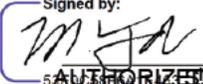


## Application Submittal Checklist

*The following items are required for submittal of the grant application. Please verify and check off that the items have been included in the application packet.*

- 1) Hawaii Compliance Express Certificate (If the Applicant is an Organization)
- 2) Declaration Statement
- 3) Verify that grant shall be used for a public purpose
- 4) Background and Summary
- 5) Service Summary and Outcomes
- 6) Budget
  - a) Budget request by source of funds ([Link](#))
  - b) Personnel salaries and wages ([Link](#))
  - c) Equipment and motor vehicles ([Link](#))
  - d) Capital project details ([Link](#))
  - e) Government contracts, grants, and grants in aid ([Link](#))
- 7) Experience and Capability
- 8) Personnel: Project Organization and Staffing

Signed by:  
  
AUTHORIZED SIGNATURE

Michael Coloma Taylor, President  
PRINT NAME AND TITLE

1/20/2026  
DATE



STATE OF HAWAII  
STATE PROCUREMENT OFFICE

**CERTIFICATE OF VENDOR COMPLIANCE**

This document presents the compliance status of the vendor identified below on the issue date with respect to certificates required from the Hawaii Department of Taxation (DOTAX), the Internal Revenue Service, the Hawaii Department of Labor and Industrial Relations (DLIR), and the Hawaii Department of Commerce and Consumer Affairs (DCCA).

**Vendor Name:** POAMOHO CAMP FOUNDATION

**Issue Date:** 01/23/2026

**Status:** **Compliant**

Hawaii Tax#:

New Hawaii Tax#:

FEIN/SSN#:

UI#: No record

DCCA FILE#: 323808

Status of Compliance for this Vendor on issue date:

Form	Department(s)	Status
A-6	Hawaii Department of Taxation	Compliant
8821	Internal Revenue Service	Waived
COGS	Hawaii Department of Commerce & Consumer Affairs	Exempt
LIR27	Hawaii Department of Labor & Industrial Relations	Compliant

**Status Legend:**

Status	Description
Exempt	The entity is exempt from this requirement
Compliant	The entity is compliant with this requirement or the entity is in agreement with agency and actively working towards compliance
Pending	A status determination has not yet been made
Submitted	The entity has applied for the certificate but it is awaiting approval
Not Compliant	The entity is not in compliance with the requirement and should contact the issuing agency for more information

**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS PURSUANT TO  
CHAPTER 42F, HAWAI'I REVISED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

- 1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
  - b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
  - c) Agrees not to use state funds for entertainment or lobbying activities; and
  - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
- 2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is incorporated under the laws of the State; and
  - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided; and
- 3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and
  - b) Has a governing board whose members have no material conflict of interest and serve without compensation.
- 4) The use of grant-in-aid funding complies with all provisions of the Constitution of the State of Hawaii (for example, pursuant to Article X, section 1, of the Constitution, the State cannot provide "... public funds ... for the support or benefit of any sectarian or nonsectarian private educational institution...").

Pursuant to Section 42F-103, Hawai'i Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

Poamoho Camp Foundation

(Typed Name of Individual or Organization)

Signed by:  <small>53E0C58F6A1E463...</small>	1/20/2026
----------------------------------------------------------------------------------------------------------------------------------------	-----------

(Signature)

(Date)

Michael Coloma Taylor

President

(Typed Name)

(Title)

# Application for Grants

*If any item is not applicable to the request, the applicant should enter “not applicable”.*

## **I. Certification – Please attach immediately after cover page**

### **1. Hawaii Compliance Express Certificate (If the Applicant is an Organization)**

See attachment

### **2. Declaration Statement**

See attachment

### **3. Public Purpose**

The grant will benefit the public and surrounding communities of Wahiawa and is in accordance with [Section 42F-102, Hawaii Revised Statutes](#).

## **II. Background and Summary**

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Please include the following:

### **1. A brief description of the applicant's background;**

Poamoho Camp Foundation was established in 2022 to steward Poamoho Camp, a historic agricultural landscape in Central O‘ahu that has long served as a place of work, home, and community. Located on approximately 91 acres at 71-045 Kamehameha Highway in Wahiawā, Hawai‘i (TMK: 7-1-001-001-000), the site was originally developed to house Del Monte pineapple plantation workers and their families and includes 66 residential units and surrounding agricultural lands. As part of the parcel transfer, a potable water pipeline, meters, and related improvements—serving Fields F.204, Sections A, B, and C (Oahu TMK Nos’ 7-1-1:005, :006, :031, and :011) and governed by water pipeline and easement agreements recorded in the Bureau of Conveyances of the State of Hawaii in Liber 17447, page 530 on September 15, 1983 and Water Agreement dated on October 11, 1983—were conveyed with the property.

Today, Poamoho Camp Foundation carries forward this legacy by maintaining the essential infrastructure that sustains daily life on the land. Because water is life, ensuring reliable and safe water service for Poamoho Camp residents is the highest priority of this request. The water pipeline directly supports the health, safety, and stability of the families who call Poamoho Camp home and is fundamental to preserving this historic residential community.

While residents are the primary focus, the same water pipeline also serves nonprofit organizations operating on the property, including Opportunities & Resources, Inc. (ORI) and

Green World. ORI is a nonprofit organization that provides employment, training, and supportive services for individuals with intellectual and developmental disabilities, relying on consistent water access to maintain safe and functional operations. Green World is a community-based agricultural and visitor-serving organization that supports environmental education, local employment, and public access to the site, and likewise depends on the shared water system to carry out its activities.

While Poamoho Camp remains preserved as a historic residential and agricultural community, Poamoho Camp Foundation is aware that ongoing growth in surrounding Central O'ahu areas places added importance on maintaining reliable infrastructure at the site. As activity around the region expands, a dependable water system is essential to protect the integrity of Poamoho Camp, support ongoing agricultural stewardship, and ensure long-term stability for residents and nonprofit operations. Making these repairs now helps safeguard Poamoho Camp's ability to remain a viable, functioning community and agricultural landscape amid changing conditions in the surrounding area.

**2. The goals and objectives related to the request;**

The goal of this request is to restore and maintain reliable potable water service through repairs to the primary water pipeline serving Poamoho Camp. This infrastructure is essential to supporting the health, safety, and stability of Poamoho Camp residents while sustaining shared nonprofit and community-serving operations on the site, including weekly gatherings hosted by Poamoho Bible Church.

Objectives include completing necessary repairs to address aging and failing pipeline components, improving system reliability and water flow, reducing service disruptions, and ensuring continued access to safe water for the 66 residential units, agricultural lands, and shared facilities served by the system. These improvements also support ongoing nonprofit activities, including Poamoho Bible Church's regular use of the property, while protecting essential infrastructure that enables Poamoho Camp to function safely and sustainably.

**3. The public purpose and need to be served;**

For decades, water flowing through Poamoho Camp has sustained families, crops, and daily life on the land. Today, this same water pipeline continues to serve the residents of Poamoho Camp and supports nonprofit operations on the property, including Poamoho Bible Church, which relies on the site for regular community gatherings and neighboring ORI facilities. The pipeline also serves Green World, a local business operating on the property that welcomes visitors and provides employment, further underscoring the importance of reliable water infrastructure to the surrounding community.

Grant-in-Aid funds will be used to repair this shared water infrastructure so that essential residential services, nonprofit activities, and site operations may continue without disruption. Reliable water access is critical to protecting public health and safety, supporting nonprofit services, sustaining employment-generating activities, and enabling land stewardship efforts led by Poamoho Camp Foundation. Ensuring dependable water service preserves Poamoho Camp's historic role as a working, community-centered landscape and addresses an ongoing public need for safe and functional infrastructure.

**4. Describe the target population to be served; and**

The improved water pipeline will primarily serve the residents of Poamoho Camp, including the 66 residential units that are home to residents living below the area's median household income. Reliable water access is essential to maintaining safe and stable living conditions for these households and remains the central focus of this project.

In addition to residents, the water system supports on-site nonprofit operations, Poamoho Bible Church, and neighboring ORI facilities. Both of which rely on dependable water service to carry out their community-serving activities. The pipeline also serves Green World, a business operating on the property that provides space for visitors and supports local employment and job security. Together, these users depend on the shared water infrastructure to sustain residential stability, nonprofit services, and site-based economic activity that benefit the broader Central O'ahu community.

5. Describe the geographic coverage.

The project serves Central O'ahu, with direct impact in Wahiawā and surrounding communities such as Whitmore Village, Waipi'o, and Mililani. Because Poamoho Camp hosts nonprofit partners and participants from across O'ahu, the benefits of improved infrastructure extend beyond the immediate area and contribute to island-wide community resilience.

See attachment: Letters of Support Poamoho Bible Church, ORI, Greenworld, Peter Savio

### **III. Service Summary and Outcomes**

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

1. Describe the scope of work, tasks and responsibilities;

Poamoho Camp Foundation will oversee the repair and improvement of the primary water pipeline serving Poamoho Camp, a shared system that supports residential use, nonprofit operations, and agriculture lands on the approximately 91-acre site. Scope of work includes assessing existing pipeline conditions, coordinating with licensed contractors, repairing or replacing damaged or failing pipeline segments, and restoring consistent and reliable water flow throughout the property. Poamoho Camp Foundation will manage project coordination, contractor oversight, scheduling, compliance documentation, and communication with partner nonprofit users of the water system.

2. Provide a projected annual timeline for accomplishing the results or outcomes of the service;

Upon receipt of Grant-in-Aid funds, Poamoho Camp Foundation will initiate contractor procurement and finalize project planning. Infrastructure repairs will be scheduled and completed within the grant period, with work sequenced to minimize disruption to residents and site operations. The project is anticipated to be completed within the fiscal year, allowing for system testing, verification of restored water service, and final reporting to the State.

3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; and

Quality assurance will be ensured through the use of licensed and qualified contractors, adherence to applicable codes and standards, and ongoing oversight by Poamoho Camp

Foundation. The organization will monitor project progress through regular site inspections, contractor check-ins, and verification of completed work. Evaluation will focus on system performance following repairs, including reliability, consistency of water flow, and reduction in service disruptions. Lessons learned will be documented to inform future infrastructure maintenance and long-term site planning.

4. List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

Measures of effectiveness reported to the expending State agency will include:

- Completion of water pipeline repairs or improvements as proposed
- Restoration of reliable water service to the 66 residential units, agricultural lands, and shared facilities served by the pipeline
- Reduction or elimination of water service interruptions following project completion
- Confirmation that the water system supports continued nonprofit and community-serving operations at Poamoho Camp

These measures provide objective benchmarks for assessing the successful use of Grant-in-Aid funds. If the final appropriation amount differs from the requested amount, Poamoho Camp Foundation will update and transmit revised measures of effectiveness to the expending agency, as required.

## **IV. Financial**

### **Budget**

1. The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.
  - a. Budget request by source of funds ([Link](#)) **N/A**
  - b. Personnel salaries and wages ([Link](#)) **N/A**
  - c. Equipment and motor vehicles ([Link](#)) **N/A**
  - d. Capital project details ([Link](#))
  - e. Government contracts, grants, and grants in aid ([Link](#))
  
- c. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2027.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$937,500	\$937,500	\$937,500	\$937,500	\$3,750,000

- d. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2027.

Poamoho Camp Foundation is actively seeking additional non-State funding sources, including federal funding opportunities, for fiscal year 2027 to support overall site operations and long-term infrastructure maintenance at Poamoho Camp. These efforts may include federal grants, private foundation support, donations, and organizational operating funds. At the time of this application, no other funding has been secured or committed specifically for the water pipeline project described herein.

