TECHNICAL PROPOSAL

Title Page

WaterSMART Planning & Project Design Grants, R23AS00109, Bureau of Reclamation
Title: "Water Strategy for the Kīlauea Namahana / Kalihiwai Watersheds as a Pilot for Kaua'i Watersheds"
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Executive Summary

May 13, 2024, ʻĀina Hoʻokupu o Kīlauea, Kīlauea, Kaua'i County, State of Hawaiʻi

Task A: Water Strategy Grants - creating a new strategy

Category B Applicant, **Category A** Partner: **State of Hawaiʻi, Department of Agriculture (letter attached), Kaua'i County Department of Water (letter attached)**
ʻĀina Hoʻokupu o Kīlauea has the support of the Department of Agriculture, an agricultural water purveyor in the State of Hawaiʻi. AHK has a longstanding working relationship with the DOA as a user of their water as well as a community partner. AHK also has the support and commitment from the Kaua'i Department of Water, the drinking water purveyor for residents and visitors in this area. This project is in the interest of all three organizations to provide a strategy forward for water in this region.

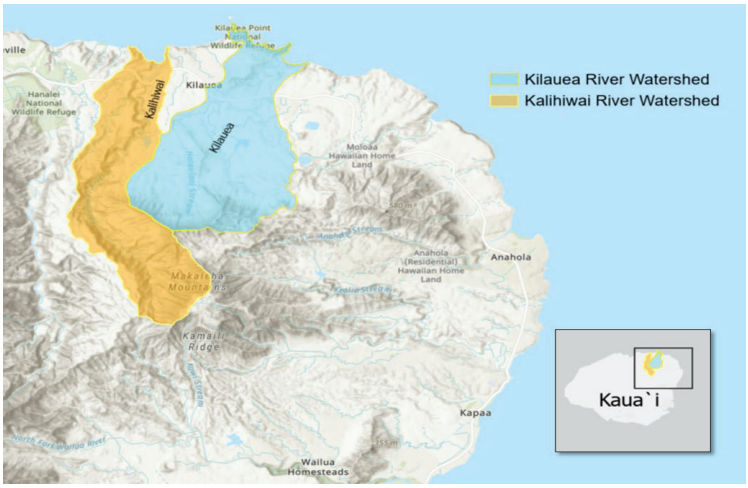
Project Summary: ʻĀina Hoʻokupu o Kīlauea (AHK), a nonprofit 501(c)(3) organization, seeks to undertake a comprehensive water master planning process for a major area on the Island of Kauai - the home of the "wettest place on earth" that still pervasively faces issues related to drought, floods, and overall need for proper water management. The effort will produce the *Water Strategy for the Namahana (Kilauea & Kalihiwai) Watersheds*, including a new and comprehensive plan building on existing water strategy documents – the Agricultural Water Use Development Plan (AWUDP) and Kaua'i Water Use Development Plan (KWUDP) – that are outdated and not keeping pace with the area's population growth and increased agricultural, environmental, disaster responsiveness, and other needs. The team will focus on the contiguous Kalihiwai and Kīlauea Watersheds, located in Kīlauea, Kaua'i County, State of Hawaiʻi. This process will impact more than 15,000 given area residents, visitors and recipients of AHK food boxes and other programming. AHK expects this process to generate and synthesize information into a plan that will be a tool critical to current and future decision making toward restoring the water balance for the area. AHK will also look to this process to arrive at a management solution for a major water infrastructure asset in the area in the form of the aging Kalihiwai Reservoir. The project is supported by the State of Hawaiʻi Department of Agriculture and County of Kaua'i Department of Water, and other cross-sector partners.

Project Period: October 1, 2024 - September 30, 2027 **subject to change based on award date*

Federal Facilities Involvement: The proposed planning effort will potentially involve Federal land and a Federal facility under the U.S. Department of the Interior: the Hanalei National Wildlife Refuge and Kīlauea Point National Wildlife Refuge, including a lighthouse facility.

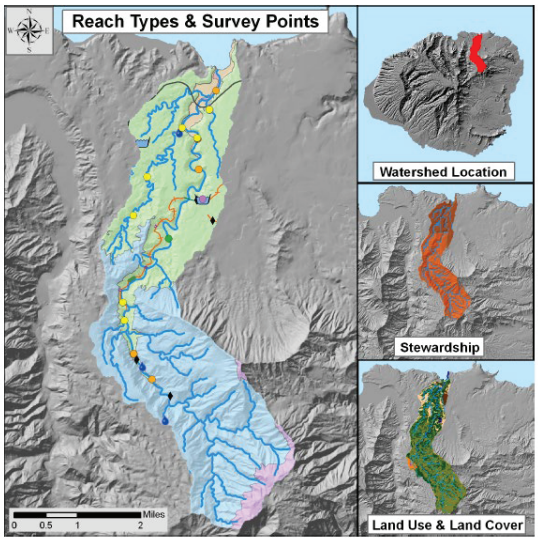
Project Location

ī‘Āina Ho’okupu o Kīlauea (AHK) proposes to focus on the Kalihiwai and Kīlauea Watersheds, located in Kīlauea, Kaua’i County, State of Hawai‘i, centered about 2.5 miles Southwest of Kīlauea town at latitude {22.181782N} and longitude {-159.432740W}.[1] The project encompasses two key rivers, the Kalihiwai and Kīlauea Rivers. The upper extent of the project area is the ridgeline, made up of mostly steeper slopes and forested land cover. Conservation land, trails, and rural areas comprise the middle watershed, and the lower watershed is predominantly agricultural. Some residential and light commercial activity can be found along the coast, specifically in Kīlauea.



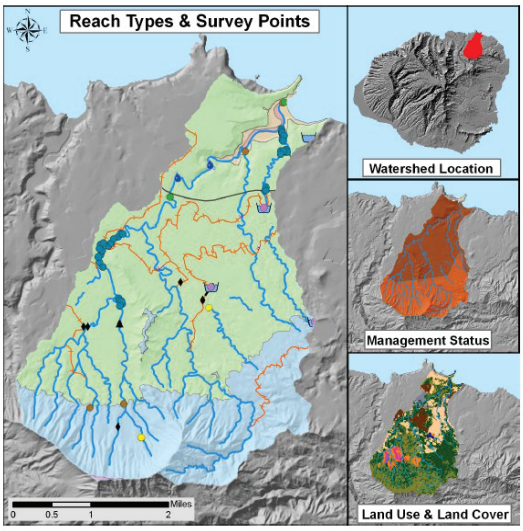
DAR Watershed Code: 21025

Kalihiwai River, Kaua‘i



DAR Watershed Code: 21028

Kīlauea, Kaua‘i



Project Description

‘Āina Ho’okupu o Kīlauea (AHK), a nonprofit 501(c)(3) organization, working with the State of Hawai‘i Department of Agriculture (DOA) and Kaua’i County Department of Water (DOW), seeks to undertake a comprehensive process to produce a new water strategy. AHK will generate and synthesize information into a water master plan that will be a tool critical to current and future decision-making toward restoring the water balance for the target area. AHK will also look to

[1] https://www.hawaiiwatershedatlas.com/ka_hanalei.html

this process to arrive at a management solution for a major water infrastructure asset in the area in the form of the aging Kalihiwai Reservoir.

Planning objectives. AHK requests funds for a systems approach to updating existing plans and developing a water master plan focusing on a bounded geographic area stemming from **mauka** (mountain) to **makai** (ocean) that will include a strategy to restore water balance among sources and uses. AHK's overall goal is to preserve the area watershed and steward the water resource in a way that preserves its quality and prevents excessive extraction of limited groundwater. This will also include increasing rainfall retention (impoundment) to slow down the flow of water across the landscape to increase percolation, in order to mitigate future drought periods. The aspiration is also that this effort will help to launch a proof-of-concept management system for a badly aging reservoir and water system infrastructure modeled on proven water co-op models. This proposal will not duplicate projects submitted in other federal applications. The grant implementation process will arrive at a new, comprehensive water strategy that includes these tasks, which may be concurrent, detailed in the timeline below:

Task 1–-**Review of Existing Conditions:** Compilation of existing studies and reports, including planning documents for water use – Hawai'i Water Plan, AWUDP, Water Resource Protection Plan, Water Quality Plan, State Water Project Plan and KWUDP.

Task 2-–**Data Collection:** AHK and the community face data collection and assessment needs requiring charting the area's short- and long-term (20-50 yr) water supply future.

-Quantify and collect **water source information,** including land cover and updated terrain maps, groundwater levels, stream base flows, identification of areas prone to flooding, rainfall patterns, and traditional (ahupua'a-based) watershed management.

-Quantify and collect water use information**, including water needs assessment** existing and future (2025 and 2050) plans on housing and farming operations and requisite water needs.

-All work related to the studies called for in this grant will be completed through aerial means and not require ground-based activities.

Task 3–**Align Water Supply and Demand and Identify New Sources:** Identification of existing and new water resources to supply water needs with consideration for (1) infrastructure needs, current and future, including an analysis of the area's water-related structures - particularly the aging Kalihiwai Reservoir - and downstream safety concerns; (2) climate pressures on the water supply, current and future, including flooding and drought considerations; and (3) other potential impacts on the water source, mitigations for its overuse, and solutions in conservation, reuse, and recharge.

Task 4—Water Management: Establish a governance structure, including water management, supply management, and water shortage mitigation. This could be done through establishment of a Water Cooperative and Public-Private Partnerships with government entities.

Task 5—**Partnerships and Stakeholder Engagement:** In the process of developing a water strategy for this region, engagement with water users, suppliers, and other stakeholders will be conducted. This will include outreach to the community to gauge sentiment, as well as interviews with historical users and experts in the water system.

The Team. AHK intends to work with an experienced contractor to assess planning documents and data source gaps. AHK also seeks to augment partnerships, solidifying a larger collaboration to break down silos within and between government agencies and other community entities.

The aim will be to ensure coordination and non-duplication of efforts, including on major infrastructure project proposals. Principally for this area, this includes work related to the Kalihiwai Reservoir, a gravity-fed system built in 1920 that needs remediation (details below).[2]

AHK will implement the bulk of the project in-house but also build capacity to conduct the master planning process by procuring a project management consultant for the planning process, strategy formation, etc. The organization will also procure contractual services for mapping, surveying, and hydrology. AHK aims to pair in-house resources with community partners to facilitate and strengthen both planning and partnerships. For example, AHK and DOA will explore transferring ownership of reservoirs and related assets from the State Department of Land and Natural Resources to DOA. This potential transfer would support agriculture components and long-term viability of ditch infrastructure, reservoir, surface water transmission, future impoundment areas, wastewater and R-1 water for agricultural uses, etc.

