

FINAL REPORT

JUL - 2 2002

1999 Project Abstract

For the Period Ending June 30, 2002

TITLE: Restoring Ecological Health to Saint Paul's Mississippi River Bluffs

PROJECT MANAGER: Cynthia Schwie

ORGANIZATION: Friends of the Parks and Trails of St. Paul and Ramsey County

ADDRESS: 1383 Ryan Ave. W.

WEB SITE ADDRESS: www.friendsoftheparks.org/MRBR.html

FUND: Environment and Natural Resources Trust Fund

LEGAL CITATION: ML 1999, Ch. 231, Sec. 16, Subd. 14 (e)

APPROPRIATION AMOUNT: \$200,000

Overall Project Outcome and Results

The goal of this grant was to complete a resource inventory of 5 1/2 miles of the Mississippi River bluffs, remove exotic invasive plants, educate residents about exotic invasive plants, and develop a management plan for ongoing maintenance.

The comprehensive inventory details land cover, natural community remnants, plant surveys, eroding bluff locations, socio-cultural features, work crew accessibility, and buckthorn and honeysuckle densities.

Over the course of three years, 156.402 acres of the bluff had exotic invasive plants removed.

Education residents about exotics included 22-buckthorn identification and removal events, thirteen informational presentations to project area district councils, the St. Paul City Council and the St. Paul Park Commission, and three educational brochures. Additional education included two Environmental Journal cable television segments, 29 newspaper articles, roughly 2,800 hits on the web site – www.friendsoftheparks.org/MRBR.html and weed wrench rental which is available for residents to use without a fee at a rental shop in the project area.

Volunteers were a large part of the project and numbered over 500 and included residents, and University of Minnesota and University of St. Thomas students who participated with inventory and removal.

Finally, the management plan was developed in cooperation with the partners in this project. The executive summary is available online at the above web site.

One positive outcome resulted in the saving of several thousand dollars due to the resilience of the river bluff to recover after exotic invasive plant removal occurred. Originally, funds were allocated for plant material however, numerous native plants germinated after the invasives were removed, thereby eliminating the necessity to reseed and replant.

Project Results Use and Dissemination

The information gained from this project has been published in the form of a management plan. The City of St. Paul is using the information collected to continue with the restoration work begun on this project.

Date of Report: July 1, 2002

LCMR Final Work Program Report

Project Completion Date: June 30, 2002

LCMR Work Program 1999

1. PROJECT TITLE: Restoring Ecological Health to Saint Paul's Mississippi River Bluffs.

Project Manager: Cynthia Schwie

Affiliation: Friends of the Parks and Trails of St. Paul and Ramsey County

Mailing Address: 1383 Ryan Ave. W.
Roseville, MN 55113-5829

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E-Mail: buckthorn@email.com

Fax: 651/645-6766

Web Page address: www.friendsoftheparks.org/MRBR.html

Total Biennial Project Budget:

\$ LCMR:	\$200,000.00	Match:	0
- \$ LCMR amount		- \$ Match Amount	
Spent:	183,654.13	Spent:	0
<hr/>		<hr/>	
= \$ LCMR Balance:	\$16,345.87	= \$ Match Balance:	0

A. Legal Citation: ML 1999, Chap. 231, Sec. 16, Subd. 14 (e)

Restoring Ecological Health to St. Paul's Mississippi River Bluffs. 200,000

Appropriation Language: Restoring Ecological Health to St. Paul's Mississippi River Bluffs, \$100,000 the first year and \$100,000 the second year are from the trust fund to the commissioner of natural resources for an agreement with Friends of the Parks and Trails of St. Paul and Ramsey County (Friends) to inventory and restore native species, and to plan for critical greenways and natural area habitat. This appropriation is available until June 30, 2002, at which time the project must be completed and final products delivered, unless an earlier date is specified in the work program.

