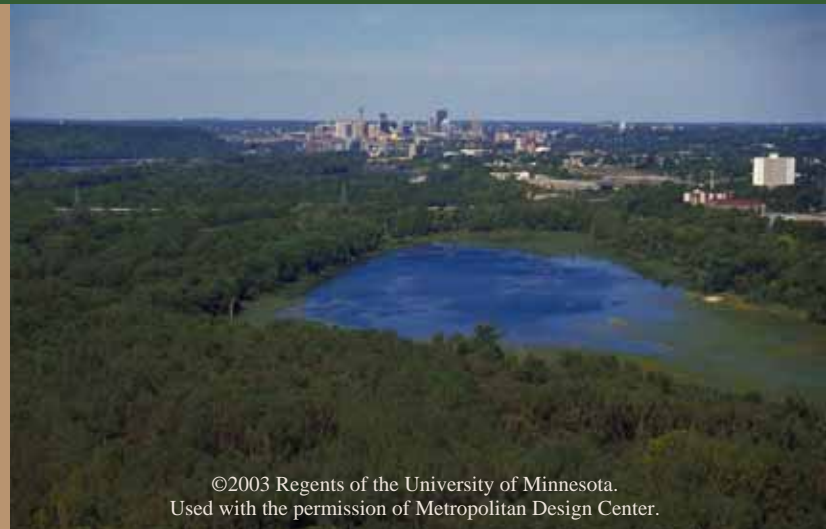




Metro Greenways: Seven-County Twin Cities Region, Minnesota



©2003 Regents of the University of Minnesota.
Used with the permission of Metropolitan Design Center.

Overview

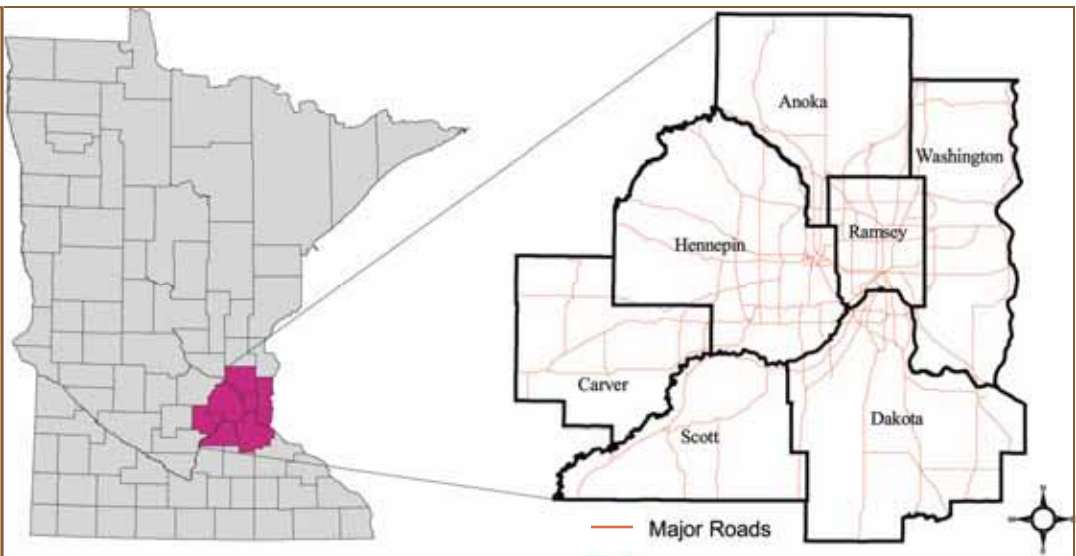
The Metro Greenways Program is committed to the establishment of a regional network of natural areas and open spaces interconnected by green corridors in the seven-county Twin Cities metropolitan region (Figure 1). Initiated in 1998 with funding from the Minnesota legislature, the Metro Greenways Program is managed by the Central Region of Minnesota's Department of Natural Resources (DNR). The program consists of two principal components: 1) funding for land acquisition and habitat restoration; and 2) funding for matching grants to local units of government for land cover inventories and greenway planning. Although managed by the DNR, external partners participate extensively in program decisions as members of a technical working group and an advisory committee.

The Twin Cities metropolitan region has a notable history of conserving land for its amenity values. The region's first park system was created in the late 1800s by Horace W. S. Cleveland. The intent of the Metro Greenways Program is to build on the region's history of open space protection as well as its existing framework of parks, wildlife management areas, scientific and natural areas, aquatic management areas, and other types of open spaces. With a vision that encompasses ecological values, the Metro Greenways Program intends to protect, restore, reconnect, and manage a region-wide network of natural areas and open spaces to provide a broad range of public benefits. These include more and better habitat for fish and wildlife, enhanced biological diversity, improved water quality and recreational opportunities to meet growing demand, and the natural resource base necessary to support a regional economy.

Figure 1:

Metro region,
Minneapolis-
St. Paul,
Minnesota

*Credit: Metro
Greenprint 1997, p. 6*



Highlights

- In 1997, the 27-member Greenways and Natural Areas Collaborative concluded its year of work with the publication of *Metro Greenprint*, which contained a vision for a regional greenways network and recommendations to the Minnesota legislature to fund a Metro Greenways Program.



- The 1998 Minnesota legislature appropriated \$4.34 million to the DNR to establish the Metro Greenways Program.
- Between 1999 and 2003, the Metro Greenways' Planning Grant Program provided more than \$900,000 in matching grants to local units of government, funding 52 land cover inventory and greenway projects throughout the seven-county Metro region. These planning grants helped fund the collection, digitization, and standardization of land cover data for 67% of the region's total land

base, and work continues on that front. The data have been used extensively in local comprehensive planning.

- During the period 1998–2004, Metro Greenways allocated \$9.3 million in state funds to 29 protection and 16 restoration projects and leveraged about \$21 million for land protection and restoration. These projects are protecting about 2,500 acres and restoring 606 acres, ranging from a two-acre ecological demonstration site along the Midtown Greenway in central Minneapolis to the acquisition of two 60-acre parcels needed to complete a continuous 2,800-acre greenway adjacent to the St. Croix River.
- Using the region's 2003 ecological assessment, Metro Greenways staff and external partners developed a strategic approach to future habitat protection in a collaborative venture known as Metro Wildlife Corridors. The state legislature in 2003 allotted an initial \$4.85 million to 13 project partners for habitat protection and restoration in 12 "focus areas." A legislative commission has also recommended appropriation in 2005 of another \$3.53 million for Metro Wildlife Corridors to address needs in expanded focus areas.



