

VI. Description of the Project

A. Project Title: Smith River Cooperative Weed Management Project

Project Sponsor: Cascade County Weed District

B. Introduction

1) *History:* Since it's introduction to the Smith River in the 1920's, leafy spurge has spread to infest over 1600 acres along the river corridor. Weed management has been sporadic during the past 30 years as environmental constraints, reduced budgets, and difficult access along much of the river has made weed management extremely difficult. An average of 3,777 people float the Smith River over a three month season. These recreational floaters arrive from all over the country exposing the Smith River corridor to new infestations of noxious weeds not already within the corridor. In addition, floaters trample through weedy areas during peak season spreading current infestations to new areas.

2) *Purpose:* The purpose of the project is to improve management of noxious weed infestations currently in the Smith River corridor, and to prevent new invasive plants from becoming established.

Without this project, current infestations of leafy spurge will migrate outside the corridor reducing wildlife and livestock forage up to 75%. New invasive plants will alter the plant communities leading to diminished habitat and food opportunities for wildlife, poor soil and water quality, decreased ecosystem processes and species biodiversity, and diminished visual quality and aesthetic value of the landscape. And further, cooperative efforts would diminish without the active communication facilitation currently provided through the project.

3) *Cooperative Participation:* The Smith River Cooperative Weed Management Project includes Montana Fish, Wildlife and Parks (FWP), the Lewis and Clark and Helena National Forests, Cascade and Meagher County Weed Districts, and the Smith River Habitat Project (SRHP). The SRHP is a non-profit charitable corporation formed in 2003 to facilitate cooperative weed management practices along the Smith River. SRHP's volunteer board of directors represents agricultural and recreation land owners, and commercial and private floaters who have a long-term vested interest in the health of the river and surrounding habitat. SRHP was a leader in creating the Smith River Cooperative Weed Management Area (WMA) and coordinates WMA meetings. The WMA met several times a year over the past four years and has developed an effective working relationship to provide educational opportunities to the public at Camp Baker and to project participants, to pool resources to treat priority areas, and to share data collection of weed infestations and areas treated.

4) *Location of Project Area:* The project area is along the Smith River from Camp Baker to Eden Bridge, approximately one mile on either side of the river (depending on topography), and the riparian area 3.5 miles up Tenderfoot Creek.

5) *Benefits:* In an area of high public use and over 80% private land, this project is integral in maintaining cooperative relationships regarding weed management among private landowners, public agencies, and floaters. This project supports the counties and state weed management plans in the following ways. The project strengthens cooperative weed management through the establishment of its WMA and the consistent communication and problem solving efforts of its members. The project establishes strategies for managing weeds on a priority basis through its mapping project and collection of information from floater, land owners, 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. The project promotes the development and maintenance of noxious weed inventories through its weed mapping project and aerial inventory. 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. The project raises awareness and understanding of effects and affects 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, the SRHP web site, WMA meetings, and facilitation of conversations with local landowners and land managers. The project implements ecologically-based integrated weed management programs by organizing and co-funding treatment of weed infestations.

6) *Funding Options:* The project would qualify for both Special General Funding and Cooperative Forestry Assistance. The project would be eligible for Special General Funds by providing funds for weed management activities to mitigate Department of Fish, Wildlife & Parks activities on private and state controlled lands. These activities include recreational use by the public of the river and forty-nine campground sites. 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 houndstounge which are on the state-listed noxious weeds; and, the project strongly encourages cooperation between state and private landowners to reduce the introduction of noxious weeds and newly introduced weeds.

VII. Specific Objectives and Methodology

A. Objectives:

- 1) Continue implementation of an ecologically-based integrated weed management program in the project area to eliminate weed populations at all 49 camp sites and to prevent the establishment of new invasive species.
- 2) Increase landowner participation in treating weed infestations by 20%.

3) Record private land owner weed management efforts and integrate information on a yearly basis with existing and newly developed weed inventories and agency weed management efforts.

4) Develop an on-going network of landowners and floaters to educate others on the impact of weed infestations on wildlife habitat, agricultural, and recreational uses and how individuals can make a difference.

5) Develop and maintain on-going cooperative funding resources and education programs, including documented evaluative research, to encourage the development and maintenance of long-term consistent practices to contain and reduce large weed infestations, eradicate small infestations, and prevent new infestations of invasive plants not currently in the area.

B. Plan of Work:

1) Control Measures:

Chemical: Chemical control will be utilized on all areas away from well heads, streams, waterways, wetlands, residential areas and sensitive areas. For ground broadcast of chemicals in these areas, 1 pint of Tordon 22K and 1 quart of 2,4D/acre or 12 oz of Plateau/acre will be utilized with an approved surfactant. Aerial application of Tordon and 2,4D at 3 pts and 1qt/acre respectively, and Plateau at 8 oz/acre will be utilized to an area within 200 feet of streams, wetlands, residential areas and well heads. Extreme care will be utilized to insure spraying is completed during times when there are no inversions, extreme wind, or pending precipitation. Commercial application by an applicator trained in application adjacent to wetlands and streams will be utilized on all riparian areas. On all other areas, weed infestations in the 200-foot zone will be treated with aquatic approved 2,4D where there is sod (grasses and aquatic vegetation), Rodeo and Roundup will be used on islands, gravel bars, etc. and applied by hand in addition to cultural and mechanical methods. Timing will be early to mid-June, pre-bloom, and September after a first frost.