DOW will help facilitate stakeholder meetings to update existing strategies into a water master plan. It will provide technical expertise and data for Kīlauea area locations, such as information on transmission lines, impoundments, fire hydrants, usage, etc. AHK is also working with DOW on sharing costs for mapping the aquifer. DOW and AHK will be responsible for publishing the resulting master plan.

Evaluation Criteria

Evaluation Criterion A. Project Benefits

Acknowledgment of Threats. ʻĀina Hoʻokupu o Kīlauea (AHK) and the Hawaiʻi DOA propose a water master planning process to take into account the needs of an area marked by high population growth and diverse economic, cultural, agricultural, and practical water uses. Water demand projections are critical to comprehensive planning, including acknowledging population growth in the area as a threat to the sustainability of the water supply. The Kauaʻi Water Use Development Plan[3] notes the Kīlauea-Waipake-Kalihiwai area is forecasted to grow more than 45% from 2020 through 2050 after having increased 48% from 2000 through 2020:

Table 1: Population Projection	**2000**	**2020**	**2050**
Kīlauea-Waipake-Kalihiwai District	3,066	4,541	6,602

Several threats to the area's water supply, quality, and river and watershed health exist now and are projected to worsen into the future: **(a) Water Supply Threat - Aging Data and Infrastructure**: The area's water infrastructure is aging, outdated, and incomplete data from the AWUDP and KWUDP make it difficult to understand the further longevity of assets for long-term planning purposes. For example, the Kalihiwai Reservoir,a privately owned facility built in 1920[4], is nearing the limits of its useful life and sits on the glide path toward decommissioning. The State Department of Land and Natural Resources (DLNR) 2022 report notes this small-sized

[2] Kalihiwai Reservoir

[3] ExecutiveSummary.pdf (kauaiwater.org)

[4] Kalihiwai Reservoir, accessed February 20, 2024.

dam, with a maximum height of 20 ft and nominal storage capacity of 143.2 acre-ft (maximum storage capacity of 242 acre-ft) is in poor condition, based on the 2021 Phase I Inspection.[5] Should decommissioning occur without installation of additional supply, this would significantly reduce available water for various purposes such as agriculture, fire suppression, public recreation, climate change mitigation for floods and droughts buffering, reducing or halting ecological damage affecting endangered species habitat, provision of an alternative source for non-potable uses to add resiliency and redundancy, etc. **(b) Water Supply Threat - Lack of Knowledge on Groundwater Supply Adequacy**: Due to a lack of capacity and resources, groundwater aquifers are not mapped out in detail. This becomes a liability when assessing location, capacity, recharge capability, and timeframes; updating aquifer mapping is needed.

Endangered Waterbirds
Hawaiian Stilt (Ae'o, 1,600), Hawaiian Moorhen ('Alae 'Ula, 750), Hawaiian Coot ('Alae Ke'oke'o, 5,000), Hawaiian Goose (Néné, 2,500), and Hawaiian Duck (Koloa Maoli, 2,200)
Source: KalihiwaiReservoir.info

(c) River-Based Ecosystem Threat - Loss of Estuary Habitat: Kalihiwai and Kīlauea rivers are home to endangered native fish species such as 'O'opu (gobies[6], see Figure 1), more specifically the 'O'opu nākea, one of nine freshwater, amphidromous species native to Hawai'i. These stream-dwelling fish provide an important freshwater supply to the ocean estuary environment. Thus, balancing how much flow is maintained in these waterways is an important component of water strategy such that these species can survive and thrive into the future.

(d) Reservoir-Based Ecosystem Threat - Loss of Estuary Habitat: Kalihiwai Reservoir has been in place for over 100 years and is home to five native endangered waterbirds. Native Hawaiian waterbirds, including the stilt, coot, moorhen, duck, and goose, once thrived throughout the Hawaiian Islands. However, their populations are now severely reduced due to habitat loss, predation, and other factors. Friends of Kaua'i Wildlife Refuges are monitoring their populations. The reservoir is currently held below 6' water height (less than 37% of nominal water height of 16'), reducing habitat. It is also on a pathway toward decommissioning, which, if completed, would eliminate this habitat. These species can find habitat in the wildlife refuges, but most on island are found in the reservoir.

(e) Watershed Health Threat - Water Imbalance: Climate change impacts are anticipated to lead to water shortages, flooding, and drought, and no other readily available large quantity substitute supplies of water are available for the area. The number of disaster declarations for

[5] KA-0024 Kalihiwai Reservoir Report_DRAFT_092022.pdf

[6] Hawai'i's waterfall-climbing fish threatened by climate change, human activity : Kauai Now (kauainownews.com)

Kaua‘i has increased in recent years, according to the Federal Emergency Management Agency[7] including for an April 2018 severe storm and flooding that isolated north shore residents. The island’s vulnerability to climate-related threats was spotlighted by the American Planning Association in October 2023 when the County of Kaua‘i Planning Department received a National Resilience & Sustainability Award.[8] This came after the County adopted a new Sea Level Rise Constraint District within its Comprehensive Zoning Ordinance as a proactive measure to enhance community resilience and reduce risk to the built environment. If climate change puts the island’s various sources of water supply - generated on-island through topography, winds, and rainfall - out of balance in terms of flow, storage, and uses, this could introduce suboptimal conditions for watershed health. Such a situation would occur to the great detriment of area stakeholders (e.g., animals, plants, people, environmental capacity, etc.). The following documentation supports information on threats: USDA Designates Kaua‘i County, Hawai’i, as Primary Natural Disaster Areas - Drought Environmental Protection Agency (EPA): What Climate Change Means for Hawai‘i: What Climate Change Means for Hawaii; Kaua’i Climate Adaptation Plan: https://kauaiadaptation.com/impacts/; State of Hawai‘i Climate Change Portal: Climate Change Portal | Rising Temperatures, “Nature-Based Resilience and Adaptation to Climate Change in Hawai‘i: A Climate Ready Hawai‘i Working Paper” (2021); U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) 2014 Kaua'i Climate Change and Coastal Hazards Assessment; University of Hawai‘i - Researchers find increased heavy rains, drought due to climate change.

Potential Negative Impacts to Water Uses Across Sectors. The threats noted significantly impact various sectoral water uses in the target area as the County DOW attests that it cannot support all domestic water uses across sectors, particularly for non-potable uses such as fire suppression, irrigation, and other outdoor water uses.

In the agricultural and housing sectors, the Kīlauea Community Agricultural Center (KCAC), run by AHK, produces an average of 2,000 pounds of produce a week, most of it sold to philanthropy and distributed to low-income and disadvantaged community members. KCAC has five independent farmers on site and continues to facilitate the increase of agricultural production for Kaua‘i Island. Through KCAC’s agricultural internship, farming support programs, and philanthropic base, KCAC anticipates that it will continue to increase production levels and create jobs for economic diversification.

As of this writing, the KCAC is less than 20% developed and uses more than one million gallons per month (3.6 acre-ft per month) for irrigation. KCAC currently uses potable water from the County of Kaua’i DOW via a maximum of five ⅝” meters, of which only three meters can be dedicated to irrigation. Water supply is a constraint on operations with timed and staggered irrigation required to maintain suitable pressure. KCAC is considered a “high volume” user as most residential households use only about 10,000 gallons per month. However, the KCAC’s water needs are expected to grow 5-10 times as the site matures. The KCAC already has full onsite main line irrigation installed and an offsite pipe leading to the Kalihiwai Reservoir as the planned surface water irrigation source.

[7] Disaster Declarations for States and Counties | FEMA.gov and 4365 | FEMA.gov

[8] Planning Department receives national award - Kauai County, HI

With the reservoir in jeopardy of decommissioning, KCAC potable water use expansion would be in direct conflict with a large, planned Kilauea town affordable housing complex. This could significantly strain underground aquifer supplies as the alternative source currently being used by County supplies, or by the drilling of additional private wells. Such demand on supply will also leave less water for various needs such as recreation, environmental and watershed health, and other purposes.

Fire suppression in various housing areas in this target watershed region is anticipated to already be deficient in many aspects at current standards. Following the August 8, 2023, Maui wildfire disaster, the flow standards and coverage are expected to become much more conservative in response, requiring even more water. This shortfall and system deficiencies would be quantified and addressed with solutions as part of water strategy planning.

Supporting Documentation. The KWUDP heavily references the 2019 Agriculture AWUDP, which one would hope includes accurate information for current and future needs. However, given that the AWUDP has become outdated and incomplete regarding Kalihiwai and Kīlauea, resources under this grant that can wrap agriculture as a major local use into a new planning process could provide an updated view of water needs. This will provide information to better guide future decision making in the sector.

Anticipated Project Benefits. The main benefits of this project will be a comprehensive plan and strategy informed by new survey and mapping data for future planning and expansion, including possible climate change and environmental health impacts. Benefits also include collaboration with government agencies and a stronger-knit community through outreach and engagement. AHK anticipates that the proposed project will have staying power in the long-term as it represents a holistic and cohesive approach considering the entire system of sources and uses and encourages alignment of sources to users in efficient and equitable ways. The project will: 1. Help address threats to water supplies and uses as noted above through **identification and quantification of critical data**, including water sources and recharge rates, and of user needs and variability of volumes needed; 2. Ease the path to develop a **management, operations, and allocations mechanism**, perhaps as a co-op, which could be a template and model for use elsewhere in the State or in similar communities across the country; 3. Provide the information needed to help align **sources to users** in the most efficient ways and to stakeholders in the most equitable ways; and 4. Increase **resilience and sustainability** to climate change, flood, and drought.

Overall, the plan and planning process will benefit the area in better information for long-term decision making related to the growing population, infrastructure development, agricultural operations, estuary habitats, and preservation of fish and waterbird species. The project will do this by mapping the aquifers with an understanding of groundwater supply and capacity. Such information will inform the adequacy and balance of supply for future affordable housing and KCAC maturity. It will address the decommissioning of the reservoir and new source development. It will also help to ensure resiliency to flood, drought, and climate change.

Further Benefits from Planning and Design. The proposed project, given its comprehensive approach to water master planning and overall management of the resource, will reduce the likelihood of conflicts over water; increase resiliency to drought and climate change; sustain agricultural communities; support instream flows for species, recreation, or water quality

objectives; improve the condition of rivers, streams and other water bodies for environmental values; improve reliability of drinking water; and, down the road, lead to modernized water delivery infrastructure particularly pertaining to the Kalihiwai Reservoir. The benefits include the **reliability of supply** for domestic purposes, ensuring adequate or ample supply of potable water for various uses and mitigated depletion of aquifers, and for various sectors such as commercial/industrial, recreational, and agricultural, such as for KCAC and other downstream surface water uses.