Photo by Dave Schaffer / USFWS



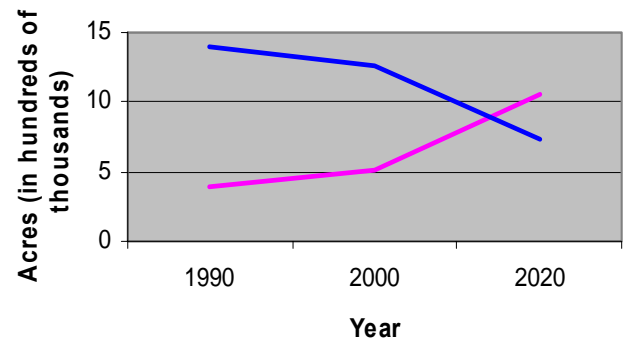
Background and Context

Past and Current Regional Landscape

The Twin Cities metropolitan area lies at the nexus of three major river systems (Minnesota, Mississippi, St. Croix) where, historically, Big Woods deciduous forest, tallgrass prairie, and oak savanna biomes graced the landscape. Easy river access to the region, coupled with an abundance of lakes, wetlands, woodlands, and good soils, attracted the region's first settlers in the mid-19th century. By the 1890s, Horace W. S. Cleveland, a protégé of city planner Frederick Law Olmsted, planned the Twin Cities' first park system, which followed natural landscape features—lakes, streams, and river valleys. The nascent Minneapolis Park Board implemented Cleveland's parkway plan by acquiring a continuous corridor of land beyond the city limits. Over a century later, Cleveland's foresight provided one of the principal building blocks for a larger, regional framework of habitat patches connected by corridors, where appropriate.

Since Cleveland's time, additional green space has been protected in the Twin Cities seven-county region by a variety of agencies, governmental units, organizations, and individuals. The Metropolitan Council, which was established in 1974, has been an important contributor. As a regional unit of government, the Metropolitan Council's Parks and Open Space Commission has established 46 parks and park reserves in the seven-county region, totaling 51,000 acres. The regional park system is overseen by the Metropolitan Council, but is owned and managed by 10 implementing agencies (seven counties and three cities). The DNR also has contributed significant building blocks of habitat to the metropolitan area: four state parks (8,912 acres), 44 wildlife management areas (56,651 acres), 13 scientific and natural areas (2,401 acres), and two aquatic management areas. The Twin Cities also have in their midst the Minnesota Valley National Wildlife Refuge, the largest (14,000

Figure 3: Development trends in the Twin Cities*



As developed land (in pink) increases in the Twin Cities, opportunities to conserve natural lands (in blue) decrease. *Based on Metropolitan Council's Land Use layers from 1990, 2000, and Regional Planned Land Use, which is a compilation of comprehensive plans from townships and municipalities.

Credit: Minnesota Department of Natural Resources

acre) urban national wildlife refuge in the country. Of the 1.9-million-acre land base in the region, at least 133,000 acres (7%) are currently protected for their recreational and habitat values.

A recent regional ecological assessment by the DNR's Central Region determined that there remain roughly 280,000 acres of terrestrial and wetland habitat with very good ecological structure and function (Figure 2, see p. 4-5). While much of this acreage is already somewhat "protected" by virtue of its public ownership and management, about a third (100,000 acres) is not publicly owned or protected. With growth projected at 900,000 new residents and 480,000 new households by 2030, the region's last unprotected ecological areas face imminent threat (Figure 3). It is hoped that green infrastructure efforts will stem the loss of these vital habitats and contribute to the region's future livability.

“Look forward for a century, to the time when the city has a population of a million, and think what will be their wants. They will have wealth enough to purchase all that money can buy, but all their wealth cannot purchase a lost opportunity, or restore natural features of grandeur and beauty, which would then possess priceless value...”

