

2011 Noxious Weed Trust Fund - Grant Narrative

Description of Project –

Project History – The project area follows the Smith River from Camp Baker to Eden Bridge – fifty-nine river miles through interspersed private, federal, and state lands. The project area includes approximately one mile on both sides of the river, 3.5 miles up Tenderfoot Creek, and other tributaries of the Smith River. The project area is in both Cascade and Meagher Counties.

Leafy spurge was introduced to the Smith River in the 1920's and spread to infest over 1600 acres along the river corridor. Weed management was sporadic during the past 35 years as environmental constraints, reduced budgets, and difficult access along much of the river made it extremely difficult. Over 4000 people, on average, float the river primarily between April and July of each year. Recreational floaters arrive from across the country and spread noxious weed seeds that expose the river corridor to infestations of new invasive species. Landowners who devote significant resources to weed management efforts are exposed to re-infestations year after year from weed-infested private and public lands up river.

The project is lead by the Smith River Habitat Project (SRHP), a non-profit organization with a volunteer board of directors that represents a cross-section of landowners (both agricultural and recreational), commercial outfitters, and the public that care for and use the Smith River. SRHP collaborates with Montana Fish, Wildlife & Parks, Cascade and Meagher County Weed Districts, and the Lewis & Clark and Helena USFS Ranger Districts through an Integrated Weed Management Area agreement for the Smith River Corridor.

Activities Completed to Date – Project participants completed the following activities over the past year:

- Provided grant funding to private landowner participants to treat over 506 acres of noxious weeds;
- Collaborated with USFS Helena Ranger District to gain landowner access and provide shuttles for weed treatment on 50 acres of Forest Service and State lands using USFS Land Tamers;
- Collaborated with Cascade and Meagher County Weed Districts to treat over 27 acres around FWP camp sites;
- Collected bio-control agents in Lewistown and distributed on three sites of project area, including proposed insectory on downriver end of project site. Discussed in detail bio-control methods and inventory on Smith River with USFS specialist and Whitehall Bio-control Project leaders;
- Increased landowner participation in highly infested areas;
- Held weed identification clinic with Cascade and Meagher County weed supervisors for FWP's Smith River rangers at Camp Baker;

- Provided shuttle and early take-out for Malmstrom Air Force Base volunteer weed pull;
- Presented project efforts at Helena and Great Falls Trout Unlimited events, and at USFS Regional Supervisor's reception;
- Met with landowners, county weed managers, and outfitters on preventing new invasive species (particularly Salt Cedar and Purple Loosestrife) from establishing itself in the Smith River;
- Organized meeting with new Cascade County Weed supervisor, new FWP Region IV Supervisor, Smith River head river ranger, and FWP weed specialist to discuss project activities, long term goals, and agency participation.
- Updated interactive maps with weed treatment and inventory data.

Purpose – The purpose of the project is to identify and establish effective weed management practices to control noxious weed infestations currently in the Smith River corridor and to prevent new invasive plants from becoming established. This project's purpose is also to demonstrate long-term effective collaboration between multiple agencies and diverse private landowners.

Benefits – The project area is 80% privately owned and interspersed with land controlled by multiple agencies through which over 4000 recreational floaters a year commit to floating nearly sixty miles of river with very limited access. In addition, the Smith River is considered by many to be a state treasure. This project has played an integral part in developing and maintaining cooperative relationships involving weed management among private landowners, public agencies, and recreational users. The project offers the landowners financial incentives to develop and maintain more effective weed management efforts. It provides a venue for public and private land managers to discuss and implement weed management practices that are most effective for the area.

The project supports the counties and state weed management plans in the following ways. It strengthens cooperative weed management through its Weed Management Area (WMA) group and the communication and problem solving efforts of its members. The project establishes strategies for managing weeds on a priority basis through its mapping and collection of information from recreation river users, landowners, and agency land managers. The project strengthens compliance with the Montana County weed Control Act and the Montana Weed Control Act through coordinated and active weed management practices. It promotes the development and maintenance of noxious weed inventories through its weed mapping project and its aerial and ground inventories. A map showing the 2010 treated areas and the areas to be treated in 2009 is attached. The project prevents introduction and establishment of noxious weeds and aquatic nuisance plant species into non-infested land and water through its public awareness campaign at Camp Baker and cooperative efforts with the commercial fishing outfitters. It also raises awareness and understanding of the effects of noxious weeds on

Montana's natural resources and citizens, educates local communities and individuals on integrated weed management methods, and prepares educators to empower local communities to implement these methods through its public awareness campaigns at Camp Baker, presentations to recreation associations, the Smith River Habitat web site, WMA meetings and conversations with local landowners and land managers. The project implements ecologically-based integrated weed management programs by organizing, participating in, and co-funding coordinated chemical treatments, hand-pulling programs, and the collection and dispersing of bio-control agents.

