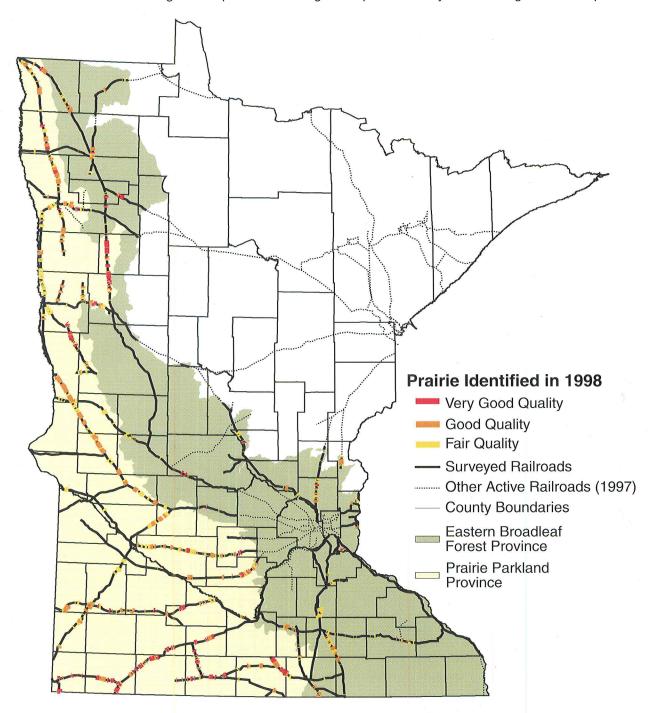


Results of the 1998 Railroad ROW Survey

The 1998 Railroad ROW survey documented 487 miles of native prairie in 55 of the 62 surveyed counties. Botanists ranked each segment of prairie according to the plant diversity and coverage of native species.



Acknowledgments:

We would like to thank those railroad companies that provided access to their property. A special thanks to Burlington Northern Santa Fe for safety equipment and training and to Canadian Pacific for facilitating communication between the MNDNR and the railroad industry. Thank you to Robert Dana and Nancy Sather for technical assistance, B.J. Farley for administrative assistance, and to Shannon Flynn, Hal Watson, Al Epp, and Sharron Nelson for help with data management and map creation. We gratefully acknowledge the various MNDNR regional and area staff who assisted with field work and review.

The Minnesota County Biological Survey (MCBS) conducted the Railroad Rights-of-Way Project. MCBS is a part of the Section of Ecological Services, Division of Fish and Wildlife, Minnesota Department of Natural Resources.

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The tall grass prairie once extended from Canada to the Gulf of Mexico. It covered nearly one third of Minnesota.

Adapted from Risser, P.G., Birney, E.C., Blocker, H.D., May, S.W., Parton, W.J., Gwiens, J.A. 1981. The True Prairie Ecosystem. Hutchinson Ross Publishing Co., Stroudsburg, PA.

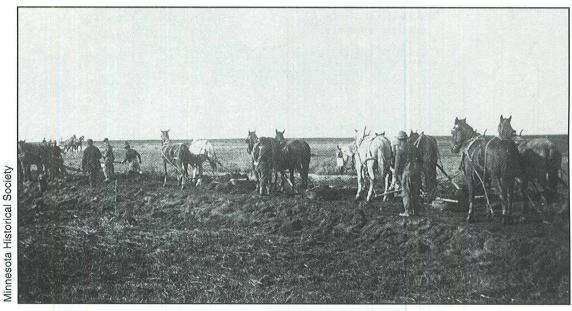
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Introduction

t the time of European settlement in the mid-1800s, eighteen million acres of prairie covered Minnesota. This landscape underwent a transformation when most of the native vegetation was converted into cropland; the rich, dark prairie soil provided the foundation for an equally rich agricultural economy. Today, less than 1% of Minnesota's original prairie remains, and it is generally restricted to areas unsuitable for cultivation (Pfannmuller and Coffin 1989). Because of the loss of once widespread prairie habitat, more than one-third of Minnesota's endangered, threatened, and special concern species are now dependent on the remaining small fragments of Minnesota's prairie ecosystem.

