Invasive Plant Grant Program
2014 Grant Application-ASFD

FOR OFFICIAL USE ONLY	
Dollar Amount Requested:	**$17,361**
Matching Share:	**$19,346**
Percent (%) Matching	**53%%**

1	Applicant Information	
	Applicant:	The Arboretum at Flagstaff
	Contact Person:	Dr. Kristin Haskins
	Address:	4001 S. Woody Mountain Rd.
	City/Zip Code:	Flagstaff 86005
	Phone (Work/Cell):	928-774-1442 x)114 (w); 928-220-0951 (c)
	Email:	Kristin.Haskins@thearb.org
	Fax:	928-774-1441

2	Project Information			
	Name of Project:	Weed Abatement Through Action and Education		
	Community Name:	Lockett Ranches and surrounding neighborhoods		
	County:	Coconino	**Congressional District:**	CD1
	Latitude (decimal degrees):	35 14 36.23 N	**Longitude (decimal degrees):**	-111 38 20.03 W

3 Grant Contributors (Matching Share)

(Federal dollars DO NOT qualify)
Please specify each match contributor and the dollar amount of each contribution.
Please DO NOT show grant requested funds in this table. This is for matching share only.

Contributors: (Please specify)	The Arboretum at Flagstaff	Museum of Northern Arizona					**TOTAL**
Dollars (Hard Match):	$7,790	$548	$0	$0	$0	$0	**$8,338**
In-Kind (Soft Match):	$4,504	$6,504	$0	$0	$0	$0	**$11,008**
TOTAL:	**$12,294**	**$7,052**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$19,346**

4 Total Project Expense (break down matching share totals from block three)

	Grant Share ($ Amount Requested)	**Match (from block three)**		**TOTAL**
		Dollars	**In-Kind**	
Personnel / Labor:	$17,090.00	$1,028.00	$11,008.00	**$29,126**
Operating / Supplies:	$271.00	$5,310.00	$0.00	**$5,581**
Travel:	$0.00	$264.00	$0.00	**$ 264**
Contractual Services:	$0	$0	$0	**$ 0**
Equipment:	$0	$0	$0	**$ 0**
Indirect Costs:	$0	$1,736.00	$0.00	**$1,736**
TOTAL:	**$17,361**	**$8,338**	**$11,008**	**$36,707**

5 Project Summary (check all that apply and answer related questions in appropriate box)

Is this a new project? ☒ Yes ☐ No

What is the duration of this project? (24 month maximum) 24 months

Number of acres to be treated:	190	Estimated cost per acre:	$91.00

Are the acres to be treated contiguous (adjacent to each other)? ☒ Yes ☐ No
If no, please describe their layout in block six (6).

Does this project have a current invasive/noxious plant management plan? ☐ Yes ☒ No
If yes, please attach the plan to this application.

Is this project managed by a professional land manager? ☐ Yes ☒ No
Please provide qualifications in block six (6).

Number of communities directly affected by this project:	5
Number of citizens to be reached:	100
Number of residences affected:	30

6 Project Area Description

All information for the project should fit into the allotted character space provided below.
Addendum may be submitted if more space is needed.

Provide an overview of the project and the project area. 2500 characters

In 2012, the citizens of Flagstaff voted to approve a $10M bond to support the Flagstaff Watershed Protection Project (FWPP). This highly collaborative project is designed to help reduce the risk of devastating wildfire and post-fire flooding in the Rio de Flag and Lake Mary Watersheds (for more information visit http://www.flagstaffwatershedprotection.org/). This bond will support fuels treatments in both the Dry Lake Hills and Mormon Mountain areas, which may include: traditional logging, hand thinning, prescribed fire, pile burning, helicopter logging, and cable logging. The Dry Lake Hills alone represent a challenging treatment area due to the rugged terrain however, post-wildfire costs are estimated at about a billion dollars should another "Schultz Fire" occur in this region, thus validating the efforts and costs associated with treating it. Partnering with adjacent community members will provide much needed support to the efforts being put forth by the City of Flagstaff, Arizona State, and the USFS.