4. The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.

None

5. The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2027 for program funding.

Within the prior three years, Poamoho Camp Foundation has received federal funding from the U.S. Department of Agriculture (USDA) to support engineering assessments, planning, and technical preparation related to repairs of the primary water pipeline serving Poamoho Camp. These funds were used for professional engineering services and appropriate planning necessary to assess system conditions, identify needed repairs, and develop a feasible approach to improving water infrastructure reliability.

6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2025.

Unrestricted current assets: \$685,253

## **V. Experience and Capability**

### **1. Necessary Skills and Experience**

The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.

Poamoho Camp Foundation has demonstrated strong capability in managing and improving the Poamoho Camp property since its establishment in 2022. As steward of the approximately 91-acre site, the Foundation oversees essential infrastructure supporting residential units, nonprofit operations, and has implemented ongoing improvements to the property.

To support the proposed water pipeline repairs, Poamoho Camp Foundation has contracted with PDG and LFG Group to complete a Preliminary Engineering Report (PER) assessing existing conditions and identifying necessary infrastructure improvements. This work reflects the Foundation's experience coordinating professional services, planning infrastructure

projects, and taking a responsible, phased approach to implementation. Combined with strong community partnerships and a network of committed professionals, the Foundation is well positioned to successfully carry out the proposed work.

See attachment: PDG statement and USDA letter

## **2. Facilities**

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities.

The requested improvements to the primary water pipeline will directly support the continued use and functionality of these facilities by ensuring consistent and dependable water access. Reliable water service is essential to maintaining safe conditions and supporting the ongoing operation of the site.

Looking ahead, Poamoho Camp Foundation anticipates developing a future meeting space intended to serve the Poamoho Bible Church community. This planned facility is not part of the current funding request but underscores the importance of strengthening core infrastructure, including water systems, to support present and future community use of the property.

See Attachment: Letter of Support from Poamoho Bible Church

## **VI. Personnel: Project Organization and Staffing**

### **1. Proposed Staffing, Staff Qualifications, Supervision and Training**

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

Camp Foundation will manage the proposed water pipeline repairs through its existing leadership and site management structure. Foundation personnel have direct experience overseeing the Poamoho Camp property, coordinating infrastructure-related planning, and managing contractor-led projects.

Technical planning and professional support for the project will include continued coordination with LFG Group (Cameron Higgins) and PDG (TC Campbell), who have provided engineering and technical expertise related to the water system. Construction and repair work will be performed by licensed contractors selected through an appropriate bidding process, with oversight provided by Poamoho Camp Foundation.

Supervision, administrative direction, and coordination will be handled internally by Poamoho Camp Foundation to ensure compliance with grant requirements, adherence to quality standards, and timely completion of the project.

### **2. Organization Chart**

The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.

Poamoho Camp Foundation maintains a streamlined organizational structure with Board oversight, Foundation leadership responsible for site management and project coordination, and a licensed contractor selected through a competitive bidding process to complete technical work. Project supervision, administrative direction, and reporting will be managed internally by the Foundation to ensure accountability and compliance with Grant-in-Aid requirements.

See attachment of Organization Chart

### **3. Compensation**

The applicant shall provide an annual salary range paid by the applicant to the three highest paid officers, directors, or employees of the organization by position title, not employee name.

Not applicable

## **VII. Other**

### **1. Litigation**

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

None

### **2. Licensure or Accreditation**

The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.

None

### **3. Private Educational Institutions**

The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see Article X, Section 1, of the State Constitution for the relevance of this question.

Not applicable

### **4. Future Sustainability Plan**

The applicant shall provide a plan for sustaining after fiscal year 2027 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2027, but
- (b) Not received by the applicant thereafter.

This Grant-in-Aid request supports essential water infrastructure that is critical to the continued operation of Poamoho Camp. Upon completion, Poamoho Camp Foundation will steward and maintain the improved water pipeline beyond the grant period through established site management practices and shared responsibility among nonprofit users of the property. If funding is received for fiscal year 2027 but not thereafter, the Foundation is prepared to sustain the benefits of this infrastructure through ongoing operational planning and responsible site management.

Following completion of the water pipeline improvements, Poamoho Camp Foundation will integrate regular inspection, monitoring, and maintenance of the system into its ongoing responsibilities as steward of the Poamoho Camp property. Care of the water infrastructure will become part of routine site operations, supported through organizational operating funds and shared cost participation among nonprofit partners who rely on the pipeline for daily use. The Foundation will also pursue non-state funding sources, including private grants and donations, to support long-term infrastructure maintenance as needed.

By addressing deferred maintenance and restoring system reliability, this project is expected to reduce emergency repairs, service interruptions, and long-term operational strain. A stable and dependable water system will allow residential units, agricultural lands, and nonprofit operations at Poamoho Camp to function consistently and safely for years to come. In this way, the Grant-in-Aid investment strengthens the long-term viability of a shared community asset while ensuring continued benefit to Central O'ahu without creating future dependence on State funding.

**GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN**

Applicant: Poamoho Camp Foundation

	<b>CONTRACT DESCRIPTION</b>	<b>EFFECTIVE DATES</b>	<b>AGENCY</b>
1	USDA-PER	7/28/23	USDA
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January 15, 2026

Dear Poamoho Camp Board of Directors,

My name is Robert Araki and I am the pastor of Poamoho Bible Church which meets in Poamoho Camp. We started as a church plant in the community. We met for several years at the Poamoho clubhouse before it burned down. We currently set up tents and meet on the lot in front of the former clubhouse location. Our church family has always been grateful for the generosity and kindness of the Poamoho residents for allowing us to share God's veritable gospel of truth, fellowship, and sanctification over the years.

We appreciate the rich history of Poamoho Camp and the value that the camp has been to the residents. It has allowed families to work, live, provide and pass along their legacy to the next generation. Poamoho Camp has a unique blend of the past, present and looking into the future with the continuance of these families.

The water pipeline that is owned by Poamoho Camp runs through Whitmore, Greenworld, ORI, and Poamoho Camp is deteriorating due to its age. Poamoho Camp is seeking funding to replace the water pipeline and work on the infrastructure.

Because of the limited funds and average median income of the camp residents, Poamoho Camp will seek additional funding from outside sources to complete this project. We humbly ask for your support and assistance for Poamoho Camp. They have been vital members in the Central Oahu region and a conduit from Mililani and Wahiawa to well beyond the North Shore communities.

Thank you very much for your consideration.

Sincerely,

Pastor Rob Araki



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Meets at Poamoho Village, Wahiawa, HI 96786  
[Poamohobible@gmail.com](mailto:Poamohobible@gmail.com) | Poamohobible.com  
Mailing Address: 94-611 Kauakapuu Loop, Mililani, HI 96789



GREEN WORLD COFFEE FARM, INC.  
71-101 KAMEHAMEHA HIGHWAY  
WAHIAWA, HAWAII 96786

Poamoho Camp Board of Directors  
c/o Primrose K. Leong-Nakamoto Nakamoto Realty, LLC.  
94-615 Kupuohi St., #205 Waipahu, HI 96797

January 21, 2026

Dear Poamoho Camp Board Members:

I am writing in my capacity as the founder and President of your neighbor, Green World Coffee Farm (GWCF) to express full support for your Association's efforts to obtain grants for the community project including the waterline that serves your camp, our farm, and the Helemano Plantation health center.

We want to express our full support for your efforts and program. Perhaps some history would be helpful to you. All of the land underlying Poamoho Camp and Greenworld Coffee Farm, was owned by The Galbraith Estate, and leased to the predecessor of Del Monte Pineapple company for 100 years or more ending 2007. The Pineapple Plantation built the Poamoho Camp for its workers, and utilized the GWCF property in the early years with barns for horses and other farm work animals for fertilizer mixing, for its equipment storage, cleaning and maintenance, and for a pineapple varietal farm for visitors arriving by bus and by automobile, on their way to the North Shore.

The waterline that provides water to the Poamoho village and what was the pineapple operations and visitor center (on what is now the GWCF) as well as the ORI Helemano Plantation Health Center, was constructed some time before WWII. Land Court maps of the water line easements were prepared 1943 to 1946. I have copies if you need them, but the actual road and other improvements shown on the maps at that time differ from what is presently on the ground. The water line passes through the middle of the GWF property where it served the Del Monte farm animal and equipment and fertilizer mixing operations. Improvements included an important fire hydrant, still present, but no longer functional, then across Kamananui Road and through the ag field to the Poamoho Village.

Almost 20 years ago Del Monte gave up its lease to these lands, and the Galbraith estate sold the Poamoho Camp property to the owners' association and residents of the camp, and sold the GWF property to our company to grow coffee and operate a coffee visitor center. We have used the water line together with the Poamoho Camp since 2009 for water for our coffee trees, and visitor facility where we sell our coffee, and ag products from other farms as well as GWCF and coffee related merchandise.

By now the farm and visitor center have grown to the point that we provide 43 regular farm and visitor center jobs to folks in the area, some of whom still live at Poamoho Camp and many from nearby Whitmore Village. We serve coffee and provide restroom service to over 500,000 visitors a year, promoting Hawaiian Coffee and other Hawaii farm products. The farm also provides full college tuition to the community's young people who work at the farm and go to college part time. We are quite proud that our record has come to include many college graduates.

The current private waterline is about six feet deep under our property. Part of the water line is made of historic pre WWII asbestos, and as we have learned when we needed to excavate to make line repairs, part of the line had been replaced by steel lines, many years ago. As you know, the older asbestos part has broken at least a half dozen times in the years since 2009 causing lengthy losses of water service for the Camp, for our farm, and for Helemano Plantation.

Critical to our farm and even more critical to Poamoho village is the fact that there is no other water supply in the area, including no water for fire protection. By observation I know that Poamoho Camp contains many wooden residential and community buildings with no fire protection except the limited water supply from this line. At GreenWorld we have constructed our critical buildings of fire resistant materials. But even so, in recent years we have been forced to close 8 times due to wild fires on neighboring parcels.

We have had a long, positive and cooperative community relationship with the Poamoho Association and others in our immediate area. We strongly support and thank Poamoho for its efforts to replace the aging and small system now in place, to protect its many families, our farm, and Helemano Plantation.

Aloha,

A handwritten signature in black ink, appearing to read "Howard R. Green". The signature is fluid and cursive, with a large flourish at the end.

Howard R. Green  
Greenworld Coffee Farm

# SAVIO

SAVIO REALTY LTD.

January 21, 2026

To Whom It May Concern:

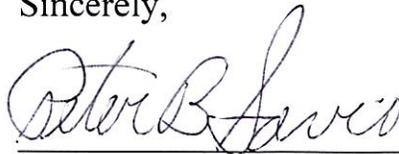
Poamoho Camp is one of Hawaii's last authentic plantation communities. It is unique in that it represents the history and tells the story of immigrants coming to Hawaii living and working on the surrounding agricultural lands. Today it provides affordable housing to many families. The majority of the residents are retired plantation camp workers and their families.

The camps distance from surrounding residential communities, require support and help in providing water and electricity to this plantation village.

County water is imperative to the camp for the safety of its residence. Many of the families have lived in this camp for many generations not to mention many of the retirees are living on a fixed income.

Although the camp owns the main water pipeline coming from Whitmore, Servicing Greenworld and Opportunities and Resources Inc./Helemanu Plantation Inc. servicing the disabled, this water line dates back into the 1900's. Please help this community, Poamoho Camp, with over 400 family members living there and, in turn, is helping all those connected to the pipeline. They are concerned about the aging pipes and the hazard they represent to the safety and health to all as it is the only portable waterline services. Since our State has been awarded funds for these types of situations, and the people are in need of water, I support them receiving grants to help with the installation of the infrastructure work and the pipelines.

