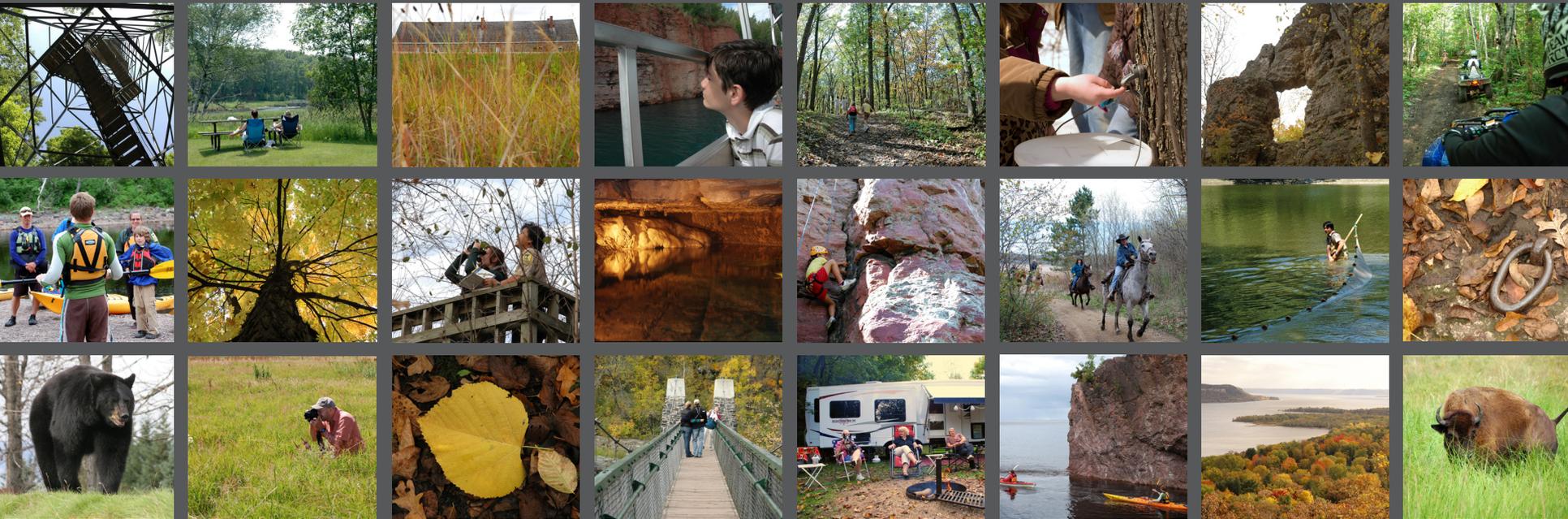


Minnesota's Network of Parks & Trails



Framework January 2011

Acknowledgements & Table of Contents

This project was produced and completed by The Center for Changing Landscapes (CCL) and the Department of Forest Resources, College of Food, Agricultural, and Natural Resource Sciences and College of Design at the University of Minnesota. Funding for this project was received from the Minnesota State Legislature. Minn. Gen. Laws. Ch (64.8 § 6). Creation of a Parks and Trails Inventory, Framework, and Plan.

The project contributors include:

Mary Vogel, CCL Co-Director, Principal Investigator

Alan Ek, CCL Co-Director

Mae Davenport, PhD, Co-Investigator, Assistant Professor

Ingrid Schneider, PhD, Co-Investigator, Professor

Cindy Zerger, Research Fellow & Project Manager

Brian Schreurs, GIS Analyst

Andrew Oftedal, Research Assistant

Egle Vanagaite, Research Fellow

Alex Smith, Research Assistant

Lisa Filter, Research Assistant

Andrea Date, Research Assistant

Lisa Picone, Editor

© Copyright 2011

This publication is available at: <http://ccl.design.umn.edu/>

For alternative formats, please direct requests to:

Center for Changing Landscapes

151 Rapson Hall

89 Church Street

Minneapolis, MN 55455

612.624.7557

Special thanks to:

Minnesota Department of Natural Resources, Explore Minnesota Tourism, the Metropolitan Council, and the 10/25 Parks & Trails Legacy Plan Steering Committee.

A very special thanks to **Laurie Young, MnDNR**, for her partnership and support.

Cover Page & CD Cover Images: Lower left image, Carol Henderson. All others, MnDNR. Used with permission



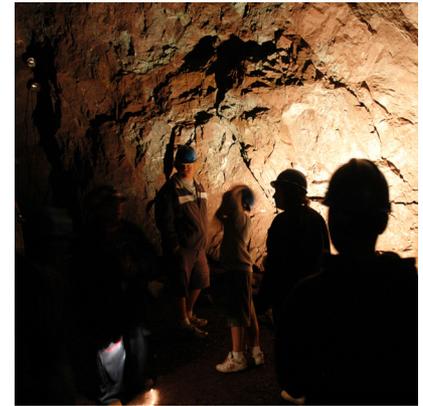
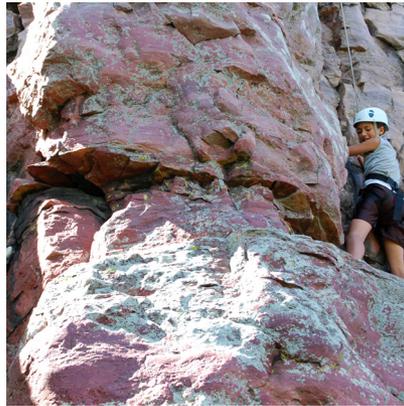
CENTER FOR
CHANGING
LANDSCAPES

COLLEGE OF DESIGN
Department of Forest Resources
College of Food, Agricultural
and Natural Resource Sciences
UNIVERSITY OF MINNESOTA

Table of Contents

Executive Summary	2-5	Project Approach	55-57
Enhancing Assets		Opportunities Approach	
Developing Assets		Regional Focus	
Limitations		Methodology	
Project Introduction	7-9	Recreation Opportunity Analysis	59-65
Legislative Charge		2010 Supply of Outdoor Recreation Resources	
Integrated Network Guidelines		Recreation Location Quotient Analysis	
Statewide & Regional Opportunities	11-17	References & Additional Resources	66-67
Opportunities to Enhance Existing Assets		2010 Supply of Outdoor Recreation Resources	
Opportunities to Develop New Assets		Recreation Location Quotient Analysis	
Central			
Metro			
Northeast			
Northwest			
South			
Statewide Strategies	19-29	Appendices	69-83
Enhanced & Connected Network of Outdoor Recreation Facilities		Appendix A: Authorizing Legislation	
Opportunity to Develop New Assets		Appendix B: Tables	
Partnerships		Appendix C: Definition of Regionally Significant Parks and Trails	
Ecological Protection			
Citizen Engagement, Education, & Outreach			
Communication			
Regional Strategies	31-53		
Central			
Metro			
Northeast			
Northwest			
South			

Executive Summary



The framework:

- // Responds to recreational trends and demographic changes.
- // Examines underserved areas and gaps in the current park and trail systems.
- // Identifies opportunities to enhance existing assets, develop new assets, and link those assets together effectively within realistic financial resources.