Construction of Minnesota's railroads began in 1862 when sizable portions of native prairie were intact. Railroads grew as important transportation corridors for the new European settlers. Following track construction, adjacent prairie vegetation naturally re-seeded the disturbed portions of the railroad rights-of-way (ROW). Fires ignited by sparks from passing locomotives, simulating historic wildfires, periodically rejuvenated the prairie and helped to maintain important remnants until today.

Railroad ROW are important conservation sites. First, they support significant examples of native plant communities in regions of intensive agriculture, such as southwestern Minnesota. Second, several rare species, including Sullivant's milkweed (*Asclepias sullivantii*) and rattlesnake master (*Eryngium yuccifolium*), occur almost exclusively on railroad ROW



Minnesota's railroads were built prior to the widespread loss of native prairie. Following construction, surrounding prairie provided for re-establishment of native vegetation in disturbed areas.

prairies, although they were once widespread in Minnesota (Coffin and Pfannmuller 1988). Third, long corridors, such as transportation ROW, appear to be important for movement of individual organisms and gene flow. Finally, most railroads parallel highways, providing many citizens an opportunity to see a part of the state's ecological and historical heritage.

The 1997 Minnesota State Legislature directed the Minnesota Department of Natural Resources (MNDNR) to conduct a field review of active railroad ROW and identify native prairie. Railroad ROW extend from 20 to 200 feet on either side of the track and are safety zones required for safe railroad operations. The legislature also directed the MNDNR to identify and assess management practices used to control vegetation on railroad ROW and to work cooperatively with the railroad companies to develop voluntary best management practices for prairie lands within their ROW. This report summarizes the methods and results of the field review and the effort to evaluate management practices.

Twenty-four railroad companies operate in Minnesota, managing a total track length of 5,208 miles (Minnesota Department of Transportation 1997). Fifteen of these companies own or operate on 3,240 miles of active track throughout those portions of Minnesota that supported native prairie or mixed forest and prairie vegetation at the time of European settlement (MNDOT 1997). In 1998, the MNDNR, through the Minnesota County Biological Survey (MCBS), Section of Ecological Services, began identifying native prairie on these portions of railroad ROW.

Minnesota County Biological Survey

The Minnesota County Biological Survey began in 1987 as a systematic survey of rare biological features. The goal of the survey is to identify significant natural areas and to collect and interpret data on the distribution and ecology of rare plants, rare animals, and native plant communities.

Sec.125. [219.99] Railroad Prairie ROW; Best Management Practices.

The commissioner of natural resources shall conduct a field review of railroad rights-of-way to identify native prairie. The priority will be to identify and conduct a field review of any surveys which have been conducted previously, whether by public or private persons, of native prairies within railroad rights-of-way in this state. In cooperation with railroad companies, the commissioner shall identify management practices used to control vegetation along railroad rights-of-way. The commissioner shall then assess the impact of those management practices on the prairie lands within the railroad rights-of-way. Based on this assessment, the commissioner and the railroad companies shall jointly develop voluntary best management practices for the prairie lands within the railroad rights-of-way.

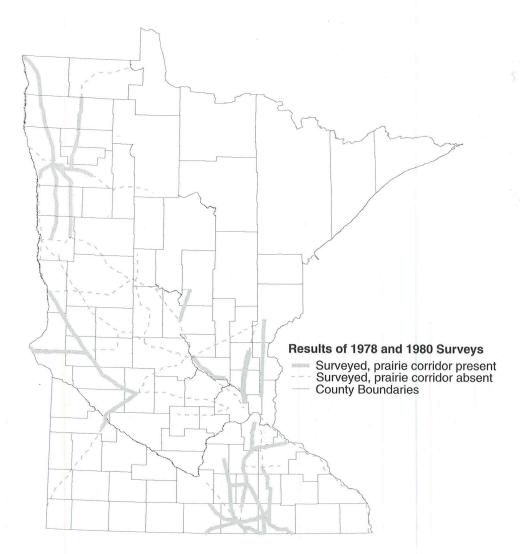
Prairie Survey

Review of Previous Surveys

In preparation for the prairie survey, MCBS staff reviewed two previous field surveys of selected railroad ROW prairie in Minnesota. In 1978 Borowske and Heitlinger (1983) sampled 1,663 miles of railroad ROW in western Minnesota. Bolin et al. (1980) sampled 465 miles in the southeast portion of the state. Both studies employed regular sampling intervals, one mile and one-half miles respectively, to rapidly locate and assess the presence of prairie vegetation. Together, these studies identified 25 corridors (875 miles) that "contained concentrations of high-quality prairie."