— Horace W. S. Cleveland, *Minneapolis Park System Landscape Gardener*, 1883

http://www.minneapolisparcs.org/grandrounds/inf_about.htm

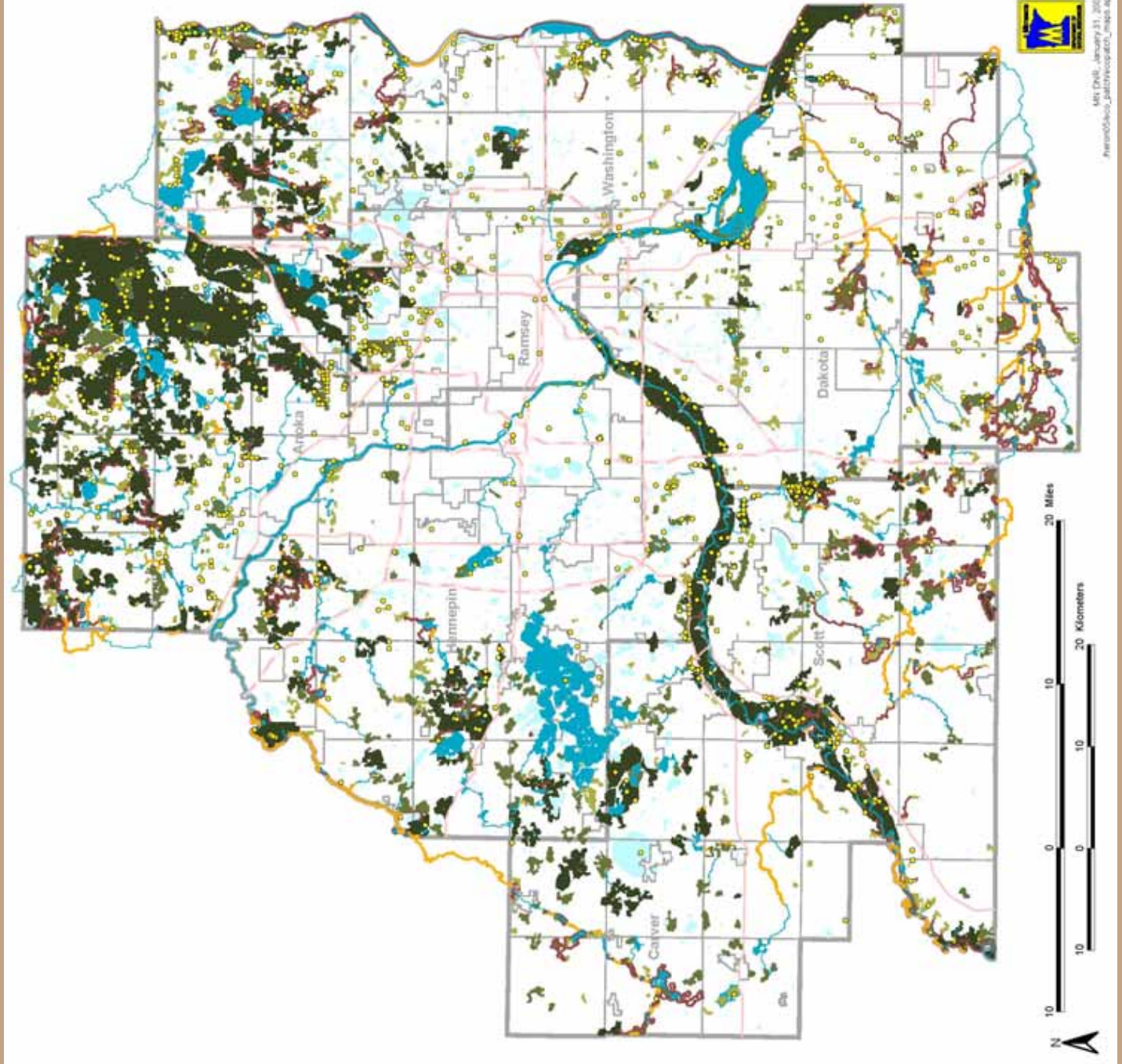


Figure 2:
Regionally significant
terrestrial and wetland
ecological areas *

(*see figure key,
p. 5)



Ecological Score**

Regionally Significant Ecological Areas were given a score of 1, 2, or 3 (3 being the highest possible score) based on how well continuous natural areas met standards for size, shape, connectivity, adjacent land use, and species diversity.

3 - These areas tend to be larger in size, and/or with few adjacent land cover types or land uses that could adversely affect the area; may have greater diversity of vegetation cover types; or it may be an isolated native plant community mapped and given a score of outstanding biodiversity significance by the Minnesota County Biological Survey.

2 - These areas tend to be moderate in size and/or with more adjacent land cover types or land uses that could adversely affect the area; may have less diversity of vegetation cover types; or it may be an isolated native plant community mapped and given a score of high biodiversity significance by the Minnesota County Biological Survey.

1 - These areas tend to be smaller in size while still meeting the minimum size requirements for regional significance (minimum size is variable based on cover type); may have less diversity of vegetation cover types; may have more adjacent cover types or land uses that could adversely affect the area; or it may be an isolated native plant community mapped and given a score of moderate biodiversity significance by the Minnesota County Biological Survey.

River and Stream Corridors**

Shortest-distance paths in and along rivers, streams, lakes, and wetlands that connect at least two RSEAs.

Terrestrial Species Routes
link upland derived RSEAs using natural/semi-natural vegetation cover along the banks of open water.

Aquatic Species Routes
link wetland derived RSEAs using any open water (streams, rivers, or lakes).

Sections where Routes Coincide

Rare Species and Animal Aggregations**

Mapped by the Minnesota County Biological Survey

● Animals and plants, federally- or state-listed, found after 1970, excluding aquatic species.

■ Open Water
— Interstate Highway
— Federal Trunk Highway
□ Municipal Boundary
□ County Boundary

**Copyright 2003, Minnesota Department of Natural Resources. The Regionally Significant Terrestrial and Wetland Ecological Areas (RSEA) are derived from a modeling process that predicts the likelihood that regionally significant natural resources exist in a contiguous area. These areas must meet specific criteria that were established to qualify an area as regionally significant (size, shape, connectivity, adjacent land use, and species diversity). The River and Stream Corridors show connections via rivers, streams, lakes, and wetlands for the RSEAs. The data for the modeling process was compiled from several different sources and its completeness or total accuracy cannot be guaranteed. The data and products have not been ground truthed. NOTE: The Terrestrial and Wetland Ecological Assessment does not model for aquatic species, although some aquatic features appear in the results. The Metropolitan Council, in association with DNR staff is undertaking a separate Aquatic Ecological Assessment.

**Copyright 2003, Minnesota Department of Natural Resources. Rare features data included here were provided by the Natural Heritage and Nongame Research Program of the Division of Ecological Services, Minnesota Department of Natural Resources (DNR), and were current as of January 31, 2003. These data are not based on an exhaustive inventory of the state. Permission to use these data does not imply endorsement or approval by the DNR of any interpretations or products derived from the data.

*There may be inaccuracies in the data or which the DNR is not aware and for which the DNR will not be held responsible. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

Framing the Regional Issue through Collaboration

Development in the Twin Cities region has consumed and converted natural lands at a voracious rate, especially during the 1990s. Alarmed by the rate of loss of natural habitat, the DNR convened a group of local experts in 1995 to identify important natural habitats that remained in the greater Twin Cities region (19 counties). By literally drawing on a variety of natural resource and recreation maps, valued habitat patches and potential corridors were identified for the greater region. When digitized, this information created the “regional greenways opportunities” map (Figure 4) and sent a strong visual message that it was possible to reweave the region’s tattered natural fabric. As a result, the DNR received a \$50,000 grant from the legislature, as recommended by the Legislative Commission on Minnesota Resources (LCMR), to further investigate the possibility of a regional green network.

To fulfill the obligations of the LCMR grant, the DNR created the Greenways and Natural Areas Collaborative, comprised of representatives from 27 Metro organizations. Organized and facilitated by the DNR, this deliberative body created a regional greenways vision, goals, and objectives. The document *Metro Greenprint* contains the group’s final recommendations to the 1998 Minnesota legislature, which included 1) the establishment of a formal greenways program; and 2) funding for program administration, community technical assistance, and land protection.

Supported both by the *Metro Greenprint* recommendations and a powerful legislative champion, the 1998 Minnesota legislature appropriated \$340,000 to the DNR to establish a greenways program (including costs for staff, operational support, and planning grants) and \$4 million in bonds for land protection. In 1998, a coordinator was hired to work with other DNR staff and manage the Metro Greenways Program.

The Metro Greenways Program

The Programs’ goals are to:

- create and manage a greenways and natural areas network;
- conserve and restore natural areas to maintain a dynamic natural landscape;
- connect and enhance existing open spaces, outdoor recreational amenities, and cultural resources;
- ensure that the Metro Greenways Program served all Metro-area residents;
- build public and political support for a regional network; and
- fund the creation and maintenance of a regional network through public and private sources.

