

**GRANT AGREEMENT FOR THE HONOKOWAI AND WAHIKULI SOURCE PROTECTION PROJECT
BETWEEN THE COUNTY OF MAUI AND THE NATURE CONSERVANCY**

THIS AGREEMENT made and entered this 7th day of October, 2016, by and between the COUNTY OF MAUI, a political subdivision of the State of Hawaii, through its Department of Water Supply (hereinafter "County" or "DWS"), whose principal place of business and mailing address is 200 South High Street, Wailuku, Maui, Hawaii 96793, and The Nature Conservancy, (hereinafter "TNC"), whose principal place of business and mailing address is 923 Nuuanu Avenue, Honolulu, Hawaii 96817.

WITNESSETH:

WHEREAS: the Kapunakea Preserve on West Maui is home to Kapaloa and Honokowai streams, and the pristine mauka headwaters of the Honokowai and Wahikuli watersheds;

WHEREAS: the Wahikuli and Honokōwai watersheds (found within Kapunakea Preserve) have been designated priority watersheds by the State of Hawaii Department of Health, the Environmental Protection Agency, and the National Oceanic and Atmospheric Administration;

WHEREAS: Kapunakea Preserve was established in 1992 when Pioneer Mill Company, Ltd. granted TNC a perpetual conservation easement over 1,264 acres on West Maui. The current landowner is Kaanapali Land Management Corporation;

WHEREAS: Honokowai stream is a naturally occurring perennial stream that is 16.9 miles in length, 7.1 miles of which run through Kapunakea Preserve. The Honokowai stream has a natural median discharge of 5.4 cubic feet per second, producing on average approximately 3.5 million gallons of fresh water a day;

WHEREAS: feral ungulates and invasive habitat-modifying weeds are a major threat to the integrity of Maui County's watersheds and are a great contributor to nonpoint source pollution and subsequent water quality impairments in stream systems and perhaps nearshore ocean waters; and

WHEREAS: TNC works closely with the West Maui Mountains Watershed Partnership (WMMWP), the landowners of Pu'u Kukui Watershed Preserve and the Honokōwai Natural Area Reserve to ensure that management efforts are coordinated and most efficiently implemented.

NOW THEREFORE, IT IS HEREBY AGREED, by and between the DWS and TNC that the proposal attached as Exhibit "A" is incorporated hereto, made a part hereof, and shall be implemented as follows:

I. Responsibilities of Parties:

A. DWS Responsibilities:

1. DWS shall contribute grant funds for the implementation of the proposal attached as Exhibit "A", and shall provide payment of up to \$65,000.00 to TNC for services rendered as described in the attached proposal and summarized in I.B. below.
2. DWS staff shall consult on and provide information, as needed, to assist in the implementation of the proposal attached as Exhibit "A".

B. TNC Responsibilities:

TNC shall implement the proposal attached as Exhibit "A", and shall exert the care and consideration necessary to implement the proposal in a safe and responsible manner. Deliverables under this Agreement include:

1. Ungulate Control

- a. Inspect and maintain approximately 1800 meters of fences semi-monthly. Repair or replace fences as needed.
- b. Scout for ungulates during all activities. Update activity/catch maps; track animal catches.
- c. Check and maintain all traps (approximately 900); add traps if needed.
- d. Semiannually monitor two transects (6.2 miles total).

2. Invasive Plant Control

- a. Sweep and control of strawberry guava and tibouchina above 3200 feet.
- b. Scout for, map, and monitor potential habitat-modifying invasive plants and monitor efficacy of treatments.
- c. Prevent other incipient weed establishment by continuing pest prevention protocols.
- d. Support the Maui Invasive Species Committee (MISC) to contain serious habitat-modifying weeds.

3. Resource Monitoring, Rare Species Protection and Research

- a. Support the Plant Extinction Prevention Program (PEPP) in search and assessment of rare species populations to determine protection needs and to reduce threats.
- b. Review and provide technical guidance to research proposals as necessary.

II. Notices:

In the event that any party wishes to initiate cancellation or changes to provisions of this Agreement, notice shall be provided to the other party in writing. Any notice by any party to the other shall be in writing and shall be personally delivered or sent by certified or registered mail as follows:

David Taylor, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Maui, HI 96793

Ulalia Woodside, Executive Director
The Nature Conservancy
923 Nuuanu Avenue
Honolulu, Hawaii 96817

III. Payment:

- A. Payment shall be made by DWS to TNC in two installments, upon submission of invoices (and supporting documentation) for expenses incurred. All requests for payment shall include both programmatic and financial progress reports.
- B. The first request for payment shall be invoiced no earlier than 180 days from the date of the Notice to Proceed and shall not exceed 50 percent of the total grant amount.
- C. The second and final request for payment shall be made upon satisfactory completion of the Project and shall include the balance of funds due. The final request for payment shall be made no earlier than 365 days and no later than 455 days from the date of the Notice to Proceed. Should a 6-month no cost extension be granted, final request for payment shall be invoiced no later than thirty (30) days after the extension period. The final report shall include a disk with copies of the map layers generated by the project, and any other work deliverables as indicated in the proposal.
- D. The TNC shall retain copies of documentation for a period of three (3) years after completion of this Agreement required to substantiate all expenditures and shall make such documentation available to DWS for inspection or audit upon request.
- E. It is the understanding of DWS and TNC that TNC is leveraging State of Hawaii Natural Area Partnership Program (NAPP) funds in support of the project.
- F. Expenditures shall be made in accordance with the budget for the project contained in Exhibit "A", and shall apply to the work items summarized above in I.B.

IV. Indemnification:

TNC shall be responsible for all damages, injury, or death caused by TNC officers, employees, volunteers and agents, in the course of their services and activities under this Agreement. To the extent permitted by law, TNC shall indemnify, defend, release, and hold harmless the County, its officers, agents, and employees, from and against any and all actions and claims arising either directly or indirectly, out of or resulting from the errors, omissions, or acts of TNC, its officers, employees, volunteers or agents, occurring during or in connection with the performance of TNC's services or activities under this Agreement. TNC shall reimburse the County for any judgments, costs, and expenses,

including attorney's fees, incurred in connection with the defense of any such claim, or incurred by the County in enforcing this Agreement. TNC's obligations under this section shall survive and shall continue to be binding upon TNC notwithstanding the expiration, termination or surrender of this Agreement. This indemnification agreement is intended to be as broad and inclusive as permitted by the laws of the State of Hawaii and if any portion is held invalid, the balance shall notwithstanding continue in full force and effect.

V. Time of Completion:

Work under this Agreement shall be performed within twelve (12) months from the date of the Notice to Proceed. Should there be extenuating circumstances (i.e. weather, seasonal, etc.), TNC shall be given an extension not to exceed six (6) months. Request for extension shall be submitted to DWS in writing 90 days prior to the end of the project period.

VI. Rights and Responsibilities:

The rights and responsibilities of each party described herein shall remain in force and effect until such time as each party's project responsibilities are completed.

VII. Successors and Assignees:

All terms, conditions, provisions, warranties and covenants contained herein shall apply to and bind the respective successors and assignees of the parties hereto.

VIII. General Terms and Conditions:

The General Terms and Conditions attached hereto as Exhibit "B" shall be incorporated and made a part of this Agreement.

IX. Agreement Voluntary:

It is hereby expressly understood and agreed that this Agreement has been freely and voluntarily entered into by the parties and this Agreement cannot be altered, amended, modified or otherwise changed except in writing executed by a duly authorized representative of each of the undersigned.