Sincerely,

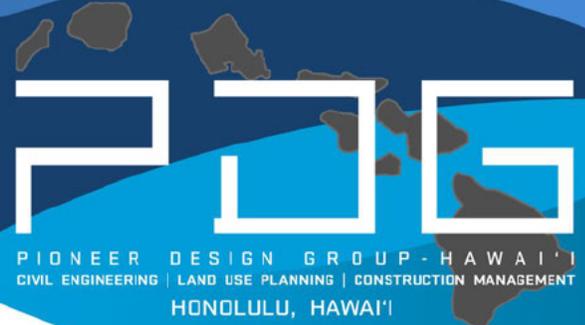


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PRESIDENT

Peter B. Savio

# CAPABILITY STATEMENT



## Business Summary

Pioneer Design Group - Hawai'i is a native Hawaiian owned and operated private consulting firm located in Honolulu, Hawai'i. PDG-Hawai'i is a multidisciplinary firm that provides: Civil Engineering design, Land Use Planning, Construction Management and Project Management services throughout the islands of Hawai'i. The principals of the firm bring over 30 years of experience in all phases of land development from concept to construction. PDG-Hawai'i has a diverse portfolio enabling the firm to deliver full services for all types and sizes of private/public land development and preservation projects including those that are residential, commercial, agricultural, industrial and mixed use in nature.

Our team takes great pride in providing site specific and innovative solutions to bring our client's vision to life while meeting the needs of our local community.

## Mission

Our company specializes in integrating people, technology and 'āina (land) in each project. Balancing innovative development and thoughtful preservation, it is our mission to improve our Hawai'i respectfully and responsibly. We are committed to building a team of the most qualified professionals who work together to provide our clients with exceptional service and creative & efficient solutions.

## Core Competencies

- Land Use Planning Services
- Master Planning Services
- Civil Engineering Design
- Construction Management
- Project Management

## Past & Present Projects

- Hoku'ula 210-lot Subdivision (Large scale residential)
- Ho'onani Village (Large Scale Mixed Use)
- Kahuku Medical Center Parking lot (Commercial)
- Poamoho Waterline Extension (Large scale utility extension)

## Company Principals

### T.C. Campbell, P.E.

President / Principal Civil Engineer

### Brent Fitch, P.E.

Principal Civil Engineer

### Matthew Sprague

Principal Planner

## Company Information

Limited Liability Company

State of Hawaii, 2023

**CAGE CODE: 9VD82**

**DUNS: 124999658**

## NAICS Codes

541320 Land Use Planning Services

541320 Urban Planning Services

541330 Engineering Services

541340 Drafting Services

## For More Information

**Email:** [pdghi-info@pdg-hawaii.com](mailto:pdghi-info@pdg-hawaii.com)

**Phone:** (808) 400-5959

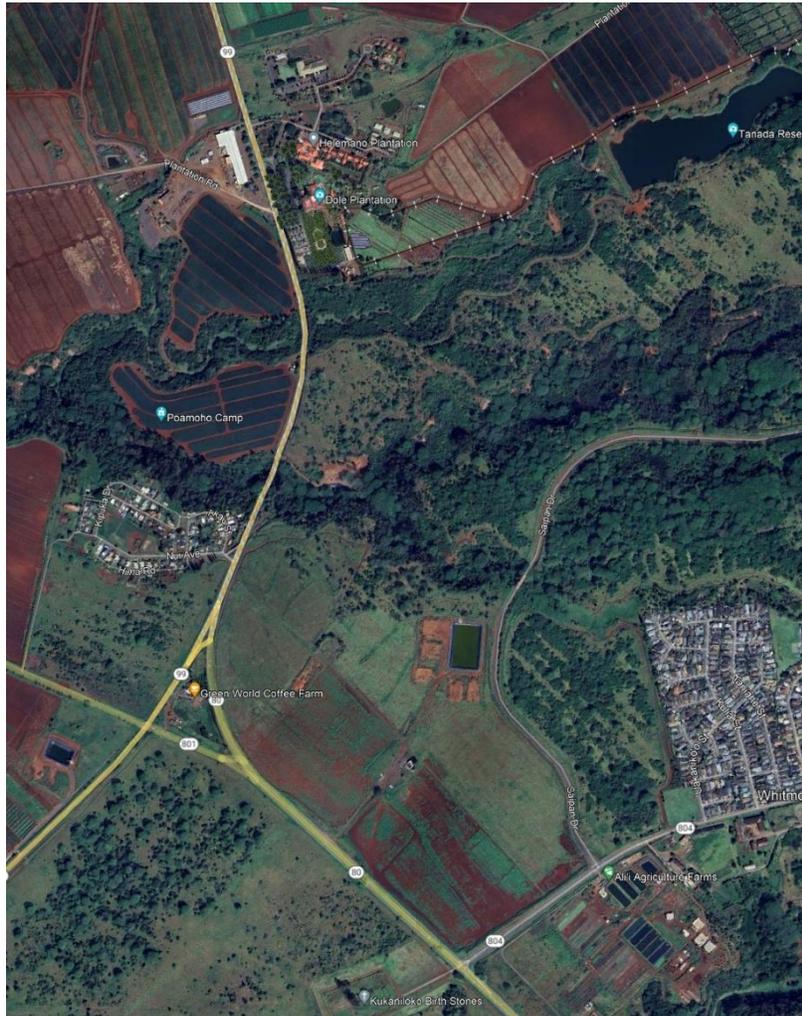
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# Preliminary Engineering Report

## Poamoho Camp – Water line Extension Wahiawa, Oahu, Hawaii



**March 14, 2025**

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## I. BACKGROUND

This Preliminary Engineering Report (PER) was prepared for the Association of Unit Owners of Poamoho Camp by Pioneer Design Group – Hawaii, LLC in accordance to the guidelines provided by the United States Department of Agriculture (USDA) Rural Development Agency (RDA) in order to meet Code of Federal Regulations (CFR) Part 1780 requirements as part of the funding application for proposed projects. The USDA guidelines require the analysis and discovery of implications for project related factors that include, but are not limited to, the following: environmental impact(s), project sustainability, technical feasibility, water and energy efficiency, economic feasibility, life-cycle analysis, and the awareness and support of the general public. These factors, implications, and costs are discussed in the body of this PER.

The Poamoho Camp is an existing plantation subdivision with 66 residential units located in Wahiawa, on the island of Oahu in Hawaii. The plantation subdivision was originally built and comprised of people who worked on the Dole Plantation and their families. The residents of the camp, as well as two businesses, Greenworld Coffee Farm, and a non-profit called Opportunities & Resources (ORI) in the area currently get their potable water from an existing 4-inch private water line that is connected to a Honolulu Board of Water Supply water meter. Due to the existing conditions of this private water system, the residents of the camp and the other users of the system are unable to obtain adequate water pressure for domestic and fire service. This report serves as an analysis of the existing water system and the various alternatives for a new proposed water system to serve the public. This PER will be included as a part of the overall project funding application with the USDA Rural Development.

### 1.0 PROJECT PLANNING

#### 1.1 Location

The existing private water system stretches from the existing Board of Water Supply (BWS) meter out to ORI to the north. The existing meter is meter badge No. 1809100012 and is located on TMK 71001038, which is addressed as 680 Whitmore Ave., and is owned by Alii Turf Co. The private water line is owned by the Association of Unit Owners of Poamoho Camp and is managed by the team at Nakamoto Realty. According to their monthly records, the system services Greenworld Coffee, the residents at the Poamoho Camp, and ORI. Greenworld Coffee is located on TMK 71001032 and is addressed as 71-101 Kamehameha Hwy. Poamoho camp is located on TMK 71001011 and is addressed as 71-045 Kamehameha Highway. Opportunities & Resources (ORI) is located on TMK 64003014 and is addressed as 64-1550 Kamehameha Hwy. See Figure 1.1a below for the overall aerial view of the approximate meter location, and the location of the three users that are serviced from the line. The system is located just north of Wahiawa and west of Whitmore Village. The major roads that the system runs along are Whitmore Avenue, Highway 80, and Kamehameha Hwy. All adjacent properties that the system serves are zoned Agricultural AG-1 by the City and County of Honolulu (Figure 1.1b).

