

**Environment and Natural Resources Trust Fund  
2009 Phase 2 Request for Proposals (RFP)**

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**LCCMR ID: 026-A3**

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**Project Title:** Roadsides for Wildlife Accelerated Prairie Seeding

**Total Project Budget:** \$ \$1,514,600

**Proposed Project Time Period for the Funding Requested:** June 30, 2012

**Other Non-State Funds:** \$ \$1,100,000.00

**Priority:** A3. Technical Assistance for Conserving Land

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**Last Name:** Nelson

**Sponsoring Organization:** DNR

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**Region:**

**County Name:**

**City / Township:**

NW, Central, SW,  
SE

**Summary:** Accelerate roadside prairie seeding to 2,000-acres in 3 years. 1,000-acres of cost share, 600-acres interseeding, 200-acres aerial seeding, 200-acres demonstration roadside.

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**Main Proposal:** 1008-2-017-proposal-MAIN PROPOSAL RFW 09.doc

**Project Budget:** 1008-2-017-budget-RFP\_2009\_Project Budget.xls

**Qualifications:** 1008-2-017-qualifications-Project Manager Qualification and Organization De

**Map:** 1008-2-017-maps-Prairie\_Seeding.bmp

**Letter of Resolution:**

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# MAIN PROPOSAL

## PROJECT TITLE: Roadsides for Wildlife Accelerated Prairie Seeding

### I. PROJECT STATEMENT

With a 2007 Conservation Reserve Program (CRP) enrollment decline of 38,000 acres in Minnesota, and more losses projected in the future, there is an increasing need for grassland habitat. At the same time, road authorities are becoming increasingly enthusiastic about prairie roadsides because of the economic, environmental, and aesthetic benefits. Minnesota has 135,000 miles of state, county, city and other roadways. Over 525,000 acres of rights-of-ways (ROW) are in the pheasant range and could provide diverse grassland habitat. Although several corridors of excellent native prairie have been identified by the DNR in the prairie counties, the majority of Minnesota's roadsides are presently dominated by smooth brome (a non-native grass). The Roadsides for Wildlife Program has been improving grassland habitat in Minnesota roadsides since 1984. On average, the DNR seeds native prairie on 50-300 acres a year at 5-20 sites. In contrast, Iowa seeds approximately 3,000 acres a year. This proposal would use a four-pronged approach for **accelerating MN roadside prairie seeding to 2,000 acres over 3 years**. In addition to providing wildlife habitat corridors, the project will benefit water quality and reduce peak flows by providing natural filtration and absorption before runoff. Establishing diverse native prairie on roadsides will also reduce long-term maintenance costs and reduce the spread of invasive species. The selection of local ecotype seed will follow LCCMR guidelines for local vegetation ecotype sequencing. The four Results listed below are **In Priority Order**

### II. DESCRIPTION OF PROJECT RESULTS

#### **Result 1: Cost Share Prairie Seeding on County & Township Roadsides \$476,600**

Projects are solicited from local units of government and reviewed for cost-effectiveness. First priority is given to revegetation following construction. Second priority is weed control and replacement. Other criteria include habitat potential for grassland species, erosion control and adjacent land use. Seed costs are estimated at \$400 an acre with a 25%/75% county-DNR match. Counties prepare and maintain the sites. The DNR provides technical assistance and loans existing seeding equipment when needed.

<b>Deliverable: 1,000 acres of roadside prairie seeding in 3 years</b>	<b>Completion Date</b>
1. 500 acres of diverse prairie seeded on roadsides	Dec. 30, 2010
2. 500 acres of diverse prairie seeded on roadsides	Dec. 30, 2011
3. Mapping, monitoring & Records of new locations	June 30, 2012

#### **Result 2: Prairie Interseeding Project on Mn/DOT ROW \$582,000**

This project interseeds brome vegetation on Mn/DOT ROW with prairie species and reduces herbicide use by 1) fall mowing 2) fall drilling the prairie seed directly into the brome 3) several mowings the first year 4) burning every spring for five years (Mn/DOT & DNR will follow-up). This Prairie Interseeding method been tested in the private sector and has the potential for prairie reconstructions with fewer herbicides, fewer weeds, and less erosion. Selected sites should not be heavily infested with weeds.

<b>Deliverable: 600 acres of roadside prairie seeding in 3 years.</b>	<b>Completion Date</b>
1. 300 acres diverse prairie interseeded in brome roadside	June 30, 2010
2. 300 acres diverse prairie interseeded in brome roadside	June 30, 2011
3. Burn & Mow 600 acres of prairie interseeding	June 30, 2012
4. Research revegetation in various soils & management	June 30, 2012

#### **Result 3 Aerial Prairie Seeding Erosion Control on Mn/DOT ROW \$140,000**

Pilot a new program to aerial seed new construction sites. For 20 years, the Iowa DOT has shown aerial seeding to be highly successful at establishing early plant growth. Mn/DOT has not used this method since erosion control is subcontracted through the bid process. Aerial Prairie Seeding involves 1) putting down a cover crop in Sept-Oct to minimize erosion (may be done by construction contractor) 2) the following fall the cover crop is mowed to 6-inches 3) in Feb-April when there is less than an inch of snow, an aerial contractor seeds native prairie seed onto the friable snow/soil.