X. Exhibits:

Exhibits "A" and "B" are attached hereto and incorporated herein by this reference:

"A" - FY 2017 Proposal for Honokowai and Wahikuli Source Protection - TNC

"B" - General Terms and Conditions - DWS Grants

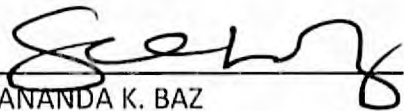
COUNTY:
COUNTY OF MAUI

By 
ALAN M. ARAKAWA
Mayor

GRANTEE:
THE NATURE CONSERVANCY

By 
ULALIA WOODSIDE
Executive Director

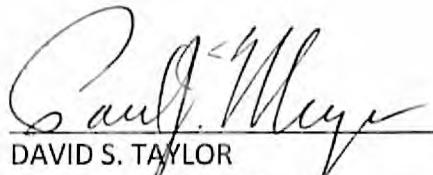
APPROVAL RECOMMENDED:



SANANDA K. BAZ
Budget Director




DANILO F. AGSALOG
Director of Finance



DAVID S. TAYLOR
Director of Water Supply

APPROVED AS TO FORM AND LEGALITY:



JENNIFER M.P.E. OANA
Deputy Corporation Counsel
County of Maui

STATE OF HAWAII)
) SS.
 COUNTY OF MAUI)

On this 7th day of October, 2016, before me appeared ALAN M. ARAKAWA, to me personally known, who being by me duly sworn did say that he is the Mayor of the County of Maui, a political subdivision of the State of Hawaii, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed on behalf of said County of Maui by authority of its Charter, and the said ALAN M. ARAKAWA acknowledged the said instrument to be the free act and deed of said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.



Kelii P. Nahooikaika
 Notary Public, State of Hawaii

Print Name: KELII P. NAHOOIKAIKA

My commission expires: 4.30.18

NOTARY PUBLIC CERTIFICATION			
Doc. Date:	<u>10.7.16</u>	# Pages:	<u>8</u>
Notary Name:	KELII P. NAHOOIKAIKA	Judicial Circuit:	<u>2nd</u>
Doc. Description:	<u>grant agreement for the honokowai and wahikuli source protection project between the county of maui & the nature conservancy</u>		
Notary Signature:	<u>Kelii P. Nahooikaika</u>		
Date:	<u>10.7.16</u>		

STATE OF HAWAII

)
) SS.
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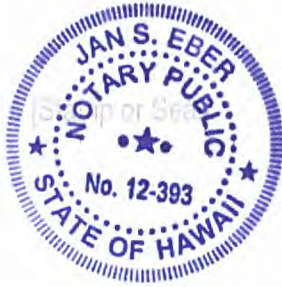
On this 15th day of September, 2016, before me personally appeared Ulalia Woodside, to me personally known, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable, in the capacity shown, having been duly authorized to execute such instrument in such capacity.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Jan S. Eber
Notary Public, State of Hawaii

Print Name: Jan S. Eber

My commission expires: Dec 16, 2016

NOTARY PUBLIC CERTIFICATION			
Doc. Date:	Not dated	# Pages:	42
Notary Name:	Jan S. Eber	Judicial Circuit:	First
Doc. Description:	FY 2017 Grant Agreement for the Honokowai and Wahikuli Source Protection Project		
Notary Signature:	<u>Jan S. Eber</u>		
Date:	<u>9/15/2016</u>		

Honokowai and Wahikuli Watershed Management Project Description



Timeframe: DWS FY17; One year from notice to proceed (~ July 2017 to June 2018)

Amount Requested: \$65,000



A. PROJECT BACKGROUND

The Nature Conservancy (TNC), acting through its Hawai'i Field Office, under agreement with the County of Maui through its Department of Water Supply (DWS), seeks continued funding to preserve, protect and sustain important agricultural and domestic water supply at Kapunakea Preserve on West Maui (Figure 1). We seek to continue critical ongoing management activities including fence maintenance, ungulate and weed control, monitoring, and research for Kapunakea Preserve.

The Nature Conservancy's Kapunakea Preserve on West Maui is home to Kapāloa and Honokōwai streams, and the pristine mauka headwaters of the Honokōwai and Wahikuli watersheds. Kapunakea contains a majority of the Honokōwai and a portion of the Wahikuli watershed headwaters (Figure 1). The Honokōwai and Wahikuli watersheds have been identified as focal priority watersheds by the Hawai'i Department of Health (DOH), the Environmental Protection Agency (EPA), and the National Oceanic and Atmospheric Administration (NOAA), and an EPA Watershed Management Plan for the two watersheds was completed in 2012.¹ Kapunakea Preserve lies above the nearshore waters from Honokōwai Point to Kā'anapali, which have also been designated a priority management area by the U.S. Coral Reef Task Force, pinpointing Wahikuli and Honokōwai as their focus. The forested watershed areas in this project are above and adjacent to county designated source water protection areas (Figure 2). Honokōwai stream has a natural median discharge of 5.4 cubic feet per second², producing on average approximately 3.5 million gallons per day of fresh water a day for agricultural and potentially domestic use.

Maintaining healthy forests at Kapunakea Preserve is directly related to the DWS mission of providing clean water efficiently. Think of the forest as a giant reservoir that stores an abundant supply of fresh water until needed. We wouldn't think twice about the need for maintaining any of our reservoirs, yet we often take for granted the forest that stores and supplies its water. Failure to protect this forest reservoir means a reduction in forest health and the amount of water available for DWS customers (see research citations below). This is particularly true in the face of the documented 89-year statewide trend toward lower rainfall and streamflow and more extreme weather events forecast as a result of global climate change.^{3,4,5} The more healthy and resilient our forest, the more likely the forest and the water they store can persist in the future. The consequences of failing to fund and implement management actions now will result in accelerated degradation of our forest. Costs associated with building new reservoirs and establishing new wells are high and can be avoided through good watershed management.

The native-dominant forests of West Maui and Kapunakea Preserve act like giant sponges gradually

1 See West Maui Ridge to Reef Initiative for more information: <http://www.westmauir2r.com/>.

2 USGS Low flow characteristics of streams in the Lahaina district, West Maui, Hawai'i. Scientific investigations report 2014-5087.

3 Chu & Chen. 2005. Interannual and Interdecadal Rainfall Variations in the Hawaiian Islands. *Journal of Climate*. 18: 4796-4813.

4 Giambelluca, T., Q. Chen, A. Frazier, J. Price, Y. Chen, K. U. C. Chua, C. Tu, H. Van Nguyen, J. Eischeid, D. Delparte, M. Best, K. Miyagi, P. Chu, K. Kodama, H. Diaz, C. Daly, T. Schroeder, M. Nullet. 2011 Rainfall Atlas of Hawai'i, University of Hawai'i at Mānoa, Department of Geography. Mean statewide rainfall, as compared to 1920-1989 period. <http://rainfall.geography.hawaii.edu/acknowledgments.html>

5 Oki, D. S. 2004. Trends in Streamflow Characteristics at Long-Term Gaging Stations, Hawaii. USGS Scientific Investigations report 2004-5080. <http://pubs.usgs.gov/sir/2004/5080/>

absorbing rain, mist and fog that slowly percolate into the ground and feed our streams and ground water. Maui's native rain forests and the fresh water they capture sustain our residents, agriculture, tourism, Hawaiian culture, and world-renowned biodiversity. The greatest threats to Maui's watersheds and biodiversity are feral ungulates and invasive weeds. Feral pigs eat native vegetation, facilitate non- native plant invasion, and hasten soil erosion. Axis deer, goats and feral cattle are also a continuous threat on West Maui. Axis deer have been seen recently adjacent and below Kapunakea. Invasive weeds compete for habitat and other resources with native species and spread easily with ungulate disturbance. Invaded landscapes are also more prone to wildfires. Feral ungulates and invasive habitat- modifying weeds are a major threat to the integrity of our island's watersheds and are a great contributor to nonpoint source pollution and subsequent water quality impairments in stream systems and perhaps nearshore ocean waters.