Figure 1.1a – Overall Aerial Map

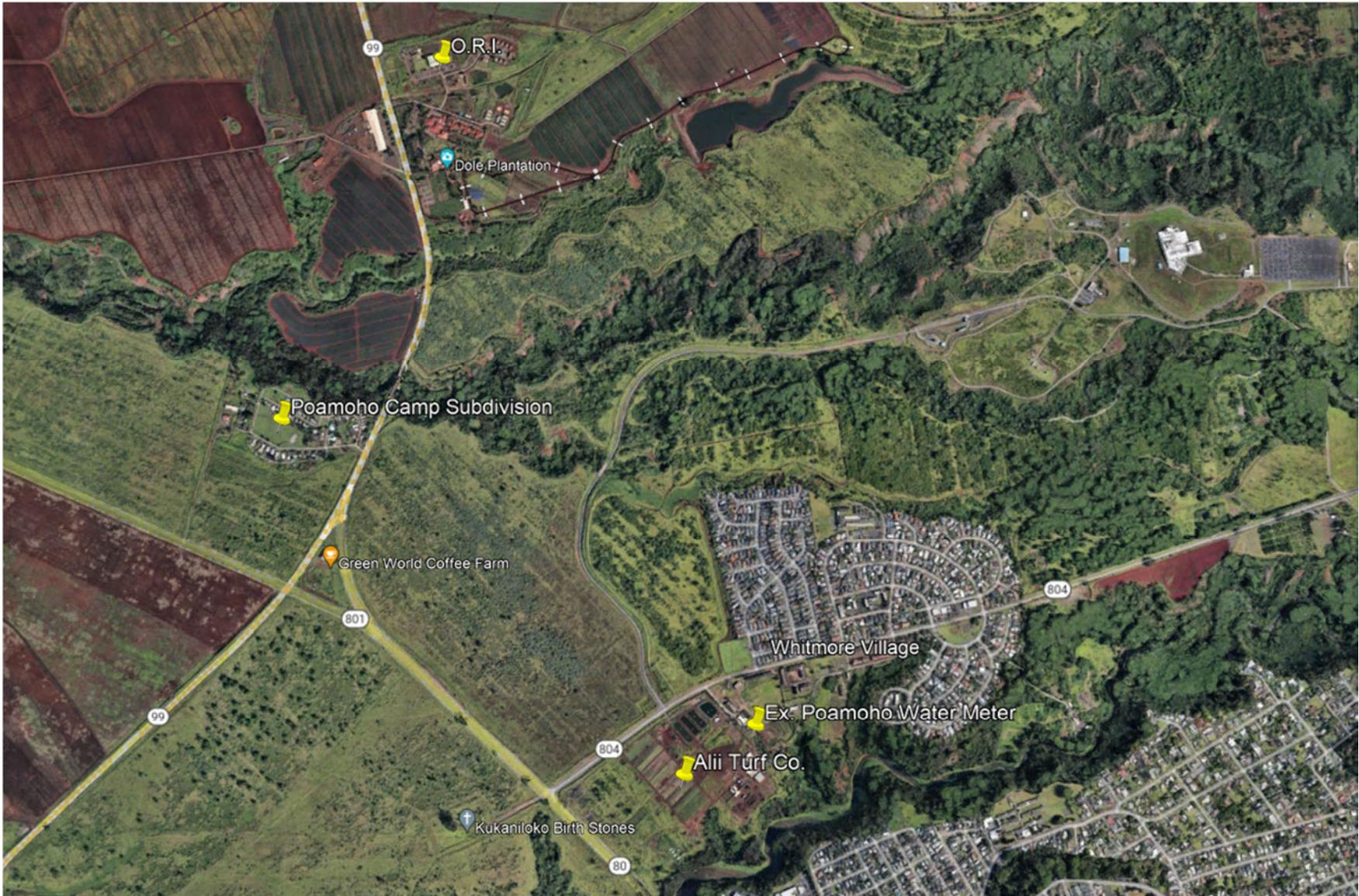
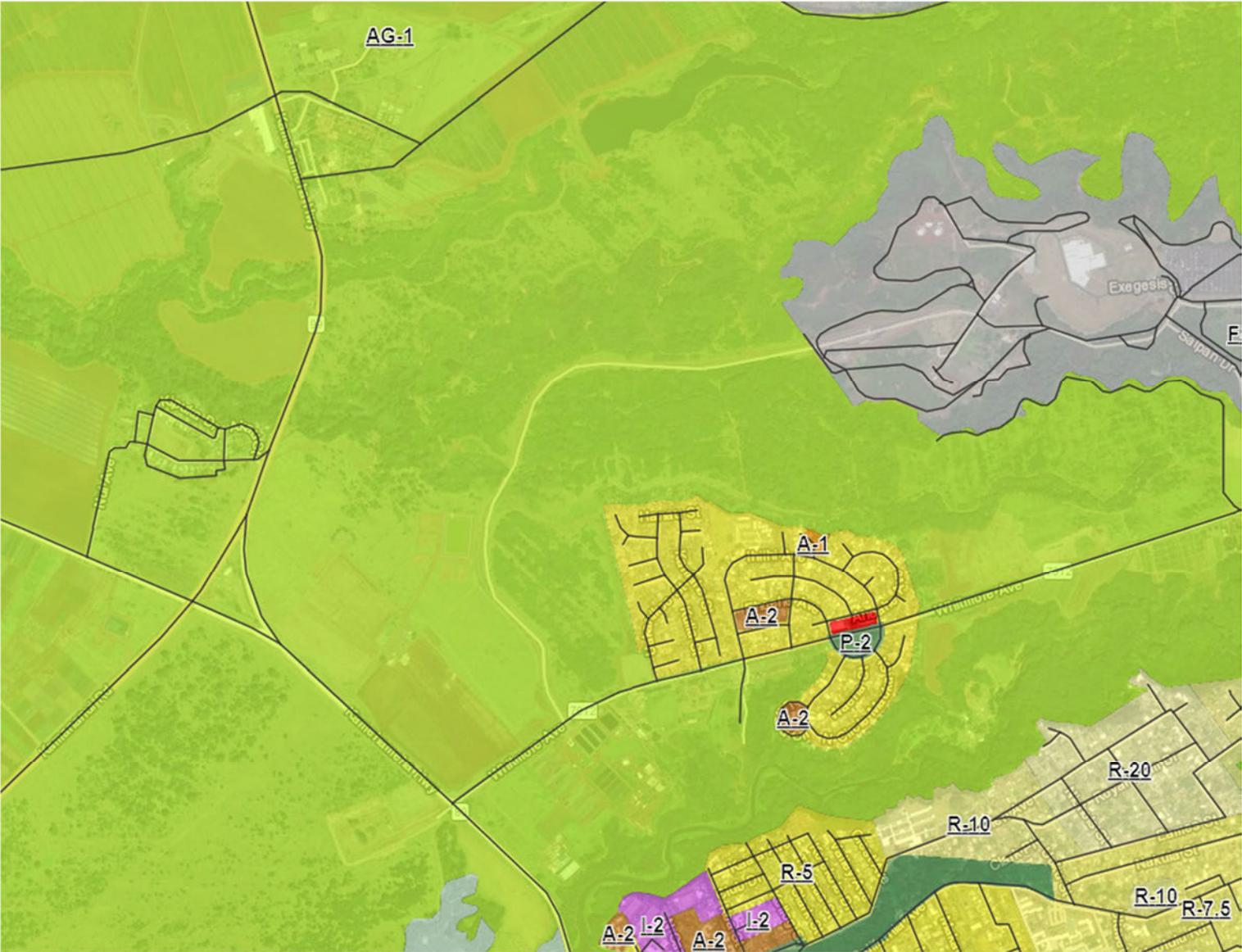


Figure 1.1b – City and County of Honolulu Zoning Map



## 1.2 Environmental Resources Present

As mentioned above, the surrounding land including the users that the existing private water system serves are all Agricultural zoned lots. There are various agricultural resources in the area such as sod & turf grass farming, coffee, pineapple, cheese production as well as other row crops and farming. Additionally, there are multiple natural drainageways that flow in the area. A perennial stream called the north fork of the Kaukonahua stream flows from east to west just south of the water system. As the water system runs north along Kamehameha Hwy., it crosses two large drainageways that are branches of the Poamoho Stream. Due to all the agricultural uses in the area and the need for irrigation water, there are multiple lined retention basins and also a large reservoir called the Tanada Reservoir.

There are also a few historical resources in the area. The Kukaniloko birth stones are located just west of the intersection of Whitmore Ave. and Highway 80. The famous Dole Plantation is located along Kamehameha Hwy. adjacent to the private water system. The plantation is now a very popular tourist destination for visitation, tours and for dining. The last tourist destination in the area is the Greenworld Coffee farm. This popular coffee stop on the way between Honolulu and the north shore of Oahu is busy daily with visitors and locals.

## 1.3 Population Trends

The existing properties adjacent to the private water system are all agriculturally zoned lots by the City and County of Honolulu. The Poamoho Camp and the ORI resident housing are the only residences on these agricultural lots. The nearest communities are located just south in Wahiawa and to the east in Whitmore Village. According to the 2020 US Census the population of Wahiawa was 16,442 and the population of Whitmore Village was 4,887. Wahiawa is currently at a growth rate of about 5.8% starting in 2020, and Whitmore Village at a rate of about 3.85%. These are the nearest communities to the system besides the residents that are already served by the system. The Poamoho camp has a maximum unit count on the property of 66 units and thus will not grow substantially. The remaining areas are all zoned for agricultural use, and it can be expected that there won't be a large increase in the population of the surrounding areas.

## 1.4 Community Engagement

During the design of this project all the members of the public who are served by the existing system will be notified of the proposed improvements and will be updated throughout the process by the Association's management team. Nakamoto Realty has monthly board meetings with the Board of the Homeowners association for the Poamoho Camp, and they also speak directly to the owners of Greenworld Coffee and ORI. Additionally, the Honolulu Board of Water supply is working directly with the design team as they are an interested party in the proposed waterline extension. Besides the existing

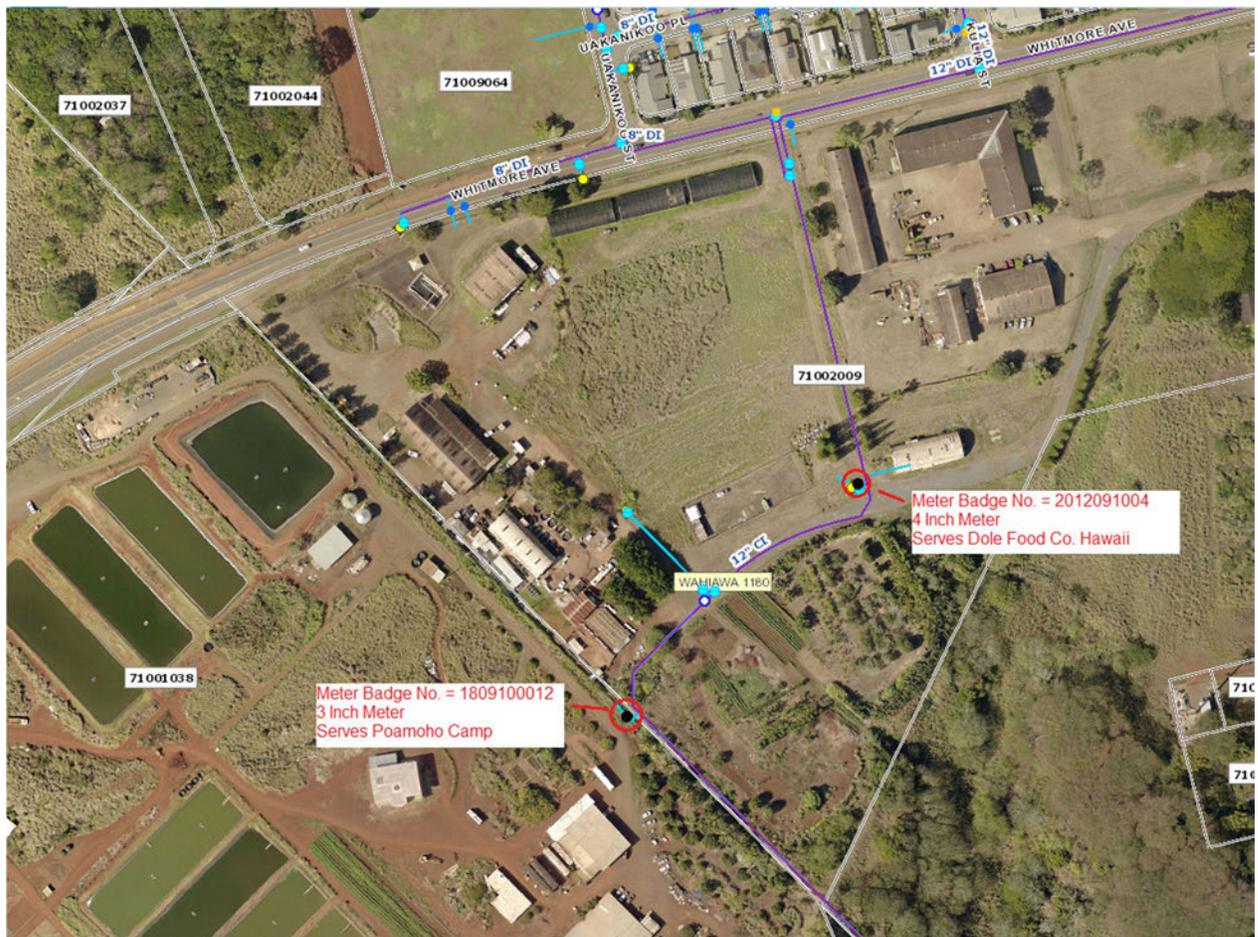
users and the public water supply jurisdiction, Dole Plantation and other potential future users of the new water system will be contacted and kept updated with the design process. There are no required public meetings or hearings required at this time regarding the water system improvements.

## 2.0 EXISTING FACILITIES

### 2.1 Location Map

The existing BWS water system has a 12-inch cast iron water main that crosses the existing drainage way from the south. The existing BWS meter that serves the Poamoho Camp is a 3" meter and is located on private property just south of Whitmore Ave. See Appendix A for photos of the existing water system features that are visible from the street. Figure 2.1a shows the layout for the existing public water system from the BWS GIS mapping system.