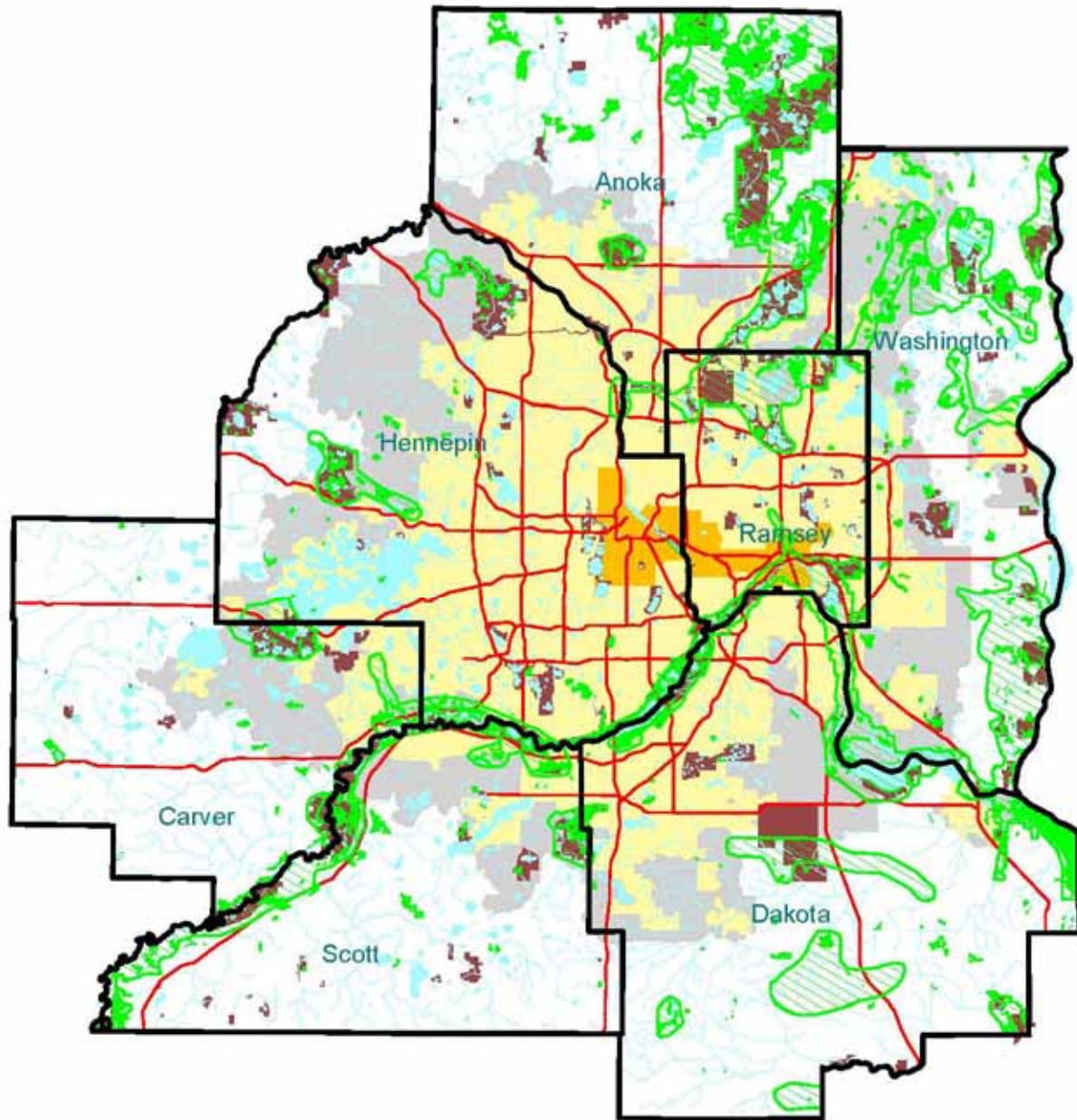
Process

The DNR recognized that it would take the coordinated efforts of many to accomplish these goals, so they designed the program from inception to work with local units of government and nongovernmental organizations. Two strategies were deemed foremost in creating regional support for this new program: 1) provision of matching grants to implementing agencies for natural resource inventories and greenways planning, and 2) provision of funds to help local governments conserve natural lands and open space through acquisition of land or easements in fee simple or less-than-fee-simple.

Planning Grants


The Metro Greenways Planning Grant Program was created to provide financial incentives to local units of government to acquire and use up-to-date natural resources and land cover information in local comprehensive planning. Between 1999 and 2003, the Metro Greenways Planning Grant Program annually solicited proposals and awarded about \$250,000 in matched grants per year. Local units of government that have the capacity to implement natural resource inventories, identify and assess land cover, better manage natural habitats, and/or create greenways

Figure 4: Opportunities for protection and restoration




10 0 10 Miles



 **Potential Connections**
(around areas of high biological diversity)

 **Mn County Biological Survey Communities**

 **Parks**
(includes recreation and natural resource management areas)

MetCouncil Growth Classification

-  **Urban Core**
-  **Urban Area**
-  **Urban Reserve**
-  **Permanent Rural / Agriculture Area**

Credit: Minnesota Department of Natural Resources

plans are eligible to apply. Applicants must be able to provide matching funds (cash and/or in-kind services) to the effort. Grant proposals are reviewed by an external group of reviewers facilitated by the grants manager.

Metro Greenways planning grants have funded land cover mapping ranging from entire townships to selected conservation units owned by a city. Grant recipients have included local governments, conservation districts, and watershed districts—organizations with the ability to financially manage and implement the proposed projects.

Land Protection

The initial goal of the Land Protection Program was to build awareness of land conservation at the local level. Local units of government were encouraged to submit project proposals for areas they wished to conserve. Site selection criteria were developed that included ecological quality, degree of community support, feasibility of acquisition, and other factors. One difficult issue was the need to weigh consideration of large, high-quality areas against smaller, more fragmented urban sites. One argument for the inclusion of sites of lower ecological quality was that smaller, disturbed areas provide close-to-home, outdoor experiences for urban residents, who often lack a direct connection to the land. Including sites across the spectrum of ecological quality was deemed critical to building future stewardship for natural habitats.

The Metro Greenways Program distributes site nomination forms periodically as funds become available to all local units of government and interested parties in the Twin Cities region. In many instances an individual citizen nominates a site. Once a site application is reviewed, DNR staff visit each site to photograph it and conduct an ecological field assessment.

The nomination materials and ecological assessment for each site are then distributed to two different advisory committees. The first, the Metro Greenways Work Group, is composed of technical and leadership staff from agency and nonprofit partners involved in land protection and restoration throughout the region. Metro Greenways staff recognized that it was important to tap the expertise, resources, and relationships of these people and build their trust and ownership in the program. This group essentially functions as a steering committee in shaping program elements and processes.