This proposal describes TNC's management activities and grant deliverables. Every one dollar of DWS funds will be used to leverage two dollars from the State's Natural Area Partnership Program (NAPP) or private sources, together to be used to fulfill the management activities and grant deliverables described herein. Kapunakea Preserve was established in 1992 when Pioneer Mill Company, Limited, granted The Nature Conservancy (TNC) a perpetual conservation easement over 1,264 acres on West Maui. The current landowner is Kā'anapali Land Management Corp. Kapunakea Preserve was admitted into the NAPP 1994. NAPP funding is subject to annual review and legislative appropriation, and matching funds help ensure continued support. The revised Kapunakea FY2015-FY2020 Long-Range Management Plan (LRMP) guides our management actions; activities in this proposal are consistent with those described in the LRMP.

TNC is an international private, non-profit organization based in Arlington, Virginia. The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends. Since 1980, the Conservancy has protected more than 200,000 acres of natural lands in Hawai'i and works with other public and private landowners to protect the islands' key watersheds. The Conservancy manages a statewide network of 11 preserves totaling 40,000 acres and works in 12 coastal communities to protect the coral reefs and near-shore waters of the main Hawaiian Islands. In 1991, TNC helped to pioneer the watershed partnership model which now includes more than 2.2 million acres of conservation land statewide. The current organizational chart for its local Maui office is depicted below (Figure 3).

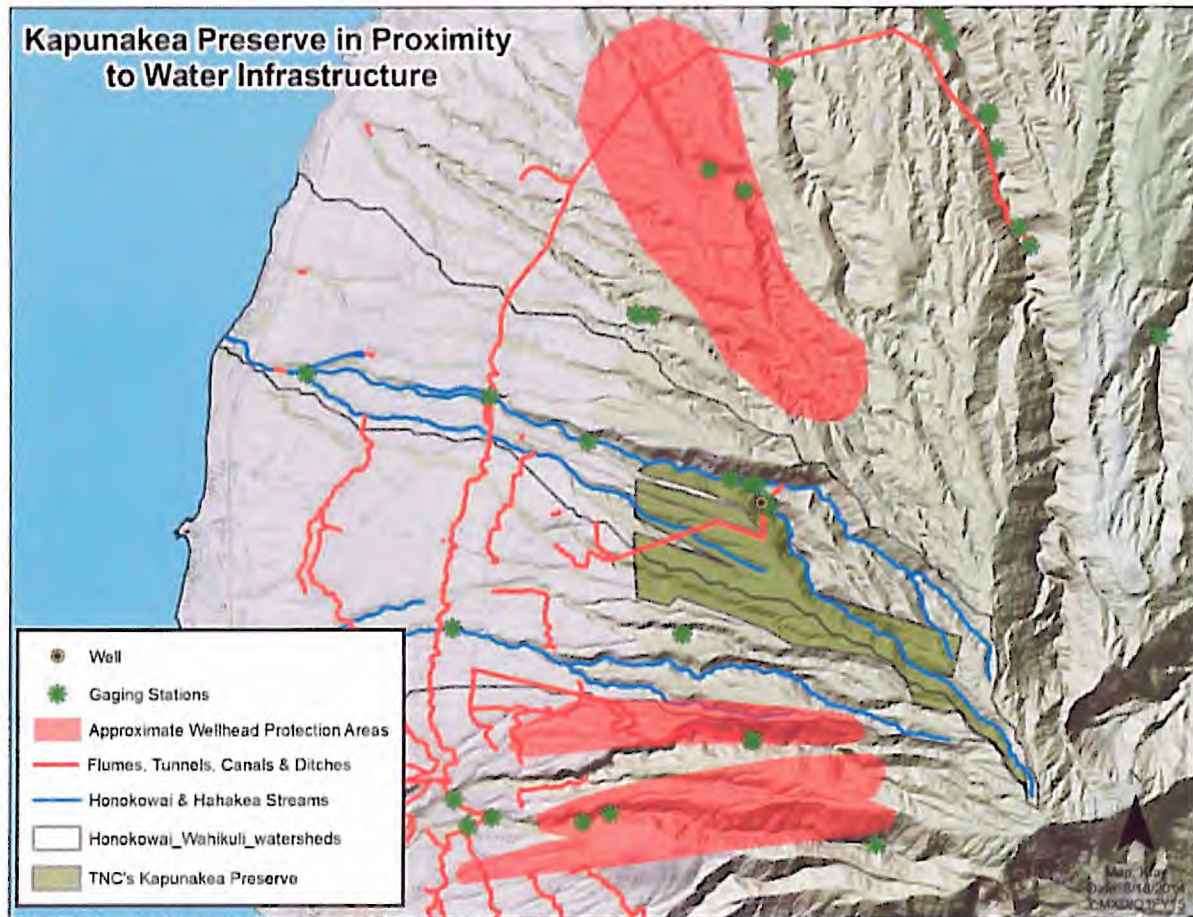


Figure 1. Location of TNC's Kapunakea Preserve on West Maui, major streams, and the wellhead protection systems and water infrastructure in the area.

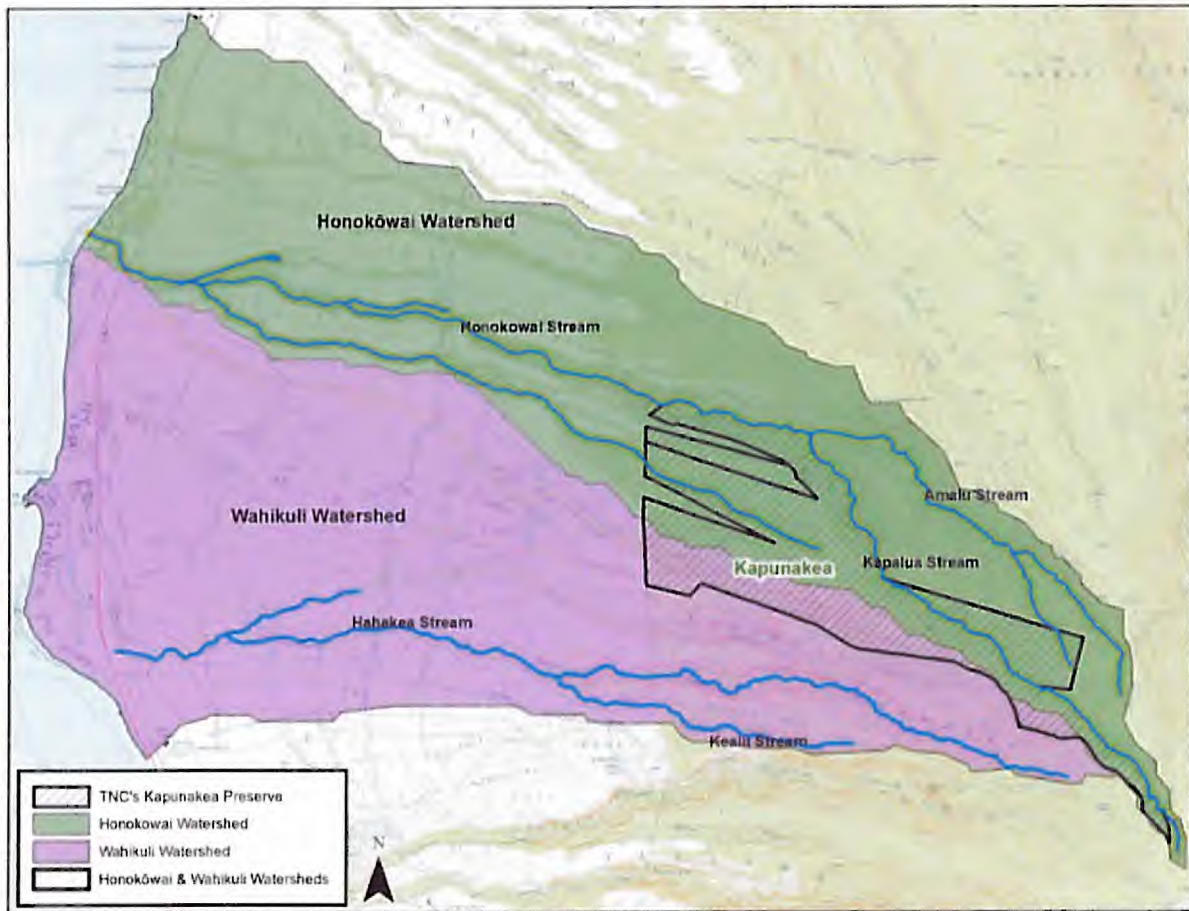


Figure 2. Location of the Kapunakea Preserve in relation to the two priority watersheds, Honokōwai and Wahikuli..

