

**THE TWENTY-SEVENTH LEGISLATURE  
APPLICATION FOR GRANTS AND SUBSIDIES  
CHAPTER 42F, HAWAII REVISED STATUTES**

Type of Grant or Subsidy Request:

GRANT REQUEST - OPERATING

GRANT REQUEST - CAPITAL

SUBSIDY REQUEST

"Grant" means an award of state funds by the legislature, by an appropriation to a specified recipient, to support the activities of the recipient and permit the community to benefit from those activities.

"Subsidy" means an award of state funds by the legislature, by an appropriation to a recipient specified in the appropriation, to reduce the costs incurred by the organization or individual in providing a service available to some or all members of the public.

"Recipient" means any organization or person receiving a grant or subsidy.

STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLANK IF UNKNOWN): MALAMA O PUNA

STATE PROGRAM LD. NO. (LEAVE BLANK IF UNKNOWN): \_\_\_\_\_

**1. APPLICANT INFORMATION:**

Legal Name of Requesting Organization or Individual: Malama O Puna

Dbas: 501(c)(3) nonprofit

Street Address: 15-2754 Pahoa Village Rd.

Mailing Address: P.O. Box 1520  
Pahoa, HI. 96778

**2. CONTACT PERSON FOR MATTERS INVOLVING THIS APPLICATION:**

Name CINDY DUPUIS

Title Field Biologist

Phone # 808 937 8867

Fax # n/a

e-mail dupuis@hawaii.edu

**3. TYPE OF BUSINESS ENTITY:**

- NON PROFIT CORPORATION
- FOR PROFIT CORPORATION
- LIMITED LIABILITY COMPANY
- SOLE PROPRIETORSHIP/INDIVIDUAL

**6. DESCRIPTIVE TITLE OF APPLICANT'S REQUEST:**

RESTORING PRIORITY AREA OF KEAU'OHANA NATIVE LOWLAND WET FOREST

4. FEDERAL TAX ID #: \_\_\_\_\_  
#: \_\_\_\_\_

**7. AMOUNT OF STATE FUNDS REQUESTED:**

FISCAL YEAR 2015: \$130,000

**8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST:**

- NEW SERVICE (PRESENTLY DOES NOT EXIST)
- EXISTING SERVICE (PRESENTLY IN OPERATION)

SPECIFY THE AMOUNT BY SOURCES OF FUNDS AVAILABLE AT THE TIME OF THIS REQUEST:

STATE \$ \_\_\_\_\_

FEDERAL \$ \_\_\_\_\_

COUNTY \$ \_\_\_\_\_

PRIVATE/OTHER \$ \_\_\_\_\_

TYPE NAME & TITLE OF AUTHORIZED REPRESENTATIVE:

RENE SIRACUSA, PRESIDENT  
NAME & TITLE

1-24-14  
DATE SIGNED

## Application for Grants and Subsidies

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

### I. Background and Summary

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

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

Malama O Puna (MOP), a 501(c)(3) nonprofit environmental volunteer service organization ([www.malamapuna.org](http://www.malamapuna.org)), established to protect the natural heritage of the Puna district of Hawai'i Island. Our mission is to assure critical habitat for native species and open space for future generations through environmental education, hands-on projects and acquisition of real property for preservation, protection and restoration.

Past projects/accomplishments: Miconia eradication, Pahoa Police Substation Landscaping; tree planting at Pahoa community aquatic center & Pahoa High parking lot; native plant propagation for Arbor Day give-away; "Get The Drift & Bag It"; Ainaloa connector lot tree planting, litter pickups incl. 64 acres Sand Hill removal of 400+ abandoned vehicles, red mangrove eradication island-wide, coqui lime voucher program coordination, weed eradication in Wao Kele O Puna, originated Heavy Metal roadside appliance removal, etc.