Environmental benefits are also significant, such as strengthened wetland, lake, and riparian ecology; protected habitat for endangered and threatened species as noted above; and flood and drought mitigation in the face of climate change. **Disaster response and resilience** also hold significance in that the project can help to ensure adequate water for fire suppression, given the significant volume available through the reservoir and a backup water supply for the main County system. Finally, **future state** benefits include a multi-stakeholder balanced voting management system that can reduce conflicts among users, as well as preparation for the planned addition of housing that will erect hundreds of homes in Kīlauea.

The area's information comes from the County's Kīlauea Town Plan, 2006, which includes future projections, such as the build-out of housing on agricultural and open lands.

Community Served. The water master plan developed through this project will serve current and future needs of the growing Kīlauea community, including its disadvantaged areas. The median age for this community is 40 years, with roughly 58% White, 20% Asian, 6% Hispanic residents, plus 14% reporting two or more racial and ethnic categories (including Native Hawaiians).[9] Roughly 17% of the population is living below the poverty line, including 22% of children and 12% of seniors (65 and older). About 15% of residents are foreign-born in Asian countries (86%), and about 5% have veteran status.

Although there will likely be some migration within the area, the projected population includes future residents of a planned affordable / workforce housing development on 50 acres adjoining the west side of Kīlauea town, which will involve an increase of approximately 300 units or roughly 30% of the current total area housing units. The Kīlauea greater regional area currently has about 1,000 households, of which about 600 are in the town core.[10]

The focus on resourcing future housing developments is critical to help alleviate the current housing crisis on Kaua'i's north shore, where the median home price is $1.8 million. The area has also experienced a severe loss of rental stock as owners moved themselves and family members into their rentals, left with few alternative housing options. The housing crisis has also become an economic and cultural crisis, as the lack of acceptable housing translates into an inability to house additional agriculture and service workforce, greater outmigration of Native Hawaiians, overcrowding, which taxes current infrastructure, and increased homelessness. The proposed planning effort will potentially involve Federal land and a Federal facility under the U.S. Department of the Interior: the Hanalei National Wildlife Refuge and Kilauea Point National Wildlife Refuge, including a lighthouse facility. By involvement, AHK hopes that these refuges and their residents, including endangered and threatened species, will be among the potential recipients of benefits resulting from the master planning process and accompanying actions.

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[9] Kilauea, HI - Profile data - Census Reporter

[10] https://data.census.gov/profile/Kilauea_CDP,_Hawaii?g=160XX00US1536650

Need for Domestic Water Supply. Watermaster planning will help provide tools to make strategic decisions about domestic water infrastructure, which is underinvested and undersupplied. Potable water needs to be preserved for potable uses at maximum revenue generation rather than applied in high volumes as irrigation at 30% of domestic revenue potential. The County Department of Water infrastructure is aging while non-potable demands increase. The master planning process will involve domestic water and non-potable needs.

Housing Expansion. Kīlauea is set to undergo a planned affordable / workforce housing expansion over 5-20 years (with land recently acquired by County of Kauaʻi) that could add over 300 units to the town housing stock, which would be an estimated additional domestic usage rate of 100,000 gallons per day, or 3 million gallons per month (an additional 10.7 acre-ft per month). Current residential domestic water usage for the town core is estimated at 200,000 gallons per day, or 6 million gallons per month (21.4 acre-ft per month). The provision of reliable housing expansion is an essential requirement, particularly given the current overcrowding issue faced by the island and Kīlauea. This problem has persisted over the past two decades and was further exacerbated by the COVID-19 pandemic.

Difficulty Establishing New Sources. The current domestic water supply is already constrained at current usage levels, and drilling new test wells involves a 3-5 year process per site. Such a timeframe is required to identify suitable locations for new wells and complex negotiations with landowners. Such realities have resulted in repeated failure to establish new supply sources for the past 20 years, and the Kauaʻi Department of Water already attests that its sole source of domestic supply is insufficient to fulfill all domestic and non-domestic uses. Currently, domestic water supply is being used for non-domestic purposes such as high-volume agricultural irrigation at a greatly reduced pricing tier (retail rates at those volumes would severely impact agricultural economics). The KCAC alone, at less than 20% of operating capacity, currently uses a million gallons of water per month (3.6 acre-ft per month) during dry spells, which is expected to become regularly more than 5 million gallons per month (17.9 acre-ft per month) at full maturity - roughly the equivalent of the current domestic residential usage.

Tools to Indicate Proposed Water Solutions. Limited availability and diversion of domestic water for non-potable uses could jeopardize availability for needs in housing expansion, agricultural growth, fire suppression, and other competing needs. With an updated water master plan, actions can be taken and policies enacted to ensure reliable access to domestic water supplies for roughly 70,000 island residents and the almost 1.4 million visitors per year (Kauaʻi Destination Management Action Plan 2021-2023). The new supply could offset the reservoir's decommissioning, ensure adequate supply for KCAC, and provide adequate supply for new affordable housing development. It can also achieve a balance between users while protecting native species and their habitats. **The challenge is clear - with domestic County water supply likely inadequate as a sole source of water for all current and projected future users, master planning will help to allow the provision of ample surface water for non-domestic uses like fire suppression and agriculture. This would free up domestic supplies for appropriate residential and commercial uses, balancing the entire system.**

Nature-Based Features. Part of the water master plan is to evaluate the water systems at watershed scale, including terrain of the natural landscape, stream flows, underground aquifers, and other nature-based features. One of the key “stakeholders or users” that will be

centrally considered in this effort is the native and endangered wildlife in rivers, wetlands, and other riparian areas in these watersheds. Where improvements to design can be identified to benefit the natural systems, they will be incorporated into the broader master plan for water.

Existing Governmental Obligations. A project component will assist with dam safety in the area by understanding the current status of the dam, measures needed to bolster its safety, and its function within the water strategy. The State of Hawai'i DLNR Dam Safety program, which relies on guidance from the Federal Emergency Management Agency (FEMA), has rated the Kalihiwai Reservoir as poor, "Under Investigation, Planning, Permitting, or Design for Remediation," which calls for attention as proposed in this application.[11]

Eval. Criteria B - Inclusion of Stakeholders, Stakeholder Support, Previous Planning Efforts

AHK has built a significant following in the Kaua'i community through its produce box program that has distributed more than 60,000 locally-grown mixed fruit and vegetable boxes impacting about 25,000 people since 2020, run the Kaua'i Food Hub as an online marketplace for locally grown and produced food, and sold food directly through its storefront. When implementing the proposed project to establish a water master plan for the area, AHK will continue to engage its diverse set of stakeholders, including agriculture users - residents, and visitors purchasing locally-grown food and food box recipients. AHK will also ensure that it will collect input from stakeholders in recreation who use water sources for fishing, exercise, and other activities; stakeholders in the natural ecosystem; stakeholders who are developing, living in, and looking forward to future affordable housing availability; and stakeholders who will benefit from an overall increase in resilience through adequate supply for fire suppression and other water uses (e.g., natural disasters that can have detrimental temporary impacts on supply) - both first responders and residents and visitors.

Sub-Criterion B1: Drought Contingency Planning. The project will help to meet the water supply needs of a large geographic area, as it would cover two watersheds, Kalihiwai and Kīlauea, which are rural areas dependent on agriculture. Drought would be detrimental to the agriculture sector, particularly in the context of the use of surface water for irrigation. As noted by the National Integrated Drought Information System (NIDIS), "Drought can reduce both water availability and water quality necessary for productive farms, ranches, and grazing lands, resulting in significant negative direct and indirect economic impacts to the agricultural sector. Drought can also contribute to insect outbreaks, increases in wildfire, and altered rates of carbon, nutrient, and water cycling—all of which can impact agricultural production, critical ecosystem functions that underpin agricultural systems, and the livelihoods and health of farming communities."[12]

The proposed project would also present a new holistic and comprehensive approach. It would combine all sources and uses, pulling together 14 existing plans, into a single strategic plan. AHK also hopes this will result in a new proof-of-concept management system that could be replicable and applied elsewhere.

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[11] https://dams.hawaii.gov/DamInformation.aspx?id=731d0908-04a9-456e-8771-a76576e4ddb4

[12] Agriculture | Drought.gov

Generating a Plan. Rather than proposing a project as a potential water management action, this project is envisioned to result in a new, comprehensive planning effort that will reference other segmented focus-area plans, such as the 2019 AWUDP and the ongoing 2024 KWUDP update, which are relatively narrow in vision and operating on incomplete and sometimes inaccurate data. Thus, the current approach is siloed and insufficient. In their respective update processes, these plans tended to have a narrow scope that minimally reviewed and updated small sections of previous plans, compounding previous inaccuracies and irrelevancies.

The new plan will combine or update those and other relevant plans with a water use aspect into a comprehensive combined Kalihiwai-Kīlauea Watersheds Water Strategy. This includes efforts such as an upcoming 2006 Kilauea Town Plan update focusing heavily on the new 50-acre affordable/workforce housing project. AHK will also look to the plan to suggest reservoir ownership, operating, and maintenance mechanisms to incorporate multiple area stakeholders.

The previous plans were also created without comprehensive and proactive community engagement efforts due to a lack of resourcing. Typically, the siloed "water vertical" plans built around pieces of water use/management (e.g., agriculture, domestic, infrastructure, community groups, etc.) have an element of community and/or user input as part of their processes. The current methodology is inadequate due to the disjointed scopes of the reports, which are reliant on incomplete assessments of watershed scales and are significantly outdated. This necessitates an urgent revamp of the methodology by implementing the proposed watershed-integrated planning project, which will lead to more accurate and relevant findings. The project will aim to bring community and water users' needs together in a balanced scorecard approach to align water sources and uses in an appropriate and long-term sustainable way for increased efficiency, capacity, and resiliency.

Stakeholder Involvement. AHK will engage its significant stakeholder network and incorporate their perspectives and potential roles in the water master planning process:

-County of Kauaʻi Department of Water: the agency acknowledges it cannot provide for all water needs alone, suffers from deferred maintenance even on existing domestic water infrastructure, and has no responsibility or mechanism to monetize or manage surface water systems. **ROLES** include helping lead and participate in the planning processes, helping to secure funding for Kalihiwai Reservoir remediation from federal and other sources, and helping with the final publication of the resulting master plan.