Minnesota Railroad ROW Prairie Surveys 1978 and 1980

Previous railroad ROW surveys identified 25 prairie corridors (875 miles) of relatively continuous native prairie.



Minnesota Railroad ROW Prairie Surveys, 1978 and 1980

The 1998 Railroad ROW Survey and the 1978 and 1980 studies had significantly different goals and methodologies. Therefore, the results of past efforts cannot be directly compared with the 1998 survey.

Survey and Year		wiles (%) of Prairie by Quality Type			
	Total Miles Surveyed	Survey Type	High Quality	Low Quality	Total Prairie
Borowske and Hetlinger (1978)	1663	sample, 1 mi.	360 (22%)	411 (25%)	771 (47%)
Bolin, et al. (1980)	465	sample,	131	79	210

0.5 mi.

Miles (0/) of Ducisis by Quality Type

(28%)

(17%)

(45%)

High-quality prairie: >5 prairie species Low-quality prairie: 1 to 4 prairie species

Preliminary Survey

The 1998 Railroad ROW project systematically surveyed areas for native prairie communities and rare biological features based on methodology developed by MCBS.

First, portions of active railroad ROW that were unlikely to contain prairie were eliminated in order to efficiently complete the project in two years. To do this, MCBS restricted the survey to the regions of Minnesota that contained the largest portion of Minnesota's prairie vegetation before the railroads were first constructed. In the Ecological Classification System (ECS) adopted by the MNDNR, these regions include the Eastern Broadleaf Forest and Prairie Parkland Provinces (MNDNR 1996). Railroad ROW in areas of the Eastern Broadleaf Forest Province that were primarily forested at the time of European settlement and railroad ROW in urbanized areas were not surveyed. The survey staff then consulted *Information about Minnesota Railroads* (1998) to determine which railroads were currently active. This resulted in the identification of 3240 miles of railroad ROW in the historical prairie regions of the state to be surveyed.



ECS Provinces in Minnesota

- Laurentian Mixed Forest
- Eastern Broadleaf Forest
- Prairie Parkland

To further limit the area requiring intensive ground survey, survey staff conducted a rapid field assessment of the railroad ROW from adjacent roads or other public lands. Areas obviously lacking significant prairie vegetation were eliminated from further survey. This assessment was supplemented by the use of 1:7920 black-and-white aerial photos (Farm Service Agency 1995). If prairie appeared to be present, permission to enter the ROW was requested.

Seven field botanists were hired and trained in the 1998 Railroad ROW Survey's methods, including how to evaluate the quality of native prairie and how to identify and document rare prairie plants. The botanists reviewed guidelines of prairie types and quality to provide for consistent evaluation among the surveyors. All railroad companies were introduced to the survey, and access to their property was requested. All field staff participated in railroad safety training provided by the Burlington Northern Santa Fe Railroad.



A crew of 7 botanists surveyed 3240 miles of railroad ROW during the 1998 railroad ROW project.

Field Survey

Intensive ground surveys of selected railroad ROW stretches occurred primarily between July and October, 1998. Botanists surveyed railroad ROW where prairie vegetation was present and access was granted. If permission to access the railroad property was not given, but the railroad ROW was next to a road, the botanist observed the railroad land from the road ROW. If permission to access the railroad property was not granted and the track was surrounded by private land, the section of railroad was assessed using low-altitude aircraft flight.

As botanists walked the railroad ROW, they developed a species list, estimated the extent of each prairie fragment, and recorded data on standard survey forms and on aerial photos. Native prairie vegetation was characterized using *Minnesota's Native Vegetation: A Key to Natural Communities* (MNDNR 1993). Quality assessments were based on the coverage of native prairie plant species, presence of disturbance indicators,

Evaluating Minnesota's Railroad ROW Prairies

Botanists based quality assessments on the coverage of native prairie plant species, presence of disturbance indicators, and the abundance of woody plants. Examples of these criteria are in the table below. For example, if a prairie had over 55% coverage of native prairie grasses, 10 species of prairie wildflowers and less than 25% disturbance, the prairie was rated *Good*. Complete quality criteria are available upon request from MCBS.