In 2009, the Minnesota Legislature directed the University of Minnesota Center for Changing Landscapes (CCL) to create a long-range framework for an integrated statewide parks and trails system. The framework provides information that can guide decisions for acquiring and developing parks and trails. It suggests ways to link resources to meet the needs of a growing and diversifying populace and create a synergistic statewide network.

The full recreation experience for users was considered - from anticipation and planning through participation and then recollection of the activity - as a guide to enhance programming, planning, and management approaches. Similarly, the full spectrum of recreation opportunities, from primitive to developed, was considered when assessing acquisition and development

opportunities. Strategies presented in the framework are a range of responses to the opportunities: they are not prescriptive nor are they exhaustive, but rather possibilities.

Natural resource-based recreation data for federal, state, and regionally significant lands generated in the Minnesota's Network of Parks and Trails Inventory were used for the framework. With these data, the supply of outdoor recreation resources in each of five regions (Northwest, Northeast, Central, Metro, and South) was compared to the state supply overall, using population size estimates, inter-regional demand estimates, and land area estimates.



Opportunities at both the state and regional levels reflect similar themes:

Link. *Connect trails to other trails, connect trails to parks, and connect communities to parks and trails. Each of these opportunities takes on a high priority in creating a statewide network of parks and trails.*

Address diverse visitor groups. *Decision-makers need to understand visitors and potential visitors to create opportunities that will engage and retain them. Diversity across age, life stage, and race or ethnicity leads to diversity in recreation preferences.*

Respond to multiple setting preferences. *Minnesota has opportunities to continue to offer a wide range of outdoor settings, from primitive to developed, in an integrated network.*

Embrace ecology. *Outdoor recreation areas can help preserve and protect Minnesota's varied ecosystems, both by retaining their character and through interpretation and education around the values of different ecological systems.*

Coordinate and integrate. *Working across agency and administrative boundaries maximizes resources and returns on investments.*

Consistently communicate. *Information about natural resource-based recreation opportunities needs to be consistent, easily available, and appropriate to varied visitor groups and their different interests and needs.*

Executive Summary



Key opportunities to create an integrated parks and trails network include:

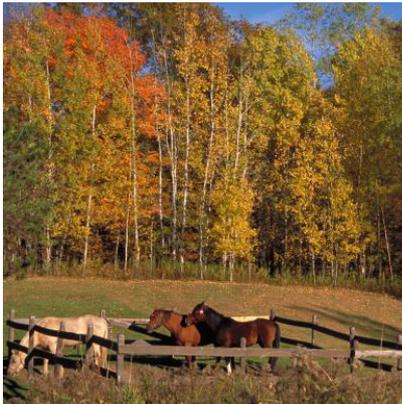
Enhancing Assets

- // Maintain existing areas and trail miles across and throughout seasons, as appropriate.
- // Support and expand communications, facility design, and programming for:
 - o Younger generations that promote recreation experiences associated with achievement, stimulation, and challenge (e.g., taking risks, being active, feeling exhilarated, being adventurous, developing new skills).
 - o Racial and ethnic groups that promote activities and experiences sought by diverse groups. For instance, multi-lingual information/interpretation and facilities that accommodate large groups and onsite meal preparation (e.g., group picnic areas with barbeque grills, group campgrounds, fishing piers).
 - o Older generations that promote recreation experiences associated with learning (e.g., cultural and natural history).
- // Examine existing facility accessibility through audits and planning processes to implement 2012 accessibility standards (<http://www.access-board.gov/ada-aba/ada-standards-doj.cfm#recreation>)
- // Plan for continued increases in demand for camping opportunities and consider supply as well as appropriateness for inter-generational, multi-modal, and ethnically/racially diverse group preferences.

- // Plan for increases in nature observation through identification and clustering of existing opportunities with attention to both protection of and recreation access to diverse natural habitats across ecological regions and sections.
- // Plan for increases in all-terrain vehicle ridership and consider supply and visitor capacity for types of activities (particularly in the Central, Northeast and Northwest Regions) as well as rider preferences for communications, facility design and programming.
- // Acknowledge, identify, and reduce constraints to participation across age groups, in particular younger and older populations.
- // Acknowledge, identify, and reduce constraints to participation across racial and ethnic groups.
- // Consider the full spectrum of ecosystem services of existing assets as well as in future acquisitions.
- // Consider integrating with existing and planned transportation systems to enhance commuting and multi-modal transportation that connects residents and tourists to parks and trails.

Developing Assets

- // Prioritize Central Region for outdoor recreation resource development because of projected population growth and relative deficit of outdoor recreation resources.



- // Prioritize Metro and Central Regions for nature-based trail development, based on current population size and population growth.
- // Prioritize Metro, Central and South Regions for non-motorized winter trail-related activity.
- // Develop accessible resources that meet the 2012 accessibility standards (<http://www.access-board.gov/ada-aba/ada-standards-doj.cfm#recreation>) and reduce constraints for aging population.
- // Anticipate stable-to-increased participation in walking/hiking and jogging/running and address trail supply accordingly.

Limitations

The existing systems of parks and trails in Minnesota is dynamic: new lands may be acquired, access points created, and infrastructure developed. This analysis is based on the best available county, state, and federal data as of October 26, 2010.

The available data offer insight into recreation resource supply, based on the distribution of areas and trails across the state and the presence of select facility attributes. However, the data and analysis do not assess the quality of the resources or whether resources are meeting real demand. The analysis only considers *potential* demand, based on state population estimates and inter-regional demand, because accurate and comprehensive demand statistics are unavailable.



The five study regions: Central, Metro, Northeast, Northwest, and South. Minnesota Department of Natural Resource's study regions for the social science research and monitoring program.

Project Introduction

Legislative Charge



Legislation (64.8 § 6) Creation of a Parks and Trails Inventory and Framework.