Figure 2.1a – BWS Existing Public Water System



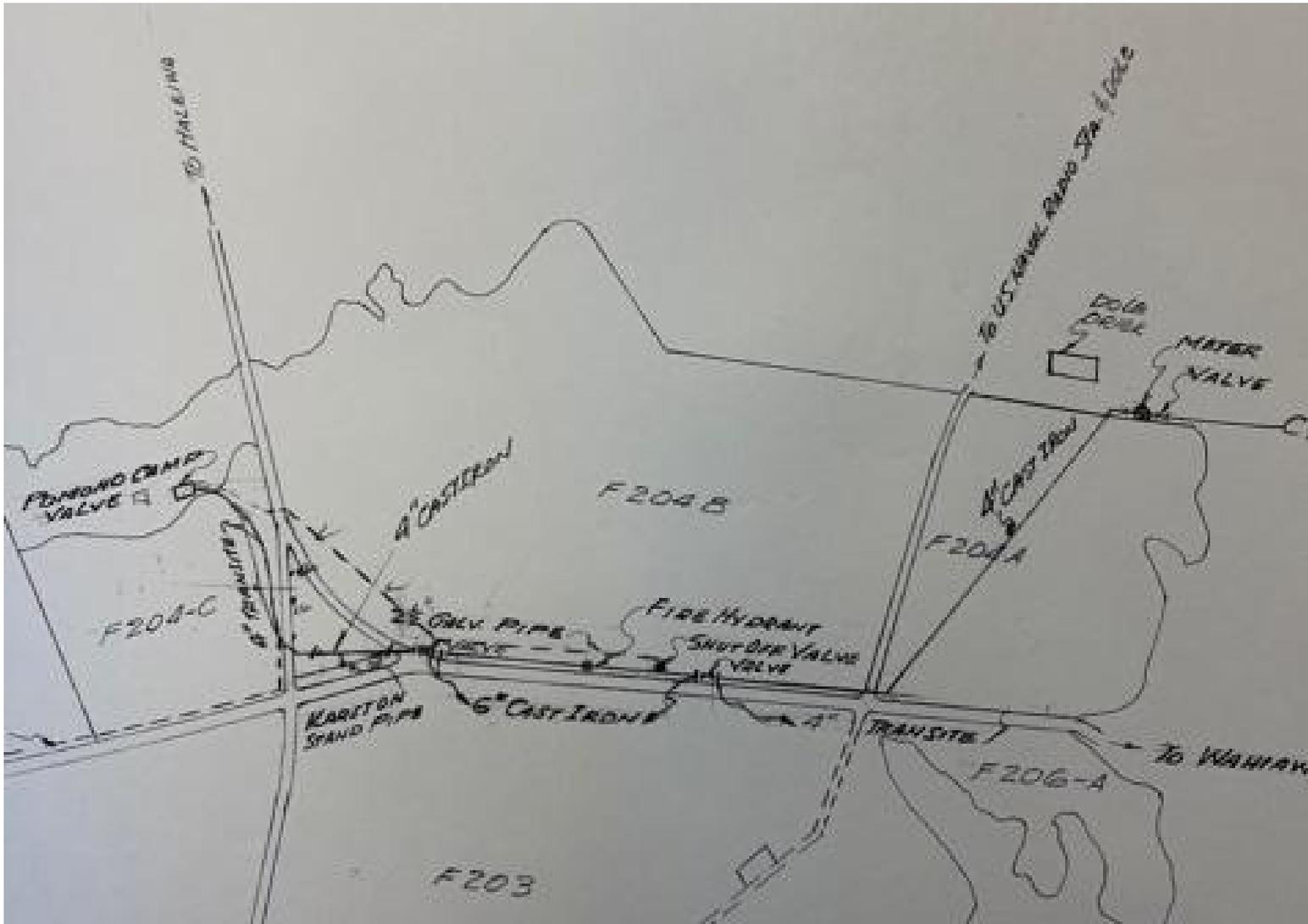
The private water system starts after the 3-inch meter. Since the system was installed so long ago, there are no exact As-built plans available for the horizontal and vertical alignments of the water main. The line begins as a 4-inch cast iron pipe and runs at an angle through the Alii Turf property to Highway 80. From there the pipe changes material type and size on the way to serve the Poamoho Camp. The meter that serves ORI is along Kamehameha Hwy just before Greenworld Coffee Farm. A private line extends after that meter through land owned by Dole Plantation and up to ORI. The alignment of this line is unknown and will be abandoned in place.

The private system from the meter to the Poamoho camp is approximately 7,800 LF. The ORI private line is about another 8,000 LF from the existing ORI meter along Kamehameha Hwy. to ORI. Figure 2.1b below shows the approximate horizontal alignment of the existing water system. Figure 2.1c is a hand sketched plan that we received from the Association of Unit Owners of Poamoho Camp during their team's investigation into the existing water system. Although we are not able to confirm the as-built location of the existing system, this plan gives us our best assumption for what was constructed and is currently serving the public. There are no available as-built plans for the location and alignment of the system that goes up to serve ORI.

Figure 2.1b – Approximate alignment of existing water system

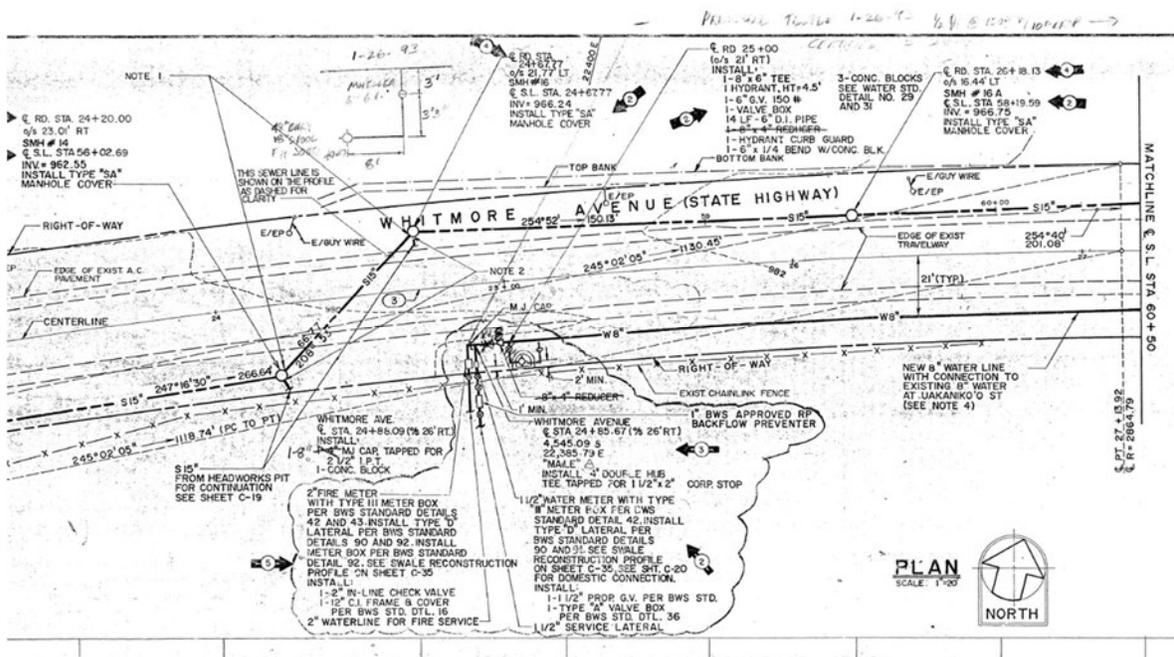


Figure 2.1c – Plan of Existing Water System



In Figure 2.1a above you can also see the approximate layout for the existing water system in Whitmore Ave. There are two existing hydrants noted as C03090 and C03091 that are located just south of Whitmore Ave. (see Appendix C for more information). The existing 8" water line in Whitmore Ave. is capped just west of hydrant C03090, see figure 2.1d below for As-built construction plan of the existing water system in Whitmore Ave.

Figure 2.1d – As-Built Construction Plan of Existing Water System in Whitmore Ave.



## 2.2 History

### Poamoho Camp System:

Poamoho Camp consists of a parcel of approximately 91 acres located at 71-045 Kam Hwy. in Wahiawa, Hawaii. (TMK 710010011000). Poamoho Camp is a former Del Monte plantation property with a residential area consisting of 66 residential units occupied primarily by former Del Monte plantation workers and/or their families. Developer Peter Savio purchased Poamoho Camp when Del Monte closed, and the Galbraith Estate sold the property. In 2009 Peter Savio created a CPR with the units primarily being sold to the individuals living within the camp. Family members were allowed to purchase the unit if the original tenant was unable to qualify to purchase the home. There is an "Agricultural Unit adjacent to the residential area which consists of approximately 54 acres. The homes within the camp were constructed in approximately the early 1950s when the plantation was in production. It is assumed that the potable water system was installed around this time to serve the residents of the camp.

From 2021 to 2023 a new private water system was installed throughout the camp including 8" C-900 mainlines, fire hydrants, new water services and a water tank. The pump system that is part of this project is being redesigned to improve the system. This system is installed but not connected to the existing homes. In the future, the lateral connections will be made to the homes when the tank and pump are fully functional. Currently the homes are still served by the original water system. See Appendix 'B' for the approved plan set for the new water system that was installed at the Poamoho Camp.

#### Greenworld Water System:

In 2013, Greenworld coffee farm was established and has a section of the water system running through their property. See sheets 7 and 9 of the existing topography maps in Appendix 'E' for the location of the existing waterline easement and the private water system. They are now serviced by the system for their potable water and irrigation of their crops. There are some existing irrigation meters in the middle of the property that are used to control the irrigation system.

#### O.R.I. Water System:

ORI was established at the Halemano plantation in the 1980s. In 2010, most of the new buildings and residences were built on the ORI properties. It is unknown when ORI was connected to the existing water system. After a site investigation we found that ORI has its own private water system for domestic and fire services. An existing water tank and pump station are located along Plantation Road, the main access road for ORI and the Halemano Plantation. Along the private streets and buildings, you can see private fire hydrants and fire risers that were installed for fire protection of the site. See Appendix 'A' for photos of the existing water system elements. An existing water detention basin is also located on site. With no apparent water quality treatment system on site, it is assumed that this water is connected to their irrigation system that waters the crops and landscaping that is on site due to the lack of water use from ORI on the existing Poamoho meter. There were no clear valves or boxes on Kamehameha Hwy. to indicate where the connection line for the water tank was located. Two different 4-inch lines running from Kamehameha Hwy. into the site in an existing ditch just north of Plantation Road were found. It is assumed that one of these lines is the existing feeder line that fills the water tank to serve ORI.

#### Combined Existing Private Water System:

The existing use of the system was analyzed by the Honolulu Board of Water Supply and their information is attached in Appendix 'C' – BWS letter regarding Existing Water Systems. BWS looked at the average daily usage for the Poamoho Camp meter and for the Dole Plantation site next to ORI based on their meter readings. See Table 2.2A below for average metered consumption in gallons per day.

Table 2.2a: Average Metered Consumption (from BWS)		
Year	Dole Plantation Facilities (GPD)	Poamoho Camp (GPD)
2021	205,103	27,764
2022	185,011	25,822
2023	163,765	25,762

### 2.3 Condition of Existing Facilities

As mentioned above, the existing water system was constructed approximately in the 1950s and is made up of multiple pipe materials including cast iron, transite (asbestos-cement pipes), and galvanized steel pipes (see Figure 2.1c above). The average life span of cast iron pipes is anywhere from 50-75 years. For transite pipes the average life span is about 50 years, and for galvanized steel pipes the average life span is about 50-80 years. For all the material types within the existing water system, all the materials are getting to the end or are already at the end of their typical usable life span and should be replaced or abandoned.

After conversations with the Association of Unit Owners of Poamoho Camp, who manages the private water system, there have been multiple emergency repairs that have had to be completed to fix breaks in the private water mains. The current maintenance that has to happen yearly on the private water system puts additional financial stress on the HOA as the system is privately financed and maintained without help from any public agencies.

Outside of the material and maintenance issues, the lines are also not sized properly and do not have the capacity to supply sufficient flow for the existing users. The supply line to the camp is mainly made up of 4-inch pipe, but within the camp itself, a lot of the existing water system is made up of 2 ½-inch pipes. There have been many complaints from the existing residents regarding the lack of water pressure within their homes. Additionally, the 4-inch lines are not able to provide adequate fire flow to put out fires should one occur.

The combined issues regarding the physical conditions and the sizing of the existing water system put all its users at risk daily.