-State of Hawaiʻi Department of Agriculture: the agency is moving into a leadership posture in owning and managing reservoirs and surface water systems for their value to agricultural and other users. However, DOA is very early in its expansion into this new direction. **ROLES** could include becoming an asset holder for private owners looking to transition out of reservoir ownership. They could participate in the planning processes, contribute or solicit funding toward Kalihiwai Reservoir remediation, and develop asset ownership and transfer mechanisms from private entities.

-State Department of Land and Natural Resources: the agency is responsible for dam safety oversight. It appears mostly concerned with requiring owners to make capital upgrades to dams or decommission the reservoirs in the name of safety and reduced liability. AHK anticipates that DLNR would value the ecological, conservation, and recreation components of reservoirs as reasons to upgrade and keep them in place. **ROLES:** participating in planning processes,

developing ecology stakeholder parameters, allowing time for Kalihiwai Reservoir remediation planning to unfold, and facilitating dam safety discussions with interim/new ownership entities.
-County of Kaua'i Fire Department: the agency provides insight and liaison to other related organizations (Fire Commission, etc.) regarding fire suppression needs and anticipated changes after the August 8, 2023, wildfires on Maui. **ROLES:** participating in planning processes and determining if it will be a direct user/member or how the County will engage with water needs for uses like fire suppression.
-County of Kaua'i Department of Planning: the department is working to address County-wide housing shortages impacting local workforce stability across all sectors. **ROLES**: participating in planning processes and determining how existing and new developments will use water.
-Kīlauea Community Agriculture Center: given the demand and ongoing food insecurity, the KCAC continues distributing food boxes widely. **ROLES** include participating in planning processes and providing information about agricultural projections and water needs in the short and long term.

Other collaborators include Federal agencies such as the **U.S. Department of the Interior and Fish & Wildlife Service; State agencies such as the Commission on Water Resource Management and Department of Hawaiian Home Lands; community entities such as Kīlauea Neighborhood Association; private agriculture users; and funders such as Hale Halawai and Hawai'i Community Foundation.**

AHK will ensure that key stakeholder interests by various user verticals will be represented. Each of these identified thus far has indicated a desire for adequate water volumes and suitable pressure: 'Aina (land stewardship), Fire Suppression (significant volume available via reservoir), Agriculture (KCAC, other downstream surface water users), Ecology (wetlands, lake, riparian, minimum flows), Endangered species (five native bird species, habitat preservation), Domestic (potable uses), Housing development (planned 100s of homes for expansion in Kīlauea), Aquifers (mitigated depletion), Commercial / Industrial (optimized sourcing), Disaster Resilience (backup water supply), Cultural (Native Hawaiians), Climate Change (flood/drought mitigation), and Recreation (public access to Kalihwai Reservoir).

As part of this project, AHK will matrix and map out specific users to these and other verticals, including private and public entities and affected communities, and engage with each set of users in an appropriate and tailored manner. Some examples of user types and proposed engagement are as follows:

-*Example 1*: **Communities** include Island-Wide Residents and Visitors, with Residents further subdivided by geography. The methodologies for outreach include public announcements (local papers, KKCR radio), social media, word-of-mouth, and established community engagement associations. The venues for information sharing and community feedback would be public meetings, surveys, and subtopic-focused workshops (such as endangered wildlife, safety considerations, or invasive species) where appropriate.

-*Example 2:* **Private Entities** engaging with the water system can be convened by User Vertical types for deep-dive workshops on topic area interests and considerations (such as ecology, agriculture, recreation, etc.) to help shape the draft framework of overall water allocations and determine minimums and ranges of needs. Outreach would be conducted through a combination of community awareness events above and targeted outreach for user workshops.

-*Example 3*: **Public Entities** either engage with the water system directly or benefit from particular aspects of its existence for public trust considerations. Outreach would include direct engagement with governmental organizations, public meetings, and targeted topic workshops by User Vertical (e.g., domestic water, housing planning, etc.).

No Known Opposition. AHK is unaware of opposition to a proposed water master plan. Community concerns may include dam safety and downstream flooding risks related to potentially remediating the Kalihiwai Reservoir and putting it back into full-pool use; thus, AHK will take these concerns into consideration during the planning process.

Evaluation Criterion C - Ability to Meet Program Requirements

Program-Specific Requirements. AHK will address specific requirements of the WaterSMART Planning and Project Design program as follows.

Part A: This project will: 1. Incorporate a Public Outreach and Partnership Building (POPARB) Plan; 2. Be composed of Analysis, Scoping and Planning activities; and 3. Include the development of a Water Strategy document, including the five sub-bullets: Outreach Summary, Statement of Problems and Needs, Project Opportunities and Comparison of Alternatives, Implementation Strategy, and Lessons Learned.

Part B: This project will incorporate: 1. All aspects of Technical Analyses to Identify Problems, Needs, and Opportunities, including each sub-bullets in this section as part of a comprehensive, holistic methodology; 2. Water Marketing and Water Rights Analyses, including all of the sub-bullets contained in this section, as part of a localized methodology and management mechanism development; 3. Research of Legal and Institutional Requirements, including statutes and past precedent on water rights as part of national precedent-setting litigation and State constitutional codifications; 4. Use and development of Digital Support Tools, including new underground aquifer mapping that has never been conducted on Kaua'i; and 5. Development and Comparison of Project Alternatives, where significant inflection points arise that would benefit from a multi-stakeholder, multi-factor weighted approach.

Approach. A POPARB Plan will include a timeline indexed from the project workplan timeline, milestones, and deliverables (see below). It will comprise multiple components including but not limited to: **a stakeholder matrix** developing user vertical groupings; **a mapping of outreach tools, public meetings, and workshops** employed where these most suitably align with key project activities and milestones; and a **public engagement plan** capturing public comments periodically throughout the project.

The POPARB Plan and public engagement are anticipated to be built around four main milestones: 1) Project Kickoff Education, 2) Mid-Work Update, 3) Draft Strategy Document Review and Comments, and 4) Final Strategy Dissemination. These four POPARB Plan milestones will be interspersed with targeted topic workshops and other public meetings and outreach where appropriate.

This project will center around developing a comprehensive and fully updated water strategy. This strategy will include an analysis of all sources and uses, identification of stakeholders, analysis of appropriate matching of sources to uses (including types, amounts, variability, costs, cultural considerations, ecological considerations, etc.), development of a novel pilot management mechanism, and drafting of the strategy.

Tasks	Primary Responsibility	Y	2024	2025				2026				2027		
		Q	4	1	2	3	4	1	2	3	4	1	2	3
Review of Existing Conditions														
1) Collect, analyze & compile existing planning doc	AHK (DOW supporting)													
2) Collect community input	AHK													
3) MILESTONE: Existing data synthesized	AHK					*								
Data Collection														
4) Conduct LIDAR scans & compile results	AHK													
5) Conduct Aquifer scans & compile results	AHK													
6) MILESTONE: Helicopter scans & reports done	AHK									*				
Align Supply <-> Demand, ID New Sources														
Develop MOU for reservoir transfer	AHK													
Finish 100% engineering plans for reservoir	AHK													
Water Management														
Develop Ops & Management system, pro forma	AHK (DOA supporting)													
MILESTONE: Management System drafted	AHK											*		
Partnerships & Stakeholder Engagement														
Community updates and feedback	AHK													
Travel to Oahu for governmental partner meetings	AHK													
Reporting & Documentation														
Annual grant reporting	AHK													
Compile final documents and reports	AHK													

Incorporation of Plans. Two primary existing water usage plans whose latest versions will be incorporated into the compendium of previous work: the Agricultural Water Use and Development Plan (AWUDP 2019), an island-wide plan with regional details focused on agricultural water planning, and the Kaua‘i Water Use and Development Plan (KWUDP 2024 in process), focusing on domestic water planning. The relevant subsections of these plans require detailed and accurate information, which can then be used in the comprehensive watershed sources and uses plan developed.

Existing Data and Models. The AWUDP 2019 is an island wide study containing outdated and incomplete information on the types and status of agricultural water infrastructure, its condition, and forecasted usage in the planning area. It is also narrowly focused on legacy agriculture infrastructure and does not include a holistic view of water management, which reduces its efficacy in its current state.

The KWUDP is similar in that it is an island wide study with regional subcomponents that are focused only on domestic water needs and provisions. It is currently undergoing an update and expected to highlight the aging of existing domestic infrastructure island wide and need for substantial repair and maintenance funds.

While each study contains regional data on rainfall amounts, existing and planned water sources, delivery mechanisms, and macro-level usage forecasts, neither is designed to focus in detail on watersheds or contiguous groupings of watersheds and develop a comprehensive holistic plan that includes and optimizes in harmony all potential water sources and uses “from mountain to ocean” as in traditional Hawaiian planning methods. Modern technology to provide previously unavailable data, such as underground aquifer mapping combined with Hawaiian planning techniques in a comprehensive watershed place-based approach, will provide top-quality data and innovative new model development for water management to be leveraged statewide.

Technical Expertise. The project will be supported by the following staff in addition to a technical expert from the State Commission on Water Resource Management:

CEO Yoshito L'Hote has led AHK since 2014 and championed the development of the Kīlauea Community Agricultural Center (KCAC), raising more than $10M in funding and placing more than $5M in infrastructure. He manages a staff of 15 employees and has extensive experience organizing and implementing complex programs and managing subcontractors. He is the immediate past President of the Kīlauea Neighborhood Association, a position he held for 10 years, and he still serves on the Board. He has lived in Hawai'i for over 30 years and has deep connections throughout the community. He holds a Bachelor of Science in Mathematics from the University of Hilo, Hawai'i.

Jeremy Burns has served as Administrative Director of AHK for 5 years, leading project management, grant writing, and administration. He leverages a 25-year career in strategic planning, program management, and engineering for Fortune 100 companies in the defense, transportation, HVAC, and healthcare industries. Jeremy currently serves as Secretary for the Kilauea Neighborhood Association, Vice President for the Kaua'i Sailing Association, and Director for the Nāwiliwili Yacht Club. He holds a Bachelor of Science in Computer Engineering and a Master of Business Administration, both from the University of Michigan–Ann Arbor.

AHK will be supported by Katie Roth, Hydrologic Planning Program Manager with the Commission on Water Resource Management. She will provide technical expertise for the project as relevant questions and items arise.

Policies and Administrative Actions. Administrative actions required include coordinated buy-in from DOA (State) and DOW (County) to implement the plan; the plan will set the new policies by which future decisions are made.