Cultural Methods: In sensitive areas (i.e. around residences and well heads) cultural methods including hand pulling of spotted knapweed and houndstongue will be utilized. This will be supplemented by biological control.

Biological Control: Biological control for spotted knapweed, leafy spurge and musk thistle will be included in the control area. Cascade County Weed District will be responsible for obtaining approved biological control for spotted knapweed, musk thistle and leafy spurge. Some areas exist in the county for collecting the biological control and redistributing to the proposed sites. In the event adequate biological control is not found in the county, approved insects will be purchased from available sources. Biological control will be utilized to supplement chemical control and will be utilized as the selected option in all sensitive areas including adjacent to residential areas, waterways, well heads and wetlands.

2) Education Program:

Through 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 new ideas in effective weed management.

SRHP will sponsor range tours of lands associated with this project and will provide information on weed management practices and their effectiveness on project areas.

SRHP, in collaboration with FWP and the Helena and Lewis & Clark National Forests, will collect information on weed issues and disseminate to the public through the Internet and weed education station at Camp Baker. In addition, SRHP will post project updates and new resources on its web page, www.smithriverhabitatproject.org.

SRHP will compile an inventory of the weeds identified and treated through this project, NRIS mapping, USFS data, and FWP's historic maps to develop and maintain an updated assessment of weed management activities affecting the Smith River corridor.

3) In-Kind Activities:

SRHP will coordinate and report on grant activities. Landowners will use their own services and equipment for hand and ATV sprayig. SRHP, FWP, USFS, and Meagher and Cascade County Weed Districts will meet pre and post season to report on weed control efforts and plan for future coordinated efforts through the Smith River Corridor Coordinated Weed Management Area (SRWMA). Landowners and agencies will map weed infestations on their designated properties and will work with SRHP and FWP to compile inventory data. SRHP will sponsor attendance of two board members to the 2008 Western Society of Weed Science, Noxious Weed Management Short Course.

C. Evaluation:

The project's effectiveness in controlling weed will be evaluated on a continual basis. Photo points will be taken prior to weed management activities and subsequent years to record changes in ground cover.

The Weed Project Coordinator, landowners, and Meagher and Cascade County weed Districts will monitor the success of the project by conducting annual on-site visual control assessments following initial herbicide treatment and follow-up treatment. Visual and quantitative data will be collected to monitor changes in vegetative growth and production in treated areas. The weed Project coordinator will coordinate evaluation activities and compile data collected for project participants.

The Weed Project Coordinator will work with the WMA, and the Montana State University to integrate available data on invasive plants in the Smith River corridor. This data will be available for future projects.

SRHP will work with JHS, Inc. to complete an aerial digital inventory of leafy spurge infestations within the project area. JHS, Inc., the contractor currently providing GIS and mapping services to SRHP and the project, will photograph leafy spurge infestations on both sides of the Smith River at an altitude of 1200 feet during peak bloom. Additional photos of areas of interest will be taken at an altitude down to 500 feet. The pictures will be post-processed to link the photographs to GPS positional data from the aircraft's equipment. The finished data will be incorporated into a GIS database and will map the infestation sites along with all of the other SRHP data. The resulting maps will show the entire inventory of major infestations in relation to past, present and future treatment areas. This will enable SRHP planners to ensure the infestation sites are prioritized and effectively managed in the project plans.

VIII. Time Schedule

April/May 2008

- Meet with land managers to review information on sensitive plant species, biological control agents and herbicide management;
- Meet with land managers new to the program to discuss process and evaluation;
- Contact commercial applicators to begin scheduling application of herbicides;
- Meet with SRWMA to provide information to update and augment weed education kiosk at Camp Baker and to supply handouts to seasonal floaters.

June 2008

- Photo-monitor previously treated sites and sites to be treated;
- Meet with land managers to coordinate the application of herbicides by commercial applicators;
- Arrange for aerial photo evaluation during peak blooming season of leafy spurge;
- Organize and provide support for volunteer weed float to pull weeds at each camp site;
- Implement herbicide application on noxious weeds.

July 2008

- Continue with new releases and spreading of biological control agents in sensitive areas;
- Work with FS, FWP, and county weed districts to access and treat areas around camp sites on FS, state, and private lands;
- Continue with photo-monitoring program;
- Continue herbicide application;
- Continue mapping program..

September/October 2008

- Fall application of herbicides;
- Continue gathering information about noxious weed infestations, treatments and receipts from land managers;
- Fall photo-monitoring.

November/December 2008

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

Time Commitment:

The private landowners are a significant part of the cooperative weed management agreement with the state, federal, and county agencies. They are committed to developing and expanding an integrated system, committed to monitoring the success of the project and to providing follow-up management and control as needed. The public agency land managers are all actively participating in the WMA and are working together to develop and maintain private/public land owner relationships and maximize available resources. The private and commercial users of the Smith River, through the SRHP and individual participation, have shown a commitment to recognizing land management efforts, developing and sharing knowledge of noxious weeds and their impacts, and financially assisting landowners in on-going weed control efforts.

IX. Project Area Map

See attached

X. Supporting Documents

Updated SRHP brochure

List of FWP campsites and management information

Pat Barnes Newsletter

Saving the Smith article by Simon Perkins