



The Community Foundation
Serving Riverside and San Bernardino Counties

S.L. Gimbel Foundation Fund Grant Evaluation Form

Grant Period:
November 1, 2011 through October 31, 2012

Evaluation Due Date:
November 15, 2012

Organization: *Working Dogs for Conservation Foundation*

Contact Name: *Deborah (Smith) Woollett* Title: *Director of Conservation*

Phone Number: *209-969-1747* Grant Period: *1 Nov 2011 - 31 Oct 2012*

Award Amount: *12,660* Grant Number: *2011745*

- Describe the project's key outcomes and results based on your goals and objectives. Provide the number of clients served and other relevant statistics.

SEE ATTACHED

- What were the challenges and obstacles you encountered (if any) in attaining your goals & objectives? How did you overcome and/or address the challenges and obstacles? What were the lessons learned?
 - Describe any unintended positive outcomes as a result of the efforts supported by this grant.
 - Describe the overall effect this grant has had on your organization.
 - Tell us a few success stories that made an impact on your organization and/or community as a result of this grant.
 - Provide a financial report on the use of your grant funds (expenditures).
- ❖ Please send copies of publicity and other promotional materials.
 - ❖ All variances or time extensions must be approved by The Community Foundation's Grant Committee. Please contact us at 951-684-4194, ext. 114 immediately if a variance or extension becomes necessary.

Please return the completed form to:

Celia Cudiamat, Vice President of Grant Programs
3700 Sixth St., Suite 200, Riverside, CA 92501 or fax to 951-684-1911
Or email to: ccudiamat@thecommunityfoundation.net

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Title: Director of Conservation
Phone Number: 209-969-1747
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Describe the project's key outcomes and results based on your goals and objectives.

Working Dogs for Conservation's (WDC) Project Goal is the complete eradication of Dyer's woad, a noxious weed, from Mount Sentinel on the edge of Missoula, Montana. Our Specific Objectives included establishing a weed detection dog monitoring system to improve levels of eradication, and increasing the frequency, duration, coverage and efficacy of weed removal. We also aimed to increase the understanding of how noxious weeds affect community lands through outreach materials and public talks.

In 2011, we demonstrated that dogs could be trained to the scent of Dyer's woad and successfully locate wild growing plants in all three life stages—leafing, flowering, and seeding plants. In 2012 our primary objective was to locate and remove plants, but in a manner that would quantify the benefit of having conservation dogs as part of Mt. Sentinel's Dyer's woad eradication effort. Therefore, human searchers visually searched Mt. Sentinel first, THEN the search dogs covered the mountain to find plants that the human searchers had not located. Thus, 40% of all plants located in 2012 represent plants were found by dogs, and were missed by human searchers. Given that each plant can produce thousands of seeds, the discovery of 201 plants is a significant contribution to the goal of eradicating Dyer's woad from Mt. Sentinel.

In addition, handlers (without the dogs present) assisted in herbicidal application and participated in monthly public "weed pulls" to ensure timely removal of found plants and increase their outreach opportunities. During these events, handlers found an additional 50 plants, meaning the S.L. Gimbel Foundation Fund supported 251 (50%) of all plants found this year.

This table shows the number and life stage of plants found in the two years preceding dog involvement (2009 & 2010) and the two years when dogs have been assisting (2011 & 2012):

Year	Dogs	People	# flowering	# seeding	Total plants found
2009	n/a	292	104	0	292
2010	n/a	286	262	0	286
2011	388	116	213	14	504
2012	201	301	8	2	502

Reaching the goal of Dyer’s woad eradication requires sustained vigilance over time. Our progress towards this goal is described in terms of the tasks required in order to achieve eradication and the strong contributions we’ve made in just two years:

Tasks imperative to eradication	How dog teams have contributed
Locate existing plants	<ul style="list-style-type: none"> - Dogs find plants that human searchers miss: In 2012 humans searched first and dogs followed after to locate “missed” plants. 201 plants (40% of all plants located in 2012) were first missed by humans and subsequently found by dog teams - Uptick in the number of plants found: in the years before dogs were working on Mt. Sentinel the number of plants located was steady at just under 300, with the addition of the dogs nearly twice as many plants were found
Find plants before they become reproductive	<ul style="list-style-type: none"> - Most plants are now found BEFORE entering the reproductive/flowering phase: previous years 14-92% of located plants were flowering or seeding, in 2012 just 2% of found plants were reproductive
Remove the plant AND root to avoid re-sprouting	<ul style="list-style-type: none"> - Dogs found pre-emergent plants and those sprouting from root remnants- when no foliage was visible - This provided first-ever proof that Dyer’s woad could re-sprout - Re-sprouting discovery informed that herbicidal application was required after hand pulling
Remain vigilant over the period the seed bank remains viable	<ul style="list-style-type: none"> - Dog teams have more than doubled the eradication effort on Mt. Sentinel
Maintain data set to track population demographics	<ul style="list-style-type: none"> - Detailed data submitted to state weed coordinator
Heighten public awareness	<ul style="list-style-type: none"> - Novel and effective methodology bringing renewed interest by the community - Daily presence of dog in search vest in an area which sees up to 1,000 visitors daily - Informational cards, public demonstrations, media interviews

What were the challenges and obstacles you encountered (if any) in attaining your goals & objectives? How did you overcome and/or address the challenges and obstacles? What were the lessons learned?