Our proposed project will focus on weed monitoring, abatement, and revegetation and will compliment the fuels reduction work that is being conducted in the 7,500ac Dry Lake Hills area. Approximately 3,000 ac of this project area are on non-federal lands. Neighborhood communities (Valley Crest, Lockett Ranches, Coyote Springs, Skyline Estates, and more), the Museum of Northern Arizona, and the City of Flagstaff Reservoirs surround the southern boundary of the targeted area. As a result of the local fuel treatments and heavy use of the extensive recreational trail systems, an increase in traffic and disturbance is occurring, making this region a prime target for the spread of invasive weeds.

Treatment of invasive plants is expensive, costing an estimated 34 billion a year nationally. The most efficient way to reduce these expenditures is through monitoring and weed education. Preventing the establishment of weed populations will not only save money in the future but, will increase property values and preserve environments for all to enjoy. The overall goal of this project is to create a buffer surrounding the Dry Lake Hills treatment area that is monitored and treated by local residents and landowners, who have been trained by experts in weed identification, removal and restoration. By doing so, we will reduce the odds of major weed "sources" from developing adjacent to the FWPP implementation area.

Briefly describe the qualifications of the person(s) managing this project. 500 characters

The project will be managed by Dr. Kristin Haskins, the Director of Research at The Arboretum at Flagstaff. Dr. Haskins has recently, successfully completed an AZSFD grant-funded project in this area where the focus of the work was very similar. Dr. Haskins has over 11 years of experience surpervising staff, managing budgets, and preparing reports.

Project Goals and Objectives

All information for the project should fit into the allotted character space provided below.
Addendum may be submitted if more space is needed.

7

Provide a brief description of how this project meets the grant objectives and goals. **1500 characters**

Creating a buffer surrounding the Dry Lake Hills treatment area that is monitored and treated by local residents and land owners, who have been trained by experts in weed identification, removal and restoration is the primary goal of this project. To achieve this, we have established five main objectives. Objectives include: 1) attracting at least 20 participants to the program, 2) monitoring lands and roadsides that surround the southern portion of the Dry Lake Hills FWPP treatment area, 3) treating and mapping identified weed populations, 4) providing land owner training in weed identification, removal and restoration, and 5) dispensing appropriate native plants/seeds to participating land owners. Efforts will be made to target populations of Linaria dalmatica and Centaurea diffusa. We will use a combination of website announcements, e-blasts, sign posting and some door-to-door interaction to announce the program. We will establish a network of acreage that we can monitor and treat for weeds through land owner participation and road surveys. Treatment options will be suggested and employed including hand-pulling, mechanical removal, herbicide and natural pest control. We will map all of the weed populations that we identify using GPS technology. We will hold two workshops on weed identification, treatment, and restoration – one each year of the program. Native plants/seed will be provided to program participants to revegetate any areas from which they removed weeds.

Scope of Work / Project Timeline

All information for the project should fit into the allotted character space provided below.
Addendum may be submitted if more space is needed.

8

Provide a brief scope of work which clearly describes how grant funds will be spent: Types of treatments proposed, invasive/noxious plant of concern and any information and education activities. (This should be more specific than the project description) **1500 characters**

We will begin this project by initiating our private land owner recruiting program. For Objectives 1 and 4, recruitment efforts will include: two workshops, E-mail communications, website postings, posted flyers in neighborhoods, door-to-door interactions, and word-of-mouth conversations. Each workshop will focus on weed concerns, weed ID, removal methods, and restoration with native species. Workshops will be hosted at The Arboretum. We aim to attract at least 20 land owners to each workshop. Haskins, Murray and Olmon will all be involved in these actions. For Objective 2, neighborhood roadside surveys (~10+ miles) will be conducted by Murray and Olmon to identify and map weed populations and problem areas. Treating weed populations will involve a combination of hand-pulling and mowing (Objective 3) and be conducted by Murray and Olmon. We will focus attention on knapweeds, Dalmatian toadflax and scotch thistle. Assistance will be provided to private land owners who want to employ herbicides and biocontrols at their own expense. Native plants (n=720) will be propagated by Murray at The Arboretum and native seed (20 lb) will be gathered by Murray and Olmon for distribution to land owners (Objective 5). Funds will primarily be spent on staff time. We are also asking for funds for more weed bags.