2. The goals and objectives related to the request;

Keau'ohana Forest Reserve in the Puna district of Hawai'i Island is the largest and most intact lowland wet forest remaining below 1,000 feet in elevation in the State of Hawai'i. It is also the most optimal remaining critical habitat for the endangered ha'iwale (*Cyrtandra nanawalensis*). The proposed restoration area includes ~110 acres down-slope of Highway 19, within Keau'ohana Forest Reserve. This project will use a variety of control strategies to manage and/or eradicate all invasive species, including strawberry guava (*Psidium cattleianum*), Albizia (*Falcataria moluccana*), *Clidemia hirta*, *Melastoma septemnerium*, *Cecropia obtusifolia*, *Melochia umbellata*, *Paederia foetida*. It will incorporate a rapid response capacity for any and all newly established pests or potential future pests. A front line defense and control of invasive species will receive priority along Hwy 19 where volunteer restoration efforts will continue east and south of currently restored area, leaving a 50 meter strawberry guava buffer along the roadside. Field biologist and assistants will also oversee weekly chemical/mechanical control of

invasive species in most intact core area of the restoration site, south of designated volunteer area along highway.

The goal of the project is to reconstitute the native forest composition and integrity to the extent possible. We do not propose to recover 100% native forest as some of the less aggressive non-native species may need to be tolerated in some cases, and a selective process may determine exceptions to certain control measures if it may cause too much disturbance to a largely native canopy and understory. We will strive toward > 90% native composition. This forest ecosystem is responding extremely well to control and planting measures undergone thus far (several acres), with native seedling recruitment occurring naturally, and invasive species resilience declining.

All of the invasive plants targeted for chemical/manual control in this project have been or are planned to be targets of classical biological control (and several of them, of applied biological control), with the exceptions of *M. umbellata* and *C. obtusifolia*. A bio-control for *P. cattleianum* should be available soon. Host specificity tests of a chrysomelid beetle for *P. foetida* are almost finished and tests of a leaf nematode for *C. hirta* are planned. As bio-controls become available, they could be released into the project area, so that there could ultimately be long term reduced-labor control of those weeds. Permits for such releases will be sought from DOFAW by MOP.

3. The public purpose and need to be served;

As the Hawaiian island ecosystems continue to be lost to development, agriculture and invasive species, there is an urgent need for conservation planning and implementation. Maintaining representative areas of all ecosystem types is a major long-term goal of conservation; encompassing the full range of biodiversity across the entire elevation gradient is critical. Conservation of low elevation native wet forests has been largely ignored to date. Despite heavy invasion levels, there are significant remnant areas that are native-dominated in the canopy as well as understory layers, and these make up important priority areas. Remaining lowland wet forests of Hawai'i are today reservoirs of rare native species, and their surviving biota is of great biological significance. Protection of this native ecotype will provide habitat for the endangered Hawaiian hawk ('io, or *Buteo solitarius*), and other native birds such as the 'amakihi (*Hemignathus virens*) and 'apapane (*Himatione sanguine*), that are making a comeback in the low elevation forests. The project will also benefit the endangered ha'iwale (*Cyrtandra nanawalensis*), whose habitat is entirely restricted to remaining native forests of lower Puna.

4. Describe the target population to be served;

As the only example of intact lowland wet forest readily available to the public, the project will provide an infrastructure for the further study of native lowland wet forests, as well as facilitate growing community outreach objectives to help educate Hawai'i residents and

visitors about native species, native forest composition and issues of invasion. A growing number of people have demonstrated a commitment to safeguarding the little that remains of lowland wet forest as a unique and rare forest type. There has been increasing community volunteer effort to restore the native wet forest of Keau'ohana and Halepua'a reserves since 1999 (progress reports available upon request). The Lowland Wet Forest Working Group has had quarterly work days in Keau'ohana for the past four years, (and less frequently for several years before that), where volunteers carry out invasive species control and native species out-planting. Additionally, Jennifer Johansen leads East Hawai'i Island youth in hands-on native forest restoration and education with the primary work site being Keau'ohana. This project has been running successfully for the past three years; more information can be found at

. The Keau'ohana forest reserve is very accessible to the public and is being utilized for educational purposes by a number of schools and university faculty. Community enthusiasm suggests that this proposed project has a high potential for success in terms of ongoing restoration as well as education and outreach. Data collection and monitoring efforts will promote informed land use decision-making that will help protect this watershed.

