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DEPARTMENT OF NATURAL RESOURCES

STATE OF MINNESOTA

Office of Budget and Management Services

## Office Memorandum

**Date:** January 25, 2000

**To:** John Velin, Director  
LCMR

**From:** Audrey Mularie *Audrey*  
Local Grants Program  
651/296-4705

**Subject:** Oak Savannah Restoration, City of St. Paul  
1997 MN Laws Ch. 216, Sec. 15, subd. 19(c) \$200,000

The City was unable to spend the complete appropriation amount prior the expiration date of June 30, 1999. A balance of \$23,254.00 has been canceled.

The City was able to complete the project as proposed. According to the City, the unspent dollars would have been used for additional plants had the weather cooperated and the project period not expired. I have asked Ed Olsen to complete a final work program and submit it to your office with a copy to myself for the file.

**Date of Report:** June 28, 1999  
**Date of Next Status Report:** June 30, 1999  
**Date of Workprogram Approval:** July 22, 1997  
**Project Completion Date:** June 30, 1999

**LCMR WORK PROGRAM 1997**

**I. Project Title:** Oak Savannah Restoration in Saint Paul Regional Parks

**Project Manager:** Ed Olsen  
**Affiliation:** Division Of Parks and Recreation  
City of Saint Paul  
**Mailing address:** 1100 N. Hamline Ave.  
St. Paul, MN. 55108  
**Telephone Number:** (651) 632-2413 **E-Mail:** ed.olsen@ci.stpaul.mn.us  
**Fax:** (651) 645-7872

**Total Biennial Project Budget:**

**\$LCMR** 200,000.00 **\$Match:** 0.00

**Amount Spent:**

**\$LCMR** 110,000.00 **\$Match:** 0.00

**Balance:**

**CMR** 90,000.00 **\$Match:** 0.00

**A. Legal Citation:** M.L. 1997 Chpt. 216, Sect. 15, Subd. 19(c)

**Appropriation Language:** This appropriation is from the trust fund to the Commissioner of Natural resources for an agreement with the city of Saint Paul, Division of Parks and Recreation, to restore oak savannah ecosystems in regional parks.

**B. Status of Match Requirement:** Not applicable

**II. Project Summary and Results:**

This project will restore the oak savannah ecosystem to a portion of the river bluff in Indian Mounds Regional Park, a portion of Battle Creek Regional Park and a portion of Phalen Regional Park.

Pre-settlement vegetation consisting of the oak savannah ecosystem will be reintroduced to 25 acres of the river bluff line in Mounds Park, 14 acres in Battle Creek Park and to 2 acres in Phalen Park.

Non-oak savannah plant species, such as maple, elm, and cherry trees, and shrubs, such as European Buckthorn, will be removed to reestablish the 10 to 80 percent canopy necessary to an oak savannah. In addition, the landscape turf will be removed and native prairie and woodland grasses and forbs will be re-introduced as ground cover to all three sites.

This removal of exotic vegetation and the reintroduction of native grasses and forbs will benefit the parks the following ways:

- The transformation of the turf in a portion of Phalen and Indian Mounds Park into an understory plant community of prairie and woodland of grasses and forbs will eliminate the need for application of pesticides and fertilizers in these areas.
- Biodiversity will be increased in these areas.

- By reducing or eliminating mowing in these restoration sites, infiltration of rainfall into the soil will be increased and overland water runoff will be decreased. This will diminish the non-point source pollution in Battle Creek, Phalen Lake and Round Lake by reducing sediment and nutrient loading.
- Completion of another segment of a connecting greenway, or natural corridor, that stretches from downtown Saint Paul (Lower Landing Park) to the eastern (Battle Creek Park) and southern (Pigs Eye Lake Park) city limits. This natural corridor will assist in the movement of wildlife and help to de-fragmentize the ecosystems present in these parks.
- Increased water quality in Phalen Lake, Round Lake and Battle Creek and ultimately the Mississippi River.

Properly managed, these areas will ultimately produce desirable plant communities, with a greater opportunity for educational use and heightened public awareness of plants and wildlife habitats in a managed landscape.