Funding Options –

- i. Special General Funding – these funds will help mitigate the impact of noxious weeds on private lands as a result of activities of the Montana Department of Fish, Wildlife & Parks. Over 4000 recreationists float this 59 mile stretch of the Smith River. The recreational floaters arrive from across the country potentially exposing the Smith River corridor to new infestations of noxious weeds. In addition, the campers travel through weedy areas during peak season spreading seeds of current infestations to new areas.
- ii. Cooperative Forestry Assistance Funding – The project would be eligible for Cooperative Forestry Assistance funds because it is a WMA project on private and state lands in an area associated with federal lands having an active weed management program. In addition, lands within the project area include at least ten percent tree cover; the project focuses on leafy spurge, knapweed, thistle and houndstongue which are on state-listed noxious weeds list; and, the project strongly encourages cooperation between state and private landowners to reduce infestations of noxious weeds and prevent introductions of new invasive species.

Special Objectives and Methodology

Objectives –

- Eliminate populations of thistle and houndstongue in 49 camp sites. Prevent establishment of new invasive plants, and expand treatment area around campsites by 25% in each of next five years.
- Increase population of bio-control agents by ½ to 1 million flea beetles along river corridor in the next year.
- Reduce noxious weed supply traveling downriver by 20% in each of the next five years.
- Reduce noxious weeds in five years to a manageable level that can be effectively treated with an annual 5-7 day float.

Plan of work – The weed species most prevalent in the project area is leafy spurge (1000 acres mostly scattered but dense along river banks and in gullies), Canada thistle (175 acres scattered, more so with high waters), spotted knapweed (200 acres mostly scattered though new areas are being found on river banks and along road beds), and houndstongue (150 acres scattered in campsites and up gullies) with smaller areas of whitetop (10 acres).

Leafy spurge will be targeted from the perimeter of large infestations inward with spring and fall chemical treatments depending on access and recreational activity, and from stream beds/river banks outward with fall chemical treatment. Spring treatment of spurge along river banks and around campsites is extremely limited because of the number of recreationist on the river at that time of year. We were unable to access much of the Forest Service lands this Fall when using the Land Tamers because of the unusually high water this past year. Land Tamers can be “tippy” when loaded with chemicals and could not cross in previously accessible areas. In addition, the Forest Services’ time commitment was also limited because of other priorities. SRHP will coordinate a pack trip this summer to evaluate crossings for the coming fall. SRHP is also working with its outfitter members to outfit a freight boat that can transport an ATV down and across the river in high waters. Campsites and surrounding areas will be targeted with fall chemical treatments to reduce leafy spurge plants and limit contact with people and boats.

The USFS bio-control specialist working with SRHP is drafting a report on bio-control agents along the Smith River. She has found all types of bio-control agents along the river and has seen an impressive change in weed populations over the years. Bio-control populations fluctuate with available weed species, changes in temperature, and water level. While it appears Oberea has maximized its impact given its flight patterns and documented sightings, black flea beetles can still help to decrease leafy spurge populations in many areas that have difficult access and native broadleaf vegetation. SRHP is working with the Whitehall Project insectory to collect and distribute 500,000 to 1 million additional black flea beetles this summer along the Smith River corridor.

Hand-pulling will be used to control thistle, houndstongue and knapweed in and around campsites during early summer when peak recreational activity occurs as weed seeds mature and spread. The plant debris will be burned and mature seed heads will be bagged and removed from sites. Thistle, houndstongue, and knapweed will be treated around campsites and expanding outward with chemicals later in the year when recreation activity decreases and fall applications are effective. SRHP outfitter/partners will evaluate use of aerosol 2,4D treatments on early rosettes after clients have departed.

Whitetop (hoary cress) will be treated through a combination of mechanical and chemical applications aimed at eradication of weed species.

Chemical control methods utilized on all areas away from well heads, streams, waterways, wetlands, residential areas and sensitive areas are as follows. For ground broadcast of chemicals

in these areas, 1 qt each of Picloram and Amine 2,4-D/acre; 2 qts of Clopyralid 2,4-D/acre; 12 oz of Imazapic/acre; 4 oz of Diflufenzapyr Dicamba/acre; or, 1 oz Metsulfuron methyl and 1 qt 2,4-D/acre will be used. For spot treatments, 2 qts Picloram will be used. Aerial applications of Picloram and 2,4-D at 1 qt/acre of each; and Aminopyralid at 5 oz/acre will be used to an area within 200 feet of streams, wetlands, residential areas and well heads. Extreme care will be utilized to ensure spraying is completed during times when there are no inversions, extreme winds, or pending precipitation. Commercial application by an applicator trained in work adjacent to wetlands and streams will be used on all riparian areas. On all other areas, weed infestations in the 200-foot zone will be treated with aquatic-approved 2,4-D where there is sod (grasses and aquatic vegetation), Glyphosate Aquatic will be used on islands, gravel bars, etc. and applied by hand in addition to cultural and mechanical methods. Application timing will be early to mid-June, pre-bloom, and September after a first frost.

