

V. Description of the Project:

A. Project Title and Sponsor: Smith River Cooperative Weed Management Project is sponsored by the Cascade County Weed and Mosquito District.

B. Introduction:

1). Purpose: The purpose of the Smith River Cooperative Weed Management Project (the project) is to facilitate coordinated weed control efforts with private and public land owners along the Smith River corridor, to inventory and evaluate weed management efforts, and to educate public and commercial floaters on the negative impacts of weeds and how they can participate in weed control efforts.

History: Leafy spurge is believed to have been introduced into the Smith River area during late 1920s to 1930s on private land along Tenderfoot Creek. By the 1950s, private landowners bordering the Smith River recognized the weed as a problem within the river corridor and began herbicide treatments to contain infestations. They observed that the flood on the river in the early 1960s greatly accelerated the spread of the weed.

There was an active inventory and chemical control program from 1977 through 1985. However, environmental constraints, reduced budgets, and difficult access along much of the river made management with herbicides extremely difficult. After 1991, most biological control insects available for release on leafy spurge had been placed in the area, although the status was unknown because of difficulty of access and vague descriptions of sites.

In 1996, Montana Department of Fish, Wildlife and Parks (FWP) hired Weed Management Services to outline management options and strategies for noxious weeds within and adjacent to the Smith River corridor. A report, "Leafy Spurge Management on the Smith River" was prepared and a cooperative meeting was organized in the spring of 1996 that included FWP, United States Forest Service (USFS), and Cascade and Meagher County Weed Districts (the Smith River Coordinated Weed Group).

Extensive ground work was done to develop a comprehensive cooperative weed management program on the Smith River through the Smith River Cooperative Weed Group. Although some components of the recommendation report were put into action from 1997 to 1999, staff turn-over and budget constraints has resulted in loss of program ownership by cooperating entities. The most critical element of the Smith River Cooperative Weed Group's efforts was that of private landowner partnerships. Although both FWP and USFS continue efforts through annual chemical treatments and biocontrol releases, a comprehensive cooperative approach that includes neighboring private lands has not been feasible with new agency staffing structures and budgets.

The scope of the Smith River leafy spurge problem is large and complex and requires careful strategic planning. With 114 private and public waterfront property owners, a coordinated effort is critical if progress is to be made towards controlling weed

populations. Leafy spurge has spread to infest over 1,600 acres along the river corridor. By displacing native and desirable plant species, leafy spurge can cause significant environmental and economic impacts due to forage loss, reduced wildlife associated with recreation, rare plant loss, and reduced soil water conservation due to erosion. When bank stabilizing vegetation is displaced by invasive plants along waterways, increases in silt and sediment in the water can occur. Leafy spurge infestations can reduce wildlife and livestock forage by up to 75%, posing serious economic threats to those who make their living off of the land. Without a more coordinated effort of private and public land managers, infestations will quickly move out of the canyon and onto surrounding rangelands.

In addition, 3,700 people from across the country float the Smith River every year. Floaters bring with them new invasive plants that can present even greater habitat degradation if early detection and rapid responses are not part of a coordinated weed management effort.

2). Cooperative Participation: The Smith River Habitat Project (SRHP), a non-profit charitable corporation, was formed in 2003 to facilitate cooperative weed management practices. SRHP's volunteer board of directors represents agricultural and recreation landowners, and commercial and private floaters who have a long-term vested interest in the health of the river and surrounding area. SRHP's goals are to: a) develop education materials for floaters, landowners, outfitters, policy makers, and the general public; b) fund research to assess and quantify weed populations and impacts, and to evaluate effectiveness of current and future weed management practices; and c) facilitate the development and on-going participation of the Smith River Corridor Cooperative Weed Management Area.

