

1997 Project Abstract

For the Period Ending June 30, 1999

This project was supported by Mn Future Resources Fund MS???

TITLE: PRAIRIE AND OAK SAVANNA RESTORATION

Project Manager: Craig R. Andresen

Organization: St. Paul Audubon Society

Address: 2013 Walnut Ave. NW

New Brighton, Minnesota 55112

JUL 08 1999

Legal Citation: ML 1997, [Chap. 216], Sec. [15], Subd. 19(d).

Appropriation Amount: \$50,000

Statement of Objectives

The objective of this project was the restoration of remnant native plant communities on a total of forty acres at two sites: Fort Snelling State Park and Miesville Ravine a Dakota County Park. This involved cutting exotic and native invasive woody species from prairies and oak savanna/woodland areas. Prescribed burns were then planned to encouraging the fire dependent native herbaceous species.

Overall Project Results

As best stated by Mark Cleveland, the Resource Manager at Fort Snelling: "One of the greatest challenges facing Fort Snelling State Park's natural resources is maintaining its native plant communities. The park is home to rare and uncommon upland and wetland communities which will continue to exist for future generations only with active management...The benefits are multi-fold. Removal of these exotics species prevents them from going to seed and allows sun light to once again penetrate the forest and savanna floor encouraging native grasses, sedges and wild flowers. It also removes excess woody fuel which can make prescribed burning more difficult, as well as adding to "mop up time"...A number of new management techniques have been field tested by the crew....The work crew was instrumental in completing the first prescribed burns in three different oak communities...Much of the work would not have been accomplished...very visible to park visitors and has generated a large volume of positive comments and many questions....The result of these educational efforts have led to a greater level of public involvement..."

Fort Snelling - Forty acres woody species management, and thirty-five acres burned on April 24th and 29th 1999. Doubling the goal!

Miesville Ravine - Approximately thirty-six acres were managed for selective woody species removal. Prescribed burns will need to be implemented.

Project Results Use and Dissemination

As restoration efforts continue to evolve, the work at Fort Snelling and Miesville Ravine will serve as examples of not only what can be done but the techniques used will be evaluated.

JUN 21 1999

Work Program Amendments

Date of Report: June 16, 1999
Date of Next Status Report: June 30, 1999
Date of Work Program Approval: June 25, 1997
Project Completion Date: June 30, 1999

LCMR Work Program 1997

Project Number: O18
Subd. Exotics Species

1. PROJECT TITLE: PRAIRIE AND OAK SAVANNA RESTORATION \$50,000

Project Manager: Craig R. Andresen
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Total Biennial Project Budget:

\$LCMR: \$50,000.00

\$LCMR Amount Spent: 44,422.42

\$LCMR Balance: \$ 5,577.58

A. Legal Citation: ML 1997, [Chap. 216], Sec. [15], Subd. 19(d).

PRAIRIE AND OAK SAVANNA RESTORATION \$50,000

This appropriation is from the future resources fund to the department of natural resources for an agreement with St. Paul Audubon Society to restore natural areas of sites in at least two parks, parks that have residual prairie and oak savanna areas.

II. Project Summary and Results:

Fort Snelling State Park and Miesville Ravine Park Reserve of Dakota County will be the primary sites of this project. Each park contains approximately 20 acres of remnant prairie and oak savanna along south to west facing bluffs. The intent of the project is to combine the efforts of volunteers and contract crews to remove the invasive exotic and native woody species that are competing with the historic vegetation. Fire will then be re-introduced to re-establish the vitality of these plant communities.

The scheduling of the burns will depend on the progress of the cutting operations, weather and nature of the sites. Coordinating the prescribed burns with park management will also be a priority as will all operations of this project.

In the event the task is completed under budget or other factors (e.g. land title at Miesville) prevent completion, a third site at Afton State Park will be substituted to fulfill the contract obligation to impact at least forty acres of public lands.

III. Progress Summary:

IV. Outline of Project Results:

As a DNR volunteer with the Scientific and Natural Areas (SNA) Program, the project manager has become keenly aware of the pervasive problem of protecting our natural resources from degradation due to lack of management activities. Park personnel are aware of the problem and welcome outside assistance. Volunteer efforts are under way in many public land reserves. This LCMR project was the result of previous volunteer communications and dialogue. Management activities for this project are being formulated after field surveys and professional consultations including staff from the DNR SNA Program. All efforts are coordinated with park personnel before any work is started to assure agreed upon results. Letters affirming affiliation with this LCMR project from the affected parks are attached.