5. Describe the geographic coverage.

Keau'ohana Forest Reserve in the Puna district of Hawai'i Island is the largest and most intact lowland wet forest remaining below 1,000 feet in elevation in the State of Hawai'i. The proposed restoration area is down-slope of Highway 19 and includes approximately 110 acres. There are approximately 70 more acres of restorable forests north of Highway 19, on the west side of Upper Puna Road, beyond invasive species' road-side effects. The restoration of this extension of the native forest will be held for future efforts, following the success of this proposed project.

## II. Service Summary and Outcomes

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

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

Monthly volunteer days will consist of community volunteers working in cooperation with field biologist and technicians in expanding the restored area below Highway 19. These efforts will continue toward the eastern boundary line in a 50-100 meter sweep. Once the eastern boundary line is reached, efforts will resume from current restoration area and proceed toward the reserve's western boundary line in a 50-100 meter sweep. A roadside buffer, consisting primarily of strawberry guava (*Psidium cattleianum*), will extend approximately 50 meters from the highway. Buffers may fluctuate in width depending on the severity and breadth of roadside

effects and the species involved. These edges will be managed and monitored over time in order to maintain the native integrity of the forest.

Field biologist and a crew of technicians will conduct weekly chemical/mechanical control of invasive species in most intact core area of the restoration site, south of designated volunteer area (see attached list of supplies). Two designated technicians will be primarily responsible for the chemical control of *Psidium cattleianum* and other larger invasive species along a ~50 meter swath along established transects; and two technicians at 25 meters apart will be responsible for the smaller trees as well as understory species that can be manually removed and organized into large slash piles. The project director will oversee and assist in all efforts of the restoration process. We will sweep south until south reserve boundary is reached, and begin a northward 50 meter swath along transect, and continue with this pattern until the western boundary is reached.

Early detection and rapid response efforts will target all potentially invasive outliers/harmful plant species that threaten native component. Control strategies will prioritize certain weed species when appropriate, based on timing of seed maturation and persistence. Control methods will include hand-pulling individuals that can be pulled with ease and creating large compost piles as needed; hand sawing individuals that are < 1.5 inches in diameter at base and applying Garlon-4, or applying Garlon-4 to basal bark; machete notching individuals > 1.5 inches in diameter at base and applying Garlon-4; spraying larger patches of understory species such as *Clidemia* by foliar application. Knowledge of plant phenology and dispersal will be utilized in order to more effectively manage the native plant community. We will selectively pull understory species, primarily *Nephrolepis multiflora* and *Oplismenus hirtellus*, to remove competition with existing native plants and to create space for native recruits and outplants.

Native tree outplanting will be conducted to fill in light gaps created by control measures. These include 'ohe (*Polyscias hawaiiensis*) and lama (*Diospyros sandwicensis*), kopiko (*Psychotria hawaiiensis*), Kolea (*Myrsine lessertianna*) species that are already present in this forest. A native plant nursery has recently been established to supply plants grown from locally-sourced seed (Koa'e Nursery/ ). Propagation efforts will include direct seeding of locally collected seeds, and scattering of fast growing shade-producing native species such as mamaki (*Pipturus albidus*). More than a dozen of the endangered *Cyrtandra nanawalensis* colonies have been located in this area and will receive priority attention through the removal of surrounding weeds and debris to foster their growth and success.

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

This project proposes to restore approximately two thirds of the total priority area identified for Keau'ohana Forest Reserve within the fiscal year beginning July 1<sup>st</sup> 2014, and ending June 30<sup>th</sup> 2015. With the use of existing maps, GPS units and compasses, the crew can effectively navigate and restore much of this forest system in one year's time. One field biologist

assisted by four field technicians will oversee weekly chemical/mechanical control of invasive species beginning in most intact core area, as well as monthly volunteer efforts to expand restored area. The objective will be to expand current restoration area (app. 2 acres) of the total ~160 acres of priority area identified in Keau'ohana Forest Reserve, at an average of 9 acres per month and striving toward an estimated 110 acres in the fiscal year. The project will begin with a gross control sweep of harmful invasive species throughout the reserve. Some propagation efforts will occur simultaneously, such as the spreading of seeds from the local area. Out-planting of native seedlings will be conducted during the rainy season beginning in the final months of 2014. A secondary sweep of the reserve will occur in the final months of the fiscal year according to rain patterns at that time. Monitoring and management will continue after project completion, using the established volunteer base.