Legislation (64.8 § 6) CREATION OF A PARKS AND TRAILS INVENTORY, FRAMEWORK, AND PLAN. Subdivision 1. Inventory and framework development. (a) The University of Minnesota Center for Changing Landscapes is directed to create a long-range framework for an integrated statewide parks and trails system that provides information on the natural resource-based recreational opportunities available throughout the state. The detailed framework must include an inventory of existing regionally and statewide significant parks and trails, respond to recreational trends and demographic changes, and identify underserved areas, overused facilities, and gaps in the current parks and trails system. The framework must identify opportunities for enhancing existing assets, developing new assets, and linking those assets together effectively within realistic financial resources. (See Appendix A for full authorizing text.)

Integrated Network Guidelines

Minnesota's Network of Parks and Trails should be managed **adaptively** to ensure its long-term sustainability with respect to the protection of natural and cultural resources, the facilitation of high quality recreation experiences, and the advancement of stewardship behaviors among Minnesotans.

A variety of **complementary** outdoor recreation settings and linkages between those settings should be maintained across the State, because Minnesotans seek a diversity of high quality recreation opportunities, and recreation experiences contribute to the high quality of life in Minnesota.

Minnesotans' **access** to diverse, high quality outdoor recreation opportunities must be evaluated in light of the state-wide, regional and local supply including the abundance, quality, and distribution of parks and trails.

Opportunities for **high quality** recreation experiences should be created, monitored, and sustained through careful consideration of recreation settings, activities, experiences, benefits, and constraints.

As Minnesota's population grows and settlement patterns shift, addressing how these **population dynamics** will affect demand for and access to diverse, high quality outdoor recreation opportunities will be essential.

As Minnesota's population **diversifies**, monitoring and meeting the needs of multiple population subgroups will be critical because these groups vary in the recreation settings, activities, and experiences they prefer, as well as the constraints they face.

Impacts and potential threats to Minnesota's Network of Parks and Trails should be monitored and assessed across three setting components: (a) the natural environment, (b) the social environment, and (c) the built and managed environment.

Statewide & Regional Opportunities

Authors: Mae Davenport & Ingrid Schneider

// Opportunities to Enhance Existing Assets

// Opportunities to Develop New Assets

statewide & regional opportunities // 11

Statewide Opportunities

Opportunities to Enhance Existing Assets

The opportunities identified here are based on a review of the natural resource-based recreation resources in Minnesota, the kind of activities visitors take part in at each setting, and the experiences they have before, during, and after engaging in recreation. Minnesota's landscape is varied both geographically and demographically. This diversity of landscapes and differences in population distribution mean it is not possible, appropriate, or desirable to create a one-size-fits-all strategy for Minnesota's natural resource-based parks and trails.

// Support and expand communications, facility design, and programming that promote activities and experiences sought by various racial and ethnic groups. For instance, integrate multi-lingual information / interpretation and facilities that accommodate large groups and on site meal preparation (e.g., group picnic areas with barbeque grills, group campgrounds, fishing piers).

// Support and expand communications, facility design, and programming that promote recreation experiences associated with learning (e.g., cultural and natural history) for older generations.

// Support and expand communications, facility design, and programming that promote recreation experiences associated with achievement, stimulation, and challenge (e.g., taking risks, being active, feeling exhilarated, being adventurous, developing new skills) for younger generations.

// Examine existing facility accessibility through audits and planning processes to implement 2012 accessibility standards (<http://www.access-board.gov/ada-aba/ada-standards-doj.cfm#recreation>).

// Plan for continued increases in demand for camping opportunities and consider supply as well as appropriateness for inter-generational, multi-modal, and ethnically/racially diverse group preferences.

// Maintain existing areas and trails across and throughout seasons, as appropriate.

// Plan for increases in nature observation through identification and clustering of existing opportunities, with attention to both protection of and appropriate recreation access to diverse natural habitats across ecological regions and sections.

// Plan for increases in all-terrain vehicle ridership and consider supply and visitor capacity (i.e., types of activity, particularly in the Central, Northeast, and Northwest regions) as well as rider preferences for communication, facility design, and programming.

// Acknowledge, identify, and reduce constraints to participation across age groups, in particular younger and older populations. Acknowledge, identify, and reduce constraints to participation for racial and ethnic minority groups.



Opportunities to Develop New Assets

- // Prioritize the Central Region for outdoor recreation resource development, based on the projected population growth and relative deficit of outdoor recreation resources.
- // Prioritize the Metro and Central Regions for nature-based trail development, based on current population size and population growth projections.
- // Prioritize the Metro, Central, and Southern Regions for non-motorized, winter trail-related activity.
- // Develop accessible resources that meet the 2012 accessibility standards (<http://www.access-board.gov/ada-aba/ada-standards-doj.cfm#recreation>) and reduce constraints for aging users and users with disabilities.
- // Anticipate stable-to-increased participation in walking/hiking and jogging/running and address the trail supply accordingly.



Regional Opportunities

Regional Opportunities are based on an in-depth and systematic analysis of natural resource-based recreation supply and demand in each region.

Central Region

Significant population density and high population growth through 2035 characterize this region. Opportunities for nature-based recreation are lower than the state score and are exacerbated through 2035, when population is projected to increase 74%. Though every county in the region is projected to grow, Wright, Stearns, and Isanti Counties are expected to experience the highest population growth. As such, significant opportunities exist to meet 2009 and projected demand in this region.

Opportunities to Enhance Existing Assets

// Address below the state score supply of group and primitive camping opportunities to meet existing and increasing population-based demand.

// Emphasize opportunities for young people as this region has a higher proportion of younger residents (i.e., 18 years of age and younger) than the state overall. Enhance communications, facility design, and programming that promote recreation experiences associated with achievement, stimulation, and challenge (e.g., taking risks, being active, feeling exhilarated, being adventurous, developing new skills).

// Consider trail enhancement opportunities for adventure and physical challenge. Trail users in this region tend to seek experiences related to skill development, challenge, and excitement more than the state overall.

// Address potential problems tied to high use levels including noise, crowding, resource degradation, and accessibility problems.

// Increasing demand on recreation resources overall may place added pressure on existing facilities requiring additional enhancements and design strategies.

Opportunities to Develop New Assets

// Identify and expand opportunities for nature-based recreation area development to meet existing and future population demand.

// Acquisition and expansion should consider the region's high participation in hunting, fishing, and motorized trail activities.

// Expand snowmobiling trails to address high participation and low population-based supply in 2035.

// Evaluate water bodies as potential state water trails to address low population-based supply in 2035.

// Evaluate supply of accessible fishing piers and access points and consider increasing the supply in response to the aging angler population.