	Native Grass cover	Native Wildflowers	Native Trees and Shrubs	Disturbance Indicators
Examples	Big bluestem Switch grass Indian grass	Blazing star Asters Coneflower	Bur oak New Jersey tea Willows	Herbicide use Equipment storage ATV trail
Quality Rank	Percent cover	Number of species	Percent cover	Percent cover
Very Good	>70%	>15	<10%	<10%
Good	>55%	>10	<25% <25%	
Fair	>25%	>6	<50%	<50%

and the abundance of woody plants. Three categories were used to rate prairie quality: *Very Good, Good,* and *Fair.* To document excellent examples of railroad ROW prairies in the MNDNR's Rare Features Database, prairie assessed as *Very Good* was ranked using the Element Occurrence Ranking Guidelines (MNDNR Natural Heritage and Nongame Research Program 1994). Botanists documented locations of rare species when encountered.

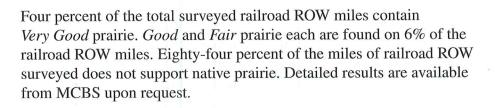
A variety of constraints on the survey influenced data collection. Safety concerns of railroad companies prevented botanists from crossing the railroad track except at public crossings, and therefore time prevented botanists from walking each mile twice. Consequently, survey efforts for both sides of the track were unequal. Where botanists could observe the opposite ROW they recorded general notes about the condition of the vegetation. Identification of rare species locations was not the primary focus of this survey. Therefore, rare species may occur in these railroad ROW that were not observed.

Data Management

Data were recorded on a standard survey form for individual segments of railroad ROW ranging from 1 to 3 miles long. Natural breaks in the vegetation determined segment lengths. Tabular data were entered into a Microsoft Access database. Locations of rare species and prairie assessed as *Very Good* were entered into the MNDNR's Rare Features Database in the Natural Heritage Information System. All prairie fragments identified by the 1998 Railroad ROW Survey were mapped. Because railroad ROW vary greatly in width and access to certain portions was limited, all prairies were mapped as linear segments using the geographic information system ARCVIEW.

Survey Results

Of the 3240 miles of surveyed railroad ROW, the 1998 Railroad ROW Survey identified 487 discontinuous miles of native prairie. These prairies tend to be highly fragmented and variable in quality. The average length of an individual prairie fragment is 0.63 miles, with a range of 0.03 to 3.92 miles. Long corridors of undisturbed native prairie, especially stretches of *Very Good* prairie, are rare.





Native ROW Prairie by Railroad Class

Railroads are divided into three classes by the Surface Transportation Board. Class I railroads have annual operating revenues over \$254 million; Class II railroads have annual operating revenues of \$20.4 to \$254 million; and Class III railroads have annual operating revenues of less than \$20.4 million. Most (66%) of native prairie identified by the 1998 Railroad ROW Survey is along Class I railroads. Class II and Class III railroads have 21% and 13% of the identified prairie, respectively.

Class	Railroad Company	Total State Miles	Miles Surveyed	Miles of Prairies Identified
Class I	Burlington Northern and Santa Fe Railroad Canadian Pacific Railway Union Pacific Railroad	1582 736 359	1062 609 296	215 59 48
Class II	Dakota Minnesota and Eastern Railroad I&M Rail Link, LLC Red River Valley and Western Twin Cities and Western Railroad Co. Wisconsin Central	338 178 2 187 7	338 178 2 157 7	36 36 0 30 1
Class III	Cedar River Railroad Company Dakota Rail Duluth, Winnipeg, and Pacific Minnesota Central Railroad Minnesota Northern railroad Nobles Rock Railroad Northern Plains Railroad Ottertail Valley Railroad	19 48 141 130 189 41 46 73	19 48 0 130 154 41 46 73	1 0 12 15 10 2 21
	no data recently abandoned	1020 110	80	0
	Total miles	5206	3240	487

Seventy-eight percent (380 miles) of the prairie identified by the 1998 Railroad ROW Survey is mesic. There are three common types of prairie in Minnesota: wet, mesic, and dry. Mesic prairie, which is defined by moist, but not wet soils, was the most common type of prairie before settlement. It is one of the rarest today because the drainage conditions of this prairie type made it ideal for conversion to agricultural use (Tester 1995). These fragments represent a significant refuge for mesic prairie and its species, especially in southern Minnesota.