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

A record of daily progress will be kept indicating the area covered and approximate number of plants of each species treated and/or planted. Site visits by any State representative will be welcomed at any point.

Base maps with systematically established transects and plots have already been created for recent study using the Geographic Information System (Dupuis, 2013). A total of 23 plots have been assessed in terms of vegetation cover using the Braun-Blanquet cover estimation method, hence core intact areas and pockets of invasion by exotic species have been defined in terms of location and plant composition (maps and data are available upon request). Near the project's end the 23 study plots can be re-assessed in terms of their vegetation cover for the monitoring of change over time. The center of each plot will be tagged and serve as a photo point for supplementary records.

Most invasive species will likely be absent from the area, however there will be some alien plant recruitment and recovery in areas where earlier efforts were made. In order to minimize this, a final sweep will be made one to two months before the project completion date.

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

A record of daily progress will be kept indicating the area covered and approximate number of plants of each species treated and/or planted. A map of Keau'ohana reserve will also offer a visual display of the restored area at the project's completion in December of 2014. Site visits by any State representative will be welcomed at any point.

### III. Financial

#### Budget

1. The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.
2. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2015.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$26,918	\$26,918	\$26,918	\$26,918	<b>107,672</b>

3. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2015.
  - County Nonprofit Grant Program for \$20,000 (submitted)
  - District 4 Council Contingency Funds for \$5,000 (submitted)
4. The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.
  - 2010 NOAA Kahu Wai Program \$77,525
  - 2012 Pacific Coast Joint Venture (Fed.) Alula Bay Anchialine Pond Restoration & Mangrove Control \$8,450
  - 2012 Hawaii Invasive Species Committee (State) same project as above, \$15,000
  - 2012 US Fish & Wildlife (Fed.) same project as above, \$20,000
5. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2013.

\$4,220.11

### IV. Experience and Capability

#### A. Necessary Skills and Experience

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

Project principal, Cindy J. Dupuis, MS, MOP board member, resident since 1989, and dedicated volunteer restoring native lowland wet forest for the past 10 years. Out of a particular interest in the conservation of remaining native forests, Ms. Dupuis obtained a graduate degree in Tropical Conservation Biology and Environmental Science with the University of Hawai'i at Hilo (published thesis by ProQuest LLC, 2013; available upon request). In order to better understand lowland wet forests of East Hawai'i and the effect of invasive species throughout this region, her research took a landscape-level approach, surveying plant cover in a total of 325 plots across Puna District Forest Reserves. She evaluated vegetation patterns in these forests according to substrate age and elevation, with a particular focus on native-dominated sites. The project helped to identify and define general vegetation trends, specific species distribution patterns, and priority zones for restoration in order to help develop an effective restoration plan and facilitate conservation efforts ( ). Ann Kobsa, Ph.D., MOP Invasive Species Coordinator, will contribute expertise in restoration methodologies and native seeds and plants. René Siracusa, MA, ABD, MOP President, will contribute expertise in administration. Lowland wet forest studies conducted by University of Hawai'i and USDA Forest Service researchers have contributed much to our awareness and interest in preserving these native forests (Hughes and Denslow, 2005; Hughes and Uowolo, 2006; Zimmerman, *et al.* 2008; Cordell *et al.*, 2009; Ostertag *et al.*, 2009). The applicant has been, and will continue to work closely with several wet forest specialist: R. Flint Hughes, Ph.D., GS-14 Research Ecologist, Institute of Pacific Islands Forestry/ USDA Forest Service ( ); Professors, Rebecca Ostertag and Jonathan Price, University of Hawai'i at Hilo; Lisa Hadway (DLNR/Division of Forestry and Wildlife), grant permission to access Keau'ohana Forest Reserve (See supplementary materials for written letters of support).