To build additional community support and credibility, a Metro Greenways Community Advisory Committee was also created. This 11-member committee consists of people knowledgeable and concerned about land conservation, including a corporate executive, a residential developer, a lobbyist representing hunting and fishing groups, and a member of the Metropolitan Council's Park and Open Space Commission.

The Work Group and Advisory Committee review and evaluate each of the site nominations and meet with staff to collectively make recommendations that are then submitted for final approval to the DNR Regional Director (who has delegated authority from the DNR Commissioner). Depending upon the funding source, some projects may require final approval by the Legislative Commission on Minnesota Resources.

The most common land protection approach to date has been to facilitate new ownership by a local entity, with the state having a conservation easement on the entire property. Other land protection tools used include acquisition grants to local units of government and direct acquisition of fee title by the DNR for management as a scientific and natural area, wildlife management area, or similar designation.

"Metro Greenways helps local units of government and citizens more effectively incorporate nature into their communities. By coordinating funding sources, providing technical assistance and grants, and identifying significant natural features, the program empowers communities to preserve the resources that are important to them in a way that earns local support."

— *How Metro Greenways helps communities protect their natural heritage,*
Minnesota Department of Natural Resources, <http://www.dnr.state.mn.us/greenways/assistance.html>



Public Outreach

During the early stages of program development, increasing public awareness about Metro Greenways' goals was critical. Program staff, other DNR staff, and most importantly, project partners, played key roles in this effort through the development of a comprehensive communication plan. The program name and logo were developed for use on all materials and correspondence. Brochures and posters were created and distributed widely. Many presentations were made in traditional and nontraditional venues. TV and radio stations, both of the area's daily newspapers, and several local newspapers covered the Metro Greenways effort. A recognition awards program was created for local partners, and information about the program and award recipients is included on both the Metro Greenways Web page (<http://www.dnr.state.mn.us/greenways>) and the McKnight Foundation's Embrace Open Space Web site (<http://www.embraceopenspace.org>). Embrace Open Space is an educational campaign by a consortium of open space organizations in the Twin Cities area. Tremendous progress has been made in selling the Twin Cities' green infrastructure vision to the public, but much more needs to be done to meet the many challenges that exist.

Results and Products

The *Metro Greenprint* (1997) report clearly laid out the vision and goals for what is now the Metro Greenways Program. The report was used to educate key legislators about the need for such a program and clearly helped to secure initial funding that established the program.

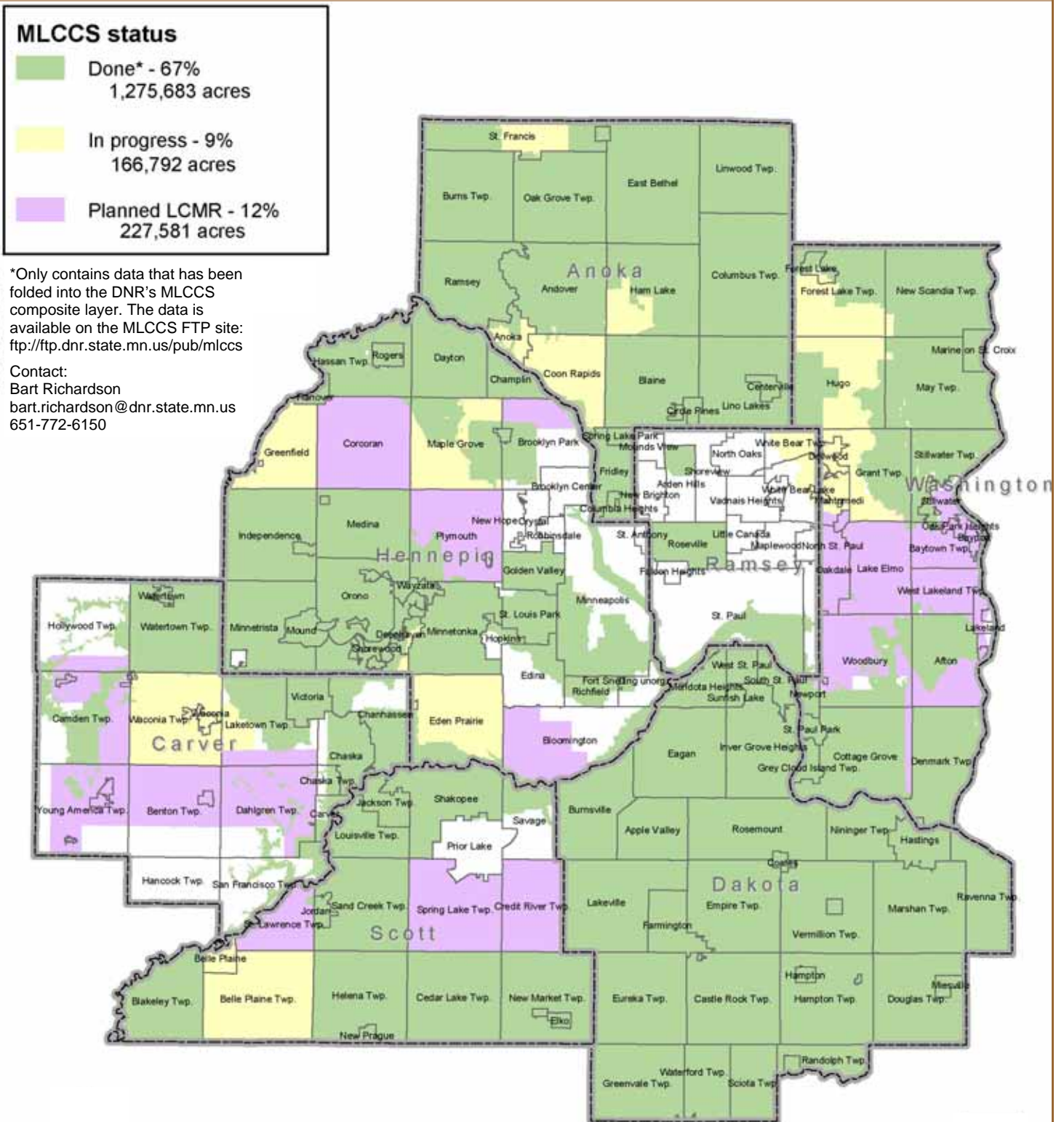
One important tangible result to date is the compilation of detailed land cover data for the Twin Cities metropolitan region (Figure 5, p. 10). As of September 2004, land cover analysis was complete for 67% (1.28 million acres) of the region and work on another 9% (0.17 million) is underway through joint funding by the DNR and Metropolitan Council. More work on land cover analysis is scheduled for 2005. These results are possible due to the development and application of the Minnesota Land Cover Classification System (MLCCS) at virtually the same time as the startup of the Metro Greenways Program. MLCCS enables both natural and

cultural land cover to be characterized at 30-meter resolution. The first recipients of the Metro Greenways planning grants were asked to use MLCCS in their inventory work. Subsequently, use of MLCCS became a requirement for recipients of planning grants.