The 1998 Railroad ROW Survey found 137 new locations of rare plant and animal species, which were documented by photographs or voucher specimens. These locations are recorded in the MNDNR's Rare Features Database. These included one location of a regal fritillary, a rare butterfly listed as special concern in Minnesota, one state endangered plant, and nine different species of state threatened or special concern plants, one of which is also federally listed as threatened. Results from this survey are a significant contribution to the understanding of these species and their habitat requirements.

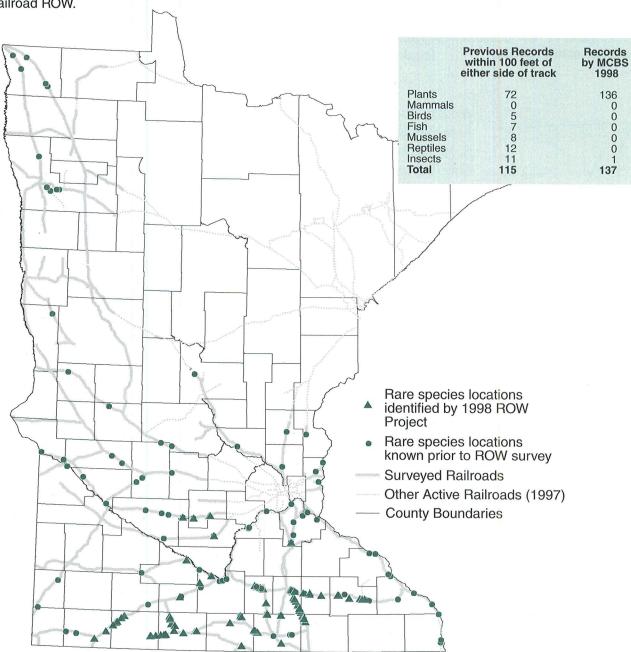
Rare Species Encountered During the 1998 Railroad ROW Survey

Although the primary purpose of the 1998 Railroad ROW Survey was to identify native prairie, botanists found 137 new rare species locations. These species are listed in *Minnesota's List of Endangered, Threatened and Special Concern Species* (Natural Heritage and Nongame Research Program 1996).

Common Name	Species	Status	New Records
Prairie bush clover	Lespedeza leptostachya	Federal and State Threatened	1
Tubercled rein-orchid	Platanthera flava var. herbiola	State Endangered	1
Tuberous Indian-plantain	Arnoglossom plantagineum	State Threatened	5
Sullivant's milkweed	Asclepias sullivantii	State Threatened	42
Valerian	Valerian edulis var. ciliata	State Threatened	22
White wild indigo	Baptisia alba	State Special Concern	3
Plain's wild indigo	Baptisia bracteata	State Special Concern	3
Small white lady's-slipper	Cypripedium candidum	State Special Concern	4
Rattlesnake master	Eryngium yuccifolium	State Special Concern	54
Blanket flower	Gaillardia aristata	State Special Concern	1
Regal fritillary	Speyeria idalia	State Special Concern	1
Total			137

Past and Present Rare Species Locations in Railroad ROW

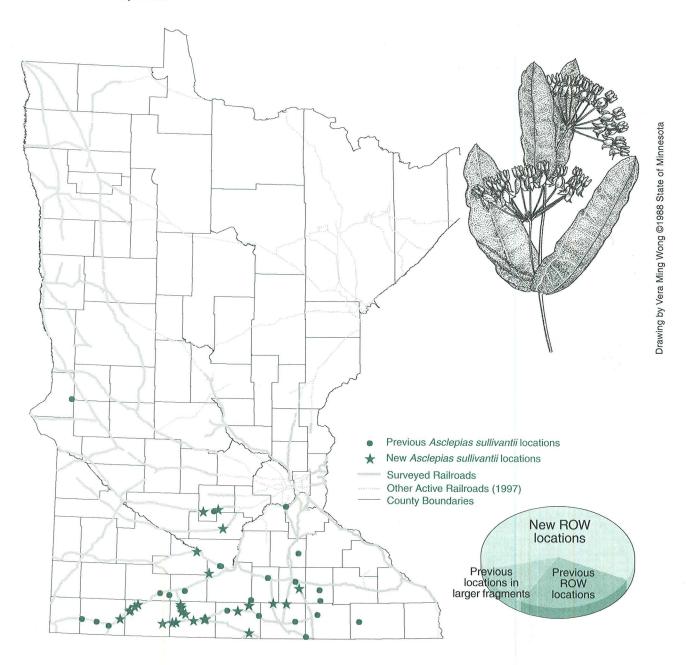
Various sources contribute to the MNDNR's Rare Features Database. Rare species data documented by the 1998 Railroad ROW Survey supplements other information about the organisms and communities near railroad ROW.