## 2.4 Financial Status of any Existing Facilities

As mentioned above, this private water system is privately owned and maintained after the BWS meter out to ORI and throughout the Camp. The Association of Unit Owners of Poamoho Camp manages the system and charges the users of the system monthly for their water use. A single BWS meter is located on the Alii Turf property that shows the water consumption for all of the users of the private water system, which is charged to the Association of Unit Owners of Poamoho Camp. At the connection points for Greenworld and ORI there are two meters that calculate the consumption of those separate entities to help the Association's management team charge them the correct amount for their usage. The existing water bills from September through December of 2023 for usage of the system can be found in Appendix 'F' to show the average kGal of usage and how much the users are charged for water. The Board of Water supply typically charges the Poamoho Camp approximately \$4,000 for their water use, which is typically around 780 kGal for the month. On average Greenworld Coffee farm uses approximately 260 kGal of water per month and is charged approximately \$1,600 ranging from \$1,300 to about \$2,000 depending on usage. On average O.R.I. uses approximately 730 kGal of water per month and is charged approximately \$4,200 ranging from \$3,000 to about \$5,500 depending on usage.

Additionally, the shared costs from the Poamoho Camp HOA, Greenworld Coffee, and ORI are put together to pay for any maintenance on the system. As the existing users on the line can't financially pay for the necessary improvements to the system, the Association's management team has led the charge to apply for Federal grants and loans with the U.S.D.A. Rural Development and other sources to fund the improvements to the system.

## 2.5 Water/Energy/Waste Audits

No audits have been conducted for the water system. This section does not apply to this project.

## 3.0 NEED FOR PROJECT

This section outlines the various system components that are currently posing a threat to the current users at the Poamoho camp, Greenworld Coffee Farm and ORI from having potable water. The intent of this report is to identify improvements to the water system that are required to provide domestic water service and fire suppression that meets all the requirements of a Honolulu Board of Water supply public water system. The improvements detailed in section 4 of this report are intended to replace the existing private water system that has insufficient capacity and is nearing the end of its expected useful life.

The purpose of this project is to ensure that the residents of the Camp and the people at Greenworld Coffee and ORI are protected during a fire emergency and have adequate water supply and pressure.

3.1 Health, Sanitation, and Security

The Association of Unit Owners of Poamoho Camp is pushing forward to get the water system improvements designed and constructed because the current private water system is putting all the residents of the Poamoho camp, and all of the people who work at or visit Greenworld Coffee and ORI at risk. As discussed above, the main supply line is 4-inches in diameter and many of the other lines within the Camp are only 2.5 inches in diameter. The existing system is severely undersized to service residential and commercial uses for domestic and fire suppression.

For fire suppression, the standard requirements for the Honolulu Board of Water Supply Water System Standards 2002 are 1,000 GPM of flow for 1 hour for single family dwellings. For commercial uses such as small neighborhood businesses, the minimum fire flow required is 2,000 GPM for 2 hours. Additionally, the distribution mains the typical design is to have the maximum velocity in line with fire flow to be not greater than 10 feet per second. At the needed fire flows for the existing users, the 4" distribution line would be flowing at 25.52 ft./sec. for 1,000 GPM and 51.04 ft./sec. at 2,000 GPM. See Table 3.1a below for fire flow and velocity data. Due to the size of the existing distribution lines the existing system will not be able to supply enough fire flow to protect the existing homes and businesses that connect to the system.

Table 3.1a: Fire Flow in Distribution Lines		
Pipe Diameter Size (in.)	Velocity in pipe at 1,000 GPM (fps)	Velocity in pipe at 2,000 GPM (fps)
4 in.	25.52 fps	51.04 fps
8 in.	6.51 fps	13.02 fps
12 in.	2.84 fps	5.67 fps

The existing system could potentially become an issue on the water quality side as well. Per the design plan that was provided in Figure 2.1c there are two lengths of the existing line between the water meter and the Camp that are constructed with Transite pipe, also known as Asbestos-Cement (AC) pipe. These pipes were common for water distribution lines in the 1940s-1960s. now the United States Environmental Protection Agency (EPA) understands that the primary source for asbestos fibres is from the wear, or breakdown of asbestos-containing materials. As these existing pipes continue to wear down the chances

of the drinking water getting contaminated with asbestos fibres increases. This existing pipe material is putting all users from the entire service line at a health risk due to the potentially contaminated water.

### 3.2 Aging Infrastructure

As previously mentioned, the private water system was installed in the early 1950s and is constructed of cast iron, galvanized steel and transite (asbestos-concrete) pipes. The usable lives of all of these materials range between 50 and 80 years and are getting close to the end of that spectrum as they are at around 70 years of use. Yearly, the management team for the Association of Unit Owners of Poamoho Camp must deal with breaks in the mainline and has to have maintenance workers respond rapidly as the break affects all of the users on the existing system. The aging of the transite pipes provides the biggest concern as they could also be contributing to contamination of the water supply on top of the potential structural issues. The timing of the original construction and the typical lifespan of the pipes make it very logical that this line needs to be replaced to serve the existing users.

### 3.3 Reasonable Growth

The proposed improvements are based on the current needs of the current users of the existing private water system. As previously mentioned, the Poamoho Camp is at the maximum units allowed for the property at 66 units. Besides the camp, all the other adjacent land is zoned agricultural. With all of these agricultural lands having to get their irrigation water from a different source outside of the BWS public system and not having the ability to develop with a medium to high density, the projected growth in the area is relatively small. The agricultural side of the Poamoho camp has a completed Master Plan for agricultural uses, a farm to table restaurant, packaging plant and a visitor's center (see Figure 3.3a below for Master Plan). This plan shows the potential layout of the future development of the AG site. With this growth the additional potable water that is needed is approximately 26,000 GPD. The existing water source has enough capacity to handle this increase in consumption volume. See Appendix 'D' – Water System Calculations for the potential future consumption calculations for the agricultural site.

With little projected growth in the area, the capacity of the source is not an issue. Only the physical size and condition of the existing water lines need to be addressed.

## 4.0 ALTERNATIVES CONSIDERED

### 4.1 Description

After analyzing the existing system and concluding that the useable life for the entire system is getting to its end, we looked into alternatives that were feasible and practical from a design and cost point of view. We considered options and designs that minimized the need to purchase land from other entities or individuals, minimized conflicts with existing utilities and infrastructure, and minimized unnecessary costs. These are described below. For all alternatives described below, it is understood that there could be different potential alignments for the water main systems. The alternatives were looked at as using the most efficient and cost-effective alignment for the potential water mains.

#### Alternative 1:

The first alternative is designed to connect to the same water source that is serving the current private system, and to remove the existing water lines in the state and county Right-of-ways that can be found via toning. Since the existing water service line and meter are on private property owned by Alii Turf, the existing water service will be cut and capped in place at the 12" cast iron water line. The existing line in the Alii turf property will be abandoned in place. A new 12" water main will be installed and will connect to the existing 8" water line in Whitmore Ave. with a new master meter installed immediately after the connection point. This master meter will monitor all water usage and losses that occur on the new private system. A 12" x 8" reducer will be installed on the 8" line to connect to the new line. New 12" water main will be installed in the public ROW for Whitmore Ave., Hwy.-80, and Kamehameha Hwy. The new line will be capped at the end just in front of ORI at the intersection of Plantation Road and Kamehameha Hwy. Private water services will be installed for Greenworld Coffee Farm, the Poamoho agricultural site, the Poamoho Camp site, and ORI. These services will vary in size based on the existing and future use of that system. The existing water systems at Greenworld, the camp and ORI will connect to these new water services. Fire hydrants would be installed near the existing users as needed for fire protection. As the Poamoho Camp and ORI have private fire hydrants through their sites, the main location for fire protection is at Greenworld Coffee farm.

This system in the right of ways will be designed to the Honolulu Board of Water Supply standards. The Association of Unit Owners of Poamoho Camp will own and maintain the new system for at least the lifetime of the U.S.D.A. loan as required by 1780.7(e) of the U.S.D.A regulations. The Association would likely hire a water system management company to operate the system and perform regular maintenance. Since the system mainly consists of new underground waterlines, the expected yearly maintenance is low but will slowly increase as the waterlines age. Since the water source is controlled by BWS, there will be no additional operations and maintenance costs associated with the source of the water. BWS will include O&M costs in the usage fee that is charged monthly to the

Association. After the loan is closed, the Board of Water Supply could potentially have the opportunity to accept ownership of the new system should the Association of Unit Owners of Poamoho Camp choose to pursue it. See Appendix ‘G’ for the preliminary construction plans for Alternative 1.

<b>Table 4.1a: Alternative 1 Analysis</b>		
<b>Proposed Project Component</b>	<b>Changes needed to the system</b>	<b>Approximate Associated Cost (\$)</b>
<b>Water Source</b>	BWS water source. Remains the same.	\$0
<b>Removal of Existing water line</b>	The possible removal of the existing water line	\$1,500,000
<b>Distribution Water Mains &amp; Valves</b>	11,800 LF of new 12” water lines with associated horizontal & vertical bends and deflections, with epoxy coating and cathodic protection. Includes valves, trench patching and traffic control etc.	\$10,768,100
<b>Fire Protection</b>	Installation of 4 new fire hydrants	\$64,000
<b>Poamoho Camp</b>	Installation of new water service and meter to fill existing water tank on site. Installation of approximately 390 LF of 4” water line to connect to existing 4” waterline that fills tank.	\$44,700
<b>Poamoho Camp AG site</b>	Installation of water service lateral and meter for future domestic and fire service for future build out of the AG site.	\$13,500
<b>Greenworld Coffee Farm</b>	Installation of water service lateral and meter for domestic service at Greenworld. Installation of approximately 210 LF of 2” water lateral to connect to existing plumbing.	\$45,000
<b>O.R.I.</b>	Installation of new water service and meter to fill existing water tank on site. Installation of approximately 450 LF of 4” water line to connect to existing 4” waterline that fills tank.	\$49,500
<b>Additional land required or easements</b>	No additional land would have to be purchased.	\$0
<b>Yearly Private Maintenance</b>	The Association will hire a water system operating company to perform maintenance on the new system. \$50,000 per year for 5 years.	\$250,000
<b>Construction Mob. &amp; Admin Fees</b>	Contractor mobilization for construction and all associated administrative fees for the G.C.	\$552,000

Design & Management fees	Civil design fees, Construction and project management fees	\$345,000
Approximate Permit & Review Fees	Approximate building permit and plan review fees	\$40,000
Alternative #1 Approx. Sub-Total Cost		\$13,671,800
Construction Contingency	10% Construction Contingency	\$1,367,180
Alternative #1 Total Cost		\$15,038,980

Alternative 2:

The second alternative is designed to create a new water source and a new private system for the existing users of the current private system. For this alternative an investigation would have to be conducted by a water resource engineer such as Tom Nance Water Resource Engineering to analyze the existing aquifer and to see if drilling a well at the AG site for Poamoho would provide a functional water source. As Greenworld Coffee Farm has an existing septic system in their parking lot, the water source would have to be located over 1,000 feet from the septic system. The new water source would be sized to provide and store water for the domestic and fire services for Greenworld Coffee Farm, the Poamoho agricultural site, the Poamoho Camp site, and ORI. The new water system would include a new well, water tank, and pump station. After water quality tests of the new well, it would be determined to what kind of water quality measures would have to be taken on the new water source to provide clean drinking water.

To accompany the new water source and storage, a new private 12" water main system would have to be installed from the water source to Kamehameha Hwy. and all the way north to ORI. This system will include approximately 6900 LF of 12" ductile iron waterline with the associated horizontal & vertical bends and deflections. New private water services would be installed off of the new main system to serve the existing users. These would be sized based on the existing and proposed water uses for the site. Private fire hydrants would be installed near the existing users as needed for fire protection.

The entire system would be owned and maintained privately by the Association of Unit Owners of Poamoho Camp. The Association would likely hire a water system management company to operate the system, and to perform the regular maintenance. As this system

would include the maintenance of the wells, water tanks and pumps, the cost of maintenance would be much greater than that of Alternative 1. No easements or additional land would be required as the location for the proposed water source would be located on land owned by the Association of Unit owners of Poamoho Camp. See Appendix 'H' for exhibits for Alternative 2.