B. Status of Match Requirement: Not applicable.

II. and III. FINAL PROJECT SUMMARY:

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Over the course of three years, 156.402 acres of the bluff had exotic invasive plants removed. Education residents about exotics included 22-buckthorn identification and removal events, thirteen informational presentations to project area district councils, the St. Paul City Council and the St. Paul Park Commission, and three educational brochures. Additional education included two Environmental Journal cable television segments, 29 newspaper articles, roughly 2,800 hits on the web site – www.friendsoftheparks.org/MRBR.html and weed wrench rental which is available for residents to use without a fee at a rental shop in the project area.

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IV. OUTLINE OF PROJECT RESULTS:

Result 1. Inventory

- 1). Complete resource inventory of 297.38 acres between Emerald St. and Highway 5 from the crest of the Mississippi River bluff down to the river.
 - a). Land cover inventory.
 - b). Site Assessment Surveys included.
 - 1). Exotic/invasive species surveys.
 - 2). Presence and location of rare or note-worthy native species.
 - 3). Severe erosion problems (i.e. gullies) will be identified as point data.
 - 4). Social factors, including plantability by volunteers, view, trail, and stair

- locations, and other human needs/impacts.
5). Work crew accessibility.

LCMR Budget: \$19,692.84 Dispersed: \$19,692.84 Balance \$0.00

Result 2. Control Exotics

- 1). Removal of exotic invasive species occurred on 156.402 acres of the project area.
 - a). Approximately 98% removal of exotics was considered complete
 - 1). All exotics over six feet tall were eradicated in accessible areas.
 - a). Accessibility was defined as:
 - 1). Youth volunteer accessible – terrain is not steep.
 - 2). Mixed (adult and youth) volunteers accessible – terrain may be sloping but does not pose a safety issue for volunteers.
 - 3). Professional crew accessible only – terrain is steep and poses a threat to the safety of volunteers.
 - 4). Totally inaccessible – terrain is too steep and poses a threat to any worker. Inaccessible acres will be identified in the management plan.
 - b). Saws and herbicide and seedling pulling were the techniques used to remove exotics.
 - c). Woody debris was removed only in visible/high usage areas. All other debris will be left to decay or burned within a few years. The branches and logs will help prevent erosion until a herbaceous layer can be established.
 - d). Trail access points were eliminated when feasible.
 - e). Acreage removal amounts in each priority and secondary area.
 - 1). Priority Area 1, Shadow Falls, 19.263 acres.
 - 2). Priority Area 2, Desnoyer Park, 11.749 acres.
 - 3). Priority Area 3, Goodrich to Randolph and Randolph to Ford Pkwy. (along the walking path), 6.211 acres.
 - 4). Priority Area 4, Hidden Falls north, 33.509 acres.
 - 5). Secondary Area 1, Hidden Falls south, 25.328 acres.
 - 6). Secondary Area 2, Randolph to Ford Pkwy. below the walking path, 15.963 acres.
 - 7). Secondary Area 3, Ford Plant, 34.379 acres.
 - 8). Priority Area 5, Desnoyer Park – adjacent residential property – Five residential lots participated in the round-up.

Additional work was not completed due to the significant rainfall amounts in the spring and early summer of 2002. As it stood, we had to push all the way to the end of the grant period and then we were at the mercy of Mother Nature.

In hindsight, the only element that I would have done differently with regards to removal is that I would have replaced the original removal contractor several months

earlier than we did. If a new contractor had been hired sooner, we would have surely finished all results in this grant including the secondary areas. As it stands, the Ford priority area still has approximately 44.469 acres to be cleared of exotics.

LCMR budget: \$93,274.93 Dispersed: \$79,115.58 Balance \$14,159.35

Result 3. Burning

- 1). The burn contractor attended three neighborhood meetings to answer residents concerns regarding prescribed burns in the project area. The prescribed burn prescription was never met, therefore burns did not occur.