The following describes AHK's processes and assets: AHK utilizes Dext **receipt scanning and classification software**. This system has a smartphone app to take pictures of receipts, uses optical character recognition to help pre-populate data fields, and publishes final categorized documents directly to QuickBooks Online. Dext maintains a database archive of all images and data entered into the system. AHK has used QuickBooks Online since 2018 as its master **financial tracking and management system**. For a multi-year project such as this proposal, AHK would create a special Restricted Fund account in our general ledger, as well as a custom Project for tracking all project-specific transactions. AHK has **external financial oversight** from accountant Chantal Mentzer, Inc., and CPA Laura Wiley LLP. Both have been overseeing AHK for several years and are familiar with the organization's financials and history. AHK would adapt its **Chart of Accounts** as necessary to ensure it has aligned budget cost categories that match the proposed budget line items for clarity and ease of tracking and reporting. AHK uses two methods for **time and effort reporting**. For salaried and exempt (supervisory) employees, AHK estimates a percentage of time on various projects and duties; these estimates are typically reviewed on a monthly basis. For hourly employees, AHK uses the QuickBooks Time tracking app with employee clock-in/clock-out to associate effort with projects.

Past Performance. AHK has maintained an annual budget in excess of $1M since 2020, and a track record of many years' worth of successful grant and federal contract reporting on over 40 grants ranging in value from tens of thousands of dollars to more than a million dollars. Some examples include these funded agreements, none of which had compliance issues or audit findings:

-Kauaʻi Locally Grown Fresh Produce Boxes for Native Hawaiians, Office of Hawaiian Affairs, $150,000, 9/15/22 – 8/31/24: AHK grows produce and purchases from other local farmers, aggregating and constructing mixed produce boxes and delivering more than 200 weekly to nonprofit and government partners for Native Hawaiians in need.
-Kauaʻi Locally Grown Fresh Produce Boxes for Vulnerable Populations, U.S. Department of Agriculture – National Institute of Food and Agriculture, $1,400,000, 11/01/22–10/31/25: same program as above, targeting vulnerable populations in need.
-KCAC Water Planning, Onsite and Offsite Irrigation Infrastructure, County of Kauaʻi, Office of Economic Development, $525,000, 1/19/18–12/31/19: AHK worked with governmental and regulatory entities, subcontractors such as surveyors and neighbors for easements and right-of-entry, and staff and contractors to perform the work.

Evaluation Criterion D—Presidential and Department of the Interior Priorities

Sub-criterion No. D1. Climate Change Presidential Policies - Climate Mitigation. The project aligns with E.O. 14008: Tackling the Climate Crisis at Home and Abroad related to efforts to reduce climate pollution in various sectors of the economy, increase resilience to the impacts of climate change; protect public health; conserve our lands, waters, and biodiversity; and deliver environmental justice. Disaster declarations for Hawai'i and Kauaʻi Counties are exceeding historical records and expected to worsen due to climate change, population growth, and infrastructure development. Immediate action through strategic planning and mitigation measures is imperative to ensure a safer and more resilient future. The APA's recognition of Kauaʻi County with a national award for climate-related policy points to the County's ability to help other local municipalities across the country deal with the impacts of climate change.

As described earlier, a comprehensive water master plan will be part of a holistic approach to help mitigate climate change impacts on Kauaʻi by increasing community resilience through greater water balance, ensuring a more reliable and accessible water source for ecological and environmental assets and disaster mitigation and response.

Sub-criterion No. D2. Disadvantaged or Underserved Communities

Presidential and Department of the Interior Priorities - Racial Equity and Tribal Strengthening. The project complies with E.O. 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, and the President's memorandum, Tribal Consultation and Strengthening Nation-to-Nation Relationships. It does so by focusing on Native Hawaiians, the indigenous peoples of Hawaiʻi. Some ways include targeted engagement with relevant Native Hawaiian organizations (governmental and nonprofit), public outreach in 'Olelo Hawaiʻi language newsletters and Native Hawaiian publications, and cultural practitioner and other Native Hawaiian community leader meetings. AHK has multiple Native Hawaiian staff with direct ties to the community and is deeply engaged with their needs and issues.

A special political and trust relationship has been forged between the U.S. government and the Native Hawaiian Community through the enactment of more than 150 federal statutes by the U.S. Congress. Statutory implementation recognizes the U.S. trust responsibilities to Hawaiʻi and Native Hawaiians as a sovereign nation with a government that pre-dates the U.S.

This project looks to uplift Native Hawaiian communities across Kauaʻi by providing a

management system allowing them to share thoughts on plans and decisions. AHK will work to ensure the Native Hawaiian community is engaged in the planning process, providing them space to share their insights and ancestral knowledge of these places. In doing so, Native Hawaiians can maintain and continue perpetuating native agricultural and food-gathering practices passed down for generations.

Native Hawaiians face long-standing struggles compared to other ethnic groups. A holistic assessment of education and well-being for Native Hawaiians in 2021 identified areas of concern, noting that about half of Native Hawaiian families with young keiki (children) do not earn a livable wage. Compared with the major ethnicities in Hawai‘i, Native Hawaiians continue to have the highest rates of poverty and unemployment.[13]

As noted in the Climate and Economic Justice Screening Tool, this project would assist the disadvantaged Native community in Tract 15007040104, immediately adjacent to the project watersheds and highlighted in gray on the map.

In addition, AHK has operated a locally-grown mixed produce box aggregation and delivery system in Kilauea that provides 500 produce boxes a month, twice a month, to those in need. The community served includes all of Kauai - mainly Native Hawaiians on the West and East sides of the island and in Anahola Hawaiian Home Lands under the State of Hawai‘i Department of Hawaiian Home Lands. This includes two Low-Income Community Opportunity Zones in Census Tract 401.04 Wainiha on the north side and Census Tract 401.06 Lawai on the south side. In total, these Opportunity Zones have a population of approximately 4,300, representing 6% of the county’s total population of 73,298 (U.S. Census Bureau). This includes 6,670, or 9.1%, who are of Native Hawaiian and Other Pacific Islander descent.

Six farmers supply the produce box program, including those from minority communities (e.g., Indian American, Native Hawaiian). The program has its roots in the COVID-19 emergency response and gained support from the U.S. Department of Agriculture Farmers to Families Food Box Program. As it is being piloted successfully in Kīlauea, the State is eyeing the model for potential replication in other water-poor sections of the island, including Poipu. Thus, in supporting this homegrown produce program, the project would help to assure the continued availability of water resources to ensure an uninterrupted supply of healthy produce for the program, increasing food security and improving resilience for those in need on the island.

Sub-criterion No. D3. Tribal Benefits. Hawai‘i is not home to federally recognized Tribes; however, the federal government has demonstrated a similar trust responsibility to the indigenous peoples of Hawai‘i, by utilizing the Constitution’s definition of Indian Tribes. According to the Constitution, an Indian Tribe is a group or groups of people who organized governments that pre-date our own and exercised sovereignty over lands that are now a part of the United States. Congress has enacted programs and policies to promote education, health, housing, and a variety of other federal programs that support Native Hawaiian self-

[13] https://www.ksbe.edu/ka_huakai/

determination. Thus, the project will help fulfill the federal trust responsibility to Hawai'i's native peoples, a disadvantaged community.

Of relevance to our indigenous population, the State remains in a crisis about what to do with legacy plantation water infrastructure and how to value and manage it, as water is a public trust asset per Hawai'i Revised Statutes. Article XI, section 1 of the Hawai'i Constitution declares, "All public natural resources are held in trust by the State for the benefit of the people." This provision places an affirmative obligation on the State to "conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources" for "the benefit of present and future generations." Hawai'i's Constitution also specifies that the development or utilization of these natural resources must be "in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State."

In 1978, the State's Constitutional Convention identified its "obligation to protect, control and regulate the use of Hawai'i's water resources for the benefit of its people." Under Article XI, Section 7, of the State Constitution, "The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources." The Hawai'i State Legislature enacted the State Water Code, Chapter 174C, Hawaii Revised Statutes (HRS), in 1987 for the purpose of protecting Hawai'i's water resources. It provides for the legal basis and establishment of the Commission on Water Resource Management[14] and its authorities and responsibilities.

Further, the holdings in Reppun v. Board of Water Supply[15] from 1984 were extremely significant for Native Hawaiian rights. Some main holdings were: (1) water rights attached to riparian lands by virtue of section 7-1 of the Hawai'i Revised Statutes cannot be severed; (2) riparian landowners are entitled to make "reasonable use of the quantity and flow" of their watercourse and taro farming is a reasonable use; (3) appurtenant water rights may not be transferred or applied to other lands, they may only be extinguished by the grantor; and (4) the plaintiffs' lands with appurtenant water rights are therefore "entitled to the quantity and flow of the water which was utilized to irrigate crops prior to the diminution of the stream that damaged their crops." Section 7-1 of the Hawai'i Revised Statutes allowed water to be free for all land granted in fee simple, meaning those rights that were transferred in the Great Māhele. So, the water rights transferred in the Great Māhele could not be severed and still attached to the land. Additionally, the riparian water rights—many owned by Native Hawaiians on their own lands—could not be extinguished by the grantor. The Māhele did not extinguish those rights, and instead, the "ownership of water in natural watercourses, streams and rivers remained in the People of Hawaii for their common good."

Native Hawaiian water rights supersede all of the above rights. The State Constitution (Chapter XII, Section 7) protects "all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes" for descendants of Native Hawaiians. Thus, water

[14] Commission on Water Resource Management | Laws & Regulations (hawaii.gov)

[15] WRRCTR No.165 Reppun V. Board of Water Supply: Property Rights, Economic Efficiency and Ensuring Minimum Streamflow Standards (hawaii.edu)

use impacting customs and traditions could be restricted. A comprehensive water master plan would consider all of these considerations to ensure water balance to help Hawai'i's native peoples now and in the future.

Evaluation Criterion E— Nexus to Reclamation

No current nexus exists between AHK and Bureau of Reclamation projects.

Project Budget

The following table details project funds, including non-federal and federal sources. The Budget Narrative is in the attached budget spreadsheet.