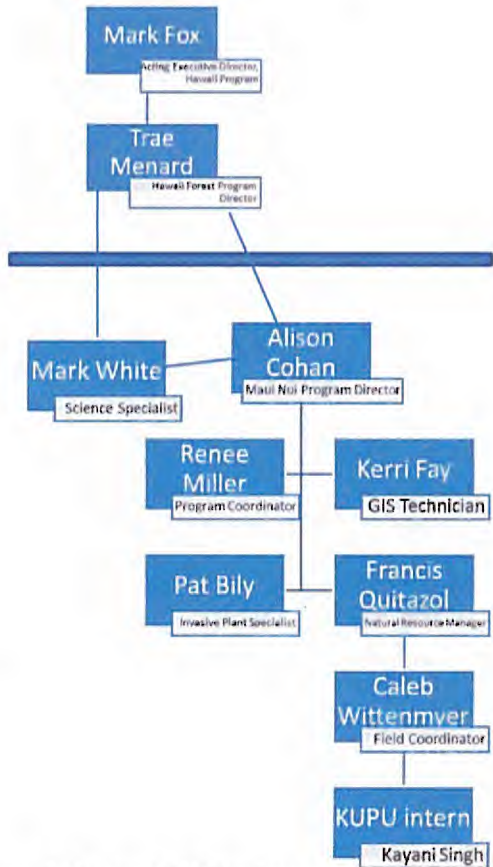


Figure 3. Current TNC Maui program structure.

B. PROJECT GOALS AND OBJECTIVES

Goals and objectives covered under this proposal will focus on critical ongoing watershed management in Kapunakea Preserve including fence maintenance, ungulate control, invasive plant control, resource monitoring, rare species protection and research, and community outreach. Objectives and activities outlined in this proposal are consistent with the revised Kapunakea Preserve FY2016-2021 Long Range Management Plan.

The Nature Conservancy is a science-based organization that relies upon proven and established methods of management and monitoring to ensure our activities are effective, efficient and produce quantifiable results and successes. We implement both innovative methods and established best management practices, including systematic “sweeps” on the ground to search in a highly organized fashion for both ungulates and weeds. GIS is then used to assess coverage and for adaptive management while monitoring transects confirm the presence or absence of ungulate sign.

Project Goals:

- Remove all ungulates from fenced, native-dominant areas
- Prevent ungulate ingress into native-dominant areas

- Enhance the effectiveness of boundary and strategic fences
- Remove habitat-modifying weeds from high-quality native habitats
- Prevent the introduction or spread of problem weeds
- Prevent the establishment and spread of habitat-modifying priority weeds
- Prevent the introduction and spread of small mammals, non-native insects, mollusks, pathogens, and other pests deemed to be a significant threat, and reduce their negative impact where possible
- Conduct and support monitoring and research to track the status of biological and physical resources of the preserve
- Maintain spatial and other data sufficient to measure success and inform adaptive management, policy makers, and funders
- Prevent the extinction of rare species in the preserve
- Encourage and assist with research that increases our understanding and management of the area's natural resources
- Build public understanding and support for the management of the watershed and preservation of natural areas. Provide staff with training and equipment that will allow them to assist primary fire and rescue agencies during a fire or emergency on or adjacent to the preserve.

Project Benefits:

- Improved groundwater recharge ability through protection and enhancement of native canopy and ground cover
- Reduced damage to watershed forest vegetation and soil disturbance as a result of pig and other ungulate damage
- Improved watershed protection and function specific to streams and wellhead protection systems within and adjacent to Kapunakea
- Reduced nonpoint source pollution, runoff, and sedimentation in the Honokōwai stream system and makai nearshore areas of Kā'anapali and Honokōwai
- Continued protection of vitally important headwaters for streams in the West Maui Watershed
- Potential recovery of listed endangered plant and animal species through the protection of intact native montane forest systems
- Climate change adaptation by maintaining ecosystem resilience
- Leveraged funds and conservation actions
- Conservation awareness and engagement to the local community
- Documentation of conservation successes

C. LOCATION AND SIZE OF PROJECT AREA

The project area on West Maui is within Kapunakea Preserve, a 1,264 acre Preserve held under a perpetual conservation easement with Kā'anapali Land Management Corporation. The conservation easement seeks to preserve and protect the natural, ecological and wildlife features of the property. The preserve's upper elevations are recognized as among the highest quality native areas in the state. Kapunakea Preserve is adjacent to two other natural areas that are actively managed: Pu'u Kukui Watershed Preserve and the Honokōwai section of the state West Maui Natural Area Reserve (Figure 4). The Wahikuli and Honokōwai watersheds (found within Kapuankea Preserve) have been designated priority watersheds by DOH, EPA, and NOAA.

Kapunakea contains 11 native-dominated natural communities, ranging from lowland shrublands to montane forests and bogs, including the rare 'ōhi'a mixed montane bog. Four of the communities are not found in the nearby West Maui NAR, most notably koa/ 'ōhi'a (*Acacia koa/Metrosideros polymorpha*) lowland mesic forest and lama/'ōhi'a (*Diospyros sandwicensis/Metrosideros polymorpha*) lowland mesic forest. Kapunakea protects at least 34 rare plants, 4 native forest birds, and at least 4 species of rare Hawaiian tree snails.

Kapunakea Preserve contains a majority of the Honokōwai and a portion of the Wahikuli watershed headwaters. Honokōwai stream is the major waterbody in TNC's Kapunakea Preserve. Honokōwai stream is a naturally occurring perennial stream that is 16.9 miles (27.2 km) in length, of which 7.1 miles run through Kapunakea Preserve. Its headwaters begin as Kapāloa Stream running along the northern border of the Preserve and emptying into the Honokōwai stream system. Honokōwai stream becomes diverted into Honokōwai Tunnel at ~ 1550' elevation within the Preserve (Figure 1). There are other water infrastructure and wellhead protection systems found within and adjacent to Kapunakea (Figure 1).