LCMR Budget: \$1,300.00 Dispersed: \$1,300.00 Balance \$0

Result 4. Management Plan

- 1). A management plan was developed to describe a sustainable process for maintaining and restoring the natural plant communities in the project area.
 - a). The plan includes:
 - 1). Data collected on key ecological and related social factors identified in the inventory.
 - 2). Information about neighborhood groups and colleges, which will play a role in implementing management activities.
 - 3). Description of tasks and a timetable for completing each task to ensure bluffs remain relatively free of exotics.
 - 4). Identification of staff or groups to complete the tasks.
 - 5). Description of tasks to be done in areas not cleared of exotics, who will do them and how those tasks will be done.
 - 6). Suggested maintenance techniques that allow for scenic views.
 - 7). Suggested control methods on steep slopes.

LCMR budget: \$12,802.16 Dispersed: \$12,802.16 Balance: \$0

Result 5. Community

- 1). Citizens were recruited to help control exotic invasive species.
 - a). A strategy for recruiting, training, and using volunteers to maintain the project areas was developed.
- 2). The Friends promoted eradication of exotic invasive species on adjacent private lands through education and communication.
 - a). Three brochures were done throughout the project. Each was distributed to residents and business owners in the project area.
 - b). There were 29 newspaper articles about invasives and/or the project.
 - c). The web site has almost 2,800 hits and contains removal, identification, and information for residents about the project.

- d). There were 22 buckthorn identification and removal events held for residents.
- e). There were 13 presentations to the neighborhoods about the activities of the project.
- f). The Environmental Journal cable television show did two segments on our project.

The portion of this result that I would have done differently is that I would not have a contractor work on the volunteer strategy. The negative impact with this type of arrangement is the difficulty of forming long-term relationships. A better solution would have been to have the City of St. Paul be the primary volunteer organizer.

The portion of this result that was highly successful was the education of residents regarding buckthorn. The education was more successful than anticipated. What buckthorn education did was put an emphasis not only on exotic invasive species, but also natural resources in general, within a large urban community. The partnership formed between the City of St. Paul and the Friends was very positive and will benefit future projects .

LCMR budget: \$72,930.07 Dispersed: \$70,743.55 Balance: \$2,186.52

V. DISSEMINATION:

The project manager will present monthly project updates at the Friends board meeting. The Friends and GRG gave a presentation at the St. Paul Park Commission at the halfway point in the project. The completed Management Plan will be presented by Bonestroo & Associates and the Friends of the Parks staff to the St. Paul Park Commission, St. Paul City Council, Ramsey County Soil and Water Conservation District, City of Minneapolis, Mississippi National River and Recreation Area Commission, Friends of the Parks, members of the Legislative Commission on Minnesota Resources and staff, and neighboring communities.

VI. CONTEXT:

A. Significance: The Mississippi River is the most significant natural resource in the City of St. Paul. The City has the longest stretch of Mississippi River shoreline of any community along the length of the River. This area is part of the Mississippi National River and Recreation Area. The River provides a variety of recreational, cultural, historical, scenic and environmental resources for its citizens. It is a significant migratory corridor for wildlife. However, invasive plant materials, erosion problems, and lack of a management plan put these resources at risk.

The loss of multi layers of vegetation results in environments that diminish the views and do not adequately protect against erosion. This results in the loss of important habitat valuable for wildlife. Invasive plants crowd out native plants and destroy wildlife habitat. Restoration of the native plant community will enhance critical wildlife habitat in this vital migratory corridor, significantly control erosion, and complement the scenic beauty of the Mississippi River corridor.

The management strategy ensures that we continue the efforts started with the project. Other communities could benefit from the identification, restoration and management strategies for steep bluffs and similar areas. This project will provide a strategy, which will protect the steep slopes, maintain multi levels of vegetation, and provide for scenic views.

B. Time: A final work program report and associated products will be submitted by June 30, 2002.

C. Budget Context: Maintenance costs as needed were provided periodically by the St. Paul Division of Parks and Recreation. No other funding was ever available for restoration work in this project area.