// Examine opportunities to develop new nature-based recreation resources in the Minnesota and Northeast Iowa Morainal and Western Superior Uplands as these ecological sections are below the state standardized score in supply of outdoor recreation resources.

Metro Region

This region is characterized by high-density population and is expected to remain dense, with 20% growth by 2035. Scott, Carver, and Washington Counties are projected to have the highest growth in this region. The population remains more diverse than any other region through 2035. In particular, Hennepin and Ramsey Counties have the highest percentage of Black, Asian, and Hispanic/Latino residents in the state. The region is above the state score in density of recreation resource trails; however as of 2009 and through 2035, the population-based supply of areas, trails, and amenities will remain below the state score unless there are significant system changes.

Opportunities to Enhance Existing Assets

// Support and expand communications, facility design, and programming that promote activities and experiences sought by Hispanic, Black, and Latino populations. For instance, multi-lingual information/interpretation, family-oriented programming, and facilities that accommodate large groups and on site meal preparation (e.g., group picnic areas with barbeque grills, group campgrounds, fishing piers).

// Support and expand communications, facility design, and programming that promote activities and experiences sought by Asian



populations. For instance, multi-lingual information/interpretation, family oriented programming, and facilities that accommodate large groups and on site meal preparation (e.g., group picnic areas with barbeque grills, group campgrounds, fishing piers). Opportunities for fishing, hunting, and gathering should be enhanced with consideration of unique game species that may be sought by various ethnic groups.

- // Evaluate and enhance camping facilities of all types (e.g., developed, group, primitive, accessible sites meeting Americans with Disabilities Act (ADA) 2012 design standards) to meet predicted increase in participation in camping, with particular consideration to inter-generational and racially/ethnically diverse recreationists.
- // Prioritize efficient, safe, and accessible trails and connections for activities in which there is higher than state score levels of participation, including walking/hiking, biking, running/jogging, and inline skating.
- // Consider outdoor recreation resource enhancements that promote experiences such as exploring or discovering new things. Residents in this region tend to seek these experiences to a greater extent than the state average.
- // Acknowledge, identify, and reduce conflict among non-motorized trail users in this region through effective outreach and education throughout all phases of the recreation experience, with consideration to inclusive and effective communication with diverse age and racial/ethnicity groups.
- // Address potential problems tied to high use levels including noise, crowding, resource degradation and accessibility problems.

Opportunities to Develop New Assets

- // Identify and expand opportunities for nature-based recreation areas and trail development to meet existing and future population demand, with consideration of existing higher than the state score density of summer and winter trails and amenities in this region.
- // Develop amenities to meet existing and future population demand with special consideration of camping facilities, RV/camper camping

facilities, primitive camping facilities, visitor centers, and equipment rental, which were below population-based state scores.

- // Examine opportunities to develop new recreation resources in the Minnesota and Northeast Iowa Morainal ecological section as it is below the state score in supply of outdoor recreation resources.

Northeast Region

This region is characterized by a dispersed population with below-average population growth and above-average numbers of people age 65 and older. Generally, the number of natural resource-based recreation areas and trails is higher than the state standardized score when considering the population base in 2009 and in 2035. However, the area is lower than the state score when one considers inter-regional demand for regionally significant areas both now and in 2035. When the area-based supply is considered, the Northeast is below the state score in winter motorized trails, regionally significant areas, picnic areas, and developed and group camping.

Opportunities to Enhance Existing Assets

- // Maintain existing resources to retain high-quality recreation opportunities.
- // Evaluate and enhance camping facilities of all types (e.g., developed, group, primitive, ADA accessible sites) to meet predicted increase in participation in camping with particular consideration to inter-generational recreationists.
- // Evaluate and enhance supply of accessible fishing piers and access points and consider enhancing supply for aging angler population.
- // Evaluate and enhance supply of picnic facilities across providers, with attention to ADA accessibility.
- // Consider outdoor recreation resource enhancements for activities in which there is above-average participation, such as mushroom and berry gathering.

Regional Opportunities

- // Consider outdoor recreation resource enhancements that promote experiences such as solitude, silence and quiet, and being away from other people. Residents in this region tend to seek these experiences to a greater extent than the state as a whole.

Opportunities to Develop New Assets

- // Identify and expand opportunities for winter motorized trail development to address lower than the state standardized score in density, with significant attention to soundscapes to reduce visitor conflict.
- // Examine opportunities to develop new recreation resources in the Southern Superior Uplands and Western Superior Uplands, as these ecological sections are below the state score in supply of outdoor recreation resource areas.
- // Examine opportunities to develop summer trails in the Northern Minnesota and Ontario Peatlands eco-sections as it is below the state score in supply of summer trails.

Northwest Region

Similar to the Northeast, this region is characterized by a dispersed population with below-average population growth and above-average numbers of people 65 and older. This region is home to the highest percentage of American Indians in the state. The region has above-average participation in consumptive recreation activities (e.g., hunting and fishing) and motorized recreational activities (e.g., ATV and snowmobiling).

Generally, the number of nature resource-based recreation areas and trails is higher than the state standardized score when considering the population base. However, the region is below the state score when one considers population increases in 2035 and inter-regional demand for regionally significant areas both 2009 and in 2035. Specific to trails, the region is below average for winter non-motorized trails both now and the future. When the area-based supply is considered, the Northwest is below the state score in all trail types other than summer motorized, as well as for camping and picnic opportunities.

Opportunities to Enhance Existing Assets

- // Maintain existing resources to retain high-quality recreation opportunities.
- // Evaluate and enhance opportunities for camping of all types (e.g., developed, group, primitive, ADA accessible sites) to meet predicted increase in participation in camping with particular consideration to inter-generational and racially/ethnically diverse recreationists.
- // Evaluate and enhance supply of accessible fishing piers and access points and consider supply for an aging angler population.
- // Evaluate and enhance supply of picnic facilities across providers, with attention to ADA accessibility.
- // Consider outdoor recreation resource enhancements for activities in which there is above-state score participation, such as hunting, fishing, ATV use, and snowmobiling.
- // Consider outdoor recreation resource enhancements that promote experiences such as experiencing silence and quiet and being on one's own. Residents in this region tend to seek these experiences to a greater extent than the state score.

Opportunities to Develop New Assets

- // Identify and develop opportunities for trail activities to meet area-based state score; pay significant attention to soundscapes to reduce visitor conflict in all seasons.
- // Examine opportunities to develop new recreation resources in the Lake Agassiz, Aspen Parklands; Red River Valley; Minnesota and Northeast Iowa Morainal; and North Central Glaciated Plains ecological sections as they are below the state score in supply of outdoor recreation resources and trails.