<b>Deliverable: 200 acres of roadside prairie seeding in 3 years</b>	<b>Completion Date</b>
1. Plant cover crop on 200 acres bare soil	Oct 30, 2010
2. Mow 200 acres of cover crop	Oct 30, 2011

- |  |                |
|--|----------------|
| 3. Aerial seed 200 acres with diverse native prairie                                       | April 30, 2012 |
| 4. Research cost comparison, seeding rates, soil coverage percentage, and seeding success. | June 30, 2012  |

**Result 4 Demonstration Prairie Roadside on Mn/DOT ROW \$316,000**

Develop a demonstration area that showcases a highly diverse roadside planting, with an opportunity for the public to view native species, see a restored ROW, and observe the results of various management practices. This 10-mile length of highway will also serve as wildlife corridor and for educational purposes. The contractor will hold several workshops with maintenance personnel on native vegetation establishment and maintenance. Convention revegetation used: 1) mowing 2) herbicide applications 3) soil disturbance 4) seeding 5) maintenance mowing, spraying, and burning. Ideally, the selected site will be near a safe pull-off and interpretive signs can be installed in the future

**Deliverable: 10-miles both sides of highway approx. 200 ac. in 3 yrs** **Completion Date**

- |   |               |
|---|---------------|
| 1. Work with road authorities & others to select demonstration site | Dec. 30, 2009 |
| 2. Site Prep 200 acres of selected roadside                         | Nov. 30, 2010 |
| 3. Seed 200 acres of diverse roadside prairie seed (or sooner)      | June 30 2011  |
| 4. Maintenance and training   | June 30 2012  |

III. **PROJECT STRATEGY AND TIMELINE**

**A. Project Partners**

Mn/DOT & Environmental Services Team – Daniel Gullickson, Ken Graeve, and Paul Walvatne & field staff will contribute in-kind time and some equipment by locating appropriate sites, contract review, and research assistance on Results 2,3, and 4.

22+ Counties, Township Road Authorities and/or landowners – (see map/project listing) – Provide site prep for Result 1 sites, cost share 25% cost of seed (\$100/acre), ongoing maintenance.

**B. Project Impact** All four projects will:

- Measurable and demonstrated outcome include: 2,000 acres of roadsides in native prairie vs. non-native species, mapping, analysis of planting methods, soils, erosion, prairie establishment success, and reduction of invasive species.
- Aerial seeding and interseeding will be more efficient, cost effective, and may result in Mn/DOT trying these new prairie-seeding methods.
- Mn/DOT & local road authorities will take over maintenance, so the investments will be protected.
- Projects will leverage road authority staff, equipment and some costs; (see Partnerships)
- Add to the knowledge of roadside vegetation management and results will be shared. The success of the program will have broad applicability to MN's roadsides.
- There is urgent need for more grassland habitat in Minnesota. Tomorrow's Habitat Plan shows that prairie habitat is used by the many species in greatest conservation need. .

**C. Time**

**Year 1:** Set up cost shares with counties and townships, fall or spring seeding; Locate sites for revegetation drilling, set up contract and prep for planting, fall planting; Locate aerial broadcast and demonstration roadside, set up contracts, prep sites

**Year 2:** Second set of cost shares with counties and townships, fall or spring seeding; Second location of sites for revegetation drilling, set up contract and prep for planting; Mowing of first year revegetation drilling sites; Contractors plant aerial seeding, and demonstration roadsides and hold workshops

**Year 3:** No new planting; Burn first year revegetation drilling sites; Mowing of second year revegetation drilling sites; Contractors continue maintenance of aerial seeding and demonstration roadsides & training

**D. Long-Term Strategy** - The Roadsides for Wildlife program has been improving grassland habitat in roadsides since 1984. These projects are in the long-range management plan for the Roadside for Wildlife Program.

