to the Feasibility Study is the programs and funds available from the USDA through the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA) available to Hawaii residents and WK3.

FARM BILL 2018

Specific to WK3 is how the US DOA Farm Bill was signed into law in December 20, 2018. Title II Conservation that delineates authority, waivers, technical changes, and application criteria for the following programs under the Farm Service Agency (FSA) and NRCS: Conservation Reserve Program (CRP), Regional Conservation Partnership Program (RCPP),

Conservation Stewardship Program (CSP), Conservation Innovation Grants (CIG), and Conservation Programs.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) PROGRAM

Agricultural Management Assistance Program (AMA)

The USDA, NRCS Agricultural Management Assistance Program (AMA) aims to help agricultural producers manage financial risk via diversification, marketing, and/or natural resource conservation practices in Hawaii.

AMA provides financial assistance up to seventy-five (75) percent of the cost of installing conservation practices such as: the construction or improvement of water management structures or irrigation structures, water quality projects, planting trees for windbreaks, mitigating risk through production diversification, resource conservation practices, soil erosion control, integrated pest management, and transitioning to farming organically. The payments are capped at \$50,000.00 per participants per fiscal year. AMA offers a higher cost-share for historically underserved producers.

Eligibility is based on participants engagement in livestock or agricultural production, have an interest in farming operation(s), and have control of the land among other criteria. Land eligibility is based on land with: 1) risk where the land at risk can be addressed through operation diversification or a change in resource conservation practices, 2) subsistence purposes, (private) non-undustrial forestland, and land that produces agricultural, livestock, forest-related good and/or products.

The USDA has several other programs that provide financial and technical assistance to the general public. The Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), ACEP: Agricultural Conservation Easement Program, CRP: Conservation Reserve Program, and CREP: Conservation Reserve Enhancement Program.

Environmental Quality Incentives Program (EQIP) - Farm Bill Program

For NRCS funds to be dispersed woodland owners need to produce a forest management plan. NRCS will provide cost-sharing funds; an approved Technical Service Provider (TSP) will need to write the plan. NRCS cost-sharing opportunities such as the EQIP Program (and the Conservation Stewardship Program (CSP) are available to implement and put into practice the forest management plan.

The EQIP program is applicable to landowners in Hawaii; it is a voluntary, conservation program administered by the NRCS to provide financial and

technical assistance to agricultural producers and non-industrial forest managers to address natural resource concerns, such as WK3.

Environmental benefits include improved water and air quality, conserved ground and surface water, increased soil health, reduced soil erosion and sedimentation, improved or created wildlife habitat, and to mitigate against drought and future and increasing weather volatility.

The NRCS goal is to promote conservation practices with landowners such as WK3 to invest in solutions to conserve natural resources for the future of the community and to improve agricultural operations.

Funds are available up to seventy-five (75) percent of the cost of the project or one (100) hundred percent of the income foregone to implement the project; up to \$300,000.00 over six (6) years.

The Conservation Assessment Ranking Tool (CART) is used to assess: site vulnerability, existing conditions, identifying potential resource concerns on a unit of land. The CART Ranking is then used to evaluate an application.

Funds can be obtained from several subgroups such as:

- o Local Fund Pools - Locally Led, and Soil Health Initiative,
- o PIA Fund Pools - Historically Underserved, Farming/Animal Feeding Operations, Wildlife, High Tunnel System, Conservation Activity Plans (CAPS),
- o National EQIP Initiatives - National Organic Initiative - Certified and Transitioning, On-Farm Energy Initiative, and
- o Partner Initiatives - RCPP-EQIP-18 DLNR's Hawaii Watershed Initiative, Agricultural Management Assistance (AMA).

EQIP-CIC are Conservation Incentive Contracts focus is on Climate-Smart Forestry and Agricultural and drought resilience management practices; they provide financial assistance to adopt conservation activities in working landscapes. This contract is available nationwide. Five (5) to ten (10) year contracts are awarded to maintain and address important natural resource concerns and add to existing conservation efforts.

Landscape Conservation Initiatives stimulates the development and adoption of innovation and technology, and address priority natural resource concerns on vulnerable lands, target conservation assistance in high priority watersheds.