Provide a timeline for the project. **1000 characters**

Sept-Oct 2014	Schedule 1st workshop; begin recruiting; conduct roadside surveys & mapping
Apr-May 2015	Begin plant propagation; continue recruiting; weed treatments
June-Sept. 2015	Conduct private land owner assessments
July-Oct. 2015	Prepare assessment reports; conduct weed treatments; distribute plants and seed
March 2016	Schedule 2nd workshop; continue recruiting
Apr-May 2016	Begin 2nd round of plant propagation; weed treatments
June-Aug 2016	Conduct private land owner assessments; weed treatments; monitoring
August 2016	Prepare assessment reports; distribute plants and seed; begin final report preparation

Collaborative Elements and Partners

All information for the project should fit into the allotted character space provided below.
Addendum may be submitted if more space is needed.

9 **Specify the CWMA, private, local, tribal, county, state, federal, and non-governmental 501(c) 3 organizations that will contribute to or participate in the completion of this project. Describe briefly the contributions each partner will make (i.e. – donating time/equipment, funding, etc.).**
2000 characters

The Arboretum at Flagstaff will contribute plants, seed, travel, workshop space, and we will provide skilled volunteers and a coordinator to complete this project. The Arboretum has a 33-year history of plant conservation and restoration research and practice and is well suited to lead this project. Dr. Haskins will serve as the project leader. In this role she will be responsible for project organization, budget monitoring and invoicing, as well as all reporting. Additionally she will assist Murray and Olmon with private land owner recruitment and the workshop activities. Murray will take the lead on conducting project recruitment, land owner assessments and report preparation, and propagation of natives for distribution. Ms. Murray has over 15 years experience working with the local flora as The Arboretum's Research Botanist. Olmon will take the lead on organization of weed treatments.

The Museum of Northern Arizona has 90 ac of land where fuels reduction, burning and restoration will be conducted jointly with the City of Flagstaff adjacent to the FWPP area. This and other portions of the 200 ac MNA property will be surveyed and treated for invasive species. Kirstin Olmon, Botany Research Assistant at MNA, has 5 yrs experience working with the northern Arizona flora. Olmon is the N. Arizona Coordinator of the Plant Atlas Project of Arizona (PAPAZ), responsible for plant identification and curation, volunteer training, collection trip scheduling and coordination, and website development.

The San Francisco Peaks Weed Management Area communicates with its members, agencies, and organizations through meetings and emails. The Arizona Native Plant Society, Master Gardeners Association, and Dr. Barbara Phillips and Dr. Brian Giles, retired Forest Service botanists, will provide their expertise to the project. Dr. Phillips developed the invasive species program on the Coconino, Kaibab and Prescott National Forests. Both work on the flora of MNA for PAPAZ.

Project Longevity / Maintenance

All information for the project should fit into the allotted character space provided below.
Addendum may be submitted if more space is needed.

10 **Clearly demonstrate how this project will remain effective over time.** **2000 characters**

Education about the environmental threats and costly nature of invasive weeds is key to project effectiveness and longevity. Through educational workshops and hands on demonstrations, we will build the local population's weed knowledge base. Knowing how to identify weeds, effectively remove weeds, and revegetate barren soils with native species will provide landowners with the tools they need to protect their properties from weed invasion but also improve their property values. This aspect alone should provide incentive to maintain weed-free environments.