List of verifiable experience of related projects:

- |  |                             |                               |
|--|-----------------------------|-------------------------------|
| <b>Malama 'O Puna / Native forest restoration /Alien plant eradication</b>   | <b>Big Island of Hawaii</b> | <b>2006-2014</b>              |
| <ul style="list-style-type: none"> <li>• Control invasive species and propagate native species in Puna forest reserves and other Big Island locations (Keau'ohana and Halepua'a/Nanawale Forest Reserves, Wao Kele O Puna, Wai 'Opae/ Kapoho, Hilo, Alula Bay ...)</li> <li>• Locate, record, map, and protect rare, threatened and endangered species in lowland wet forests</li> </ul> |                             |                               |
| <b>Organic Horticulture</b>  | <b>Hawaii</b>               | <b>1989-2014</b>              |
| <ul style="list-style-type: none"> <li>• Propagate and manage diverse plants / food crops and native species</li> <li>• Consult and design landscape for sustainable development and native species integration</li> <li>• Build compost and soil</li> <li>• Manage small plant nursery</li> <li>• Control of weeds using chainsaw, weed-wacker and mower.</li> </ul>                    |                             |                               |
| <b>Geometrician Associates LLC, Ron Terry.</b>   |                             | <b>Jan-Feb 2013</b>           |
| <ul style="list-style-type: none"> <li>• Pu'u Kaliu Botanical Survey, team field navigation, plant species identification.</li> </ul>  |                             |                               |
| <b>Research Corporation of the University of Hawai'i (RCUH), National Science Foundation (NSF), Centers of Research Excellence in Science and Technology (CREST)/</b>  |                             |                               |
| <b>Tropical Conservation Biology and Environmental Science Graduate scholar</b>  | <b>Hilo, Hawai'i</b>        | <b>Fall 2011- Spring 2012</b> |
| <ul style="list-style-type: none"> <li>• Set up research project, order basic materials, assess vegetation patterns</li> <li>• Field guide and navigate using Global Positioning System (GPS) and compass</li> <li>• Train and monitor field technicians with basic safety and scientific procedures</li> </ul>  |                             |                               |



- Collect and analyze scientific data, research scientific projects, present project, write formal manuscript.

**Research Corporation of the University of Hawai'i (RCUH), National Science Foundation (NSF), Centers of Research Excellence in Science and Technology (CREST) /**

**Graduate Research Assistant / Field Technician / Stipend** Hilo, Hawai'i Fall 2010-Spring 2011

- Survey vegetation composition/structure and plant phenology in various climate zones island-wide.
- Identify native and non-native plant species
- Navigate using Global Positioning System (GPS) and compass in the field

**Research Corporation University Hawaii (RCUH),** Graduate research assistant / Field Technician

- Survey vegetation composition and structure using various techniques Hilo, Hawai'i Summer 2010
- Identify native and non-native plant species
- Navigate using Global Positioning System (GPS) and compass in the field

**Hilo Community College Service Learning Assistant Coordinator** Hilo, Hawaii 2004 - 2009

- Organize and coordinate environmental work days for HCC students with numerous local agencies
- Drive groups of volunteers to control invasive weeds, plant native species, clean up beaches...

**Hawaii Volcanoes National Park / Division of Research Management / Field Methods in research and restoration**

Hawaii Summer 2007

- Assess assemblages of vegetative communities
- Identify and propagate rare plants
- Survey and monitor vegetation

**USDA Forest Service, Hilo Pacific Internship Program for Exploring Science, Mentor: Creighton Litton**

**Biological Technician** Hawaii Summer 2006

- Measure Forest Ecology (DBH, Tree Height)
- Develop and utilize allometric equations to examine forest carbon pools
- Navigate using Global Positioning System (GPS) and compass in the field
- Identify native and non-native plants
- Analyze data / display graphics / scientific writing / present power point

## **B. Facilities**

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities. The applicant shall also describe how the facilities meet ADA requirements, as applicable.

Malama O Puna (MOP), a 501(c)(3) nonprofit is based in Pahoa Village, and will be providing administration services. It operates out of an office that has telephone, computer with internet access, and printer capability. MOP also has an environmental reference library to service the project, and bookkeeping and filing capability to provide administrative support. The office is located at ground level and is serviced by paved parking, and is ADA accessible. However, the volunteers will not be accessing the office - only the project coordinator. The project itself will take place almost entirely in the Keau'ohana Forest Reserve just a few miles away. Since the project will take place in a forest, ADA requirements are not applicable and volunteers with mobility disabilities will not be encouraged to participate.