Copyright 1999 State of Minnesota, Department of Natural Resources. Rare features data have been provided by the Natural Heritage and Nongame Research Program of the Section of Ecological Services, Minnesota Department of Natural Resources (MNDNR) and were current as of February 1, 1999. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. In addition, there may be inaccuracies in the data, of which MNDNR is not aware and shall not be held responsible for.

Sullivant's Milkweed. An Example of a Rare Plant Found on Railroad ROW.

Because of the loss of prairie, many once widespread species are now rare and restricted to prairie remnants. For example, Sullivant's Milkweed (Asclepias sullivantii) was once common on mesic prairies in southern Minnesota. Habitat loss is the primary reason for its rarity. In Minnesota, most of the known populations of this state-threatened plant are now restricted to mesic railroad ROW prairies. The 1998 survey found 42 new locations of this plant. Maintaining railroad prairies contributes to the continued existence of this species.



Vegetation Management

Procedures

As part of the 1998 Railroad ROW Survey, staff reviewed literature and other information pertaining to railroad ROW vegetation and prairie management. While in the field, botanists recorded activities in the railroad ROW on standard forms and evaluated their effects on prairie vegetation. These data were reviewed and summarized by staff with professional experience in prairie management.

MCBS began discussions with railroads regarding vegetation management soon after the completion of data collection. One Class I railroad and one Class III railroad provided input to help refine the format and content of the vegetation management product. Initial vegetation management discussions were held with the Dakota, Minnesota, and Eastern; Nobles Rock; Twin Cities and Western; and Canadian Pacific railroads. A follow-up meeting in February, 1999, discussed specific practices outlined in *Conserving Minnesota's Railroad Prairie: A Guide for Working Railroads*. The Canadian Pacific Railroad was instrumental in facilitating these meetings.



Steven S. Merchant, MNDNR

Disturbances, such as the grading of ditch spoils, are common along railroad ROW.

Results

Final survey results were presented to 15 railroad companies; 14 have prairie remnants in their ROW. These data included the legal description, prairie type, rare features, and quality of each prairie fragment. These were supplemented by a series of maps.

For 10 companies, which collectively own 99% of the identified prairie, survey results were accompanied by the publication, *Conserving Minnesota's Railroad Prairie: A Guide for Working Railroads*. MCBS produced this document for Minnesota's railroads in order to help guide their management decisions regarding voluntary prairie management.

Observed Activities within the ROW and their Typical Impact on Prairie Resources.

Many activities occur on railroad ROW; some degrade prairie remnants, others have positive effects on prairie.

	Impact			
Vegetation Management Activities	Positive	Neutral	Negative	
Fire, prescribed				
Fire, accidental				
Haying				
Mowing				
Brush mowing				
Volunteer management restoration				
Tree removal, chainsaw				
Long-term rest (no management)				
Cultivation				
Total vegetation removal				
Herbicide treatment (broadcast)				
Tree and shrub planting				
Tree removal, bulldoze	17 /			
Other Activities				
Snowmobile trail				
Railroad tie stockpiling				
Equipment storage				
Ditch maintenance				
Utility construction				
Ditch construction				
Road construction				

Officials from four railroad companies and one individual representing the Minnesota Regional Railroad Association attended formal vegetation management discussions held with the MNDNR. Discussions centered on voluntary management practices helpful in maintaining native prairie and the unique vegetation management issues that complicate the ability of railroads to fully adopt suggested voluntary management practices. These include state regulations pertaining to air quality, open fires, noxious weeds, field road access, and utility and ditch crossings. The issue of liability is critical to the industry. As a result of the discussions, officials from the railroad industry and MNDNR informally agreed to continue the process of exploring cooperative prairie management opportunities.