Budget Table 1: FUNDING SOURCES	**AMT**
Non-Federal Entities	
1. Hawai'i Community Foundation - Fresh Water Initiative	$50,000
2. Hale Halawai 'Ohana O Hanalei, N. Shore Watershed Flood Mitig.	$300,000
3. AHK in-kind* - labor, equipment, program income, etc.	$38,913
Non-Federal Subtotal	**$388,913**
REQUESTED RECLAMATION FUNDING	**$400,000**

Environmental and Cultural Resources Compliance: AHK anticipates that this project will have no impact on environmental or cultural resources as no grounds will be disturbed; all fieldwork will be aerial. **Required Permits or Approvals**: AHK anticipates this project will not require permits or approvals. Should anything arise, AHK will adhere to governmental laws, regulations, and codes, as applicable and obtain required approvals and permits. **Overlap or Duplication of Effort Statement**: AHK anticipates the proposed project will not pose a risk of overlap with any other proposed or ongoing project and no similar project will be submitted to another funding source, Federal or non-Federal (except to seek matching funds). **Conflict of Interest Disclosure Statement:** AHK sees no financial conflict of interest should it be awarded funding under this grant program. **Applicability:** AHK will take the steps necessary to avoid conflicts of interest, including procuring supplies, equipment, construction, or services by itself or any subrecipients, should it be awarded funding under this grant program. **Notification:** Should any conflicts of interest arise during the life of the award, if AHK is selected under this grant, AHK will be sure to notify the Bureau of Reclamation. **Restrictions on Lobbying:** AHK will not use grant funds for federal lobbying. **Review Procedures:** AHK will ensure that it has a process to identify and address significant conflicts of interest, including through disclosures for any subawardees. **Uniform Audit Reporting Statement:** AHK has not been required to submit a Single Audit report to date but will comply if the $750,000 threshold is reached or exceeded.

Letters of Support (5): Pages 2-6

Letters of Partnership (2): Pages 8-9

EXECUTIVE CHAMBERS
KE KE'ENA O KE KIA'ĀINA

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

APR 3 0 2024

The Honorable M. Camille Calimlim Touton
Commissioner, Bureau of Reclamation
U.S. Department of the Interior
1849 C Street, N.W.
Washington, D.C. 20240-0001

RE: Support for Water Strategy Project for Kaua'i County, State of Hawai'i

Dear Commissioner Touton:

It is my pleasure to submit this letter of support for 'Āina Ho'okupu o Kīlauea's (AHK) application to undertake a comprehensive water master planning process focusing on the Kalihiwai and Kīlauea Watersheds, located in Kīlauea on the island of Kaua'i. AHK is a nonprofit 501(c)(3) organization working with the Hawai'i State Department of Agriculture and the Kaua'i County Department of Water on this initiative.

This planning process would impact more than 15,000 residents and visitors in Northern Kaua'i, including participants in AHK's food assistance and other programs. AHK's master strategy would lead to increased availability and assurance of water resources for Northern Kaua'i. This plan supports statewide goals to increase affordable housing and food sustainability through securing sustainable water resources. The project is especially important as it will support increasing food security for the vulnerable communities served by AHK.

Your consideration of the application is appreciated.

Mahalo,

Josh Green M.D.

Josh Green, M.D.
Governor, State of Hawai'i

Nadine K. Nakamura
Majority Leader

Phone: (808) 586-8435
Email: repnakamura@capitol.hawaii.gov

HOUSE OF REPRESENTATIVES

Hale o nā Luna Maka'āinana

STATE OF HAWAI'I
STATE CAPITOL, ROOM 439
415 SOUTH BERETANIA STREET
HONOLULU, HAWAI'I 96813

26 April 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Water Strategy for the Kilauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

Dear Commissioner Touton:

I am writing in strong support of 'Āina Ho'okupu o Kīlauea's WaterSMART Planning and Project Design grant application that will help to ensure water sustainability into the future for the Kilauea/Namahana Watershed on the northern portion of the Island of Kaua'i.

'Āina Ho'okupu o Kīlauea is requesting funding to use a systems approach to developing a water master plan focusing on a bounded geographical area stemming from mauka (mountain) to makai (ocean) that will include a strategy to restore water balance among various sources and uses. 'Āina Ho'okupu o Kīlauea's overall goal in this effort includes preserving the area watershed and stewarding the water resource in a way that preserves it and prevents over-extraction of limited ground water. This will also include increasing rainfall retention (impoundment) to slow down the flow of water across the landscape to increase percolation, in order to mitigate future drought periods.

This initiative aims to enhance the water infrastructure in Kīlauea, guaranteeing sufficient and secure water resources, a critical element for agriculture, public health, economic growth, and environmental sustainability in our community. The funds allocated for this program will facilitate meticulous stewardship and effective utilization of water assets to avert excessive consumption and exhaustion.

I strongly support AHK's grant application and urge its favorable selection. Thank you for your time and consideration.

Sincerely,

Nadine K. Nakamura, Majority Leader
Representative, House District 15
State of Hawai'i

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON

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PAUL J. MEYER
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DEAN D. UYENO
ACTING DEPUTY DIRECTOR

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

May 2, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Water Strategy for the Kīlauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

Dear Commissioner Touton:

On behalf of the Commission on Water Resource Management (Commission), I am writing in support of 'Āina Ho'okupu o Kīlauea's (AHK) WaterSMART Planning and Project Design grant application that will enhance water resource planning initiatives on the Island of Kaua'i.

AHK is requesting funding to develop a "Water Strategy for the Kīlauea Namahana / Kalihiwai Watersheds" that will include a strategy to restore water balance among various sources and uses. AHK seeks to steward the water resources of this region through a planning effort that includes identifying major infrastructure improvements that can increase rainfall retention (impoundment) in order to mitigate future periods of drought.

The mission of the Commission is to protect the water resources of the State and provide for maximum beneficial use of water by present and future generations. Part of this mandate includes the development of comprehensive, long-range plans for the protection, conservation and management of the State's water resources, including the development and updating of the Hawai'i Water Plan (HWP). Many of the components of the HWP will be incorporated into AHK's planning process to develop its water master plan for the area. In addition, the Commission supports improvements to reservoirs and other water infrastructure that will support water capture, storage and conservation.

The Commission supports AHK's grant application and we urge its favorable selection. Thank you for your time and consideration.

Ola i ka wai,

DEAN D. UYENO
Acting Deputy Director

OFFICE OF THE MAYOR
DEREK S.K. KAWAKAMI, MAYOR
REIKO MATSUYAMA, MANAGING DIRECTOR

April 24, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Water Strategy for the Kilauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

Dear Commissioner Touton:

The County of Kauaʻi is in strong support of ʻĀina Hoʻokupu o Kīlauea's (AHK) WaterSMART Planning and Project Design grant application. This proposed project holds significant promise in ensuring water sustainability for the Kīlauea/Namahana Watershed on the northern portion of the Island of Kauaʻi.

Through this initiative, AHK seeks to take proactive steps to tackle the intricate challenges of water resource management through a comprehensive water planning process. By employing a systems approach, AHK aims to craft a water master plan to establish sustainable balance among diverse water resources and users. Additionally, the plan aims to prevent over-extraction of limited ground water, enhance rainfall retention through impoundment, and mitigate impacts of future drought periods.

The final water master plan will serve as an invaluable tool that provides a strategic framework for managing water resources sustainably, mitigating flood and drought risks, fostering collaboration, and safeguarding the environment and natural resources for present and future generations.

The overarching goal to safeguard the watershed area and responsibly manage water resources is critical to island communities like Kauaʻi. The County of Kauaʻi is steadfast in our support for AHK's grant application, and we strongly urge its favorable consideration.

Mahalo for dedicating your time and attention to this matter.

Sincerely,

Derek S.K. Kawakami
Mayor

4444 Rice Street, Suite 235 • Līhuʻe, Hawaiʻi 96766 • (808) 241-4900 (b) • (808) 241-6877 (f)
An Equal Opportunity Employer

Kīlauea Neighborhood Association

MAY 13, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Water Strategy for the Kilauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

Aloha Commissioner Touton:

On behalf of the Kilauea Neighborhood Association, I am writing in strong support of ʻĀina Hoʻokupu o Kīlauea's WaterSMART Planning and Project Design grant application that will help to ensure water sustainability into the future for the Kilauea/Namahana Watershed on the northern portion of the Island of Kauaʻi.

AHK is requesting funding to use a systems approach to developing a water master plan focusing on a bounded geographical area stemming from mauka (mountain) to makai (ocean) that will include a strategy to restore water balance among various sources and uses. AHK's overall goal in this effort includes preserving the area watershed and stewarding the water resource in a way that preserves it and prevents over-extraction of limited ground water. This will also include increasing rainfall retention (impoundment) to slow down the flow of water across the landscape to increase percolation, in order to mitigate future drought periods.

The Kilauea Neighborhood Association is the first such association established on the island of Kauaʻi shortly after the sugar plantation closures in the 1970s. The situation we now find ourselves in with a significant town expansion project looming, aging plantation infrastructure with great community value but fragmented ownership issues, and now facing a situation where there will not be enough domestic water to satisfy all projected needs in a place that already has domestic water shortages - this a slow-motion crisis in the making. But we have an opportunity to redirect this path. We must begin with a new local watershed-based strategic plan that can comprehensively and appropriately evaluate all water sources and investments and develop valuation and management systems that align them to appropriate user needs, in order to build a more resilient community for the future. We urge its support. Thank you for your consideration.

Sincerely,

Sarah Wright

Sarah Wright, Chair
Kīlauea Neighborhood Association

PO Box 328, Kīlauea, Kauaʻi, Hawaiʻi 96754
www.kna-kauai.org | joekilauea@gmail.com
Like us on Facebook: Facebook.com/kna.kauai

Letters of Partnership (2): Pages 8-9

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor

SHARON HURD
Chairperson, Board of Agriculture

DEXTER KISHIDA
Deputy to the Chairperson

State of Hawai'i
DEPARTMENT OF AGRICULTURE
KA 'OIHANA MAHI'AI
1428 South King Street
Honolulu, Hawai'i 96814-2512
Phone: (808) 973-9600 FAX: (808) 973-9613

March 11, 2024

Rec. #28005

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

Dear Commissioner Touton:

RE: Water Strategy for the Kilauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

On behalf of the State of Hawai'i Department of Agriculture, I am writing to confirm partnership with 'Āina Ho'okupu o Kīlauea (a Category B applicant) in its WaterSMART Planning and Project Design grant application as a Category A partner. The proposal seeks to help to ensure water sustainability into the future for the Kilauea/Namahana Watershed on the northern portion of the Island of Kaua'i.

