

## **2008 Project Abstract**

For the Period Ending June 30, 2010

**PROJECT TITLE:** Best Practices for Native Prairie Management  
**PROJECT MANAGER:** Michelle J. Snider  
**AFFILIATION:** Minnesota Recreation and Park Association  
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**WEBSITE:** mnrpa.org / bestpracticesmn.org  
**FUNDING SOURCE:** Environment and Natural Resources Trust Fund  
**LEGAL CITATION:** ML 2008, [Chap. 367], Sec.[2], Subd.3 (0).

**APPROPRIATION AMOUNT:** \$45,000

### **Overall Project Outcomes and Results**

The 2004 LCMR Parks Study and the 2003–2008 State Comprehensive Outdoor Recreation Plan (SCORP) recommended better coordination among Minnesota's outdoor recreation providers. This project addressed these recommendations by engaging public and private outdoor recreation leaders to transform better coordination into shared knowledge and practices.

Two native prairie demonstration projects will identify best management practices and maintenance methodologies as the sites continue to mature. The first native prairie demonstration area is located within Cedar Creek Ecosystem Science Reserve in East Bethel, Minnesota. One-half of the area was mowed, and one-half was burned prior to seeding. This 23-acre demonstration area features five treatments: burn/broadcast seed; burn/drill seed; mow/broadcast seed; mow/drill seed; and forb plantings.

The second native prairie demonstration project is located within two city parks in Hutchinson, Minnesota. The two areas' objectives were to restore turf back to native prairie, and to further an oak savanna restoration. This approximately 10-acre demonstration area (total acreage within the two sites) features four treatments: drill seed near lowland river area; broadcast seed near high-ground river area; hand-seed; and over-seeding of a continued restoration project.

Three regional workshops were conducted to exchange information and techniques used during the demonstrations, and overall native prairie best practices. The first regional workshop focused on native prairie impacts, research, and reconnecting children to nature. Session content included biodiversity and its impacts on prairie ecosystems; bioenergy; climate; productivity and resistance to drought, disease, and pests; and reconnecting children with the native environment by teaching them the value of the native prairies, lands, and waterways.

The second regional workshop was designed to gather a cross-section of professionals to discuss strategies and solutions for best practices in native prairie management. Session content included best practices in native prairie management from numerous perspectives: engineering, wildlife, natural resources, park resources, and water resources. Workshop presenters also provided information on partnerships, stormwater program and vegetation, prairie maintenance, prairie seed installation, and forestry inventories.

The third regional workshop centered on small and large suburban native prairie areas. Session content included prairie and native plant/tree protection and restoration; and agricultural development that has been one of the largest sources of local habitat removal with current efforts to restore these prairies to their original native habitats. Workshop presenters also provided information on efforts to convert 600 acres of former agricultural land to native prairie and wetland.

### **Projects Results Use and Dissemination**

The two demonstration areas were components of two of the regional workshops to share the site preparation, seed selection, and methodology information with participants. Project results have been provided within the Minnesota Recreation and Park Association's 2009 annual report, and Minnesota's state report during National Recreation and Park Association meetings.

Additionally, project updates are included on the Minnesota Recreation and Park Association's website and the best practices website. Further project results dissemination will be shared during Minnesota Recreation and Park Association educational conferences and trainings.

## Trust Fund 2008 Work Program Final Report

**Date of Report:** June 30, 2010  
**Final Report**  
**Date of Work Program Approval:** June 10, 2008  
**Project Completion Date:** June 30, 2010

### I. PROJECT TITLE: Best Practices for Native Prairie Management

**Project Manager:** Michelle J. Snider  
**Affiliation:** Minnesota Recreation and Park Association  
**Mailing Address:** 200 Charles Street NE  
**City / State / Zip :** Fridley, MN 55432  
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**Location:** Twin Cities Metro Area and Out-State Minnesota

<b>Total Trust Fund Project Budget:</b>	<b>Trust Fund Appropriation:</b>	<b>\$ 45,000.00</b>
	<b>Minus Amount Spent:</b>	<b>\$ 33,863.91</b>
	<b>Equal Balance:</b>	<b>\$ 11,136.09</b>

**Legal Citation:** ML 2008, [Chap. 367], Sec.[2], Subd.3 (0).

**Appropriation Language:** \$45,000 is from the trust fund to the commissioner of natural resources for an agreement with the Minnesota Recreation and Park Association to provide information on best practices for native prairie management through field demonstrations, regional workshops, and the Web.