Another transportation ROW prairie meeting on December 16, 1998 yielded four working groups that will continue to meet and address interagency coordination, technical assistance, management, and public awareness.

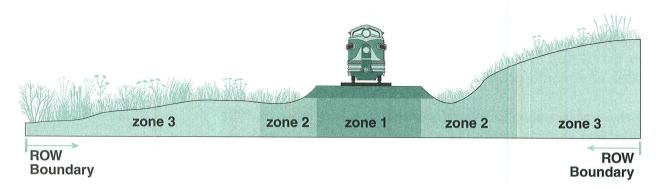
Prairie Management

Railroad prairies and larger prairie fragments require active management to ensure their existence. Appropriate management techniques can include prescribed fire, which removes woody vegetation, controls exotic species and noxious weeds, and invigorates prairie vegetation. Hand removal or spot herbicide applications may remove difficult-to-control weeds and trees.

The best way to preserve a railroad ROW prairie is to prevent it from being destroyed. Protection of property boundaries from destructive activities, such as cultivation, construction activities, equipment storage, and vehicle use, will help the conservation effort.

Railroad ROW Management Zones

MCBS adapted a methodology frequently used in integrated roadside vegetation management (IRVM Program Task Force 1997). The 1998 railroad ROW survey categorized three zones of vegetation management within the railroad ROW. Most impacts to native prairie resources occur in zone 3. Modification of existing vegetation management practices in zone 3 would improve the long-term maintenance of prairie resources. All activities should conform to federal and state safety regulations.



Zone 1: Ballast and Rails

Objective: Keep free of all vegetation in order to:

- provide surface drainage
- reduce fire potential
- provide visibility for maintenance of rail hardware
- prevent buildup of wind blown debris and snow

Zone 2: Grade and Ditch

Objective: Maintain existing herbaceous vegetation on grade and ditches to support railroad operations by:

- providing sight distances for safe operations
- eliminating trees capable of interfering with train traffic
- maintaining hydraulic capacity of ditches and culverts
- preventing erosion
- controlling weeds

Zone 3: Remaining Right-of-Way

Objective: Maintain low maintenance vegetation without disrupting railroad operations by:

- providing sight distances for safe operations
- providing access for track maintenance
- maintaining ROW boundaries
- accommodating utilitiespreventing erosion
- controlling noxious weeds

Modified Zone 3: The Native Prairie

Objective: Within identified areas of the ROW containing native prairie vegetation:

- 1. adhere to the objectives above
- 2. conserve native plant communities by:
 - promoting natural disturbance regimes
 - · using locally adapted native plant materials for revegetating disturbed sites
 - controlling other exotic plants
 - developing site plans for areas containing rare species
- 3. carefully guide development with attention given to locating:
 - utilities
 - · field crossings
 - stockpiles of equipment and ties
 - tree and shrub plantings
 - roads

Recommendations for Future Collaborative Work

onserving Minnesota's railroad prairies requires a collaborative working relationship with the railroad industry, state agencies, and conservation organizations. Agencies and groups interested in prairie conservation are likely to be more effective if they meet with railroad companies to discuss vegetation management and prairie conservation practices. Conservation efforts that do not include the railroad industry will most likely fail.

Education is an important conservation tool. The railroad industry needs to further develop an understanding of the biological, cultural, historical, and aesthetic value of their prairie. It is important to communicate how railroad operations affect these prairies, and how to implement appropriate conservation practices and protection tools. Likewise, the conservation community needs to further develop an understanding of the railroad industry, its priorities, and its unique vegetation management issues.

The Illinois Experience

Illinois surveyed its railroad ROW for native prairie in 1975, and has since worked to manage these fragments. This effort has identified 92 railroad prairies considered to be significant natural areas and worthy of protection. Most of these sites are on active railroads. Thirty-one sites receive management and are formally protected by management agreements, registry sites, easements, or fee ownership (Reilly1998, personal communication).