1. BUDGET:

Personnel: Project Manager - 36 mo.	100%	\$29,600.00
Friends of the Parks - 36 mo.	5%	\$8,400.00

Great River Greening

Volunteer Coordinator -	53%	\$6,334.46
Ecologist	48%	\$9,909.51
Field Coordinator	51%	\$11,105.84
Technicians	70%	\$489.92
MCC, STS and other crews	45%	\$24,853.08

Removal Crews		\$11,300.00
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Bonestroo & Associates

Landscape Ecologist - 9 mo.		\$20,215.00
Natural Resource Specialist - 9 mo.		\$385.00
Natural Resources Restoration Inc.- 9 mo.		43,946.35
Support Personnel - 9 mo.		\$1,500.00
GIS Specialist - 9 mo.		\$2,957.16
Subtotal Personnel		\$170,996.32

Equipment: Saws, backpack sprayer, etc.		\$1,199.69
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Acquisition:		\$0
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Development:		\$0
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Other: Plants: trees, shrubs, wildflowers, seeds, plugs, herbicide		\$0
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Buckthorn Round-up – chipper, signs, crews		\$1,541.42
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Reimbursable expenses – Mileage, film, copies		\$48.16
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Education material		\$6,500.00
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Communication		\$3,845.61
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Supplies for volunteer events		\$780.07
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Other supplies for accomplish result 2		\$916.96
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St. Paul Parks Division: Use of equipment, staff, printing etc.		\$8,200.00
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Printing Vendor		\$5,971.77
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TOTAL Funds Allocated

\$200,000.00

Please see attachment A for the budget breakdown.

VII. COOPERATION: Cooperators and subcontractors listed in personnel section.

VIII. LOCATION: The project area is in St. Paul, Ramsey County. Map previously submitted.

IX. REPORTING REQUIREMENTS:

- 1). Bonestroo & Associates will submit progress reports to the project manager on May 15, 2001, November 15, 2001 and June 30, 2002. Periodic work program progress reports will be submitted by the project manager to LCMR on:
 - a). December 1, 1999
 - b). June 1, 2000
 - c). December 1, 2000
 - d). June 1, 2001
 - e). December 1, 2001
 - f). June 30, 2002

A final work program report and associated products will be delivered by June 30, 2002.

X. RESEARCH PROJECT: Not applicable.

Attachment A - Deliverable Products and Related Budget

	Results					Totals	Group Totals
	1	2	3	4	5		
	Inventory	Control Exotics	Planting/ Burns	Management Plan	Community		
Budget	19,692.84	93,274.93	1,300.00	12,802.16	72,930.07	200,000.00	200,000.00
Friends							
Project Manager					29,600.00	29,600.00	
Friends Staff					8,400.00	8,400.00	
Education/communication					10,345.61	10,345.61	
Burn/Removal Crews		11,000.00	300.00			11,300.00	
Plants, seeds, mats						0.00	
							59,645.61
Bonestroo and Associates							
Landscape Ecologist	5,265.00			5,000.00	9,950.00	20,215.00	
Natural Resource Specialist	385.00					385.00	
GIS Specialist				2,957.16		2,957.16	
Support Personnel				1,500.00		1,500.00	
Natural Resources Restoration		43,946.35				43,946.35	
Buckthorn Round-up		1,541.42				1,541.42	
Reimbursable Expenses					48.16	48.16	
							70,593.09
Great River Greening							
Ecologist	6,000.00	1,564.51		2,345.00		9,909.51	
Volunteer Coordinator					6,334.46	6,334.46	
Field Coordinator	5,552.92	5,552.92				11,105.84	
GIS Technicians	489.92					489.92	
Crews		24,853.08				24,853.08	
Removal Supplies		916.96				916.96	
Equipment		1,199.69				1,199.69	
Supplies for Volunteer Events					780.07	780.07	
							55,589.53
Vendor							
Second Brochure					5,971.77	5,971.77	
							5,971.77
City of St. Paul							
Equipment, Staff	2,000.00	2,500.00	1,000.00	1,000.00	1,000.00	7,500.00	
Printing		200.00			500.00	700.00	
							8,200.00