South Region

This region is characterized by below-average density and projected population growth through 2035. While the population mirrors the state average in age groups, it is below average in diverse constituents, except for Nobles and Watonwan Counties.

Without new investment, the region is and will remain below the state standardized score in all recreation resource areas. Based on both area and population, the Southern region will continue to have lower than the state score summer trails through 2035. In contrast, both water and winter trails are at or above the state score now and through 2035, with the exception of inter-regional demand adjustments for winter trails. With the exception of primitive camping, select existing facilities indicate the existing areas are higher than the state score in supply now and in the future. Residents in the region participate below the state average in most recreation activities, with only half the state score in cross-country skiing and inline skating.

Opportunities to Enhance Existing Assets

- // Support and expand communications, facility design, and programming that promote activities and experiences sought by Hispanic/ Latino populations especially in Nobles and Watonwan Counties where growth in these populations is projected. For instance, multi-lingual information/interpretation, family oriented programming and facilities that accommodate large groups and on site meal preparation (e.g., group picnic areas with barbeque grills, group campgrounds, fishing piers).
- // Prepare for increased nature observation as rural residents age.
- // Consider tourist preferences for hiking, fishing, and bicycling in this region as areas and trails are enhanced and developed, as the region is a major corridor for tourists.
- // Evaluate and enhance opportunities for camping of all types (e.g., developed, group, primitive, ADA accessible sites) to meet predicted increase in participation in camping with particular consideration to inter-generational and racially/ethnically diverse recreationists.

- // Consider outdoor recreation resource enhancements that promote experiences such as being on one's own, getting away from the usual demands of life, doing something with family, and being with people who enjoy similar things. Residents in this region tend to seek these experiences to a greater extent than the state average.

Opportunities to Develop New Assets

- // Identify and expand opportunities for nature-based recreation areas and trail development to meet existing and future population demand with consideration to region's average participation in most activities.
- // Consider tourist preferences as areas are developed; this area is a major corridor for tourists.
- // Identify and expand opportunities for summer trail development, both motorized and non-motorized, to meet state scores, with significant attention to soundscapes to reduce visitor conflict.
- // Examine opportunities to develop new recreation resources in the North Central Glaciated Plains and Minnesota and Northeast Iowa Morainal ecological sections as they are below the state score in supply of outdoor recreation resources and trails.



Statewide Strategies

Authors: Center for Changing Landscapes Staff

// Enhanced and Connected Network of Outdoor Recreation Facilities
// Partnerships
// Ecological Protection
// Citizen Engagement, Education, and Outreach
// Communication

Statewide Strategies

The strategies are a range of responses to the opportunities for investment. They are not prescriptive nor are they exhaustive but lists of possibilities to be selected or rejected by decision-makers.

Detailed actions that allow decision-makers to take advantage of statewide opportunities are in five strategic areas. Actions that can be applied in many different physical settings across Minnesota are listed first. Strategies for citizen engagement, education, and outreach are listed second, and strategies for improved communication are listed third. This section is organized into the following sections:

- // Enhanced and connected network of outdoor recreation facilities
- // Partnerships
- // Ecological protection
- // Citizen engagement, education, and outreach
- // Communication

Enhanced and Connected Network of Outdoor Recreation Facilities

1. Create a Parks/Trails/Byway Network

The State's scenic byways can be important integral parts of the State's recreational network.

Strategies include:

- // Reframing and redefining Minnesota's Park and Trail Network as Minnesota's Park, Trail, and Scenic Byway Network, a seamless recreational park/trail/byway network.
- // Identifying segments where a byway can provide temporary connections between and among network "parts" where trail segments are planned but not yet built.
- // Identifying and implementing byway segments to serve as connectors that span gaps between trails and park systems.
- // Identifying and implementing byway corridors to serve as the park/trail/byway network's backbone by spanning the long distances between the recreational assets located at great lengths from each other.

// Identifying and implementing places where byways provide gateways to important recreational sites.

// Extending the trail system by integrating the construction and funding of trail segments into byway construction or reconstruction projects where appropriate.

// Creating working alliances between and among park, trail, and byway groups to promote park/trail/byway use and to create the joint facilities described below.

2. Create Signature Park/Trail/Byway Network Facilities

Special places along the network of parks, trails, and byways across the State offer places to stop, points of entry into a number of the network's park and trail systems, and places to gather information. Besides having historic or scenic importance, these special sites can be trailheads for water and terrestrial trails, rest stops for byway users, and gateways to local, regional, state, and federal parks and recreational areas.

Efficiencies, cost-effectiveness, and synergy among different types of recreational systems within the network could be created by these multi-use facilities that are larger, have more amenities, and use less land than a proliferation of single-use, less comprehensive facilities. These sites can improve access to information on the range of natural resource-based recreational opportunities available in the vicinity; provide extensive interpretation; reduce the abundance of parking lots; and reduce land acquisition, development, and management costs.

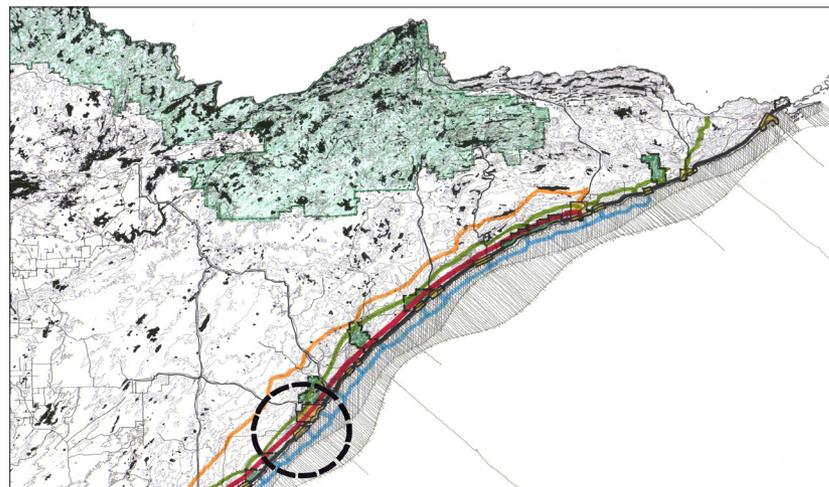
Although each site would have a recognizable signature identity, they would also have a distinctive character that reflects and supports its natural and cultural surroundings. Amenities offered could include comprehensive recreation information, interpretation, water, bathrooms, car parking, bike racks, and snowmobile spaces. The planned scenic byway/multi-trailhead facility at Beaver Bay is an example of this type of shared facility.