<b>Table 4.1b: Alternative 2 Analysis</b>		
<b>Proposed Project Component</b>	<b>Changes needed to the system</b>	<b>Approximate Construction Cost (\$)</b>
<b>Water Source</b>	New water source. Drill 2 wells, 2 water tanks, Reverse osmosis water treatment system, domestic and fire pump system.	\$7,900,000
<b>Removal of Existing water line</b>	The possible removal of the existing water line	\$1,500,000
<b>Distribution Water Mains</b>	Approximately 6,900 LF of new 12" water lines with associated horizontal & vertical bends and deflections, with epoxy coating and cathodic protection. Includes valves, trench patching and traffic control etc.	\$6,871,060
<b>Fire Protection</b>	Installation of 4 new fire hydrants at Greenworld Coffee farm, Poamoho Camp and ORI	\$64,000
<b>Poamoho Camp</b>	Installation of new water service and meter to fill existing water tank on site. Installation of approximately 390 LF of 4" water line to connect to existing 4" waterline that fills tank.	\$44,700
<b>Poamoho Camp AG site</b>	Installation of water service lateral and meter for future domestic and fire service for future build out of the AG site.	\$13,500
<b>Greenworld Coffee Farm</b>	Installation of water service lateral and meter for domestic service at Greenworld. Installation of approximately 210 LF of 2" water lateral to connect to existing plumbing.	\$45,000
<b>O.R.I.</b>	Installation of new water service and meter to fill existing water tank on site. Installation of approximately 450 LF of 4" water line to connect to existing 4" waterline that fills tank.	\$49,500
<b>Additional land required or easements</b>	No easements are required as the Association of Unit Owners also owns the land for the water source.	\$0

Yearly Private Maintenance	The Association will have to hire a company to operate and maintain the new system. At \$75,000 per year for 5 years.	\$375,000
Construction Mob. & Admin Fees	Contractor mobilization for construction and all associated administrative fees for the G.C.	\$1,841,000
Design & Management fees	Civil design fees, Construction and project management fees	\$1,074,000
Approximate Permit & Review Fees	Approximate building permit and plan review fees	\$95,000
Alternative #2 Approx. Total Cost		\$19,872,760
Construction Contingency	10% Construction Contingency	\$1,987,276
Alternative #2 Total Cost		\$21,860,036

Alternative 3:

The third alternative that was discussed was also deemed not a practical solution at this point in time. Alternative 3 would create new individualized water sources and delivery systems for each of the four existing users of the current private system. At the Poamoho Camp subdivision site, there is an existing water tank that was sized for domestic and fire services for the subdivision, and a new pump house is currently in design. At ORI there is an existing water tank and pump house that is currently being used to provide domestic and fire service for the site. Both of these two areas would need to select a way of filling their tanks after the existing system is abandoned and out of commission.

At Greenworld Coffee Farm and at the Poamoho Camp AG site, there are no existing tanks or storage systems on site. Individual storage systems would have to be designed and installed to provide domestic and fire service for the existing and potential future uses of the sites. Pump systems would be installed to provide sufficient water pressure to meet Fire Flow requirements from BWS. Additionally, a new private water main system would be designed and installed from the pump to serve the rest of the site. These new systems would also need to select a way of filling their tanks after the existing system is abandoned and out of commission.

It is assumed that in this alternative, the drilling of multiple wells and treatment facilities would be very impractical. This means that the only other alternative would be to get water from a different public or private source and have the water trucked in to fill up the individualized storage systems. Each entity would have to continue to pay for daily delivery of water to all of the sites and would have to have enough stored on site to meet the BWS fire flow requirements. Additionally, a private source of water that could meet this demand has not been found at this time or doesn't currently exist. For all of these reasons this alternative is not practical at this time.

Alternatives 1 and 2 will continue to be analyzed in the sections below.

#### 4.2 Design Criteria

In the City & County of Honolulu, the Honolulu Board of Water Supply manages the construction of new water systems, and the Department of Health Clean Water Drinking branch manages the water quality treatment of potable water systems. The Board of Water Supply currently uses their Water System Standards 2002 edition as the code for what public water systems have to be constructed to. For private water systems, the elements are designed to the Uniform Plumbing Code but is still reviewed by BWS through the building permit process with the Department of Planning and Permitting at the City and County of Honolulu. Additionally, DPP and the Civil Engineering Branch (CEB) would review any needed grading or building permits for the site development improvements.

On a state level, the Clean Water Drinking Branch of the Department of Health reviews sampling from the public and private sources along with the reports for new wells to determine whether or not the water is safe for consumption. The Department of Health also reviews NPDES permits for erosion and sediment control to make sure that runoff from the construction site does not affect the water quality of nearby properties and drainageways.

#### 4.3 Map

Preliminary construction plans have been prepared for Alternative 1 and can be found in Appendix 'G'. Exhibits for the analysis of Alternative 2 can be found in Appendix 'H'.

#### 4.4 Environmental Impacts

##### Alternative 1:

Alternative 1 minimizes the environmental impacts to the maximum extent practical. This alternative is not creating a new water source so there are no additional impacts to the underground aquifer. The mainline is located in the existing state and County right of way so that main areas affected already have the existing streets present. This alternative does

have the 12" ductile iron water line cross an existing stream and drainage way called the Poamoho stream. Kamehameha Hwy. is the existing road that crosses this stream and has a concrete bridge to cross the waterway. The water main will be installed and attached to the side or to the bottom of the existing bridge and will have little to no effect on the existing resource. This alternative consists of mainly trenching in the existing R.O.W. and will minimize environmental impacts.

#### Alternative 2:

Alternative 2 includes the potential drilling of a new private water source. This would include the drilling of potentially two wells into the existing aquifer. Along with the impact to the aquifer, new energy usage would be added to run the wells and pumps to keep the system in operation. This affects the power grid in the area as well as alternative energy sources such as gas to run the backup generator. Similarly to alternative 1, the water main alignment is mainly in the State and County R.O.W., and through parcels that don't include existing environmental resources. The water main would cross Poamoho stream in the same manner as alternative 1. The increased environmental impact for this alternative is from the new wells, water tanks and pump site.

#### 4.5 Land Requirements

For both of the practical alternatives the water main system will be constructed mainly in the State and County R.O.W. For alternative 1, the private portion of the system will be installed on properties of the existing users of the waterline and no additional land would need to be acquired. For alternative 2, the new water source location would be on the Poamoho AG site, which wouldn't require any additional land to be acquired. As the Association of Unit Owners of Poamoho Camp owns that property, no immediate easements are required. Should the water source be turned over to another entity at a later time, then an easement would have to be created at that point. Both alternatives have no additional land required for the work to be completed.

#### 4.6 Potential Construction Problems

For Alternative 1 the construction of the 12" main consists of mainly trenching for the waterline at depths of 5 feet to approximately 12 feet. With most of the line being only a 5-foot-deep trench, we are not anticipating hitting large rocks under the surface of that area. Additionally, from our experience with installing the private water lines at the Poamoho Camp and not having many rock conflicts with our trenches, we can further support this assumption. The existing elevation of the road above the waterline ranges from about 985 feet to 930 feet. At these elevations we are not concerned about experiencing any issues with a high-water table.

With the lack of as-built information for much of the old utility lines that may be in the R.O.W., a potential construction issue that would occur with both alternatives would be

unknown utility conflicts. Due to old pipe materials, toning for utilities can be ineffective or provide inaccurate information. The contractor will have to potentially adjust the pipe elevations due to these unknown conflicts.

For Alternative 2, subsurface rocks could be a potential construction issue while drilling the wells that would provide the new water source for the system. Although subsurface rock is not an uncommon occurrence for drilling operations, depending on the size there is always a possibility of this being an issue. The addition of creating a new water source also creates the potential for more construction issues. Alternative 1 with most of the construction occurring in shallow trenching eliminates many of the large potential construction issues.

#### 4.7 Sustainability Considerations

##### 4.7.1 Water and Energy Efficiency

The existing private water system is currently metered by a single Board of Water supply meter that is billed to the Association of Unit Owners of Poamoho Camp. Additionally, at the connection points for Greenworld Coffee Farm and O.R.I. there are meters to monitor their consumption from the water system. Due to the existing condition of the water mains, the system is experiencing additional losses for breaks and wear that requires maintenance. Both alternatives are similar regarding the installation of new pipes, valves and meters along the new distribution line. Water loss will be reduced with the new system. Operational simplicity will result in meter reading due to the use of new technology. Modest energy savings may result from automated meter reading and reduction in water loss.

Where the alternatives differ is in the energy needed to create the new water source for Alternative 2, and the energy needed to operate and maintain the new delivery system. Alternative 1 would continue to have water supplied by an existing water source and thus, would not need additional energy supplied for operation and maintenance. Alternative 1 is a more sustainable and energy efficient plan.

##### 4.7.2 & 4.7.3 Green Infrastructure & Other

Due to the nature of the project primarily consisting of the installation of new water main and service laterals. Green infrastructure was not an option. This portion does not apply to the project.

#### 4.8 Cost Estimates

Tables 4.1a and 4.1b above represent a few key portions of the preliminary construction cost opinions for each Alternative. The current plans and cost estimates are preliminary at

this time and represent the best estimates that can be made for this Preliminary Engineering Report. Cost opinions include contingencies that are consistent with the level of information and design detail prepared to date. It is assumed that the Association of Unit Owners of Poamoho Camp will use the cost opinions for making final decisions on project elements that are to be included and for making application to USDA and other sources for design and construction funding. Detailed cost breakdowns for the PRELIMINARY plans are found in Appendix 'I'.

## 5.0 SELECTION OF AN ALTERNATIVE

### 5.1 Life Cycle Cost Analysis

The two alternatives were analyzed through the cost estimate process, and Alternative 2 would require over \$6 million dollars of additional design and construction costs and have an almost \$2 million of additional operation and maintenance cost over a potential 75-year life span of the system. These additional costs make Alternative 2 not a practical solution for the new water system. Having costs much greater than that of Alternative 1 and having a much more difficult construction process with far more potential construction issues, Alternative 2 has been ruled out as a possible alternative. Therefore, a Life Cycle Cost Analysis has not been performed between Alternative 1 and Alternative 2 as the sheer initial costs rule out Alternative 2.

### 5.2 Non-Monetary Factors

Outside of the cost differences between Alternative 1 and 2 for both construction and maintenance costs, Alternative 2 would create a much greater effect on our natural resources and the environment. The creation of a new water source would be the addition of new impacts to the existing aquifer and require much more additional power to construct and operate the system. The energy impacts from Alternative 2 are much higher than that of Alternative 1. Additionally, the permitting process and design process for the water source in Alternative 2 would be much more difficult as you would have to get additional approval from the Hawaii Department of Health for the water source. These non-monetary factors alongside the additional costs of Alternative 2 made that alternative not a practical solution for this project.

## 6.0 PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

### 6.1 Preliminary Project Design

The recommended alternative intends to design and install a new waterline from Whitmore Ave. up to O.R.I. along Kamehameha Hwy. The recommendation is for the new waterline to be designed to the Honolulu Board of Water Service Standards. The Association of Unit Owners of Poamoho Camp will own the system and will have to hire a

water system operating company to operate and maintain the system. Designing the system to BWS standards allows the applicant to have the option to potentially turn over the water system to BWS after the USDA loan is closed.