### III. Progress Summary:

### IV. Outline of Project Results:

**Result 1:** Removal of buckthorn and other non-native plant species.

LCMR Budget	\$110,000.00	Balance:	\$0,000.00
Match:	\$0.00	Match Balance:	\$0.00
Completion Date:	March 1, 1999		

**Result 2:** Turf removal and burning in preparation for planting.

LCMR Budget	<del>\$20,000.00</del> \$00,000.00	Balance:	<del>\$20,000.00</del> \$00,000.00
Match:	\$0.00	Match Balance:	\$0.00
Completion Date:	April 30, 1999		

**Result 3:** Replanting of the sites with native species.

LCMR Budget	<del>\$70,000.00</del> \$90,000.00	Balance:	<del>\$70,000.00</del> \$90,000.00
Match:	\$0.00	Match Balance:	\$0.00
Completion Date:	June 30, 1999		

Would like to move the funding for Result 2 to Result 3 because of the poor burning season.

**V. Dissemination:** Interpretative signage will be posted at all three sites.

### VI. Context:

**A. Significance:** The naturally occurring ecological system in these areas has been altered by humans, the end to the fires that used to sweep through these areas has caused widespread successional displacement of oaks by the introduction of exotic shrub species, such as European Buckthorn and by the introduction of shade tolerant tree species. These changes have resulted in displacement of the prairie grasses and forbs that originally formed the ground cover in these ecosystems. One of the consequences of these changes, is that the oak savannas that were originally on these sites have become closed-canopy oak-maple forests instead.

This successional displacement of these oak savannas by non-oak tree species has resulted in a decline in the total number of plant and bird species present in these areas. Reestablishment of native vegetation in these areas will thus result in an increase in both plant and bird species.

One of the native plants that will benefit in the return of the oak savannah ecosystem is an endangered species, known as Kitten-tails (*Wulfenia bullii*). The river bluffs of Mounds and Battle Creek Park are home to this plant. According to "Minnesota's Endangered Flora and Fauna", Kitten-tails is "only native to savannas, dry prairies, and open woods along river bluffs and terraces, specifically where the three rivers converge in the Twin Cities area. Only about dozen sites are currently known to survive in Minnesota". Reestablishment and enhancement of the native vegetation in these areas will help to ensure the survival of this endangered plant in its present locations and will allow for its growth into areas not presently inhabited by this endangered plant.

**B. Time:** All implementation portions of project will be completed by spring, 1999. The plantings will occur in May of 1999.

**C. Budget Context:**

	<b>June 1995-June 1997 Prior Expenditures on this project</b>	<b>July 1997-June 1999 Proposed expenditures for this project.</b>	<b>July 1999-June 2001 Future expenditures on this project</b>
1. LCMR	0.00	\$200,000.00	0.00
2. Other State	\$71,000.00	0.00	0.00
3. Non State	0.00	0.00	0.00
<b>Total:</b>	<b>\$71,000.00</b>	<b>\$200,000.00</b>	<b>0.00</b>

**Budget:**

<b>Personnel:</b>	\$0.00
<b>Equipment:</b>	\$0.00
<b>Acquisition:</b>	\$0.00
<b>Development:</b>	\$0.00
<b>Other:    Contracts:</b>	
	<b>Plant Removal:    \$110,000.00</b>
	<b>Site Preparation:    \$0,000.00</b>
	<b>Planting:            \$90,000.00</b>
<b>Total:</b>	<b>\$200,000.00</b>

In 1995 and 1996, Ramsey County Sentence to Serve crews have been working in Indian Mounds Park on a limited basis.

**VII. Cooperation:**

The following local and state government organizations are cooperators for various aspects of project implementation including technical advice, prioritization and construction.

- Ramsey County Parks and Recreation - Larry Holmberg (5% of time, no costs are associated)
- Minnesota Department of Natural Resources - Metro Region (no costs are associated)

**VIII. Location:** Maps are attached indicating where each of the projects are located.

**IX. Reporting Requirements:**

Periodic work program progress reports will be submitted as follows:

- After completion of the plant removal phase, April 30, 1998
- After completion of the site preparation phase, June 30, 1998
- After completion of the planting phase, October 30, 1998.

**X. For Research Projects:** Not applicable.