Between 1998 and 2004, Metro Greenways cooperatively completed six direct DNR acquisition projects protecting 561 acres; 12 DNR conservation easement acquisition projects protecting 395 acres; two grants to local units to acquire and protect 89 acres; and three restoration projects. In addition, Metro Greenways is in the process of completing three more direct acquisition projects to protect 718 acres; six conservation easement projects to protect 197 acres; and 13 restoration projects on 523 acres. In total, 29 acquisition projects protecting about 2,500 acres and 16 projects restoring 606 acres have been completed or are underway through Metro Greenways.

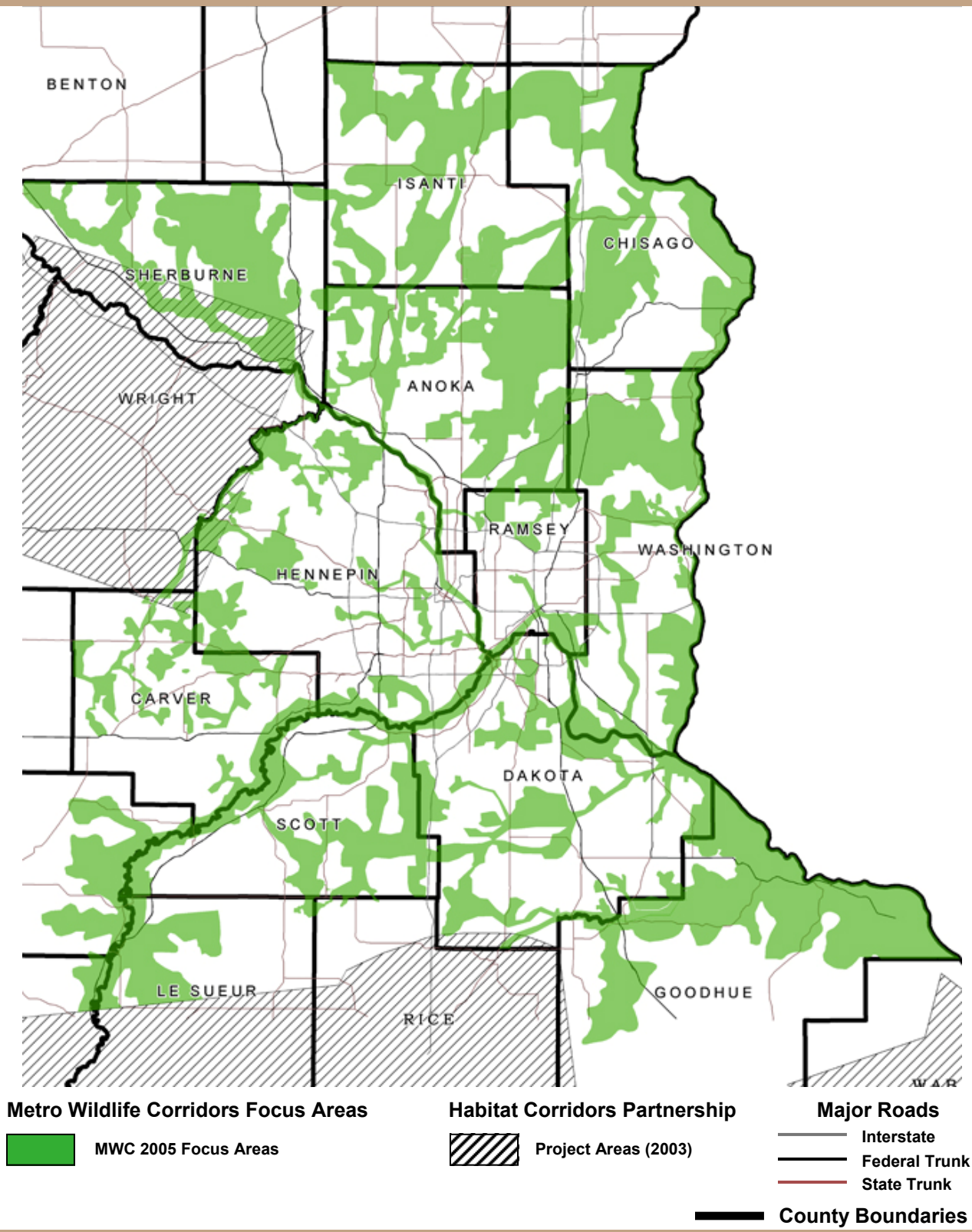
Ultimately, the Metro Greenways partnership has led to a more focused approach to land conservation. In 2003, the DNR (Metro Greenways plus four DNR divisions), six nonprofit partners, and two special local projects received \$4.85 million from the state's Environmental Trust Fund for a new program called Metro Wildlife Corridors. Using the findings from the science-based regional ecological assessment, the project partners identified 12 "focus areas" (Figure 6, p. 11) within which to strategically focus their protection and restoration efforts. Under this new approach, groups that request planning or land protection funding will need to work within the boundaries of one of these focus areas. One-quarter of the new funding is for land restoration and three-fourths is for land protection. Recently, the Legislative Commission on Minnesota Resources has recommended that the 2005 state legislature appropriate another \$3.53 million to Metro Wildlife Corridors. The partnership has gained the involvement of two more nonprofit partners and has expanded the focus areas into seven more counties adjoining the Metro Region.

Figure 5: Progress of land cover classification in the Metro area
September 2004



Credit: Minnesota Department of Natural Resources

Figure 6: Metro Wildlife Corridors 2005 focus areas



Credit: Minnesota Department of Natural Resources

Ownership and Management

The initial appropriation language for the Metro Greenways land protection funds required that the state have a legal interest in the land — that is, the state has to acquire either fee title or a perpetual conservation easement. This presented a significant challenge because state law required that any land acquired be owned by one of the DNR divisions (Wildlife, Fisheries, Forestry, or Parks). However, the state is not interested in having long-term land management obligations for a number of small parcels. Previously, each project required two transactions: an entity such as a local unit of government was assisted in purchasing the property and the state simultaneously acquired the conservation easement. Added flexibility has now been developed that gives Metro Greenways the ability to provide land protection grants without having a legal interest in the property. As a condition of funding, Metro Greenways requires all ultimate property owners to jointly develop a natural resource management plan that they are obligated to implement at a future date.