Deadline - applications can be accepted year long however the Deadline is December and Funding Selections is in April with Contract Obligations Deadline in July.

Conservation Stewardship Program (CSP) - Farm Bill Program

Available to Hawaii landowners who have made one (1) improvement (tree planting, prescribed thinning) in the past ten (10) years.

The program encourages encourages landowners to start, improve, or maintain conservation activities that protect the property's resources such as soil, water and natural resources.

The CSP pays up to \$200,000.00 for all contracts entered over a five (5) year period.

Deadline - unknown

ACEP: Agricultural Conservation Easement Program

Available to landowners property located in agricultural lands and wetlands.

The program through permanent conservation easements help farmers and ranchers protect prime, unique or other important farmland. Assistance can be sought if the woods contribute and/or protect the economic security of the agricultural operation.

The ACEP provides up to fifty (50) percent of the fair market value of the conservation easement.

Deadline - unknown

In conversation with NRCS C. Hashimoto Soil Conservation Technician the aim would be for the WK3 to apply for the AMA and EQIP programs as the mission is more in line with NRCS funding programs. However, WK3 is not limited to just the two (2) programs.

FARM SERVICE AGENCY (FSA) PROGRAM

The FSA is in charge of the following programs: EFRP: Emergency Forest Restoration Program, CRP: Conservation Reserve Program, and CREP: Conservation Reserve Enhancement Program. These programs are available to the WK3 community.

EFRP: Emergency Forest Restoration Program

Available to Hawaii landowners.

The program offers financial support for emergency measures to restore land that has been damaged by the following: natural disasters, fire, drought, flood wherever a natural disaster has happened.

The EFRP pays up to seventy-five (75) percent of the cost of the emergency measures.

Deadline - unknown

CRP: Conservation Reserve Program

Available to Hawaii landowners.

The program provides financial support for establishing protective cover (planting orchard, creating a wildlife habitat) on environmentally sensitive land (grass, trees, other protective cover) through ten (10) to fifteen (15) year contracts. Focus is on high-priority areas such as habitat for TEN (threatened and endangered) species.

Like the CRP the CREP offers annual rental payments for the land and up to fifty (50) percent of the landowners costs.

Deadline - unknown

CREP: Conservation Reserve Enhancement Program

Available to Hawaii landowners.

The program provides financial support for establishing protective cover (planting orchard, creating a wildlife habitat) on environmentally sensitive land through ten (10) to fifteen (15) year contracts.

The CRP offers annual rental payments for the land and up to fifty (50) percent of the landowners costs.

Deadline - unknown

US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Community Development Block Grant (CDBG) Program funds are used to improve the lives of residents, especially those living in low and moderate income levels.

Office of Hawaiian Affairs (OHA) Grant program:

The Office of Hawaiian Affairs (OHA) policy is to protect and promote the reverence and cultural importance of proper care, management and protection of iwi kūpuna.

OHA was involved in 120 repatriation cases over the last 30 years. In its Mana i Maui Ola Strategic Plan 2020–2035, OHA aimed to empower communities to take care of iwi kūpuna. Locally, in 2021 OHA supported the initiative with its new Iwi Kūpuna Repatriation and Reinterment Grants providing \$167,298 to four community organizations. Nearly \$33,000 will go toward facilitating the reburial of 700 to 900 iwi kūpuna and moepū disturbed at Kawaiaha'o Church grounds. The remaining iwi kūpuna grants provided education in communities throughout the state to empower Native Hawaiians to protect and care for iwi and provide training on the proper treatment of iwi.

Department of Hawaiian Home Lands (DHHL)

Hawaiian Home Lands Trust Grant

The WK3 can utilize the DHHL Hawaiian Home Lands Trust Grant to provide homesteaders a way to communicate and resolve neighborhood issues and concerns, engage neighbors, improve the quality of life, provide food security, and utilize unencumbered land(s) for the Proposed Action.

MAUI COUNTY

OFFICE OF ECONOMIC DEVELOPMENT (OED)

The OED provides grants for projects, programs and activities which contribute to positive economic impacts for Maui County. Maui non-profits, such as WK3, can be awarded OED grants and CPEP awards. OED funds further economic development by promoting Maui's destination and cultural assets to the visitor industry. Past grants have been awarded to Lahaina Plantation Days, Maui Pops Orchestra, Ku Mai Ka Hula, and the King Kamehameha Pa'u Parade.