# 3 Year Project Budget Accelerated

## Roadsides for Wildlife Prairie Seeding

### IV. TOTAL PROJECT REQUEST BUDGET

<u>BUDGET ITEM</u>	<u>AMOUNT</u>	<u>% FTE</u>
<b>Personnel:</b> Pete Schaefer - Increase 50% classified field tech position to 100% for 2 years - salary & benefits.	\$70,000	50%
New temporary 9-month unclassified field technician for 2 years - salary & benefits.	\$90,000	75%
<b>Contracts:</b> 1. LGU sites - <b>Cost Share</b> Seeding of construction or non-native veg sites \$300x1000acres =\$300,000 for seed 2. Mn/DOT owned - <b>Prairie Interseeding</b> of brome vegetation \$400x600acres=\$240,000 for seed 3. Mn/DOT owned - <b>Aerial Seeding</b> of construction site with bare soil \$450x200acres=\$90,000 for seed 4. Mn/DOT owned - <b>Demonstration</b> of conventional prairie seeding of non-native vegetation \$400x200=\$80,000 for seed <b>Native Seed mix suppliers-Local ecotype (see project location map)</b>	\$710,000	
Aerial seeding contractor-seeding equipped plane, pilot, ground staff - \$250x200acres=\$50,000	\$50,000	
<b>Equipment/Tools:</b> Global positioning system (GPS) Trimble Nomad w/camera & Arcpad ( to map seeding sites, record mixes, and monitor)	\$2,000	
Roadsides for Wildlife Signs (approx. 900 10"x13" metal signs @ \$5.50ea	\$5,000	
<b>Restoration:</b> For Results 2 (600 acres @ \$342,000) and Result 4 (200 acres @ \$236,000= 800 acres - site prep, planting, weed control, burns, mowing	\$578,000	
<b>Other:</b> 2 years use of compact car through motor pool.	\$9,600	
	\$	-
<b>TOTAL PROJECT BUDGET REQUEST TO LCCMR</b>	<b>\$1,514,600</b>	

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>Other Non-State \$ Being Leveraged During Project Period:</b> 1000 acres of site prep, planting, maintenance & 25% cost of seed and future ongoing maintenance paid by County and Twp. Road authorities. Approximately \$1,100 x 1000 acres	\$ 1,100,000	<i>Pending</i>
<b>Other State \$ Being Spent During Project Period:</b> 50% field technician, 75% Roadside Coordinator position, 33% Office Administrative Asst. for 3 years DNR Game and Fish Fund base funding	\$ 333,000	<i>Secure</i>
<b>In-kind Services During Project Period:</b> Use of DNR, MnDOT and local road authority tractors, drills, ATVs, trailers, and other prairie restoration equipment for 3 years.	\$ 360,000	
<b>Past Spending:</b> DNR Roadside for Wildlife budget '08 & 09	\$ 300,000	
<b>Past Spending:</b> Pheasant Habitat Improvement Program 08 & 09	\$ 29,000	

## Project Manager Qualification and Organization Description

**Project Manager:** **Carmelita M. Nelson** Roadsides for Wildlife Coordinator  
Affiliation Department of Natural Resources, Division of Fish & Wildlife  
Mailing Address 500 Lafayette Rd Box 20, Saint Paul, MN 55155  
Telephone No.: 651-259-5014 Fax: 651-297-4961  
E-mail: [carmelita.nelson@dnr.state.mn.us](mailto:carmelita.nelson@dnr.state.mn.us)

### Professional Preparation

St. Catherine University Environmental Studies & Geography B.A. 1981  
University of Michigan Natural Resources Mgt, Planning & Policy M.S. 1987

### Experience

2006-present Roadsides for Wildlife Coordinator, MN DNR Wildlife  
1994-2006 Senior Park Planner, MN DNR Parks & Recreation  
1990-1994 Assistant Park Manager, Wild River State Park  
1988-1990 State Parks Information Officer, MN DNR Parks & Rec.  
1987-1988 SW Region Information Officer, MN DNR New Ulm  
1981-1985 Naturalist, Spring Mill State Park, IN DNR

### Selected Publications

Roadsides for Wildlife Management Plan (pending approval)  
Upper Sioux Agency State Park Management Plan  
Cuyuna State Recreation Area Plan Amendment  
Fort Ridgely State Park Plan Amendment  
Interstate State Park Management Plan  
Crow Wing State Park Management Plan  
Minnesota State Park Land Study (co-author)  
Maplewood State Park Management Plan  
Nerstrand Woods State Park Management Plan  
Lac qui Parle Area Management Plan  
Savanna Portage State Park Management Plan

### Project Role

As senior project manager, Ms Nelson will oversee the development of the *Roadsides for Wildlife Accelerated Prairie Seeding Project*, including contractor selection and oversight, staffing qualifications, deliverables review, and general responsibility for ensuring the conformance of project outcomes to the stated objectives of the grant. She has effectively demonstrated her capacity to manage programs and budgets, maintain accurate records, and direct staff. Ms Nelson has experience and has demonstrated an ability to collaborate with a wide range of internal and external stakeholders in addressing complicated prairie management issues.

# Proposed Locations for Cost Share Year One Native Prairie Seeding

*\*Note: 22 counties contain proposed locations*