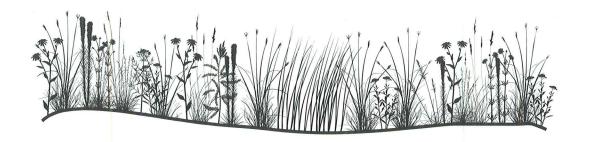
The Illinois Nature Preserves Commission manages the railroad prairie program. In most instances, the vegetation management of the ROW is the responsibility of the Nature Preserves Commission. Staff ecologists prepare and carry out management plans, that are agreed upon by all parties, and solicit agreements from railroad companies. Trained volunteers assist in management activities, such as prescribed burning, tree and exotic plant removal, and rare plant monitoring.

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Several tools can assist the railroad industry with their conservation efforts. In addition to the list below, Allman (1997) describes other land conservation techniques that may apply to active railroads.

- Registry Program. These are structured arrangements of nonbinding commitments in which the railroads agree to provide good prairie stewardship in exchange for formal recognition and technical assistance.
- Site-based Planning. Cooperatively developing site plans for prairie along railroad ROW will facilitate the maintenance of prairie resources. Railroad companies are more likely to develop these plans if they have assistance from a conservation program, such as the proposed Prairie Stewardship Program that has been recommended by the Legislative Commission on Minnesota Resources (Sustainable Woodland and Prairies on Private Lands, a 1999 LCMR recommended proposal).
- Management Agreements. This method has been successfully implemented on railroad prairies in Illinois and Michigan (Reilly 1998, personal communication). It is a formal arrangement between the railroad industry and state or private agencies that exchanges technical expertise and even active management activities for limited access to the land for management and cooperation.

Minnesota's railroad ROW prairies are a small piece of our natural heritage, yet they require active maintenance. Cooperation among the Department of Natural Resources, the Department of Transportation, local conservation organizations, and the railroad industry can ensure their conservation.



Nobles Rock Railroad— An Opportunity for Industry and Agency Cooperation

The Nobles Rock Railroad is a small, Class III railroad that operates 41 miles of railroad in southwestern Minnesota. Nearly 25 % of its ROW length remains native prairie and this represents a significant amount in southwestern Minnesota where most of the prairie has been converted to agriculture.

The Nobles Rock Railroad has an interest in maintaining native prairie within its ROW, while still providing safe and efficient train service. Nobles Rock recognizes that its prairie corridors represent some of the few remaining examples of native vegetation left in southwestern Minnesota and staff believe that this natural history is important to local citizens. Nobles Rock Railroad also knows that agricultural weeds rarely grow in undisturbed native prairie, and that means less vegetation maintenance, which in turn means dollars saved.

Nobles Rock Railroad is seeking assistance with several problems that currently hamper management of its native prairie ROW, including locating a local seed source for replanting disturbed areas, minimizing disturbance from adjacent land uses, and removal of thousands of old railroad ties, which prevent prescribed burning. The results from the 1998 Railroad ROW Survey helped Nobles Rock Railroad with their first obstacle; determining the locations of prairie for future construction and maintenance planning.

Assistance from knowledgeable sources in prairie stewardship will help the Nobles Rock Railroad maintain their prairie. If railroad ROW prairies are important to the overall conservation of Minnesota's prairie, partnerships need to be fostered and maintained and the Nobles Rock is a good place to start.

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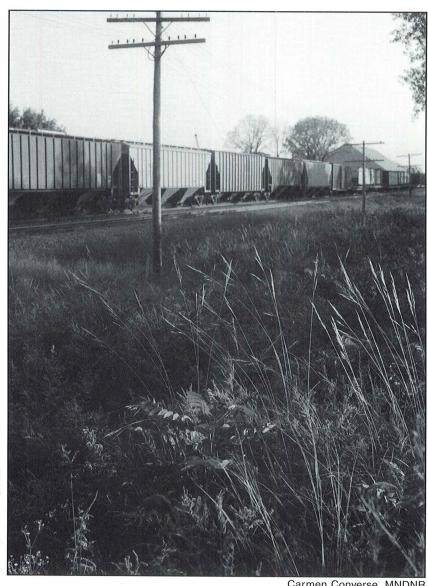
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Although uncommon, good examples of Minnesota's native prairie vegetation still occur on active railroad ROW. This dry ROW prairie is west of Oakdale in Washington County.

Carmen Converse, MNDNR