I affirm that the Department:

(1) is acting in partnership with the applicant,
(2) agrees to the submittal and content of the application, and
(3) intends to participate in the project by providing input, feedback, and other support for the project as needed

AHK is requesting funding to use a systems approach to developing a water master plan focusing on a bounded geographical area stemming from mauka (mountain) to makai (ocean) that will include a strategy to restore water balance among various sources and uses. AHK's overall goal in this effort includes preserving the area watershed and stewarding the water resource in a way that preserves it and prevents over-extraction of limited ground water. This will also include increasing rainfall retention (impoundment) to slow down the flow of water across the landscape to increase percolation, in order to mitigate future drought periods. The DOA strongly supports AHK's grant application and we urge its favorable selection.

Sincerely,

For Sharon Hurd

Sharon Hurd, Chairperson
Board of Agriculture

Island Fresh

DEPARTMENT OF WATER
COUNTY OF KAUA'I
4398 PUA LOKE STREET LIHUE, HAWAI'I 96766
WWW.KAUAIWATER.ORG (808) 245-5400 BUSINESS (808) 245-5813 FAX

Water has no substitute..... Conserve it!

JOSEPH E. TAIT
MANAGER AND CHIEF ENGINEER

MICHAEL K. HINAZUMI, P.E.
DEPUTY MANAGER-ENGINEER

March 22, 2024

The Honorable M. Camille Calimlim Touton
Commissioner
U.S. Department of the Interior
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Water Strategy for the Kilauea / Namahana Watershed and Evaluation of the Necessity and Relevance of the Kalihiwai Reservoir

Dear Commissioner Touton:

On behalf of the County of Kaua'i Department of Water (KDOW), I am writing to confirm partnership with 'Āina Ho'okupu o Kīlauea (AHK - a Category B applicant) in its WaterSMART Planning and Project Design grant application as a Category A partner. The proposal seeks to help to ensure water sustainability into the future for the Kilauea/Namahana Watershed on the northern portion of the Island of Kaua'i.

I affirm that the Department:

(1) is acting in partnership with the applicant,
(2) agrees to the submittal and content of the application, and
(3) intends to participate in the project by providing input, feedback, and other support for the project as needed.

AHK is requesting funding to use a systems approach to developing a water master plan focusing on a bounded geographical area stemming from mauka (mountain) to makai (ocean) that will include a strategy to restore water balance among various sources and uses. AHK's overall goal in this effort includes preserving the area watershed and stewarding the water resource in a way that preserves it and prevents over-extraction of limited ground water. This will also include increasing rainfall retention (impoundment) to slow down the flow of water across the landscape to increase percolation, in order to mitigate future drought periods.

The KDOW strongly supports AHK's grant application and we urge its favorable selection.
Sincerely,

Joseph E. Tait

Manager and Chief Engineer

JT/crz

Summary			
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	$124,020		
b. Fringe Benefits	$22,328		
c. Travel	$4,800		
d. Equipment	$0		
e. Supplies	$1,500		
f. Contractual	$610,000		
g. Construction	$5,000		
h. Other Direct Costs	$6,000		
i. Total Direct Costs	$773,648		
i. Indirect Charges	$15,265		
Total Costs	$788,913	$400,000	$388,913
	Cost Share Percentage	51%	49%

6a. Personnel

This category includes salaries and wages of employees of the applicant organization that will be working directly on the project. Generally, salaries of administrative and/or clerical personnel are classified as indirect or overhead costs in your organization's accounting system included as a portion of the stated indirect costs. If these salaries can be adequately documented as direct costs, they can be included in this section; however, a justification must be included in the narrative. Recommend reviewing **§ 200.430 *Compensation - personal services*** for more information on the specific requirements regarding compensation costs, including the ***Standards for Documentation of Personnel Expenses*** **at §200.430(i).**

Narrative: For key personnel such as the project manager or principal investigator, identify the name individual and position/title. Other personnel should be identified by position only. For all positions, identify the project tasks that will be performed. Compensation rates can be expressed as hourly rates and number of hours or annual salary and percentage effort that will be contributed to each task, but must be consistent with your organization's accounting and timekeeping policies. Include estimated hours for compliance with reporting requirements, including the final project report and evaluation. For multi-year projects, identify the level of effort anticipated for each budget year and any estimates increases in compensation rates. Within the budget narrative, provide a certification that the labor rates included in the budget proposal represent the actual labor rates of th identified personnel/positions and are consistently applied to Federal and non-Federal activities.*Note: The annual/hourly labor rate must not include fringe benefits.*

Links: § 200.430 Compensation - personal services.

Personnel

Position Title	Time (Hrs or %)	Rate (Hr or	Total Cost	Rate Basis	**Comments** (as needed)
Project Manager Y1 (Jeremy Burns)	390	$33	**$12,870**	Current Salary + 7% increase	hourly rate based on 2024 current +7% local recent inflation increase
Project Manager Y2 (Jeremy Burns)	390	$34	**$13,260**	Current Salary + 3% increase	Increase based on expected average inflation
Project Manager Y3 (Jeremy Burns)	390	$35	**$13,650**	Current Salary + 3% increase	Increase based on expected average inflation
AHK CEO Y1 (Yoshito L'Hote)	390	$45	**$17,550**	Current Salary + 7% increase	hourly rate based on 2024 current +7% local recent inflation increase
AHK CEO Y2 (Yoshito L'Hote)	390	$46	**$17,940**	Current Salary + 3% increase	Increase based on expected average inflation
AHK CEO Y3 (Yoshito L'Hote)	390	$47	**$18,330**	Current Salary + 3% increase	Increase based on expected average inflation
Administrative Assistant Y1	390	$25	**$9,750**	Current Salary +7% increase	hourly rate based on 2024 current +7% local recent inflation increase
Administrative Assistant Y2	390	$26	**$10,140**	Current Salary +3% increase	Increase based on expected average inflation
Administrative Assistant Y3	390	$27	**$10,530**	Current Salary +3% increase	Increase based on expected average inflation
		Total	**$124,020**		

Additional Narrative/Comments:

6b. Fringe Benefits

Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to, the costs of leave (vacation, family-related, sick or military), employee insurance, pensions, and unemployment benefit plans. Fringe costs should also include employer contributions required by law such as payroll taxes such as FICA, unemployment, and workers compensation. Fringe does not include federal income taxes, employee portion FICA, or other such costs. Recommend reviewing ***§ 200.431 Compensation - fringe benefits*** for more information on the allowability and allocability of fringe benefits. *Note: Car allowances and cars furnished to employees for personal and work use are unallowable as a fringe benefit, regardless of whether the costs is reported as taxable income, and must be excluded from fringe benefit rates.*

Narrative: Fringe benefits can be expressed as an hourly rate or percentage of personnel costs, but must correspond to how the costs are documented in your organization's accounting system. In the narrative, identify the fringe benefit rates/amounts for each position. If the fringe benefit rate is less than 35% of the estimated employee compensation, no additional information is necessary. If the fringe benefit rate is more than 35%, provide a description and breakdown of the benefits. If the rate is established within a negotiated indirect cost rate agreement (NICRA), provide a copy of the agreement with the application. Do not combine the fringe benefit costs with direct salaries and wages in the personnel category.

Links: § 200.431 Compensation - fringe benefits

Fringe Benefits

Position Title	Compensation	Quantity	Total Cost	Comments (as needed)
Project Manager (Jeremy Burns)	12	1010.00	**$11,666**	**less than 35% of compensation rate**
~~AHK CEO (Yoshito E Hote)~~	16	502.00	**$7,907**	**less than 35% of compensation rate**
~~Administrative Assistant~~	9	315.00	**$2,756**	**less than 35% of compensation rate**
			$0	
			$0	
		Total	**$22,328**	

Additional Narrative/Comments:

6c. Travel

Travel costs are expenses incurred by personnel in the performance of project activities. Costs can be charged on an actual cost basis, on a per diem or mileage basis in lieu of actual costs incurred, or on a combination of the two, provided that the method used is applied to the entire trip and not to selected days of the trip. All charges must be consistent with those normally allowed under similar circumstances for non-Federally funded activities and any established travel policies. Recommend reviewing ***§ 200.475 Travel costs***

Narrative: Provide a narrative describing any travel employees are anticipated to perform. Include the purpose of the travel and how it relates to project tasks, the origin and destination of the trip, number of personnel traveling, length of stay and all travel costs including airfare, per diem, lodging, transportation, and miscellaneous travel expenses. Identify the basis for rates used, (e.g. GSA Per Diem Rates, published prices) and the total of each planned trip.

Links: § 200.475 Travel costs

Travel

Purpose	From/To	# of Days	# of Travelers	Lodging per	Flight per	Vehicle per	Per Diem	Cost per	Basis for Estimate
Stakeholder meetings Y1	Kauai to Oahu	2	2	$400	$200	$100	$100	**$1,600**	**Estimated typical average local**
Stakeholder meetings Y2	Kauai to Oahu	2	2	$400	$200	$100	$100	**$1,600**	**Estimated typical average local**
Stakeholder meetings Y3	Kauai to Oahu	2	2	$400	$200	$100	$100	**$1,600**	**Estimated typical average local**
								$0	
								$0	
							Total	**$4,800**	

Additional Narrative/Comments:

6e. Supplies

Supplies is defined in §200.1 as all tangible personal property other than those described in the definition of equipment. A computing device is a supply if the acquisition cost is less than the lesser of the capitalization level established by your organization for financial statement purposes or $5,000, regardless of the length of its useful life. Recommend reviewing ***§ 200.453 Materials and Supplies Costs, Including the Costs of Computing Devices*** , regarding the allowability of costs. Supply items must be direct costs to the project and not duplicative of supply costs in the indirect rate. For post-award requirements regarding supplies, recommend reviewing ***§ 200.314 Supplies*** . For financial management requirements related to supplies, recommend reviewing § 200.302(b)(4)

Narrative: List all expendable supplies noting their purpose in the project and the basis of cost (e.g. vendor quotes, catalogue prices, prior invoices, etc.) For each item, provide the estimated unit cost, quantity, and total cost. General categories may be used, but if a category is viewed as too general or the associated amount is too high, further itemization may be requested.

Links: §200.1 Definitions
§ 200.453 Materials and Supplies Costs, Including the Costs of Computing Devices
§ 200.314 Supplies (post award requirements)
§ 200.302(b)(4) (financial management requirements related to supplies)

Supplies

Supply Item	Quantity	Unit Cost	Total Cost	Basis of Cost	Purpose
Laptop Computer (HP or equivalent)	1	$1,500	**$1,500**	**costs from previous project**	to support project management and reporting
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
		Total	**$1,500**		

Additional Narrative/Comments:

6f. Contractual

Include all contracts and subawards, (other than those for construction activities) under this Budget Object Class Category. Per § 200.1, a *contract* means, for the purpose of Federal financial assistance, a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the project or program under a Federal award. The term as used in this part does not include a legal instrument, even if the non-Federal entity considers it a contract, when the substance of the transaction meets the definition of a subaward.