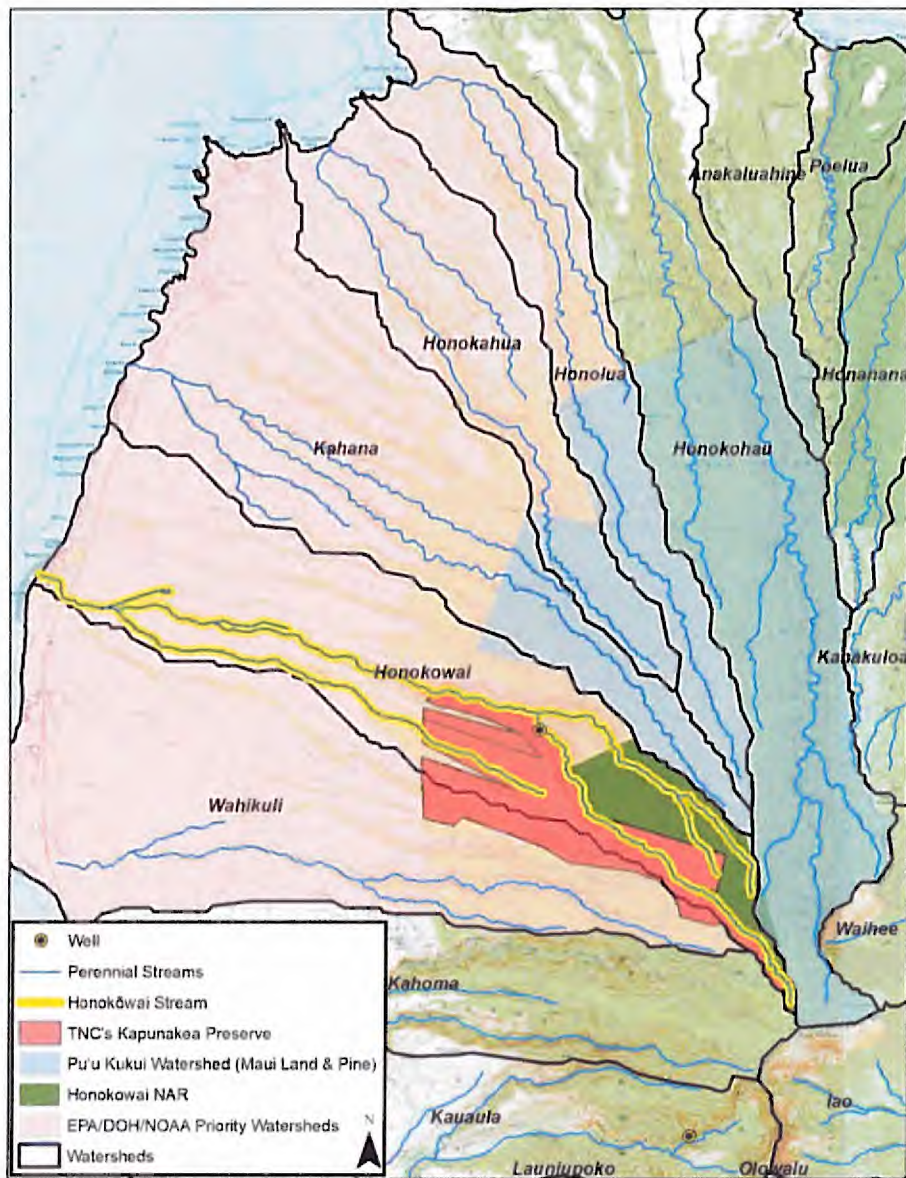


Figure 4. Location of Kapunakea Preserve in relation to Pu'u Kui Watershed Preserve and Honokowai NAR.

D. SCOPE of WORK

The primary components to this project under this grant agreement include:

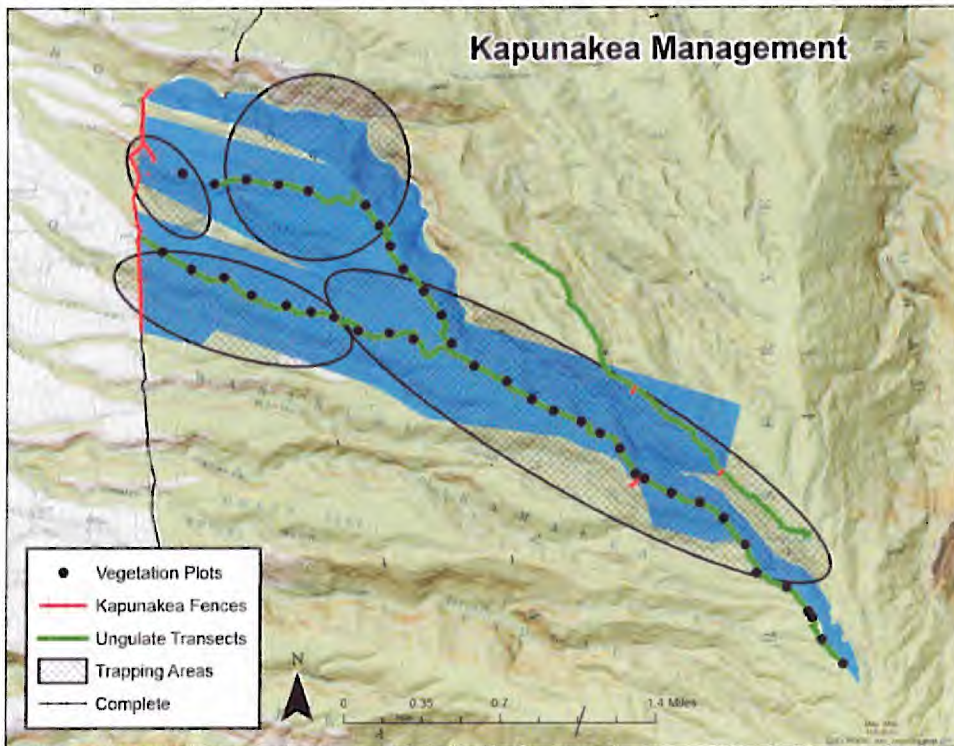
- Fence inspections and maintenance
- Preventing feral pigs, deer, goats and cattle from entering the watershed
- Scouting and monitoring for ungulate presence
- Invasive plant control
- Resource and threat monitoring, rare species protection, and research

Fence Maintenance, Ungulate Control and Monitoring

Ungulate (hooved animal) damage to vegetation and the forest floor is the greatest threat to the critical West Maui watershed headwaters and Kapunakea Preserve, and is therefore the focus of the Kapunakea resource management program. Fences are the primary method for controlling the movements of feral animals and keeping them from entering native forest systems. Hunting and trapping are used to remove animals, especially pigs, that enter the preserve as a result of fence breaches or stream blowouts.

In order to assess ungulate presence and monitor reduced activity over time, we will monitor the two ungulate transects semiannually for signs of ungulate activity in contiguous 5m X 10m plots. This monitoring can serve as a relative index of ungulate activity as the project continues and is used to gauge the effectiveness of our control strategies and techniques. Transect monitoring is supplemented by scouting; any time staff or partners are in the preserve they are vigilant for ungulate activity and record sign with GPS. Hundreds of miles are scouted during routine management activities, providing the best method for identifying any animal ingress.

We work closely with the West Maui Mountains Watershed Partnership (WMMWP) and its members to ensure that management efforts are coordinated and most efficiently implemented. We work to ensure that fencing and ungulate control efforts are collaborative and effective between adjacent areas and landowners.



Invasive Plant Control

The highest priorities of our invasive plant control program are to minimize disturbances to intact native communities, survey for and control outlying populations of priority weeds, and prevent the introduction of additional invasive plant species. Ungulate removal significantly reduces the introduction and spread of invasive habitat-modifying weeds. We enforce strict gear sanitation protocols and procedures to remove weed seeds, mud, and debris from equipment and clothing before people enter the preserve. Helicopter flights originate from areas free of priority weeds, and all equipment and clothing is inspected and cleaned. Of the alien plants already established in the preserve, many are shade intolerant and pose no major problem if the native forest canopy and ground cover remain intact. There are other alien plants, however, that displace native vegetation over large areas; these habitat-modifying plants are considered “Priority Weeds” for management (Table 1).

We strive towards an Integrated Pest Management (IPM) approach to weed control, consisting of manual methods, herbicides, and/or biological control. As biological controls are developed and approved for release on our top priority weeds, we will work cooperatively with agencies mandated to monitor these agents. Herbicide use is in full compliance with the State Department of Agriculture (HDOA) Pesticide Enforcement Division. Staff coordinating weed control are certified with the Pesticide Enforcement Division through a Forestry Applicators’ exam and card. We may employ other techniques for weed control as they are developed. Any new application methodology used regularly will be coordinated in compliance with HDOA. Our weed control efforts in this proposal will focus on removing all located populations of *Tibouchina* and Strawberry guava found above 3200’ in order to contain the existing population and prevent further spread into pristine higher elevation areas.