Implementation strategies for these special places include:

- // Determining systems/facilities candidates for aggregated facilities within the larger recreational environment.



- // Convening a work group representing the network's systems involved to plan/implement the joint facility.
- // Determining the appropriate interval for spacing the series of facilities.
- // Identifying the most appropriate site locations in existing parks, waysides, trailheads, and communities by working in partnership with local public works and parks and trails departments and other agencies such as Department of Transportation, the Department of Natural Resources, the National Park Service, the National Forest Service, the Army Corps of Engineers, and the Minnesota Historical Society.
- // Determining if additional short, connecting segments or extensions are needed to reach the site from some of the facilities and building them.



Conceptual graphics of a signature network facility at Beaver Bay. Efficiencies, cost-effectiveness, and synergy among different types of recreational systems within the network could be created by these multi-use facilities that are larger, have more amenities, and use less land than a proliferation of single-use, less comprehensive facilities. These special sites can be trailheads for water and terrestrial trails, rest stops for byway users, and gateways to local, regional, state, and federal parks and recreational areas.



Statewide Strategies

3. Use Road Projects to Help Build Trails

Roads can advance trail construction because they have land and other resources for building trails. Trail construction on the State's 22 scenic byways offers a particular opportunity for incorporating trails projects within road projects, because some roads run parallel to planned or existing trails.

Strategies include:

- // Siting trail alignments on decommissioned roadbeds and bridges, alongside downgraded roads, and within wide right-of-ways.
- // Incorporating trail construction into capital projects for both new and existing roads.

4. Use Abandoned Railroad Infrastructure for Trails

Although most of the State's abandoned rail lines have already been used for trails or been sold to private landowners, there are still some potential trail opportunities. Some private landowners of abandoned rail right-of-ways may be willing to sell a short but important needed segment. Although most train routes have been stable historically, new acquisition opportunities emerge periodically when rail routes are reconfigured as railroad companies merge or are discontinued because they are uneconomical, or when trains are rerouted within the existing rail network. These corridors, even when not very long, may be important segments because they can provide an important commuting link, bring trails into communities and through communities, or provide siting for a trail in a formerly tight configuration.

Decommissioned rail bridges also can provide opportunities for trails. In the future when current rail lines are upgraded to accommodate high-speed rail, some bridges may become available.

Rail corridor strategies include:

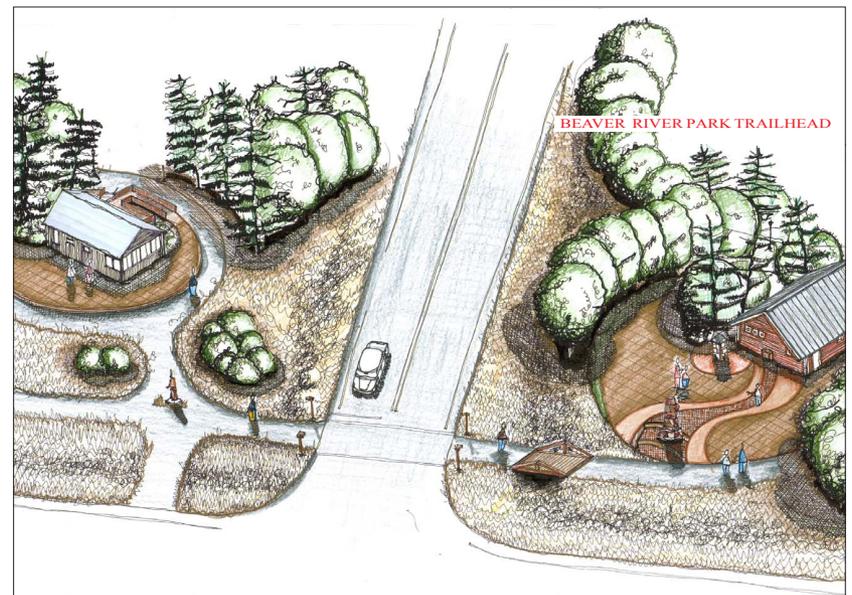
- // Monitoring rail line changes.
- // Identifying abandoned rail corridors, with particular attention to growth areas such as the Metropolitan Area and the growth counties in Greater Minnesota.

5. Integrate and Connect Local, Regionally Significant, State, and Federal Trails

Currently the State's fragmented trail network has many trail providers and trail systems, many incomplete or unbuilt trails, snowmobile trails that are dependent upon yearly permits from private landowners, and local trails that do not connect to each other or to any regional or state facilities.

Strategies to create a more complete, connected trail network include:

- // Identifying places where a trail segment from one trail system can contribute to another; for example, a local trail could provide a segment of a regional trail.
- // Acquiring more permanent trail corridors for snowmobiles.
- // Identifying trails that can serve different seasonal uses; a winter trail and a summer trail could use the same or parallel alignments within a corridor.



The many trails along Lake Superior's edge provide an opportunity to integrate and connect local, regionally significant, state, and federal trails.



6. Connect with Short Trail Segments

Because some state and regionally significant parks are located close to regional centers, there are opportunities to link communities to parks, just as the Blazing Star State Trail links Albert Lea to Myre/Big Island State Park. In areas of Greater Minnesota where the longer, more traditional state and regional trails are not practical, creating a short trail that starts in a regional center is an option. Besides encouraging commuting for recreation opportunities, these shorter trails can provide other opportunities for commuting to work and to school, if they are linked to community trail systems. An example of a commuting-for-work and commuting-for-recreation trail is the proposed trail connection from the transit stop in Golden Valley to the Luce Line State Trail.

Strategies include:

// Identifying routes to nearby parks.

7. Strengthen Water Trails

Potential investments for Minnesota's four thousand miles of water trails range from simply making them more visible to upgrading facilities, including:

// Posting signature trail signs along roads, on bridges, and in local, regional, and state parks.

// Marking water trails on federal, state, regional, and local park maps.

// Creating and posting water trail maps and interpretive materials at access points and in the parks and other public places along the trails.

// Using sustainable design, installation techniques, and management practices in creating and retrofitting new and existing boat access points and their parking lots.

// Making water trails a part of the network facility sites.

// Creating more access points on existing public lands.

// Providing more rental kayaks in parks to promote water trail use and accommodate the growing interest in kayaking as reflected in the growing number of registered kayaks in the State.