### II. and III. FINAL PROJECT SUMMARY

The 2004 LCMR Parks Study and the 2003–2008 State Comprehensive Outdoor Recreation Plan (SCORP) recommended better coordination among Minnesota's outdoor recreation providers. This project addressed these recommendations by engaging public and private outdoor recreation leaders to transform better coordination into shared knowledge and practices.

Two native prairie demonstration projects will identify best management practices and maintenance methodologies as the sites continue to mature. The first native prairie demonstration area is located within Cedar Creek Ecosystem Science Reserve in East Bethel, Minnesota. One-half of the area was mowed, and one-half was burned prior to seeding. This 23-acre demonstration area features five treatments: burn/broadcast seed; burn/drill seed; mow/broadcast seed; mow/drill seed; and forb plantings.

The second native prairie demonstration project is located within two city parks in Hutchinson, Minnesota. The two areas' objectives were to restore turf back to native prairie, and to further an oak savanna restoration. This approximately 10-acre demonstration area (total acreage within the two sites) features four treatments: drill seed near lowland river area; broadcast seed near high-ground river area; hand-seed; and over-seeding of a continued restoration project.

Three regional workshops were conducted to exchange information and techniques used during the demonstrations, and overall native prairie best practices. The first regional workshop focused on native prairie impacts, research, and reconnecting children to nature. Session content included biodiversity and its impacts on prairie ecosystems; bioenergy; climate; productivity and resistance to drought, disease, and pests; and reconnecting children with the native environment by teaching them the value of the native prairies, lands, and waterways.

The second regional workshop was designed to gather a cross-section of professionals to discuss strategies and solutions for best practices in native prairie management. Session content included best practices in native prairie management from numerous perspectives: engineering, wildlife, natural resources, park resources, and water resources. Workshop presenters also provided information on partnerships, stormwater program and vegetation, prairie maintenance, prairie seed installation, and forestry inventories.

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### **Projects Results Use and Dissemination**

The two demonstration areas were components of two of the regional workshops to share the site preparation, seed selection, and methodology information with participants. Project results have been provided within the Minnesota Recreation and Park Association's 2009 annual report, and Minnesota's state report during National Recreation and Park Association meetings.

Additionally, project updates are included on the Minnesota Recreation and Park Association's website and the best practices website. Further project results dissemination will be shared during Minnesota Recreation and Park Association educational conferences and trainings.

## **IV. OUTLINE OF PROJECT RESULTS:**

### **Result 1: *Best Practices Native Prairie Demonstrations***

**Description:** Two native prairie demonstration projects will be held to identify best management practices in both metro/urban and out-state/more rural environments. Thus, one demonstration project will be held in Anoka County. Another demonstration project will be held in the prairie biome of southwest or northwest Minnesota. The project team will convene member agencies and partners to select specific areas upon which to enhance existing prairie restoration efforts. Land will not be purchased; rather member agencies or partners' land will be used for these projects. The demonstrations will focus on a comprehensive site analysis to identify the target plant community, site preparation (may include burning and mowing), seeding and planting. A high diversity mix of over 20 species of native grasses, sedges, and forbs, of local eco-type origin, will be selected for seeding and planting. Further, project goals are to expand current restoration efforts and to enhance the biological diversity and ecological function of the sites. For example, a current restoration project may be supplemented by overseeding the area. Additionally, interpretative signs will be implemented to describe the processes underway. Mowing and burning will be considered as disturbance regime factors and will be effectively used at targeted times throughout the restoration process. These demonstration projects will become educational sites to inform land users and land managers of the native prairie restoration taking place in the area. This information will also be disseminated to land managers and outdoor recreation professionals throughout the State of Minnesota.