We’re fortunate to have strong local support from the City of Missoula, University of Montana, Montana State University, Montana Native Plant Society, the state weed coordinator and the citizens of Missoula. All parties do their utmost to bolster our efforts and therefore we faced very few obstacles. Those we did face were simply logistical and were easily mitigated.

- Our dog, Wibaux, suffered a knee injury while at home which removed her from most of the season. Our dog, Seamus, took up the slack and performed all of the searches through

August until Wibaux was ready to return. This confirmed the importance of having more than one dog trained and ready to work.

- New treatment protocol required that plants be removed and then the excavation hole flagged so that UM's weed technician could follow up with herbicidal application to any remaining roots. It quickly became clear that the flags would not remain securely in Mt. Sentinel's rocky ground (and apparently make fun chew toys for deer!). We remedied this by training Wibaux's handler to apply herbicide soon after the weeds were located by dogs. We already knew that we had a hard-working seasonal field crew, but learned just how dedicated they were by helping in a way that had nothing to do with dog handling.

Describe any unintended positive outcomes as a result of the efforts supported by this grant.

We were confident that dogs would bring a significant boost to the ongoing eradication efforts on Mt. Sentinel, but we had no idea that they would make a discovery about Dyer's woad that would be of interest to botanists and weeds managers region-wide and change the prescribed treatment plan.

Typically, dogs catch a whiff of the plant, work their way to the plant, and "alert" (sit or bark) to tell their handlers they've located something. Then the handler sees the plant and rewards the dogs. The handlers started noticing that 1) sometimes the dogs would alert to a spot and there was no plant to be seen, and 2) returning to areas where plants had previously been found and removed frequently resulted in the dogs alerting again. Upon digging, handlers found Dyer's woad root pieces (which can be confirmed by their characteristic smell)—sometimes with miniscule amounts of foliage sprouting, and sometimes bare. Because the dogs were able to smell roots in the ground, this allowed the handlers opportunities to frequently dig up root remnants and document that new plants were emerging from pieces of roots, and not just sprouting from seeds which is what was previously understood. Since Mt. Sentinel is very rocky and Dyer's woad roots can be long, it's impossible to remove the entire root by hand, and thus spraying with herbicide was added to the treatment plan.

Describe the overall effect this grant has had on your organization.

The support from S.L. Gimbel Foundation Fund made it possible for Working Dogs for Conservation to bring our talented dog teams to this important and promising eradication effort. Without this support we simply would not have had the means to hire our fantastic seasonal crew of biologist/dog handlers and take part in this extraordinary work.

WDC is a small organization which is based in Montana but has a global reach. We are grateful to be a part of laudable conservation initiatives around the world, and yet can't imagine a better opportunity to make things better in our own backyard and are delighted to be a part of this. Missoula is home to many of us at WDC, and there is no greater reward than working in our most iconic open space with tangible results toward eradicating this menace. We meet people on Mt. Sentinel who remember what it was like in the 1970s before weeds started to invade who give us heart-felt thanks for working to restore it.

Being on Mt. Sentinel five days a week for half the year allows unparalleled opportunity for us to engage with our community about weeds, conservation, restoration, detection dogs, rescue dogs, and the mission of our organization. The humble act of finding and pulling a weed is our vehicle for this type of invaluable contact, and we sincerely thank S.L. Gimbel Foundation fund for making it possible.

Tell us a few success stories that made an impact on your organizations and/or community as a result of this grant.

- We demonstrated how useful dogs are for detecting plants that threaten our grasslands, even when they follow up efforts of trained human searchers. Dogs found 40% of additional plants that would have been missed and gone to seed in 2012.
- Dogs proved an unparalleled opportunity for community outreach, where up to 1,000 people might access Mt. Sentinel in a day, and where our handlers were available to speak with people about why a vested dog was searching for plants that are noxious and changing native plant communities. This dialogue highlighted the university/city/county's commitment to eradication and taught citizens what Dyer's woad looks like while showcasing the amazing work of a rescue dog, doing what he loves best.
- We were privileged to be able to hire three seasonal, part time dog handlers who are part of the community and brought a tremendous amount of effort and talent to this work.

Provide a financial report on the use of your grant funds (expenditures)

Line Item Description	Line Item- requested from SL Gimbel	Line item actual	Requested Amount From SL Gimbel	Actual amount applied
Preparation & Training dog and handler teams	75 hours	64 hours	\$3,000	\$2,200
Deployment grid searches	340 hours	370 hours	\$9,660	\$10,460
total	415 hours	434 hours	\$12,660	\$12,660

Please send copies of publicity and other promotional materials

We featured this project in two presentations at academic conferences this season (attached). The first was for an audience of 140 people at the Society for Conservation Biology's North American Congress for Conservation Biology annual meeting in Oakland, California. The second was presented to 35 attendees in October at the Montana Chapter of the Society for Conservation Biology's annual research symposium.

In May and June we talked to three 6th grade classes (approximately 30 students) in Superior and Alberton, Montana, and demonstrated a dog finding Dyer's woad.

In June and July, three news pieces aired (attached) on local news in Missoula. The KPAX pieces were picked up by other outlets and aired state wide.

In October, we spent a day with Dorothy Patent <http://dorothyhinshawpatent.com/> who will include Seamus and his work with Dyer's woad in her upcoming children's book about dogs using their sense of smell to help humans, to be published by Walker Books.

Throughout the season, handlers gave interested members of the public information cards about WDC and Dyer's woad (attached).