Partnerships

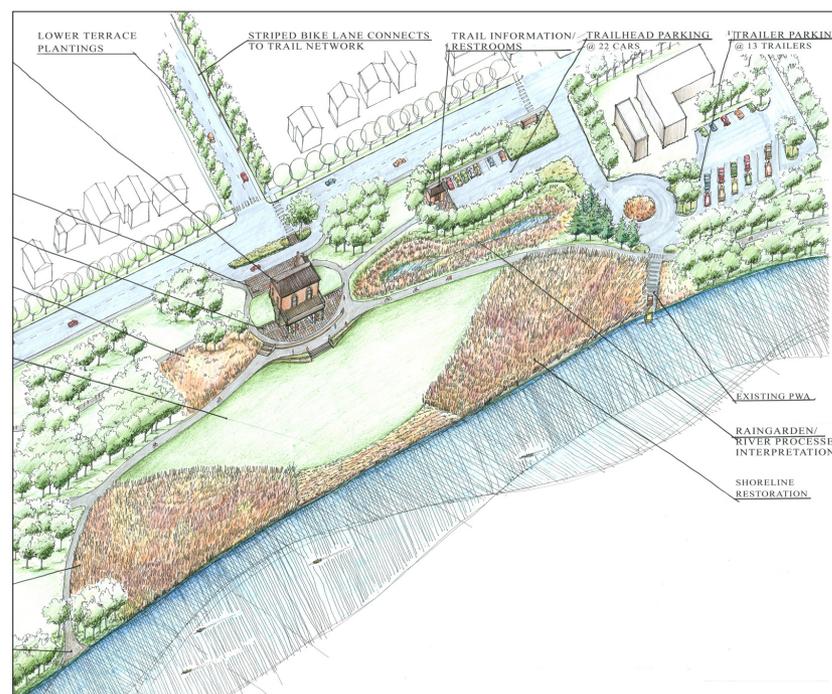
1. Create Partnerships for Enhanced Programming and Management

Partnerships create opportunities to improve the services offered, provide more extensive interpretation, make seamless connections, improve efficiency, and reduce costs. For example, local citizens and the DNR work together to run the mill at Old Mill State Park during one weekend every fall and the Nicollet Historical Society helps staff Fort Ridgely State Park.

Examples of partnership opportunities include:

// Creating alliances with local active-living efforts.

// Pursuing relationships with tribal governments on access to and management of recreation facilities, similar to the Grand Portage agreement, wherever appropriate and desirable.



City of New Ulm Conceptual Graphic, Riverside Park Trailhead. An example of a city park that could be a water and terrestrial trailhead.

Statewide Strategies

2. Create Recreational Resources by Partnering on Natural Resource Acquisition Projects

As non-governmental organizations (NGOs) and government agencies work to acquire areas of natural resource significance, there may be opportunities to integrate a recreational agenda into some projects. An example of this is Dakota County's corridor efforts, which integrate wildlife habitat acquisition, water quality protection, and trail development.

3. Improve Physical Facilities through Partnering at the Local Level

Local additions and enhancements to the network can be provided through partnerships with local systems and programs.

Examples include:

- // Using local trails segments as pieces in the regionally significant/state network.
- // Using local park sites for trailheads and water trail accesses.
- // Creating alliances with local park and trail providers, Safe-Route-to-School initiatives, State Health Improvement Program grantees, and other recreational efforts where appropriate, to work together to build trails to improve access to and the use of parks and trails located in close proximity to local communities.

4. Provide Transit Access to Parks and Trails

Because there is very little current transit access to parks and trails, strategies to increase that access include:

- // Considering recreational access as part of the light- and heavy-rail passenger service planning efforts by identifying the station-to-park trail connections needed to improve access.
- // Exploring the use of dial-a-ride service to serve parks.
- // Partnering with organizations that have buses and vans to provide park shuttle service during times of high park use, such as weekends and holidays.

Ecological Protection

1. Continue and Expand the Natural Resource Protection Role of Parks and Trails

24



Red Lake Falls Crow's Foot Point Park Conceptual Graphic illustrating the use of a city park for shared city park and state water trail facility.

By statute state parks must play a role in natural resource protection; many park locations were chosen to protect a particular landscape type. Increasingly, local and regional parks are being created in landscapes that need protection and trail corridors are being sited to provide wildlife corridors.

Strategies to enhance the natural resource protection role of parks and trails include:

- // Considering regional, regionally significant, and local parks and trails as potential natural resource protectors.

2. Create a Green Legacy: Green Parks, Trails, and Recreation Areas

Located in areas of important, sensitive, and beautiful natural resources, outdoor recreation parks and trails are susceptible to damage from inappropriate design, installation, management, and use.

Strategies to green park and trail systems include:

- // Requiring a site plan review for natural resource impact as part of new and retrofitting project processes.
- // Using local materials from the region for construction projects whenever appropriate and possible.



- // Promoting the appropriate and practical use of daylighting, solar energy, and other energy conserving strategies in new and retrofitted construction projects.
- // Promoting the use of native plants in parks and along trails and waterways that goes beyond some of the excellent restoration projects in non-aquatic sites already in place by using the Guidelines for Managing and Restoring Natural Plant Communities along Trails and Waterways (DNR 2004) and The Sustainable Sites Initiative (ASLA, 2009).
- // Promoting environmentally sensitive stormwater and shoreline management practices through the design, installation, management, and interpretation of parking lots, swales, boat ramps, shorelines, and canoe accesses in park and trail facilities that include creating demonstration sites of the DNR's Shoreline Restoration Program and funding them as joint park, trail, and clean water projects.
- // Providing recycling containers and composting sites in parks and along trails.
- // Promoting bicycling to parks and within parks with bike racks, improved maps, good trail signage, and bike rentals.

3. Use Parks and Trails as Environmental Educators

Parks and trails offer opportunities to educate the public by demonstrating sustainable design, construction, and management practices through the interpretation of the natural resource protection and restoration strategies employed.



Strategies to use the park and trail systems as educational venues for sustainable practices include:

- // Requiring a site plan review for the identification of educational opportunities as part of the design process for new and retrofitting projects.
- // Integrating the identified educational opportunities into the project scope.
- // Providing on-site interpretive materials of the what, why, and how of the natural resource protection strategies used in projects.

Citizen Engagement, Education, and Outreach

1. Improve Accessible Facilities

Many park and trail facilities are accessible to those with disabilities, but there also are many that do not meet the current accessibility standards.

Strategies to increase accessibility include:

- // Bringing facilities up to current accessibility standards.
- // Evaluating trails for strategies that would increase wheelchair access by making retrofits over time.