©Roger B. Martin. Used with permission.

Budgets and Expenditures

In addition to the \$4.34 million allocation for land protection in 1998, Metro Greenways received an additional \$1.5 million from the state legislature in 2000 and \$2.73 million (including \$220,000 for planning grants) in 2001 from the state's Environmental Trust Fund. In 2002 the legislature recommended \$1 million in bond money for land protection, but the governor vetoed this and most other land protection funding projects. However, Metro Greenways did receive \$1.089 million in 2003, the highest proportion of funds of the \$4.85 million appropriated for the Metro Wildlife Corridors project through the Environmental Trust Fund. In 2004 the governor recommended \$1 million in bond money for Metro Greenways, but the legislature's deadline for adjourning came without passage on any bonding bill. As noted above, a \$3.53 million 2005 legislative appropriation is recommended for Metro Wildlife Corridors.

Funding for the Metro Greenways Planning Grant Program remained constant from 1999 through 2003 at approximately \$250,000 per year. No new planning grant funds were available in 2004.

The modest operating budget for the program, which originally included a full-time program coordinator, a full-time project coordinator, and a half-time real estate specialist, remained at approximately \$220,000 per year from 1998 through 2003, and dropped to about \$180,000 in 2004. The program staff rely on other DNR staff as well as the multitude of project partners.

Because of success in ongoing land protection efforts, program staff were able to access (for example, through matching grant programs) an additional \$21 million in funds from a variety of other sources, including federal and other state, regional, and local governments; foundations; corporations; nonprofit organizations; pollution mitigation settlements; and private citizens. In addition, the Metro Greenways Program helped stimulate support for and win passage of two local bond issues for open space protection totaling \$23.5 million.



Benefits

Directly and indirectly, the efforts of the Metro Greenways Program, other DNR regional programs, and the growing body of Greenways partners have resulted in the following regional conservation benefits over seven years:

- Permanent protection of 2,500 (completed or underway) acres of natural habitat and open space, ranging from the urban core to the developing rural fringe.
- The restoration of 606 acres (completed or underway), covering a variety of habitat types.
- The reconnection of a few selected landscapes, including the St. Croix River Greenway.
- Detailed land cover mapping of 67% of the region's total land base, plus more in the works.
- Local support for the passage of bond referenda for land conservation, totaling \$23.5 million.

The social benefits accrued during this time frame include:

- Increased trust and cooperation between different levels of government and nonprofit organizations.
- Increased public awareness about land conservation and stewardship, especially through quarterly meetings held by the Regional Greenways Network.
- Collection, analysis, application, and distribution of natural resources data.
- Development of effective tools and materials related to land conservation.
- Creation of more effective methodologies for ecological restoration efforts.
- Development of award-winning greenways plans by local landscape architect firms.
- Increased interest in the use of conservation easements by the Minnesota Pollution Control Agency, which is considering using easements in lieu of monetary penalties in pollution settlements.

Application of Green Infrastructure Principles

Principle 1: Protect green infrastructure before development.

The Metro Greenways program was developed as a proactive approach to land conservation and in direct response to reactive environmental review processes. The region is still struggling to get out in front of development, and more work is needed with the private sector and regional and local units of government to accomplish this. DNR's 2003 regional ecological assessment identified the best of the remaining terrestrial and wetland habitats in the region and is being used to focus land conservation efforts and resources.

Principle 2: Engage a diverse group of stakeholders.

The initial Greenways and Natural Areas Collaborative has spawned the current Regional Greenways Collaborative. This Collaborative regularly reaches through e-mail more than 250 individuals representing all sectors and has quarterly half-day meetings typically attended by more than 70 people who gain and share information. Thirty-one people from 23 organizations were involved in developing an implementation strategy for protecting a green network through the seven-county area.

Principle 3: Linkage is key.

Directly linking natural habitat patches is one important objective of Metro Greenways. Also important, however, is linking people with nature and with each other. By forging enhanced and/or new partnerships and by making it easier for people to have outdoor experiences in a natural setting, community support for greenways initiatives continues to grow.

Principle 4: Work at different scales and across boundaries.

The Metro Greenways program works across political and ecological boundaries and considers any property that has significant ecological and/or community value. Work on Metro Greenways projects has increased cooperation among all levels of government—many

county, township, and city governments as well as watershed districts and conservation districts in the Metro region are cooperating partners in Metro Greenways. Work is beginning on developing relationships and new project possibilities in the greater metropolitan region, including the so-called “collar counties.”

Principle 5: Use sound science.

An important component of the Metro Greenways Program is its Planning Grant Program, which has provided matching grants to local units of government for land cover mapping and greenways planning. Between 1999 and 2003, approximately 1.3 million acres of the seven-county area were land-cover mapped (67% of total land base). Between 2001 and 2003, regional staff developed a science-based methodology to assess the ecological quality of remaining terrestrial and wetland habitats in the region. Findings of the regional assessment identified approximately 280,000 acres of remaining high-quality habitat in public and private ownership within the seven-county area. To further refine identification of significant ecological habitats, staff also developed an ArcView extension to enable communities with detailed land cover data to rerun the regional models to further verify the locations and types of high-quality ecological areas in their jurisdictions. The results of the regional assessment have been used by the Metropolitan Council to explore new regional park possibilities and by Metro Greenways collaborators to create a new initiative called Metro Wildlife Corridors.



Photo used with permission of “1000 Friends of Minnesota”

Principle 6: Fund up-front as a public investment.

Although Metro Greenways has no dedicated funding source for the long term, DNR staff and partners have been successful in sharing their vision for the program and have developed broad-based support to secure additional financial resources to sustain the program. Local and countywide land protection bond referenda have passed since the program began.

Principle 7: Green infrastructure benefits all.

Benefits come in the form of increased property values, aesthetic appeal, improved water quality and wildlife habitat, greater opportunities for outdoor recreation, and overall higher quality of life. Research shows that houses near open space and recreational trails sell for comparatively more money, and outdoor-based recreation and tourism is big business in the region and state. The Regional Greenways Collaborative’s work group on economic benefits is working with the University of Minnesota to document these benefits of open space.

Principle 8: Make green infrastructure the framework for conservation and development.