There are two subdivisions in the project area – Castle Bar and Two Creek. Castle Bar subdivision is approximately 20 acres and has 44 cabin sites. Two Creek subdivision is 18.5 acres and has 29 cabin sites. Through the project, landowners bordering the subdivisions and providing recreational services to owners of the cabin sites are developing educational opportunities to encourage and promote effective weed treatments within subdivision – showing evidence as to the efforts toward weed problems throughout the corridor and how the subdivision sites impact those efforts. In sensitive areas (i.e. around residences and well heads) non-chemical methods including hand-pulling of spotted knapweed and houndstongue will be utilized. County weed districts will assist with coordinated chemical treatments within and around subdivisions.

No new land has been added to the project area for 2011 although landowners have agreed to commit greater resources to weed control efforts, and thus, to have a greater impact on land within the project area.

The project will accomplish its objectives by actively working with FWP, USFS, County Weed Districts, and private landowners to establish long-term effective weed management strategies for the Smith River corridor – to bring noxious weeds in river corridor to a manageable level within the next five years that can be treated with a coordinated annual float/ fall treatment program. The project coordinator and SRHP board members will meet individually with landowners to demonstrate the positive impact of the project's weed practices over the past five years, the effective collaboration between private, state, federal and county agencies, and the support from both private and public entities in a shared goal of controlling invasive species along the Smith River corridor. The project coordinator will coordinate commercial applications for multiple landowners, oversee treatment practices and outcomes, and collect treatment and inventory data to update interactive digital map. The project will increase public and agency awareness through project tours, the interactive web site, meetings with recreation associations, and educational materials in floater packets and Camp Baker kiosk.

Natural/Renewable Resources Effect – Leafy spurge has spread in much of the project area to dominate the vegetation. Through significant reduction of the leafy spurge populations and the prevention of new invasive species becoming established, the project will have a positive long-term effect on ecosystem processes and species biodiversity, improve water and soil quality increase the availability of native forage for wildlife and livestock, and enhance the visual quality and aesthetic value of the landscape.

Education Program – Through the development and implementation of the Weed Trust Fund grants, private landowners have increased their knowledge of weed management practices and have developed a network of resources so they can continue sharing and developing effective weed management practices in the future. The project has been instrumental in providing opportunities and encouraging discussions among the different agency weed managers as to what practices have been effective along the Smith River and to prioritize weed control efforts. The project will continue its discussions with Montana’s congressional delegation to organize a tour and to provide a better understanding as to the importance of protecting the area, and the issues involved in effective weed management.

SRHP will work with FWP, USFS, the County Weed Districts, and the commercial outfitters to develop and disseminate weed education materials to the public floating the Smith. The educational materials will focus on identifying newly introduced invasive species that are currently threatening other rivers in Montana, and will reward individuals who correctly identify and inform FWP of infestations along the Smith River. Education and rapid response will be the most effective method of eradicating new infestations before they become detrimental to the river habitat. The educational materials will also inform the public of the cooperative nature of the project among public and private entities, and of what the public can do mitigate its impact on the river.

SRHP will attend outfitters’ and Trout Unlimited meetings in Great Falls and Helena to educate their members on weed issues. SRHP will participate in weed education events sponsored by the state and private agencies to collect and share information on best practices.

In-kind Activities – SRHP will coordinate and report on grant activities. Landowners will use their own services and equipment for hand and ATV spraying. SRHP board members will attend group working and educational meetings on the project’s weed efforts. SRHP board members and landowners will donate shuttle services to facilitate project activities. FWP will install a kiosk at Camp Baker devoted to weed information on the Smith River. The kiosk will include covered containers for brochures, identification map, and a locked box for donations toward the SRHP efforts. USFS and both Cascade and Meagher County Weed Districts will use their equipment and services to treat weed infestations on and adjacent to public lands. A substantial amount of time and equipment has been donated to the project by public and private entities to pursue a common goal of weed control within the corridor.

Evaluation – The project’s effectiveness in controlling noxious weeds will be evaluated on a continual basis. The project coordinator, landowners, and Cascade and Meagher County weed Districts will monitor success of the project by conducting on-site visual control assessments following initial and follow-up herbicide treatments. Visual and quantitative data will be collected to monitor changes in vegetative growth and production in treated areas. The project coordinator will coordinate evaluation activities and compile data collected for project participants.