WK3 can access OED grants and County Product Enrichment Program (CPEP) awards to increase marketing, access to information, resources, strategies, and make operation plans to further the community garden. The Office of Economic Development Grant Handbook seeks applications for projects such as the WK3 community garden.

NON-GOVERNMENTAL ORGANIZATIONS (NGO):

WK3 which is a non-profit can also access grants and funding opportunities from NGO partnering / funding opportunities including the: Hawaii Land Trust (HILT), University of Hawaii (UH), the Sovereign Council of Hawaiian Homestead Associations - Homestead Community Development Corporation (SCHHA - HCDC), Kamehameha Schools (KS), the Lili'uokalani Trust, the Council for Native Hawaiian Advancement (CNHA), and Hui No Ke Ola Pono.

9.3 WATER RIGHTS

The Wailuku water resources have been heavily contested for years regarding Native Hawaiian appurtenant water rights versus non-appurtenant water rights. Na Wai 'Eha is comprised the four (4) waters of Waihee River, Waiehu Stream, Wailuku River, and Waikapu Stream provides ~seventy (70) percent of the country's drinking water for maui residents. Water is funneled via the Wailuku Water Company's water delivery system.

The State Commission on Water Resource Management issued a Decision and Order on Na Wai 'Eha water use that officially recognized appurtenant rights, including kalo farming and other traditional and customary practices. It was the most comprehensive application of the Hawaii Water Code to water use and protection in history, the decision impacts more than 150 different applications to use water, including small farmers and area landowners, to larger groups, such as the County of Maui and Mahi Pono. One thousand determinations resulted in 116 recognized appurtenant rights and 176 permits. The commission's decision approved two permits that total 3.2 million gallons per day so the County of Maui's Department of Water Supply could continue to supply water from Na Wai 'Eha system to more than 100,000 customers in Kuau, Paia, Spreckelsville, Kahului, Puunene, Kihei, Wailea, Makena, Waikapu, Wailuku, Waihee and Waiehu. This has created concerns and issues between in-stream users such as kuleana and kalo farmers and off-stream users and stream diverters.

Access over land to water resource has also been an issue. The Waihe'e Valley Plantation Mac Nut Farm has blocked access from communities downstream.

CONCLUSION

In the 2010 DHHL Paukukalo-Waiehu Kou Report, Section V. Homestead Priorities identified under Community - issues and opportunities facing the Paukukalo-Waiehu Kou region. One such opportunity was to “utilize the vacant lands between Waiehu Kou III and IV without affecting flood insurance for Waiehu Kou III residents. Potential uses for the land include a community garden, farmer’s market, swap meet, community camping grounds, parking for oversized vehicles, permaculture, and agricultural production.”

The Feasibility Report provides sufficient information for the DHHL to decide that the Waiehu Kou 3 Association’s Community Garden is beneficial. One hundred seventeen WK3 residential homesteads would benefit if a community garden was created on Subject Parcel Tax Map Key (TMK): (2) 3-002-012:005.

The community garden has the potential to increase food production and medicinal plants cultivation. It will also mitigate future Climate Change impacts related to flooding (inland and mountain), wild fires, and sea level rise.

The Wai’ehu Kou 3 Association will need to submit a request for the disposition of suitable lands for community garden purposes, pursuant to Section 207 of the Hawaiian Homes Act of 1920, as amended for TMK: (2) 3-002-012:005.

Community gardens are listed on the Department of Hawaiian Home Lands Exemption List which the Environmental Council concurred with on April 6, 2021.

The DHHL will need to determine through analysis that community gardens for the subject parcel, will individually and cumulatively probably have minimal or no significant effects, and is eligible for exemption under HAR 11-200.1, subchapter 8. The Feasibility Study notes the likelihood of success is high if the DHHL determines the Proposed Action will individually and cumulatively probably have minimal or no significant effects. If the DHHL agrees with the Proposed Action the department will prepare an exemption notice in accordance with subchapter 8 and send paperwork to the Environmental Review program for the TEN’s publication.

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