Potential demonstration topics could include biodiversity and its impacts on prairie ecosystems, bioenergy, climate, disease effects, water quality, wildlife, soil fertility, carbon cycle, and disturbance regimes. Experts would be sought on special topics to expand the arena of knowledge to program participants. Demonstration methods and results will be compared based on geographical regions within the northern tallgrass biome. The outcome is to provide land managers and recreation professionals platforms for gaining the most current information for native prairie management and maintenance methodologies. The demonstrations will reach approximately 200 to 300 participants.

**Summary Budget Information for Result 1:** Trust Fund Budget: \$ 30,000.00  
Amount Spent: \$ 29,656.01  
Balance: \$ 343.99

Deliverable	Completion Date	Budget	Status
1. Metro Demonstration	May 26, 2009	\$15,690.65	Completed
2. Out-State Demonstration	Mid-November, 2009	\$13,965.36	Completed
3. Location Comparison	December 31, 2009	0	Completed

**Completion Date:** December 31, 2009

**Final Report Summary:**

The metro demonstration project has been moved to 2009 when weather more conducive to native prairie plantings exists. This project will be held in Anoka County at the Cedar Creek Ecosystem Science Reserve.

The grant project's first native prairie demonstration area was seeded beginning on May 26, 2009 at Cedar Creek Ecosystem Science Reserve in East Bethel, Minnesota, which is located in Anoka County. The total area is 23 acres. One-half of the area was mowed, and one-half was burned prior to the seeding. Both broadcast and drill seeding took place, with forb plantings following along the natural trail. Anoka County Parks provided in-kind services. This 23-acre demonstration area features five treatments to further monitor for best practices in management: burn/broadcast seed; burn/drill seed; mow/broadcast seed; mow/drill seed; and forb plantings.

Initial planning has begun for the grant project's second demonstration area, which will be held in the fall of 2009 in Hutchinson, Minnesota.

The grant project's second native prairie demonstration project was seeded in mid-November 2009 within two City of Hutchinson park areas in Hutchinson, Minnesota. In-kind services were provided by Hutchinson Parks and Recreation.

The first park was selected as a site to restore turf areas back to native prairie plantings. This park's seeding and methodologies were divided into two areas: a 1.6-acre primarily lowland area and a one-acre high-ground area.

The park's 1.6 acres of primarily lowland area includes approximately 700 feet of river frontage that periodically floods and holds some water for days after rain events. This site was selected to act as a buffer between Hutchinson Parks and Recreation's high-maintenance athletic fields and the Crow River. This site's seed mixtures were selected because of the almost continuous wet nature of the site. Drill seeding was the method of sowing the seed. Hutchinson Parks and Recreation staff selected this methodology as they felt drill seeding would provide the best chance of not having the seed washed away during the periodic floods.

The park's one-acre of high-ground area has good drainage. Being a well drained site with often dry periods in the summer, prairie grass and native wildflower mixtures were selected. Broadcast seeding was used in this area. Native prairie flower seed was then hand-sowed. Mulch was added to the park area plantings to help prevent erosion and retain soil moisture. Hutchinson Parks and Recreation will install a recreational path within the next year along the river near these planting areas. The plantings will add recreational and educational value to the park area. Additionally, these plantings enabled Hutchinson Parks and Recreation to add an estimated 700 feet of shoreline buffer along the Crow River.

The second Hutchinson Parks and Recreation site was within the Miller Woods Oak Savanna, an ongoing prairie restoration area. This park land includes an ongoing restoration of an oak savanna that is often used for recreation and education. There are currently 20 acres of prairie being restored. However, seven acres required over-seeding due to low numbers of natives and lack of diversity. Broadcast seeding was used within this area. An additional .5-acre low area was over-seeded due to water retention in the area. This area was broadcast seeded by hand.

This approximately 10-acre demonstration project (total acreage within the two sites) in Hutchinson features four treatments to further monitor for best practices in management: drill seed near lowland river area; broadcast seed near high-ground river area; hand-seed; and over-seeding of a continued restoration project. The seed was purchased from Prairie Restorations, Inc. in the amount of \$13,965.36.