Result 1. Fort Snelling

Approximately 28 acres in four areas have been prepared for a spring prescribed burn. The original goal was 20 acres. We have exceeded our plan by 8 acres or 40% to date. Exotic honey suckle and buckthorn were prevalent in all areas; prairie openings, oak savanna and oak woodland areas. Native green ash, box elder and basswood were also removed from oak woodlands and oak savanna restoration sites.

LCMR Budget:	\$18,500.00	LCMR Balance:	\$3,738.67
<u>Revised LCMR Budget</u>	<u>\$16,205.96</u>	<u>LCMR Balance:</u>	<u>\$ 738.67</u>

Completion Date: ~~April 1998~~ Revised June 16, 1999

Result 2. A prescribed burn will be carried out on at least 20 acres at Fort Snelling State Park.

~~LCMR budget:~~ ~~_____~~ ~~\$2,000~~
Revised LCMR Budget: \$1,294.04 LCMR Balance: \$0

Completion Date: ~~May 1998~~ Revised May 1999

Result 3. Miesville Ravine

Work crews cut, piled and burned red cedar, aspen, ironwood, basswood, American elm and red elm on 16 acres of bluff prairie and oak savanna areas at Miesville ravine. On an additional 10 acres, trees were girdled to kill the trees and allow sunlight to penetrate to the understory. A total of 26 acres were managed for restoration of the goat prairie and oak savanna bluffs. So far we exceeded the original goal of 20 acres by 6 acres or 30%. Spring burns in 1999 will invigorate existing plant communities.

~~LCMR Budget:~~ ~~_____~~ ~~\$27,500~~
Revised LCMR Budget: \$32,500 LCMR Balance: \$4,838.91

~~November 1998~~

Completion Date: ~~May 1998~~ Revised June 1999

Result 4. A controlled burn was deleted from the project due to weather, miscommunications and park staff resistance to mid to late season burns.

~~LCMR Budget:~~ ~~_____~~ ~~\$2,000~~
Revised LCMR Budget: \$ 0 LCMR Balance: \$ 0

Completion Date: ~~May 1999~~ Revised June 1999

V. Dissemination: N/A

VI. CONTEXT:

Significance: The theme of the 1997 State Parks permit is "Save the Savanna". Due to development pressures and the absence the wild fires that maintained the prairies and oak savannas, few examples exist today. Those that remain have been degraded by woody species over-growing and shading out the herbaceous plant communities. Exotic plants from Europe and Asia have also decimated these natural areas. Native American Indians instituted fire as a management tool ten thousand years ago and in doing so created a plant community dependent on frequent fires. The evolution of insects and the higher level animal kingdom also was influenced by this human intervention. To maintain historic examples of pre-settlement plants and animals we must now carry on the management tools of the Native American Indian.

B. Time: N/A

C. Budget Context:

	<u>July 1995- June 1997</u>	<u>July 1997- June 1999</u>	<u>July 1999- June 2001</u>
	<u>Prior expenditures on this project</u>	<u>Proposed expenditures on this project</u>	<u>Anticipated future expenditures on this project</u>
1. LCMR	\$ 0	\$50,000	\$ 0
2. Other State	3,000	1,500	750
3. Non State Cash	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$3,000	\$51,500	\$ 750

BUDGET:

Personnel - Cutting Crews:	\$36,000
Personnel - Burn Crew:	\$ 4,000
Equipment - Maintenance, fuels, depreciation and herbicides:	\$10,000
<u>Personnel - Cutting Crews:</u>	<u>\$39,000 revised</u>
<u>Personnel - Burn Crew:</u>	<u>\$ 1,000 revised</u>
<u>Equipment - Maintenance, Fuels, Depreciation and Herbicides</u>	<u>\$10,000</u>

VII. Cooperation:

St. Paul Audubon Society:

John Bauhs - 10 hours - no cost associated

Alan Kuentz - 10 hours - no cost associated

Julian Sellers - 10 hours - no cost associated

The authorizing St. Paul Audubon Society signatory will be the current president.

Minnesota Department of Natural Resources - Parks:

Mark Cleveland - 25 hours - no cost associated

Sarah Vest - 5 hours - no cost associated

(See attached letter)

Dakota County Parks:

Terry Vickla - 25 hours - no cost associated

Steve Sullivan - 5 hours - no cost associated

(See attached letter)

VIII. Location: A map of the state is attached indicating where the project sites are located.

IX. Reporting Requirements: Periodic work program progress reports will be submitted by June 30, 1998 and June 30, 1999, the completion date as set in the appropriation.

X. Research projects: N/A