Table 1. Priority weed species for management at Kapunakea Preserve (in order of priority)

Scientific Name	Common Name
Top Priority Species	
<i>Tibouchina herbacea</i>	Tibouchina
<i>Rubus argutus</i>	Blackberry
<i>Psidium cattleianum</i>	Strawberry guava (waiawi)
<i>Paspalum conjugatum</i>	Hilo grass
<i>Rubus rosifolius</i>	Thimbleberry
<i>Andropogon virginicus</i>	Broomsedge
<i>Passiflora suberosa</i>	Passiflora
<i>Melinis minutiflora</i>	Molasses grass
Early Detection/Rapid Response species	
<i>Ficus</i> spp.	Banyan
<i>Buddleia asiatica</i>	Butterfly bush
<i>Juniperus bermudiana</i>	Juniper
<i>Grevillea robusta</i>	Silk oak
<i>Setaria gracilis</i>	Yellow foxtail
<i>Holcus lanatus</i>	Velvet grass
<i>Axonopus fissifolius</i>	Carpet grass
<i>Juncus planiflora</i>	Bog rush
<i>Psidium guajava</i>	Guava
<i>Hedychium coronarium</i>	White ginger

Resource Monitoring, Rare Species Protection, and Research

The goal of our resource monitoring program is to track biological and physical resources of the preserve, evaluate changes in these resources, and improve efficacy of management responses. Biological surveys have shown that Kapunakea Preserve protects numerous rare species, many of which are federally listed as endangered. Although protecting essential habitat is our main strategy to their protection, we also inventory the rarest species and take measures to protect them. The Plant Extinction Prevention Program (PEPP), administered through the Pacific Cooperative Studies Unit (PCSU) and coordinated by DOFAW, is actively surveying for and monitoring specific rare plants. We work closely with PEPP and support their efforts to protect and restore rare and endangered species found in the preserve. Staff will continue to identify, map and recover rare plant populations during routine management activities. We will continue to support and assist PEPP with outplanting and monitoring of rare plants, in addition to sharing GIS data on rare plant locations in Kapunakea and on adjacent lands. We will continue to encourage independent research in Kapunakea by offering necessary application materials to researchers online.

E. TIMELINE

Description of each deliverable	Expected amount of time to complete deliverable	Time Frame
Fence checks and maintenance	12 months	July-June
Trap checks	12 months	July-June
Ground scouting for ungulates	12 months	July-June
Transect monitoring	2 weeks	December and June
Strawberry guava treatment (above 3200')	12 months	July-June
Tibouchina treatment (above 3200')	12 months	July-June
Priority weed monitoring & treatment	12 months	July-June
GPS/GIS data processing	12 months	July-June

F. PROJECT DELIVERABLES ⁶

Goal 1. Remove all ungulates and prevent future invasion		
Task	Deliverable	Measure of Success
Fence Maintenance & Repair	<ul style="list-style-type: none"> Inspect and maintain ~1800m fences semi-monthly Repair/replace fence as needed 	6 inspections conducted per year with all necessary repairs completed Fence damages temporarily repaired within 48 hrs of discovery
Ungulate Control and Activity	<ul style="list-style-type: none"> Scout for ungulates during all activities conducted Update activity/catch maps Track animal catches 	Total miles scouted GIS maps depicting scouts, catches, activity Total animal catches
Trapping	<ul style="list-style-type: none"> Check and maintain all traps (~900) Add traps if needed 	Total traps checked semiannually Number of traps added
Transect monitoring	<ul style="list-style-type: none"> Semiannually monitor two transects (6.2 miles total) 	Amount of ungulate sign on transects
Goal 2. Map and contain high priority invasive plants		
Weed sweeps	<ul style="list-style-type: none"> Sweep and control for strawberry guava and Tibouchina above 3200' 	Acres swept and numbers of priority invasive plants treated or removed
Weed scouting & monitoring	<ul style="list-style-type: none"> Scout for, map, and monitor potential habitat-modifying invasive plants, and monitor efficacy of treatments 	GIS maps depicting scouts and treatment
Weed prevention	<ul style="list-style-type: none"> Prevent other incipient weed establishment by continuing pest prevention protocols 	Lack of detection of incipient weeds during regular monitoring
Partner support	<ul style="list-style-type: none"> Support MISC to contain serious habitat-modifying weeds 	Lack of detection of major MISC target species in Kapunakea Preserve
Goal 3: Track and Conduct Resource Monitoring, Rare Species Protection, and Research		
Rare plant mapping and restoration	<ul style="list-style-type: none"> Support PEPP in search and assessment of rare species populations to determine protection needs and to reduce threats 	Number of new rare taxa locations GIS maps of rare plant locations in and adjacent to Kapunakea Number of species outplanted
Research support	<ul style="list-style-type: none"> Review and provide technical guidance to research proposals as necessary 	Number of research projects supported Data from research projects

⁶ Project deliverables depicted encompass the whole Kapunakea Preserve management scope. Additional funds will be used to accomplish project deliverables, including State NAPP and

F. BUDGET SUMMARY

Funds provided by the County of Maui under the requested grant will be used to partially fund TNC Maui Program positions needed to implement resource management contracts and guide ungulate control, invasive plant control, resource monitoring, rare species protection and research support. Personnel costs include a fringe benefit rate that will accrue on all labor costs at the currently negotiated rate as well as funds to cover occasional overtime hours worked in support of this project. Leveraged funds generally cover contract and other costs that when combined with DWS funding meet all of the deliverables for this grant proposal. In the past, we have contracted the WMMWP and may continue to do so in the future as long as pricing remains competitive with private vendors. TNC's current FY16 overhead rate of 21.8% will be partially waived to 15% which will which will accrue on all direct costs outlined in the budget table below.

County of Maui DWS funds will be leveraged at nearly 2:1 match using both state NAPP and private funds.

G. LEVERAGED FUNDS (Required documentation 1.4d)

The grants listed below are anticipated or proposed for FY17 and will help ensure that existing management programs are successfully implemented.

Funder	Type	Amount
Natural Area Partnership Kapunakea	State	\$99,540
Various private sources (tentative)	private	unknown
Total		\$100,000



County of Maui
 Department of Water Supply
Watershed Protection Grant Program
 Fiscal Year 2017

FORM 4.2

Project Budget Summary

Organization Name The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Expense Categories	Amount Requested	Matching Funds	Total Budget
A. Personnel (Payroll taxes & fringes)	15,522		35,000
B. Transportation (e.g. fuel, etc)			
C. Contractual (e.g. helicopter)	41,000		130,000
D. Utilities (e.g. telephone/cell, water electricity, etc)			
E. Travel			
F. Field crew costs			
G. Supplies, materials & equipment			
H. A&O Costs (15% of total grant amount)	8,478		
I. Other Costs			
Total	65,000	100,000	165,000



County of Maui
 Department of Water Supply
Watershed Protection Grant Program
 Fiscal Year 2017

Project Budget Summary
A. PAYROLL COSTS

Organization Name – The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Position Name/Title List by position & % of 40 hour week	Salary	Amount Requested
Natural Resource Manager	.05FTE	\$2,517
Field Coordinator	.05FTE	\$1,670
GIS Technician	.10 FTE	\$3,989
Invasive Plant Specialist	.05FTE	\$2,911
Payroll Taxes	Included in Fringe	
Fringes and Benefits		\$4,435
Total		\$15,522

Narrative Description (project responsibility by position/title)

Natural Resource Manager: Implements threat abatement and management activities to include alien animal and plant control, resource monitoring, habitat restoration and community outreach. Oversees safety protocols, training staff, interns and volunteers. **Field Coordinator:** Control and eliminate alien species, maintain and construct fences, collect and enter data, monitor threats and resources, maintain equipment and facilities, participate in public outreach events, and suppress fires. **GIS Technician:** Manages program database; mapping; data entry and analysis. Routinely updates threat and resource data base and creates maps to depict progress of management efforts. Compiles and maintains all field collected GPS data. **Invasive Plant Specialist:** Develops plans and implements invasive species management projects. Identifies and ensures realistic cost effective weed control strategies. Maintains current pesticide applicators license. Monitors and tracks rare plant species. Manages preserve research permits and access.