For additional information on subrecipient and contractor determinations, see § 200.331 Subrecipient and contractor determinations. Do not include construction contract costs in this subsection. Construction costs should be included in Budget Object Class Category 6g, Construction.

Links: § 200.1 Definitions
§ 200.331 Subrecipient and contractor determinations.

Contracts

For each contract, regardless of dollar value, describe the services to be obtained and the applicability or necessity of each to the project. Identify the total estimated cost and the basis(es) used to develop the estimate. For each contract with an estimated amount meeting or exceeding $250,000 or represents 35% or more of the total project cost, provide a separate detailed description of the estimated costs. A detailed estimate can be included with the application in lieu of a description. For contracts with an estimated cost equal to or greater than the micro-purchase threshold (currently $10,000) identify the anticipated procurement method to be used and the basis of selection.

NOTE: Only contracts for architectural/engineering services can be awarded using a qualifications-based procurement method. If a qualifications-based procurement method is used, profit must be negotiated as a separate element of the contract price. See **§200.318** ***General Procurement Standards*** for additional information regarding procurements, including required contract content. The procurement method used must be compliant with **§ 200.319** ***Competition*** , and **§ 200.320** ***Methods of procurement to be followed*** . Recommend reviewing **§200.459** ***Professional service costs*** .

Links: § 200.318 General procurement standards
§ 200.319 Competition
§ 200.320 Methods of procurement to be followed.
§ 200.459 Professional service costs

Contractor Name	Purpose and Contracting Method	Total Cost	Description of costs	Basis of cost
Land Surveying	LIDAR helicopter-based mapping of watershed areas	$87,000	contracted service	Non-binding quote from provider of services
Aquifer Surveying	Underground aquifer electromagnetic helicopter-based mapping of watershed areas	$290,000	contracted service	Non-binding quote from provider of services
Legal Services	Legal support, primarily for drafting and reviewing documents	$63,000	contracted service	Estimated
Reservoir Engineering Design Plans	Engineering design for 100% complete plans	$170,000	contracted service	Estimated
		$0		
		$0		
	Subtotal	$610,000		

Additional Narrative/Comments:

Subawards

If known, identify the recipient of each subaward. Describe the activities to be performed under each subaward and indicate the applicability or necessity of each to the project. Provide a separate detailed budget for each subaward, regardless of dollar value. A detailed estimate may be included with the application in lieu of a description of budgeted costs. Identify who prepared the estimate (subrecipient, applicant personnel, etc.) and indicate the basis used to estimate each cost. Include any indirect/overhead costs anticipated to be paid and the rate used. If the subrecipient has a Federal negotiated indirect cost rate agreement (NICRA), include a copy of the NICRA with the application.

Subrecipient Name	Description of Activites	Total Cost	Description of budgeted costs	Basis of Cost
		$0		
		$0		
		$0		
		$0		
	Subtotal	$0		

Additional Narrative/Comments:

TOTAL CONTRACTUAL	$610,000

g. Construction

Construction costs are costs incurred in the construction, renovation, and/or equipping of a facility or structure. Costs include, engineering, design, permitting, demolition, acquisition of materials, and installation of improvements.

Identify all construction related costs other than personnel and fringe benefits costs, including, but not limited to applicant-owned equipment use, rental equipment, construction supplies, equipment that will be purchased and installed, construction contracts, permitting, and environmental compliance. Personnel and fringe benefits costs related to construction should be included in Budget Object Class Category 6a and 6b, as applicable.

Recipient-Owned Equipment Use Costs

If you propose to use equipment that you own under the project, provide the use rates and hours for each piece of equipment owned and budgeted. These should be ownership rates developed by the recipient for each piece of equipment (do not include operator costs). If these rates are not available, the U.S. Army Corp of Engineer's recommended equipment rates for the region are acceptable. Rates for your region can be found at the link below.

Links: EP1110-1-8 Construction Equipment Ownership and Operating Expense Schedule

Equipment Item	Hours	Rate	Total Cost	Basis of Cost	Purpose
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
		Subtotal	$0		

Additional Narrative or Comments:

Construction Materials

Identify any construction materials and non-movable equipment that will be purchased from a vendor. Include estimated purchase price, quantity, total cost, and the basis used to estimate the cost (published prices, quotes, previous project, etc.)

Item	Quantity	Unit Cost	Total Cost	Basis of Cost	**Comments** (as needed)
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
		Subtotal	$0		

Additional Narrative/Comments:

Contractual

For each contract, regardless of dollar value, describe the services to be obtained and the applicability or necessity of each to the project. Identify the total estimated cost and the basis(es) used to develop the estimate. For all construction contracts and each contract with an estimated amount meeting or exceeding $250,000 or representing 35% or more of the total project cost, provide a separate detailed description of the estimated costs. A detailed estimate can be included with the application in lieu of a description. For contracts with an estimated cost equal to or greater than the micro-purchase threshold (currently $10,000

identify the anticipated procurement method to be used and the basis of selection.

NOTE: Only contracts for architectural/engineering services can be awarded using a qualifications-based procurement method. If a qualifications-based procurement method is used, profit must be negotiated as a separate element of the contract price. See **§200.318 *General Procurement Standards*** for additional information regarding procurements, including required contract content. The procurement method used must be compliant with **§ 200.319 *Competition***, and **§ 200.320 *Methods of procurement to be followed***. Recommend reviewing **§200.459 *Professional service costs***.

Links: § 200.318 General procurement
§ 200.319 Competition
§ 200.320 Methods of procurement to be followed.
§ 200.459 Professional service costs

Contractor Name	Description of Services	Total Cost	Description of cost estimate	Basis of Cost
EXAMPLE!!! TBD	engineering and design, construction management	$300,000	see attached estimate prepared by the City Engineer.	The estimate is based on a previous similar project. The procurement method will be competitive proposals and selections will be made based on best value (qualifications and price).
EXAMPLE!!! TBD	Construction contract to furnish and install all pipe, equipment, and appurtenances.	$2,600,000	see attached estimate prepared by the District's contract engineer.	the estimate is based on the contract unit prices from two similar piping projects completed by the District in 2019 and 2020. The contract will be awarded using competitive bid procedures and the award will be made to the lowest qualified bidder.
		$0		
		$0		
		$0		
		$0		
		$0		
	Subtotal	$0		

Additional Narrative or Comments:

Other Construction-related costs

Identify any other construction-related costs (e.g. equipment rental, permitting, etc.) and indicate the applicability or necessity of each to the project. Include quantity, unit cost, total cost, and the basis for the estimate.

Note: Do not include costs that are anticipated to be paid by a contractor under the terms of the contract. Those items should be included in the contract estimate

Item Description	Quantity	Unit Cost	Total Cost	Basis of Cost	Purpose
EXAMPLE!!! Permits	1	$3,600	$3,600	previous project	Legally required
Permits	5	$1,000	$5,000	Estimated	Legally required
			$0		
			$0		
			$0		
		Subtotal	$5,000		

Additional Narrative/Comments:

TOTAL CONSTRUCTION COSTS	$5,000

6h. Other

This category contains items not included in the previous categories, such as tuition remission, rental costs, etc. List items by type or nature of expense, breaking down costs by cost per unit, quantity, and total cost and identify the basis of cost (quote, invoice, etc.). Describe the necessity of the costs for successful completion of the project and exclude unallowable costs. Recommend reviewing ***§ 200.420 through § 200.476, General Provisions for Selected Items of Cost*** .

Links: § 200.420 through § 200.476, General Provisions for Selected Items of Cost

Other

Item Description	Quantity	Unit Cost	Total Cost	Basis of Cost	Purpose
Facility Rentals	12	$500	**$6,000**	estimated typical average local cost	To hold in-person community and/or stakeholder meetings approximately quarterly throughout the duration of the project. Other regular meetings will be conducted online.
			$0		
			$0		
			$0		
			$0		
			$0		
			$0		
		Total	**$6,000**		

Additional Narrative/Comments:

Third-Party Contributions

Identify any third-party services and donations (personnel costs, supplies, etc.) and include the name of the contributor. Indicate the applicability or necessity of each to the project and describe the basis(es) for the valuation. All third-party contributions must meet the requirements under ***§ 200.306 Cost sharing or matching*** , including the valuation of the contribution.

Links: § 200.306 Cost sharing or matching

Third Party Contributor	Purpose	Value	Description of costs	Basis of Valuation
		$0		
		$0		
		$0		
		$0		
		$0		
	Subtotal	**$0**		

Additional Narrative/Comments:

TOTAL OTHER	**$6,000**

6 j. Indirect Costs

Option 1: Show the rate reflected in the most recent Federal indirect cost rate agreement, cost base, and proposed amount for allowable indirect costs. If your organization has a current Federal negotiated indirect cost rate agreement, it must be included with your application.

Option 2: If your organization has never received a Federal negotiated indirect cost rate, the budget may include a 10 % de minimis rate of modified total direct costs. Per ***§ 200.1 Definitions,*** Modified Total Direct Cost (MTDC) *means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first $25,000 of each subaward (regardless of the period of performance of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of $25,000.* For further information on modified total direct costs, refer to ***§ 200.414 Indirect (F&A) costs*** .

Option 3: If your organization does not have a federally approved indirect cost rate agreement and is proposing a rate greater than the 10 % de minimis rate, include the computational basis for the indirect expense pool and corresponding allocation base for each rate. *Note: If this option is selected, you will be required to submit an indirect cost rate proposal to your cognizant Federal agency within 3 months after the date the award is issued.* Information on "Preparing and Submitting Indirect Cost Proposals" is available from Interior, the National Business Center, and Indirect Costs and Acquisition Audit Services at https://ibc.doi.gov/ICS/icrna.

Note: Construction costs are capital expenditures and must be excluded from the indirect cost base.

Links: § 200.1 Definitions
§ 200.414 Indirect (F&A) costs.
https://ibc.doi.gov/ICS/icrna

j. Indirect Costs

Rate Type	Current Federal NICRA	Base Description	Base Total	Rate	Total Cost
De minimis	No	Personnel, Fringe, Travel, and Supplies	$152,648	10.00%	**$15,265**
					$0
					$0
					$0
				Total	**$15,265**
			Estimated amount of indirect costs to be paid with Federal funds		$10,000
			Estimated amount of indirect costs to be paid with non-Federal funds		$5,265