Photo points have been taken prior to weed management activities. It has been somewhat difficult getting photos of all areas before and after due to difficult terrain and accessibility of areas. Also, the significant amount of fall treatment around campsites because of access issues didn’t lend itself to photo points because the leafy spurge wasn’t at the flowering stage when we returned the following fall. The decrease in plants, however, was apparent when we walked through the area. SRHP has been encouraging landowners to take more pictures when treating weeds in areas of poor access though it requires them to carry a camera at times when it isn’t very practical. The project gets a tremendous amount of feedback from outfitters who cover the same areas several times a season over many years, FWP river rangers, and from recreational floaters who make comments in the FWP log book. The feedback has been very positive and encourages all to continue and expand upon current weed control efforts. Landowners and land managers have also made significant contributions in validating the effectiveness of the project’s weed management practices. SRHP will continue to work with and improve upon its photo point documentations.

Time Schedule

April/May 2011

- Follow-up with FWP on kiosk at Camp Baker, prepare map, print additional brochures, develop and print weed ID maps;
- Meet with field staff, county weed district supervisors, and landowners to establish plan for weed inventory and photo points;
- Work with landowners to contact commercial applicators to begin scheduling application herbicides;
- Work with landowners and county weed supervisor to purchase chemical at government rate for project participations;
- Meet with USFS and FWP to review weed management activities for 2011;
- Meet with outfitters to provide weed education information to their staff and to provide them with aerosol cans of 2,4 D for spot treatments at campsites;
- Discuss with congressional delegation the possibility of a project tour;
- Present project activities and goals to guide associations.

June 2011

- Photo-monitor previously treated sites and sites to be treated;
- Meet with land managers to coordinate commercial applications of herbicide;
- Implement herbicide applications.

July 2011

- Continue assessment of treated areas and inventory;
- Collection and distribution of bio-control agents with Whitehall Project;
- Project tour;
- Pack trip up river to evaluate and document high and low water crossing points/camp sites for fall treatment program;
- Continue with photo monitoring;
- Continue mapping project.

August/September

- Fall application of herbicides;
- Collect information from landowners on noxious weed infestations, treatments, and payments;
- Work with USFS, FWP, and County Weed Districts to compile and analyze information collected.

October/November/December

- Compile and analyze additional information collected, evaluate project effectiveness, present data to all cooperators and make available to the public;
- Hold meetings with private landowners and WMA group to evaluate current year project and plan for following year;
- Present at TU banquets
- Plan continuing education programs for public and private land managers and commercial and recreational floaters.

Long-term Commitment for Management of Leafy Spurge– The private landowners are a significant part of the cooperative weed management agreement with state, federal, and county agencies. They are committed to treating more acreage on their property each year, to working with the agencies on providing access to state and federal lands, and to treating weeds across property lines. They understand and appreciate the impact that weed populations on their property have on neighboring properties and to actively encourage other land owners to become involved. As resources become available, they have been more than willing to treat noxious species on a large scale. There are several landowner participants who have also demonstrated through their years of treating weeds that if noxious weeds are treated upfront, maintenance requires only limited resources. Infestations along the river corridor have not reached the

maintenance level yet, but with sufficient resources we believe it is possible, through SRHP's coordinated efforts, in the next five years.

Commercial outfitters and fishermen have also shown a long-term commitment by participating in project tours, weed education programs, and helping to raise funds for weed control efforts. More recently, the commercial outfitters on the Smith River are developing a program to treat weeds in individual campsites in the spring and prevent plants from going to seed. The outfitters view noxious weed management as part of their on-going commitment to good river stewardship. They also provide an on-going opportunity to educate the public on weed issues, to report infestations of new invasive species, and to provide input on the effectiveness of the project's weed treatment efforts. They, too, have an understanding and appreciation of their impact and of the landowners' and agencies' efforts toward effective weed management.

The public agency land managers are all actively participating in the WMA and are working together to develop and maintain private/public landowner relationships and to maximize available resources. SRHP is working very closely with these land managers to develop alternate plans for effectively treating weeds along the river corridor in both high water and low water years. This plan, in addition to continued coordinated efforts up river drainages and at Camp Baker, will provide the maintenance necessary once the noxious weed populations have been reduced to a manageable level.

Project Success – Included are pictures of four camp sites that were treated in 2009 and again in 2010.

Project Map – See attached.

Through productive communication, shared resources, knowledge, and a commitment to the area, the project participants have accomplished what no private or public entity could do on its own. We thank the Noxious Weed Trust Fund for its support.