In furthering these goals, SRHP developed an informational brochure specific to the Smith River area which has been distributed by FWP to each permit holder. SRHP hired a weed consultant to review and prepare a report on historic weed management activities to better understand what has been done and what needs to be done to promote more effective weed management practices. SRHP also developed a web page (www.smithriverhabitatproject.org) to provide information specific to weed issues in that area and to report on SRHP projects. SRHP is developing its financial base in an effort to provide continued matching funds to landowners for weed management projects.

State, Federal, County, and private land managers began meeting in 2003 to coordinate weed management efforts along the Smith River. Together, SRHP, the Lewis and Clark and Helena National Forests, Meagher County and Cascade County Weed Districts, and FWP established the Smith River Corridor Coordinated Weed Management Area (SRWMA) to bring together land owners/managers (private, city, county, state, and federal) and river users (commercial and private) as a unified group to effectively manage weeds. Accordingly, the SRWMA facilitates cooperation across jurisdictional boundaries for the mutual benefit of the entire Smith River community. The Coordinated Weed Management Area set the following goals: a) containment of noxious weeds within river corridor, b) eradication of noxious weeds around camp sites and boat launches, c)

eradication of satellite infestations, and d) prevent infestations of new invaders (in particular, salt cedar and Dalmatian toadflax).

For the 2005 floating season, SRHP, in collaboration with the White Sulphur and Townsend FS Ranger Districts and FWP, sponsored a weed education station at Camp Baker. The station was staffed by student interns from Montana State University who distributed weed education material to floaters while the groups waited for their launches. The weed education station provided an opportunity for the student interns to discuss the impact of weeds on the area and how the floaters could make a difference.

The SRWMA continues to meet quarterly to discuss and promote public education opportunities and coordinated weed management activities.

3) Location of Project Area: The project area includes approximately 59 river miles between Camp Baker and Eden Bridge along the Smith River corridor with a one mile buffer on either side of the river and 8.5 miles of riparian land up the Tenderfoot drainage.

4) Benefits: The benefit of the project is that weed management practices among private and public land managers will be facilitated and coordinated in an on-going effort to significantly reduce leafy spurge and eradicate new noxious weed infestations within the canyon allowing for improved habitat for wildlife, recreation, and agricultural practices.

The project supports the goal of the Montana Weed Management Plan to facilitate partnerships between agencies and private land managers through the development of cooperative weed management areas. The project further supports the goals of the State Plan and Cascade County Weed Management Plan by preventing invasion, eradicating small infestations, and long-term, high-intensity containment of larger infestations to prevent movement to non-infested sites.

Currently, leafy spurge is an overwhelming problem along the Smith River. With Noxious Weed Trust funds, landowners can reduce infestations to a manageable level and develop effective weed management strategies that they can share with subsequent landowners.

5) Funding options: This application is for NWTF regular funding.

VI. SPECIFIC OBJECTIVES AND METHODOLOGY:

A. Objectives:

- 1) Implement an ecologically-based integrated weed management program in the project area.
- 2) Record private land owner weed management efforts and integrate information with existing and newly developed weed inventories and agency weed management efforts.

- 3) Educate landowners and floaters on the impact of weed infestations on wildlife habitat, agricultural, and recreational uses and how they can make a difference.
- 4) Through funding, education, and evaluative research, encourage the development 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 spotted knapweed in these areas, 1 pint of Tordon 22K and 1 quart of 2,4-D will be utilized with an approved surfactant. Aerial application 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 the abandoned railroad and slopes. On all other areas, weed infestations in the 200-foot zone will be treated with aquatic approved 2,4-D or will be treated with cultural and mechanical methods. Timing will be early to mid-June, pre-bloom.

Cultural Methods: In sensitive areas, i.e. around residences and well heads, cultural methods including hand pulling (spotted knapweed) 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) Environmental Assessment: See attached.

3) Education Programs: Through development of this grant, private landowners have increased their knowledge of weed management practices, and have developed a network of resources so that they can continue sharing and discussing 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 will work with NRIS and the Cascade County Conservation District to coordinate information gathered and disseminate to the public through the Internet. In addition, SRHP will post project information on its web page.