Each native prairie demonstration project was incorporated into one of the regional workshops to further share the planting process and methodology information. The City of East Bethel constructed a pavilion near the entrance to the first demonstration area trails, and completed fencing to enclose the area (save the ingress gate). The demonstration areas will continue to provide best practices for management and maintenance as both sites mature.

**Result 2:** *Regional Workshops*

**Description:** At least three workshops will be conducted to exchange management information and techniques used during the demonstrations, and to develop best management practices information to include within the website. The information exchange will also include video and/or photo images to further connect the project process. The workshops will be marketed to city, county, state, and federal agencies; the private sector; academia; and non-profit groups. Workshop topics will include, but not limited to, the areas emphasized during the demonstrations, along with complementary plenary sessions to further the knowledge base of participants. The regional workshops will reach approximately 225 participants.

**Summary Budget Information for Result 2:** Trust Fund Budget: \$ 15,000.00  
 Amount Spent: \$ 4,207.90  
 Balance: \$ 10,792.10

Deliverable	Completion Date	Budget	Status
1. Metro Workshop	September 22-25, 2009	\$4,707.90	Completed
2. Out-State Workshop	November 19, 2009	\$ 500.00	Completed
3. Capstone Workshop	April 15, 2010	0	Completed

**Completion Date:** April 15, 2010

**Final Report Summary:**

The metro regional has been moved to 2009. The regional workshop will follow the metro demonstration project implementation. This workshop will be held in Anoka County at the Cedar Creek Ecosystem Science Reserve.

The grant project's first workshop will be held in conjunction with the Minnesota Recreation and Park Association Annual Conference. The conference will be held September 22 – 25 in Anoka County. A presentation at the Cedar Creek Ecosystem Science Reserve will focus on native prairie impacts, and will include prairie-related research that's centered on ecology and the services ecosystems provide. The

presentation will also include information on biodiversity and its impacts on prairie ecosystems, bioenergy, climate, productivity, and resistance to drought, disease, and pests. Additionally, the benefits of engaging youth with natural areas will be discussed during the conference's closing keynote address.

Initial planning has begun for the grant project's second regional workshop, which will be held in the fall of 2009 in Hutchinson, Minnesota.

Similar to its 2006 best practices grant workshop structure, Minnesota Recreation and Park Association held the first regional workshop in conjunction with its Annual Conference as a way to increase exposure for the project. The MRPA Annual Conference is the Association's largest gathering of parks and recreation professionals annually. There were 264 individuals registered for the conference. The conference was held September 22 – 25, 2009 at the National Sports Center in Blaine, Minnesota. The speakers associated with the regional workshop focused on native prairie impacts and nature: Jeff Corney and Yusuf Burgess.

The pre-conference institute centered on native prairie impacts and research. Sixty-four individuals registered for the Institute; however, only 15 attended the seminar. Attendees were transported via bus from the National Sports Center to Cedar Creek Ecosystem Science Reserve in East Bethel, Minnesota. Cedar Creek Associate Director Jeff Corney was the guest presenter. Session content included biodiversity and its impacts on prairie ecosystems, bioenergy, climate, productivity and resistance to drought, disease, and pests. Participants then toured prairie sites, including the first demonstration area planting associated with this grant project. The second speaker, Yusuf Burgess, was the overall conference's closing keynote speaker. Approximately 175 individuals attended this presentation. Session content included the benefits of reconnecting children with the native environment and nature. He provided practical examples of how parks and recreation agencies can provide ways for youth to reconnect with the native environment, and teach them the value of the native prairies, lands, and waterways. Burgess serves as the current chairperson of the Environmental Awareness Network for Diversity in Conservation (EANDC). He is a former environmental educator for the New York State Department of Environmental Conservation, and a national board member for the Children and Nature Network.

The second regional workshop was held November 19, 2009 in Hutchinson. The workshop was hosted by Hutchinson Parks and Recreation. There were 26 individuals in attendance.

This regional workshop was designed to gather together a cross-section of professionals to discuss strategies and solutions for best practices in native prairie management. The panel speakers focused on the topic of native prairie management from numerous perspectives, including engineering, wildlife, natural resources, park resources, and water resources.