## V. Personnel: Project Organization and Staffing

### A. Proposed Staffing, Staff Qualifications, Supervision and Training

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

Four experienced field technicians will be interviewed, hired, and trained in field navigation and restoration methodologies by Malama O Puna board members, Cindy Dupuis and Ann Kobsa, Ph.D., MOP Invasive Species Coordinator. René Siracusa, MA, ABD, MOP President; will contribute expertise in administration. Although MOP carries a liability policy, all field crew will be required to sign Waivers of Liability. Since these hires will be temporary, MOP will not do a payroll, but instead will sub-contract to individuals with their own GET license, who will submit timesheets/invoices for payment. The project coordinator will review these for accuracy. Notices for field technician position openings will be posted at the university to ensure that applicants have some previous knowledge and training, and to help students in the biological sciences to gain valuable field experience.

Field biologist, Cindy Dupuis, will largely be responsible to manage and oversee the field component of this restoration project. This will include developing the plan of action, directing crew members in its implementation regarding target species and areas on a day to day basis, monitoring and recording progress, and writing out progress reports.

### B. Organization Chart

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

MOP Director, Cindy Dupuis, MA., field biologist will manage, oversee, and assist in the implementation of the native forest restoration project, monitor / record progress, and write out progress reports.

MOP Invasive Species Coordinator, Ann Kobsa, Ph.D., will contribute expertise in restoration methodologies as well as native seeds and plants.

MOP President René Siracusa, MA., ABD, will contribute expertise in *administration*.

Four field technicians will conduct weekly chemical/mechanical control of invasive species. Two designated technicians will be responsible for the control of *Psidium cattleianum* and other larger invasive species, and two technicians will be responsible for the smaller trees as well as understory species that can be manually removed and organized into large compost piles.

### C. Compensation

The applicant shall provide the annual salaries paid by the applicant to the three highest paid officers, directors, or employees of the organization by position.

The annual amount budgeted for:

Field biologist contract will be \$33,792

Field technicians contract will be \$ 14, 976

These will not be salaries, but independent contractor contractual amounts.

## **VI. Other**

### **A. Litigation**

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

Not applicable

### **B. Licensure or Accreditation**

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

Cindy Dupuis, MOP director, MA (Tropical Conservation Biology and Environmental Science)  
Ann Kobsa, Ph.D.(Biology), MOP Invasive Species Coordinator  
René Siracusa, MA, ABD, (Anthropology) MOP President  
Malama O Puna, 501(c)(3)

**List of supplies:**

- 10 gallons of Garlon4 Herbicide \$1,000
- 1 gallon of Milestone VM Herbicide \$440
- 2- Sprayer backpacks (4 gallons) \$300
- Machete/hand-saws/shovels/gloves \$575
- Garmin Oregon 450 GPS unit \$250
- 4 compasses \$60

**BUDGET REQUEST BY SOURCE OF FUNDS**  
(Period: July 1, 2014 to June 30, 2015)

App Malama O Puna (MOP), a 501(c)(3)

<b>BUDGET CATEGORIES</b>	<b>Total State Funds Requested (a)</b>	<b>Cty NP Grant (b)</b>	<b>Council Contingency (c)</b>	<b>In-kind donations &amp; vol. (d)</b>
<b>A. PERSONNEL COST</b>				
1. Salaries	94,272	18,500		3,600
2. Payroll Taxes & Assessments				
3. Fringe Benefits				
<b>TOTAL PERSONNEL COST</b>	<b>94,272</b>	<b>18,500</b>		<b>3,600</b>
<b>B. OTHER CURRENT EXPENSES</b>				
1. Airfare, Inter-Island				
2. Insurance		1,000		
3. Lease/Rental of Equipment				
4. Lease/Rental of Space				
5. Staff Training				
6. Supplies	7,600		5,000	
7. Telecommunication				
8. Utilities				
9 Administration	3,000	500		
10 Transportation	1,800			
11 Native trees for outplanting				1,400
12				
13				
14				
15				
16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>12,400</b>	<b>1,500</b>	<b>5,000</b>	<b>1,400</b>
<b>C. EQUIPMENT PURCHASES</b>	<b>1,000</b>			
<b>D. MOTOR VEHICLE PURCHASES</b>				
<b>E. CAPITAL</b>				
<b>TOTAL (A+B+C+D+E)</b>	<b>107,672</b>	<b>20,000</b>	<b>5,000</b>	<b>5,000</b>
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	107,672	Cindy Dupuis 937 8867		
(b) County np grant (submitted)	20,000	Name (Please type or print) Phone		
(c) Council contingency (submitted)	5,000	[REDACTED]		
(d) Donated native trees	1,400	Signature of Authorized Official Date		
(e) In-kind volunteer labor	3,600	Rene Siracusa President of MOP January 16, 2014		
<b>TOTAL BUDGET</b>	<b>137,672</b>	Name and Title (Please type or print)		