The alternative would include the following:

- Demolition and removal of the existing private waterline within the State and County R.O.W.
- Removal and abandonment of the existing water service and meter for Poamoho Camp on the Alii Turf property if required by BWS or another reviewing agency.
- Connecting to the end of the existing 8” water line in Whitmore Ave. and installing a 12” x 8” reducer to upsize the system to a 12” line.
- Installation of 12” ductile iron waterline to O.R.I. including associated air release valves, tees, manholes etc.
- Installation of water services at Greenworld Coffee farm, Poamoho AG site, Poamoho Camp subdivision, and O.R.I.
- Installation of 4 fire hydrants at Greenworld, Poamoho Camp, and O.R.I.
- Installation of approximately 210 LF of 2” water line at Greenworld Coffee Farm to connect to the existing commercial plumbing system.
- Installation of approximately 390 LF of 4” water line at Poamoho Camp to connect to the existing 4” waterline that fills their water tank.
- Installation of approximately 450 LF of 4” water line at O.R.I. to connect to the existing 4” waterline that fills their water tank.

6.2 Project Schedule

Table 6.2a: Projected Milestones	
USDA RD Approval of PER	May 2025
Project Funding Obtained	July 2025
Begin Design	August 2025
Submit for Permit with Honolulu C&C & Department of Health	November 2025
Obtain Permits	October 2026
USDA RD Approval of Final Design	December 2026
Bid / Contract Award	January 2027

Final Construction Complete	January 2028
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### 6.3 Permit Requirements

For the recommended alternative the only permit that is anticipated at this time is a building permit with the City and County of Honolulu for the site development improvements of the water system. Through this review process the design would be reviewed by the various divisions in the City and County, the Board of Water Supply, and the Department of Health's Clean Water Drinking branch. The approximate building permit review fee and building permit fee is covered in the Cost Estimate in Appendix 'I'.

### 6.4 Sustainability Considerations

#### 6.4.1 Water and Energy Efficiency

The improvements needed to the system did not allow for many sustainability opportunities. The new water meters that will be installed will have updated technology to help manage the water system.

### 6.5 Total Project Cost Estimate (Engineer's Opinion of Probable Cost)

The total project estimated cost is \$13,671,800 for design, permitting and construction. With a 10% contingency the total is \$15,038,980. The estimated costs can be found in Appendix 'I'.

### 6.6 Annual Operating Budget

The intent is for the system to be owned by the Association of Unit Owners of Poamoho camp, and they would hire a water system operating company to operate the system and perform regular maintenance. The operating costs would be minimal as the new system primarily consists of underground water lines that don't require any regular maintenance. Emergency maintenance will be needed for any breaks in the lines or any damage to structures such as hydrants or backflow preventers. The water source is controlled by BWS, and the operation and use of this water source will be charged by BWS to the Association through their usage fee. This fee will be transferred from the Association to the individual users in their monthly billing and thus does not add to the annual operating budget. As the system ages, the likely hood of breaks in the line will increase and the yearly operating budget will increase. An estimated yearly operating budget of \$50,000 is included in this report, although the early years of operation might be much less.

### 6.6.1 Income

The intent is for the system to be owned and maintained by the Association of Unit Owners of Poamoho camp. The water system will generate income through water service charges. The existing system is being supplied and charged by BWS for their water consumption. The current system is generating between \$4,000 and \$9,000 monthly based on water usage. With no new users being added to the system at this time, it is assumed that the water usage will remain relatively the same. The amount charged to the individual users for water service will change as necessary by the Association in efforts to repay the USDA loans and to pay O&M fees.

### 6.6.2 Annual O&M Costs

The intent is for the system to be owned and operated by the Association of Unit Owners of Poamoho Camp for the lifetime of the U.S.D.A. loan. The association will hire or come to an agreement with a water system operations company to operate the system and perform regular maintenance. The system in Alternative 1 consists of primarily new underground water lines which will not need much maintenance immediately after installation. An average estimated amount of \$50,000 per year is expected to maintain the new system. As the lines age, the potential maintenance costs will increase. The majority of the anticipated water system maintenance costs will occur after the new private meters and will be the responsibility of the individual user.

### 6.6.3 Debt Repayments

There is no known debt repayments associated with this project outside of the U.S.D.A. loan. To finance the proposed USDA loan project, the Association of Unit Owners of Poamoho Camp worked to acquire additional grants and will charge additional fees to the existing users where necessary to fund the improvements. The Association will bring in money to repay the loan through the monthly charges to the users of the water system.

### 6.6.4 Reserves

There are no known reserves available for the design and construction of the improvements that are necessary for the health and safety of the existing users of the private water system. The proposed project is anticipated to be funded by a combination of grant money from the USDA, a USDA loan and other sources. After the construction of the system, the operation and maintenance will be completed by a company hired by the Association of Unit Owners of Poamoho camp. These fees will be paid for through system charges. Thus, additional reserves are not required to keep the system in operation.

#### 6.6.4.1 Short-Lived Asset Reserve

Below is a summary of the short-lived assets that may require replacement in the next 15 years. The majority of the new infrastructure includes the proposed water lines, valves, connections and hydrants, and have an expected useful life of over 30 years and are not considered short-lived assets. The only equipment that falls into this category would be the water meters at each of the service laterals. There are currently 3-3" water meters that will be installed at Poamoho Camp, Poamoho Camp's AG site, and at O.R.I., and 1- 2" meter to be installed at Greenworld Coffee Farm. Each of the 3" water meters cost around \$5,000 and the 2" water meter costs around \$3,000. These short-lived assets will be replaced by the Association of Unit Owners of Poamoho Camp should they need to be replaced. A reserve will be created through the monthly usage charges to the individual users of the system. The reserve will be greater than the costs mentioned above to take into consideration the increase in material/part costs, and the potential other improvements needed to the system.

### 7.0 CONCLUSIONS AND RECOMMENDATIONS

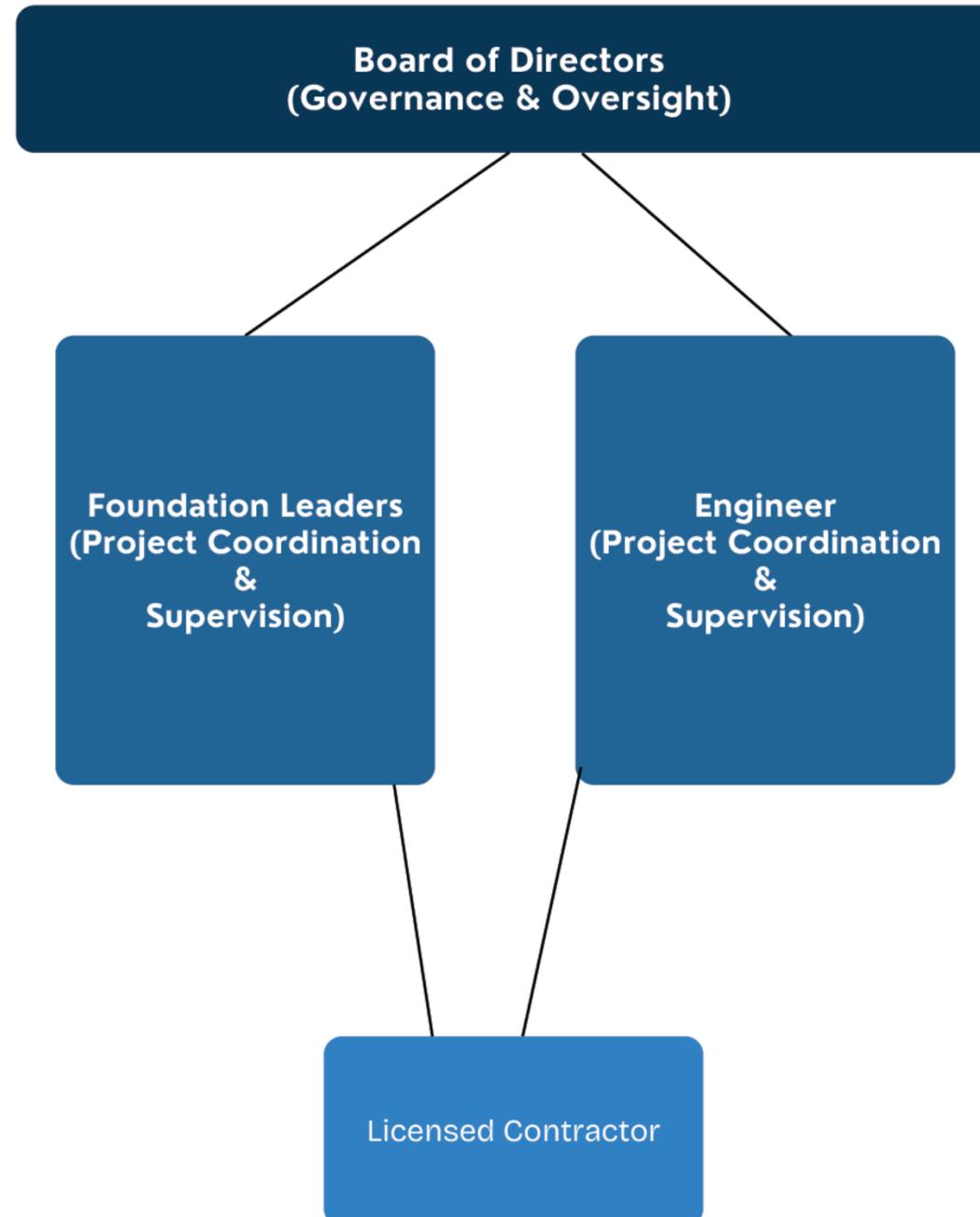
The recommended project is straightforward and connects to an existing water system and water source. Through the design and review process, the final constructed product should meet all of the BWS standards. This system will be owned by the Association of Unit Owners of Poamoho camp, and they will hire a water systems operating company to operate and maintain the system. The recommended project is the most cost-effective alternative and will also provide the shortest path from PER approval to a functioning system. The existing system that serves Greenworld Coffee Farm, the Poamoho Camp, and ORI is currently at the end of its usable life and needs to be replaced to make sure the public has access to water for domestic use and fire protection. Additionally, the existing asbestos-cement pipe system is an existing hazard for the health and safety of all users on the existing system. The proposed alternative will resolve these health and safety concerns and drastically improve the quality and quantity of the water supply for the community.

The applicant is seeking assistance from USDA Rural Development and other funding sources to provide the necessary infrastructure improvements. It is recommended that the Association of Unit Owners of Poamoho Camp team pursue funding and implementation of the project outlined above in section 6. It is our opinion that this is the best solution to improve the water system for these existing users.

# Poamoho Camp Foundation

## Water Pipeline Repair

11





July 7, 2025

VIA EMAIL ONLY: [colomalinda@gmail.com](mailto:colomalinda@gmail.com)

Association of Unit Owners (AOUO) of Poamoho Camp  
Ms. Linda Coloma, Treasurer  
c/o Nakamoto Realty, LLC  
94-615 Kupuohi Street, Suite 205  
Waipahu, Hawaii 96797

Dear Ms. Coloma:

We are in receipt of your application dated June 15, 2025, for assistance from USDA, Rural Development for your proposed waterline improvement project. The proposed project has been found eligible for funding by this agency. It will compete with similar applications through a priority ranking system for Fiscal Year 2025 funds.

In your application, you requested \$14,788,980 in federal assistance. We are agreeable to consideration of approximately this amount, subject to the availability of funds. The proportion of any loan and grant funding will be discussed with you at a later time once the complete financial analysis and underwriting is complete.

The Preliminary Engineering Report is being reviewed as we process your application.

You are advised against incurring any obligations or taking any actions that would have an adverse effect on the environment. Satisfactory completion of the environmental review process must occur prior to the issuance of a letter of conditions and any funding proposal. Further consideration of your request will proceed when a final determination has been reached regarding the environmental impacts of the project and the underwriting is complete.

If you have any questions, please contact our office.

Sincerely,

Lennie Okano-Kendrick  
Community Programs Director

cc: Ms. Belinda Miranda, Nakamoto Realty, LLC

**Rural Development**

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