Due to many agencies' reduced travel budgets, Minnesota Recreation and Park Association held the grant project's third regional workshop in conjunction with its



Annual Conference – an event professionals from throughout Minnesota attend. The MRPA Annual Conference is the Association’s largest gathering of parks and recreation professionals annually. The event was held April 14-15 in Prior Lake, Minnesota, located within Scott County. There were 160 individuals registered for the conference. However, only 15 participants attended the seminar focused on native prairies - the Prairie and Wetland Restoration Institute. Guest presenters included: Chris Dill, Recreation Supervisor, City of Savage, and the Mdewakanton Community.

Institute attendees were transported via bus from the conference site to prairie sites throughout the cities of Prior Lake and Savage. One educational area included the City of Savage’s LEED-certified McColl Pond Environmental Learning Center (ELC). Institute participants gained information regarding how the prairie and native tree plantings were protected or restored around the building to provide natural habitats for native plants and animals. Additionally, the site’s historical value was described. Development of the McColl Pond ELC began in the summer of 1997. Native prairie and wildflower seeds were carefully chosen to recreate what this site looked like prior to European settlement. Around this time, the Mdewakanton Dakota people settled in much of Scott County, hunting and gathering food in and around McColl Pond. The prairie planted here gives visitors a glimpse of one of the three major biomes that meet in Minnesota.

Another educational area was the Mdewakanton Community’s campus throughout Scott County. The campus allowed for Institute participants to learn about the agricultural development that has been the one of the largest source of local habitat removal – how over the past 150 years, nearly 70-percent of upland forest and prairie in the area have been removed for agriculture. This removal has resulted in the loss of native plants and animals in the area. The Mdewakanton Community has focused on restoring these prairies to their original native habitat. The Mdewakanton Community has also converted more than 600 acres of former agricultural land to native prairie and wetland using plants like sage, sweet grass, reeds, wild rice, arrowhead, and others. This regional workshop incurred no expenses. Guest presenters provided additional in-kind services.

The second and third workshops’ host agencies and speakers provided in-kind services to provide for substantial savings. Thus, the costs for these two workshops were minimal. The agency and speaker in-kind support is the reason the regional workshop result has a substantial balance remaining.

## **V. TOTAL TRUST FUND PROJECT BUDGET:**

**Staff or Contract Services:** \$4,207.90

**Restoration:** \$29,656.01 (one metro and one out-state area)

**Other:** \$0

**TOTAL TRUST FUND PROJECT BUDGET: \$ 45,000 appropriated;  
\$33,863.91 spent; 11,136.09 remaining**

**Explanation of Capital Expenditures Greater Than \$3,500:**

**VI. OTHER FUNDS & PARTNERS:**

**A. Project Partners:** MRPA received the total grant funding dollars to manage the project. Project partners include Minnesota Recreation and Park Association, University of Minnesota's Cedar Creek Ecosystem Science Reserve, Anoka County Parks, Hutchinson Parks and Recreation, City of Savage, Scott County, and the Mdewakanton Community. These partners shared their staff's time and knowledge to further the project's outcomes. Partners may also provide in-kind services for project development.

**B. Other Funds Proposed to be Spent during the Project Period:**

- Local Agencies (\$8,000): in-kind staff for planning and field demonstrations; meeting facility donation; and equipment usage and demonstrations
- University of Minnesota's Cedar Creek Ecosystem Science Reserve (\$1,600): labor and material

**C. Past Spending:** No funds will be spent prior to the timeframe for this specific project. However, the project will build upon the \$200,000 grant funds received for the 2005 Best Management Practices for Parks and Outdoor Recreation project.

**D. Time:** July 1, 2008 through June 30, 2010

**VII. DISSEMINATION:**

- Convene two demonstration projects to reach 200 to 300 participants
- Conduct at least three regional workshops to reach 225 participants
- Present information at additional Minnesota Recreation and Park Association educational trainings to reach 250 participants

**VIII. REPORTING REQUIREMENTS:**

**Periodic work program progress reports will be submitted not later than December 2008, June 2009, and December 2009. A final work program report and associated products will be submitted between June 30 and August 1, 2009 or 2010 as requested by the LCCMR**

**IX. RESEARCH PROJECTS:**

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