## BUDGET JUSTIFICATION PERSONNEL - SALARIES AND WAGES

Applicant: \_\_\_\_\_ Malama O Puna (MOP), a 501(c)(3)

Period: July 1, 2014 to June 30, 2015

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL CONTRACT A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
Field Biologist	0.8	\$33,792.00	100.00%	\$ 33,792.00
Four field technicians	0.6	\$60,480.00	100.00%	\$ 60,480.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL:</b>				<b>94,272.00</b>
<b>JUSTIFICATION/COMMENTS:</b>				

## BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Malama O Puna (MOP), a 501(c)(3)

Period: July 1, 2014 to June 30, 2015

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
laptop computer for field work and software	1	\$1,000.00	\$ 1,000.00	1000
			\$ -	
			\$ -	
<b>TOTAL:</b>	1		\$ 1,000.00	1,000

JUSTIFICATION/COMMENTS:

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOTAL:</b>				

JUSTIFICATION/COMMENTS:

n/a

**BUDGET JUSTIFICATION  
CAPITAL PROJECT DETAILS**

Malama O Puna (MOP), a 501(c)(3)

Period: July 1, 2014 to June 30, 2015

FUNDING AMOUNT REQUESTED						
TOTAL PROJECT COST	ALL SOURCES OF FUNDS RECEIVED IN PRIOR YEARS		STATE FUNDS REQUESTED	OF FUNDS REQUESTED	FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY: 2012-2013	FY: 2013-2014	FY:2014-2015	FY:2014-2015	FY:2015-2016	FY:2016-2017
contractual	0	0	94272	18,500		
supplies	0	0	7600	5000		
equipment (laptop and software)	0	0	1000			
administration and insurance	0	0	3000	1500		
transportation (mileage)	0	0	1800			
<b>TOTAL:</b>	0	0	107,672	25,000		
<b>JUSTIFICATION/COMMENTS:</b>						
Projections will be based on this years accomplishments						







UNIVERSITY  
of HAWAII  
HILO

May 24, 2013

Malama O Puna  
c/o Cindy (Jaya) DuPuis  
Malama O Puna,  
P.O. Box 1520  
Pahoa, HI 96778

Dear Jaya,

I am writing to endorse your proposed project, "Restoration of the most intact lowland wet forest area in Keau'ohana Forest Reserve," which you are submitting to the Hawaii Invasive Species Council. Keau'ohana Forest Reserve is a gem within the forest reserve system, that contains many native plants, and importantly has one of the best, if not the best, examples of lowland wet forest structure. The site is unique in its low density of ungulates and its representation of many native tree species as both adults *and* seedlings. However, the site is facing invasion by many non-native species. During my time visiting the site over the last 10 years, I have noticed that our informal volunteer weeding efforts are making a difference, leading to increased native seedling regeneration of several species.

I strongly support the management efforts, as removal of invasives and planting of native species are feasible, necessary, and critical actions for the site. I am happy to assist by bringing in class groups to work at the site, provide guidance about the scientific or management options, and publicize the value of the Keau'ohana Forest Reserve and this project's efforts. Keau'ohana has served important research and educational purposes for me. On the educational side, I have taken undergraduate classes, high school classes, and summer interns to the site to see the excellent representation of forest structure and to assist in weeding efforts. In one of my classes, Advanced Ecology and Evolution lab, students conducted independent research projects and then wrote a management plan for the site based on their findings. On the research side, I have been involved in a variety of projects in the forest, some which have resulted in scientific publications. A present research project, Liko Nā Pilina, project as surveyed the functional traits of species at this site, and holds up this site as our best reference forest. I look forward to working with you on this project.

Rebecca Ostertag  
Professor

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