County of Maui
Department of Water Supply
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Project Budget Summary
B. TRANSPORTATION COSTS

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expense	Amount Requested
Total	

Narrative Justification



County of Maui
 Department of Water Supply
Watershed Protection Grant Program
 Fiscal Year 2017

Project Budget Summary
C. CONTRACTUAL SERVICES

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expense	Amount Requested
<u>Land Management Organization</u>	41,000
Total	41,000

Narrative Justification

Contract out land management: ungulate control, weed control and monitoring



County of Maui
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Project Budget Summary

D. UTILITIES

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses	Amount Requested
Telephone (Land line)	
Telephone (cell)	
Water	
Electricity	
Total	

Narrative Justification



County of Maui
Department of Water Supply
Watershed Protection Grant Program
Fiscal Year 2017

Project Budget Summary
E. TRAVEL

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses (e.g. airfare, lodging, etc.)	Amount Requested
Total	

Narrative Justification



County of Maui
Department of Water Supply
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Project Budget Summary
F. FIELD CREW COSTS

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses	Amount Requested
Total	

Narrative Justification



County of Maui
Department of Water Supply
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Project Budget Summary
G. SUPPLIES, MATERIALS & EQUIPMENT

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses	Amount Requested
Total	

Narrative Justification



County of Maui
 Department of Water Supply
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Project Budget Summary
H. ADMINISTRATIVE & OVERHEAD EXPENSES

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses	Amount Requested
15% overhead on all direct costs	\$8,478
Total Administrative & Overhead Costs	\$8,478

Narrative Justification

TNC's approved Indirect Cost Rate is 21.8% of direct expenses, but will be partially waived to the 15% rate approved by DWS.



County of Maui
Department of Water Supply
Watershed Protection Grant Program
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Project Budget Summary
I. OTHERS

Organization Name - The Nature Conservancy – Honokowai & Wahikuli Watershed Management Project

Breakdown of Expenses	Amount Requested
Total Other Costs	

Narrative Justification

GENERAL TERMS AND CONDITIONS – DWS Grants

In consideration of grant COUNTY funds, GRANTEE agrees to the following conditions in the use and administration of COUNTY funds. In the event the following conditions conflict with any term, provision, condition and/or covenant contained in the body of the Grant Agreement, the terms, provisions, conditions and/or covenants contained in said body shall prevail.

PAYMENTS

1. GRANTEE shall submit to the COUNTY written Request for Payment. Each request shall be authenticated as to accuracy by the GRANTEE, and verified by the designated COUNTY departmental officer. Each request shall include the following:
 - a. Certification by the GRANTEE that the work for which payment is requested was performed in accordance with the terms of this Agreement;
 - b. Certified payroll records for the applicable time period or phase for which payment is being requested; and
 - c. Copies of all contracts, bills, invoices and purchase orders which support the request shall:
 - i. Be of certified copy of the original document.
 - ii. Be on the letterhead of the respective contractor or subcontractor requesting payment.
 - iii. Be signed by an authorized official of the GRANTEE.
 - iv. Identify the Project, the nature of the work or materials provided, and the specific Phase of the Project for which the work or materials were provided.
2. The COUNTY may withhold any or all payments to the grantee if the amount of payment as requested is, in the County's determination, unreasonable or does not comply with the terms of this Agreement.
3. GRANTEE shall not alter SCOPE OF WORK which provided the justification for the grant without first obtaining the prior written consent of COUNTY. GRANTEE shall inform COUNTY of any proposed changes to the budget allocations or project description or schedule outlined herein.

RECORDS AND REPORTING

4. GRANTEE shall keep records and prepare reports, including detailed, separate financial records relating to ALL GRANT FUNDS. All accounts shall be prepared and maintained according to generally accepted accounting principles and as otherwise provided by law. GRANTEE shall maintain such accounts and documents as will serve to permit expeditious determination to be made at any time of the status of funds within the award, including the disposition of all monies received

from COUNTY and the nature and amount of all charges claimed to be against such funds.

5. Unless otherwise required in the Grant Agreement or in related application submittals, GRANTEE shall supply COUNTY with a copy of its audited annual financial statements, prepared by its Certified Public Accountant(s). GRANTEE shall, upon request of COUNTY or State of Hawaii, provide COUNTY and State of Hawaii full access to inspect or audit GRANTEE'S records, report books, files, and other financial records and documents to allow COUNTY and State of Hawaii to determine compliance with the terms of the Grant Agreement, measure program effectiveness, and assure proper expenditure. GRANTEE shall cooperate fully and assist the COUNTY and State of Hawaii in any such audit or inspection.
6. GRANTEE shall provide COUNTY written quarterly narrative progress reports regarding the Project and the use of grant funds within thirty (30) calendar days following the end of each report quarter. GRANTEE'S quarterly status reports shall contain the following information: summary of program status in relation to goal; objectives and scheduled action steps outlined in grant proposal; numbers and descriptions of people or businesses served; financial status report of COUNTY funds used; and narrative report, including progress in meeting performance standards and economic self-sufficiency, if appropriate.
7. GRANTEE shall comply with all requests of the State of Hawaii for information and reports regarding the Project and GRANTEE'S operations.

GRANT AWARD RESTRICTIONS

8. GRANTEE shall not use grant funds to compensate its employees more than the wages then prevailing in the State of Hawaii for employees with similar skills and abilities.
9. GRANTEE shall not use grant funds for lobbying purposes or activities.
10. GRANTEE shall not use any grant funds for purposes of entertainment or perquisites. For purposes of this Agreement, "perquisites" means a privilege provided or service rendered by GRANTEE to an employee, officer, director, or member of GRANTEE to reduce that individual's personal expenses.
11. Grant funds shall not be used to recruit or convert a person to a new faith, institution, or cause.

NON-COMPLIANCE, SUSPENSION AND TERMINATION

12. GRANTEE'S failure to faithfully perform any part of this Agreement or any of the additional Conditions herein shall constitute noncompliance, and:
 - a. should the noncompliance continue for thirty days after written notice

- thereof is delivered to GRANTEE or mailed to its last known address; or,
- b. if such noncompliance cannot be reasonable cured in thirty days, but GRANTEE has failed to commence to cure such noncompliance and to continue to diligently use its best efforts to cure such noncompliance; or
 - c. if GRANTEE shall become bankrupt; or,
 - d. if GRANTEE fails to perform any of the terms of this Agreement, or abandons or substantially suspends any part of this Agreement Scope of Work, the COUNTY may, at its sole discretion, take any one or more of the following actions:
 - i. Withhold grant fund payments pending correction of the non-compliance by the GRANTEE;
 - ii. Disallow all or part of the cost/expense of the activity or action not in compliance;
 - iii. Suspend or terminate, wholly or partially, the current award of this Agreement with the GRANTEE;
 - iv. Withhold additional award(s) to the GRANTEE; and
 - v. Terminate this Agreement without service or notice or legal process and without prejudice to any other remedy or right of action for breach of contract.

Upon termination of this Agreement, all finished or unfinished documents, data, studies, and reports purchased or prepared by the GRANTEE pursuant to this Agreement shall be transferred to the COUNTY.