The Metro Greenways Program provides a regional-scale framework for land conservation that covers a range of habitats, from high to lower ecological quality. All levels of government and private landowners can subscribe to this program. At the regional level, the Minnesota Department of Transportation has supported land cover mapping within their designated interregional transportation corridors, and the Metropolitan Council has adopted a new policy to protect vital natural resources.



Evaluation

Unique, Innovative, or Outstanding Elements

- The program was made possible by a key champion in the legislature.
- Local communities valued the planning grants because they saw the opportunity to cost share in obtaining much-needed, baseline land cover data.
- A science-based regional ecological assessment added value to the program by focusing attention on unprotected, high-quality habitats.
- The Metropolitan Council gradually has bought into the importance of green infrastructure.
- Interest in greenways is growing beyond the Metro region in Minnesota communities that are experiencing growth and demonstrating interest in land cover mapping and planning for green infrastructure.

Key Problems, Challenges, or Missing Pieces

- Economic and political uncertainty and state budget cuts (including cuts to local government) make it difficult to retain let alone expand dependable funding sources at all levels of government and place additional burdens on nonprofit partners and private-sector funding sources.
- The site nomination, evaluation, and acquisition processes, although flexible and innovative, are time-consuming, making it difficult to expend budget allocations in a timely manner. More emphasis and priority is now being given to selecting more mature projects with known parameters and to using grant funding rather than running projects through the complex and lengthy state acquisition process.
- Effective coordination and communication among many partners is challenging and time-consuming for program staff.
- Land prices continue to climb because the Twin Cities area is one of the fastest growing regions of the country.
- Political change affects the program's funding, focus, and future.

- Tremendous progress has been made in selling the Twin Cities green infrastructure vision to the public, but much more needs to be done to meet the many challenges that exist.

Lessons Learned or Experience Gained

- Work with willing local partners and provide them with technical and/or financial assistance.
- Make sound information available to landowners and local officials to improve decision making.
- Foster existing relationships at all levels and build new relationships with nontraditional entities.
- Be strategic about acquiring properties that fit into a regional framework. Even if the owners are not currently ready to sell, you can still express an interest in the property in case conditions change in the future.
- Develop a dependable source of ongoing funding.
- Practice persistence and patience—land acquisition/protection takes time.
- Hire people who have technical skills and possess the enthusiasm and ability to relate effectively to all kinds of people, from landowners and other partners to staff and elected officials.

References

Grand Rounds National Scenic Byway. Minneapolis Park & Rec. Board and National Scenic Byways Organization. http://www.minneapolisparcs.org/grandrounds/inf_about.htm

Metro Greenprint. 1997. <http://files.dnr.state.mn.us/assistance/nrplanning/community/greenways/greenprint.pdf>

Metro Greenways Program: <http://www.dnr.state.mn.us/greenways/index.html>

Regionally Significant Terrestrial and Wetland Ecological Areas Assessment: http://www.dnr.state.mn.us/rsea/metro_assessment.html

**For More Information:**

Kate Drewry
Metro Greenways Coordinator
Minnesota Department of Natural Resources
ph. (651) 772-7946
kate.drewry@dnr.state.mn.us

Sharon Pfeifer
Regional Planner and Metro Greenways Planning
Grants Manager
Minnesota Department of Natural Resources
ph. (651) 772-7982
sharon.pfeifer@dnr.state.mn.us

Margaret (Peggy) Booth
Community Assistance Manager and Metro Wildlife
Corridors Program Manager
Minnesota Department of Natural Resources
ph. (651) 772-7562
peggy.booth@dnr.state.mn.us

Authors

This green infrastructure case study was prepared by Sharon Pfeifer, Margaret Booth, Kate Drewry, Joy Drohan, and Mark Benedict.

Sharon Pfeifer, Regional Planner and Metro Greenways
Planning Grants Manager
Minnesota Department of Natural Resources

Margaret (Peggy) Booth, Community Assistance Manager
and Metro Wildlife Corridors Program Manager
Minnesota Department of Natural Resources

Kate Drewry, Metro Greenways Coordinator
Minnesota Department of Natural Resources

Joy Drohan, freelance environmental science writer/editor
Eco-Write, LLC

Mark Benedict, Senior Associate for Strategic
Conservation and Training
The Conservation Fund



©2003 Regents of the University of Minnesota.
Used with the permission of Metropolitan Design Center.

About Green Infrastructure

Green infrastructure is a strategic approach to land and water conservation that links lands for the benefit of nature and people, helps identify conservation priorities, and provides a planning framework for conservation and development. Green infrastructure is different from conventional approaches to conservation because it looks at conservation values and actions in concert with land development and growth management. Green infrastructure projects bring public and private partners together to work collaboratively toward a common land conservation goal. They help move beyond jurisdictional and political boundaries by providing a process for identifying, protecting, and restoring interconnected green space networks that conserve natural ecosystem functions and provide associated benefits to human populations. The green infrastructure approach appeals to people concerned about biodiversity, habitat, and land conservation as well as people interested in open space and land use planning at the community, region, or statewide scale. It also appeals to smart growth advocates because of its potential to lessen impacts and reduce the costs of built infrastructure.

Green Infrastructure Case Study Series

This series of case studies highlights successful and innovative green infrastructure projects from around the country. The series was undertaken so that readers can learn from and improve upon approaches tried by others. We hope that thorough, well-documented examples will allow readers to see the many possibilities and to adapt successful practices to their unique situations and challenges. Each case study addresses the same basic pieces of the story: overview, highlights, background and context, process, public education and participation, results and products, management and stewardship, financing, application of green infrastructure principles, and evaluation. Eight principles of green infrastructure, which are elements of most successful efforts, form the core of the case studies. The series illustrates concrete, real-life examples of how to assess and protect green infrastructure, including details about how each step was implemented.

About The Conservation Fund

The Conservation Fund is a national, nonprofit land conservation organization that forges partnerships to protect America's legacy of land and water resources. Through land acquisition, community planning, and leadership training, the Fund and its partners demonstrate sustainable conservation solutions emphasizing the integration of economic and environmental goals. Since 1985, the Fund has protected more than 4 million acres of open space, wildlife habitat, and historic sites across America.

The Conservation Fund's Green Infrastructure Program was created in 1999 to build the capacity of land conservation professionals and their partners to undertake strategic conservation activities that are proactive, systematic, well integrated, and applied at multiple scales. The program is a cooperative effort of the Fund and multiple public and private partners. Program products include a national course, workshops and conference sessions, publications, case studies, demonstration projects, a website, and related educational materials.

The Conservation Fund would like to thank the Surdna Foundation and the USDA Forest Service for providing support for this and other Green Infrastructure Program products.