Information about the project and the coordinated efforts of public and private land managers will be reported in floater packets distributed by FWP to those receiving permits on the Smith River.

An inventory of the weeds identified and treated through this project will be compiled in combination with the Cascade County Conservation District's Assessment, NRIS mapping, USFS data, and FWP historic maps to develop and maintain an updated assessment of weed management activities affecting the Smith River corridor.

4) In-Kind Activities: SRHP will coordinate and report on grant activities. Many of the landowners will use their own services for hand and ATV spraying. SRHP, FWP, USFS, and Meagher and Cascade County Weed Districts will meet at least quarterly to coordinate weed control efforts through the Smith River Corridor Coordinated Weed Management Area. Landowners and agencies will map weed infestations on their designated properties and will work with SRHP and NRIS to compile inventory data.

C. Evaluation:

The project's effectiveness in controlling weeds will be evaluated on a continual basis. Photo points will be taken prior to any on the ground weed management activities and then each subsequent year to record any change 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 (photopoints) 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 SRWMA, Montana State University, Cascade County Conservation District, and NRIS to integrate available data on invasive plants in the Smith River corridor that can be used for future projects.

VII. TIME SCHEDULE

A. Project schedule:

March 2005

- Contract with a Weed Project Coordinator.

April/May 2006

- Meet with land managers and commercial applicators to review information on sensitive plant species, biological control agents and herbicide management.
- Contact commercial applicators to begin scheduling application of herbicides.

June 2006

- Begin photo-monitoring program in project area.
- Meet with land managers to coordinate the application of herbicides by commercial applicators.
- Begin herbicide application on noxious weeds.
- Gather information about noxious weed infestations, treatments and receipts from land managers.
- Initiate mapping program.

July 2006

- Release biocontrol agents in sensitive areas.
- Continue with photo-monitoring program.
- Continue herbicide application.
- Continue mapping program.

September/October 2006

- Fall application of herbicides if feasible.
- Gather further information about noxious weed infestations, treatments and receipts from land managers.

November 2006

- Compile information collected and make pertinent information available to cooperators.
- Hold meeting to evaluate current year project and plan for next year.
- Submit continuation grant for 2007.
- Plan education programs for upcoming floating season.

March 2007

- Contact land managers for follow up, if necessary, of herbicide treatment not completed in 2006.
- Meet with land managers new to the program to discuss process and evaluation.

April/May 2007

- Meet with land managers and commercial applicators to review information on sensitive plant species, biological control agents and herbicide management.
- Contact commercial applicators to begin scheduling application of herbicides.

June 2007

- Photo-monitor previously treated sites and sites to be treated.

- Meet with land managers to coordinate the application of herbicides by commercial applicator.
- Implement herbicide application on noxious weeds.

July 2007

- Continue with new releases and spreading of biological control agents in sensitive areas.
- Continue with photo-monitoring program.
- Continue herbicide application.
- Continue mapping program.

September/October 2007

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

November/December 2007

- Compile and analyze information collected, evaluate project effectiveness in the short term, present data to all cooperators, and make available to the public.
- Hold meeting to evaluate current year project and plan for next year.
- Submit continuation grant if eligible for 2008.
- Plan education programs for public and private land managers, commercial and private floaters, and public agencies.

B. Long-term commitment:

The landowners are all a major part of this cooperative agreement. They are committed to developing and expanding an integrated system, committed to monitoring the success of the project and providing follow-up management and control as necessary. The public agency land managers are all actively participating in the Smith River Corridor Coordinated Weed Management Area and working together to develop and maintain private/public land owner relationships and maximizing 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.

VIII. PROJECT AREA MAP

See attached

IX. SUPPORTING DOCUMENTS

SRHP brochure

Leafy Spurge Management on the Smith River (1996)

Smith River Weed Management Program

Summary of Weed Management Activities 1996-2004