13. Any costs incurred by the GRANTEE resulting from any obligations incurred by GRANTEE during suspension or after termination of this Agreement are not allowable unless the COUNTY authorizes such costs in the Notice of Suspension or Termination issued to the GRANTEE. The determination of eligible costs shall be made by the COUNTY in its sole discretion.

Further, the County may terminate this Agreement without cause by giving written notice to the Grantee thirty (30) calendar days before the effective date of such termination.

OTHER GRANT REQUIREMENTS

14. GRANTEE shall give the COUNTY and, if applicable, the State of Hawaii appropriate recognition in all grant-funded programs and printed materials.
15. GRANTEE shall comply with its articles of incorporation and/or bylaws and all relevant COUNTY, State and/or Federal rules and regulations concerning its policies and operations.
16. GRANTEE shall not discriminate either in the hiring of staff, use of volunteers, use of facilities, or delivery of client services on the basis of sex, sexual orientation,

national origin, age, race, color, religion or disability. GRANTEE shall comply with all applicable federal and state laws prohibiting discrimination.

17. GRANTEE shall comply with all applicable federal, state and COUNTY licensing requirements and with all applicable accreditation and other standards of quality generally accepted in the field of GRANTEE'S activities.
18. If GRANTEE is a nonprofit organization, GRANTEE shall establish and be governed by bylaws or policies which shall include provisions relating to nepotism and management of potential conflict-of-interest situations, as required by Section 3.36.040(c) of the Maui County Code.

TERMINATION OF GRANT AGREEMENT (GRANT CLOSE OUT)

19. GRANTEE shall not dispose of any real or personal property acquired with grant funds received under this Agreement without first receiving prior written consent of the COUNTY. Should GRANTEE cease to use any real or personal property acquired with grant funds for purposes described in this Agreement, GRANTEE shall either:
 - a. Pay the COUNTY the current fair market value of the asset; or
 - b. Transfer the control of the asset to the COUNTY;
 - c. Upon expiration or termination of this Agreement, the GRANTEE shall transfer to the COUNTY:
 - i. Any COUNTY funds on hand at the time of termination;
 - ii. Any account receivables attributed to the use of COUNTY funds; and
 - iii. Any real and/or personal property acquired or improved in whole or in part with COUNTY funds.
20. FINAL REPORT - Within thirty (30) days after expiration of the time of performance, GRANTEE shall submit to COUNTY a final Project report in a form satisfactory to COUNTY documenting Grantee's efforts toward meeting the requirements of this Agreement, an inventory of all equipment costing individually \$500.00 or more acquired with funds provided under this Agreement, and a list of expenditures incurred in the performance of this Agreement.

GRANTEE'S final project report shall contain information which will be completed using the template below (Final Report Template - Form 4.4).



County of Maui
 Department of Water Supply
Watershed Protection Grants
 Fiscal Year 2017

Reimbursement Request Form

GRANTEE _____

Expense Categories	Grant Amount	Payment #1	Payment #2	Payment #3	Final Payment	Balance
Personnel (Payroll Taxes & Fringes)						
Transportation						
Contractual (e.g. helicopter)						
Utilities (e.g. telephone/cell, water Electricity, etc)						
Travel						
Field Crew Costs						
Supplies, Materials & Equipment						
Administrative & Overhead Costs (not to exceed 10% of total grant amount)						
Other costs						
Total						

Sample Format for Quarterly Reporting

1. Background (only needed for first report)

2. Tasks Completed during the period: (as applicable)
 - a. Animal Control
 - i. Miles of fences surveyed
 - ii. Number of animals removed (number or %)
 - b. Weed Control
 - i. Acres surveyed (number)
 - ii. Number of weeds removed (%)
 - c. Invasive Species
 - i. Acres surveyed (number)
 - d. Invasive Species Removed (%)
 - i. Monitoring results
 - ii. Number of Aalii/Koa planted
 - iii. Installed exclosures
 - iv. Number of Volunteers recruited; number of volunteer hours

3. Budget Summary – expenses should be in accordance with the approved grant agreement budget, if revision is needed, please see guidelines in Item #4.
 - a. Justification for delay in the performance of deliverables (e.g. weather, under staff, season for planting, etc.)

 - b. Expenses incurred during the performance period (please attach copy of receipts)

4. Budget Revision Guidelines
 - a. Budget deviations of **less than 20%** per budget item are allowed without a formal budget revision
 - b. Budget deviations of **more than 20%** per budget item require a written budget revision request submitted in **advance**.
 - c. Moving 10% of costs between “Payroll” and “Other Costs” budget categories is **NOT** permitted
 - d. Budget revision request (s) can be submitted anytime during the project period prior to the end of the 3rd quarter.
 - e. The **Request for Grant Budget Revision** form must be used to make changes which do not require a contract amendment. Budget Revision Table should reflect entire budget, including items with no changes.

FINAL REPORT TEMPLATE

BACKGROUND

Complete a description of how your program achieved the goals, objectives and scheduled action steps outlined in grant proposal.

GOALS/OBJECTIVES

Provide a list of the goals and objectives from your grant application.

BENEFITS to MAUI COUNTY

Describe how your project/program has benefited the people of Maui County in relation to the goal of the DWS (providing clean water more efficiently). Keep in mind that Maui County DWS manages approximately 36,000 services on Maui and Molokai, and that the funds provided to you are from their revenues, not the general fund (tax base for all of the residents and businesses of Maui County). Include the numbers and descriptions of people and/or businesses served (please include an Excel table).

TASKS COMPLETED FOR FY 17

Provide in detail what tasks you have completed per your grant application (and any additional tasks as appropriate). Please include maps, geospatial data, photos and other documentations as appropriate.

STAFF EMPLOYED

Include the number of Full Time Employees (FTEs) as paid by these grant funds; total number of hours worked during the fiscal year, and total amount of grant funds spent in salary (including benefits and fringe).

INVENTORY OF EQUIPMENT (costing individually \$500 or more acquired with DWS grant)

Equipment Item (name and brand)	Value when purchased	How used	When acquired

AMOUNT OF FUNDING LEVERAGED

Please include an Excel table that identified the amount of funding you received from DWS, amount received from other sources. Please identify all sources by name, and state/federal/county government and or private, nonprofit entity (FORM 4.5).

FUNDING NEEDED AND WHAT YOU COULD DO IF THERE WAS MORE FUNDING

Provide an explanation of how you would spend additional grant funds if you had them. Please include whether or not new initiatives could be started, if these would include additional outreach opportunities, new equipment to be purchased and or if you had additional revenues whether it may impact amount of potential revenues to be leveraged.

CONSEQUENCES OF A DECREASE IN FUNDING

If, during the course of budget, there was to be a decrease in funding available for watershed programs-how would this impact your program/project? Please describe and if possible provide documentation as to whether you would lose staff, amount of time previously spent on specific activities would have what type of detrimental effect? How would a decrease in funding impact any leveraging activities (funds and/or resources from other sources)?

**County of Maui
Department of Water Supply
Water Resources and Planning Division**

REQUEST FOR GRANT BUDGET REVISION

Grantee _____ Contract # _____

Revision Requested for: ___ 1st Qtr ___ 2nd Qtr ___ 3rd Qtr Revision # _____

	APPROVED BUDGET	CHANGE + / (-)	REVISED BUDGET	JUSTIFICATION (ATTACH ADDITIONAL SHEET IF NEEDED)
Personnel (Payroll Taxes & Fringes)				
Transportation				
Contractual (e.g. helicopter)				
Utilities (e.g. telephone/cell, water, electricity, etc)				
Travel				
Field Crew Costs				
Supplies, Materials & Equipment				
Administrative & Overhead Costs (not to exceed 10% of total grant amount)				
Other costs				
Total Budget				

Print Name and Title

Signature

Date

DWS Use	Date Received:	<input type="checkbox"/> Approved	<input type="checkbox"/> Denied	WRPD Manager:	Date Approved:
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