2. Accommodate Families

Many regionally significant, regional, or state parks have playground equipment and a sand box for small children. Some have active areas like volleyball courts and rock climbing places, or they provide rental equipment like kayaks, canoes, and snowshoes, which appeal to youth, young adults, and others who prefer more active recreation. More child, youth, and young adult-centered facilities would allow for greater use by families with young children and teenagers, young adults, and grandparents with grandchildren.

Strategies to increase and improve family-friendly facilities include:

- // Assessing current facilities for family friendliness.
- // Implementing family-friendly facilities through retrofits and the design of new facilities.

Statewide Strategies

3. Improve and Enhance Group Camping

Many campsites in state parks are group campsites, which are usually separate from the active day-use parts of the park that accommodate group activities, such as the picnic grounds, the picnic shelter, the boat launch, the fishing pier, the playground, and the swimming beach. Most group campsites are groupings of individual campsites with places for a tent. Each individual site is equipped with a picnic table and a small fire ring for cooking. Many are primitive sites with a vault toilet nearby. Typically there are no group facilities— no central gathering place, no playground for children, no group cooking facilities, and no common eating place. A few permit small campers, but most of the group camp areas allow only tent camping. Some are a distance from parking and have carts for hauling camping gear.



Retrofitting some of these sites with true group facilities will enhance their function as places for groups to recreate. This need will grow as Minnesota grows more diverse; many new Minnesotans from non-European backgrounds prefer recreating in large extended-family groups.

Providing non-primitive group camping experiences gives new outdoor opportunities to a wider range of people who don't want to camp primitively—inter-generational groups, people with physical limitations, seniors, and people new to camping. Group Centers in eight state parks provide opportunities for modern group camp experiences, as do some regionally significant parks such as Hok-Si-La and Lake Ojiketa City Parks. Most of these facilities are former Works Progress Administration, Campfire Girls, or Scout camps.

Strategies for expanding and enhancing group camping experiences include:

- // Retrofitting primitive group campsites with spaces and facilities for group activities, like Crow Wing State Park's screened picnic shelter and Great River Bluffs' large campfire ring.
- // Allowing small trailers or pickup campers in some group campsites, as at Lake Bemidji State Park.
- // Increasing the Group Camp inventory by acquiring former privately held camps as they come up for sale.

4. Engage Citizens, Interest Groups and Communities in Park and Trail Planning, Inventorying, and Monitoring

Diverse stakeholder involvement is critical to effective parks and trails planning and management. An informed and engaged citizenry will lead to better stewardship of outdoor recreation resources by citizens and by park and trail managers. Citizens, interest groups, and communities can help with the identification of management goals and objectives, the development of indicators and standards of quality, the implementation of inventory and monitoring programs, the selection of site design or management strategies, and traditional plan reviews.

Strategies include:

- // Seeking out and engaging citizens, interest groups, and communities in meaningful dialogue throughout planning processes.
- // Considering and addressing local impacts and the needs of traditionally underrepresented populations in decision-making and management actions.
- // Facilitating cooperation through collaborative planning approaches that engage diverse stakeholders promote mutual learning, resource pooling, and creative problem solving.
- // Implementing inventory and monitoring that engages stakeholders (public, private, cooperators) to cooperatively determine indicators, standards, and timeframes through initial planning and ongoing participation.



Communication

1. Enhance Message Quality and Delivery of Communication Materials

Most parks and trails have descriptive information available to help users and potential users, on the internet, at the site, or both. The type and quality of the information varies across type and within systems. Information about regionally significant parks and trails has the largest range of information. Some are well documented; others are not. The DNR's materials describing parks and trails are formatted similarly for state parks, but the information describing facilities and the information on the map varies. Information varies with trail types. State water trail information is much more extensive than horse trail information.

Strategies to improve descriptive materials and maps include:

- // Creating a data standard for information collected on the State's parks and trails so that the many concurrent data collection efforts are more compatible.
- // Creating a minimum standard for park and trail information to be provided and an order for listing them. For example, the DNR has a protocol for listing park facility information so one can easily check to see if there is a volleyball court, camping facilities, a playground, etc.
- // Creating web materials that can be printed in color or in black and white. Reading maps can be easier if the different kinds of trails and



types of facilities are color-coded, but black-and-white versions also should be available to ensure accessibility for those who don't have the capacity to print in color and to provide inexpensive copies for distribution at the facilities.

- // Creating park and trail interactive electronic applications for devices such as smartphones, netbooks, etc.
- // Improving interpretive materials and posting them at access points and in the parks and other public places along terrestrial and water trails.



2. Create Integrated Park/Trail/Byway Communication Materials

Great progress has been made to have information about recreation that is comprehensive and accessible, but much of it is still uneven and fragmented. The digital revolution has provided opportunities to make information more accessible via the internet and to improve the quantity and quality of the information, creating new information tools like posted virtual tours and comment sites. But the information tends to be funded separately and produced separately by individual recreation providers and promoters. Some system efforts have well developed material; others do not.

Statewide Strategies

Impact of information is limited because it is often focused on one type of facility or experience and doesn't integrate information about other recreational opportunities offered by the same recreation provider or by another system, even if it is close by. The separate brochures, maps, and websites for a park or a park system, a bike trail, horse trails and camps, ATV trails, etc. can make understanding all the recreational opportunities and how they are related to each other challenging.

Strategies to integrate communication materials include:

- // Identifying the State's byways as an integral part of the State's park and trail network through signage, maps, and other promotional and informational efforts.
- // Creating a common vocabulary to name and describe features across system and facilities. It should be easy to understand the difference between a group camp, a group center, and a modern camp.
- // Marking the presence of other systems within facilities: If a biking trail or water trail goes through a park, it should be clearly identified by trail name in the park and on the park's map.
- // Exploring ways to secure resources to produce brochures, websites, and interactive applications ("mobile aps") that address multiple recreation opportunities.

5. Improve Way Finding

Familiar brown signs posted along interstates and other major highways and roads help visitors find their way to state parks; but finding your way to most regionally significant parks or to parks from communities is often problematic.

Strategies to guide the visitor include:

- // Posting signs on county roads or in communities to help visitors find their way to the park and back if they have left the park to buy supplies or take advantage of other recreational opportunities in the area. Signs that give distances are particularly helpful.
- // Painting symbols directly on the road surface improves difficult routes; for example, following the painted ducks makes finding Crex Meadows easy.

- // Including a map on how to get to the park as part of the park map available on the website and in the park is also helpful. The Forestville/Mystery Cave State Park map is a good example of this.
- // Making water trails more visible to the general public and to park and terrestrial trail users by posting signature trail signs along roads, on bridges, and in state and regional parks at water access points.

3. Develop Information to Serve Multiple, Diverse Audiences

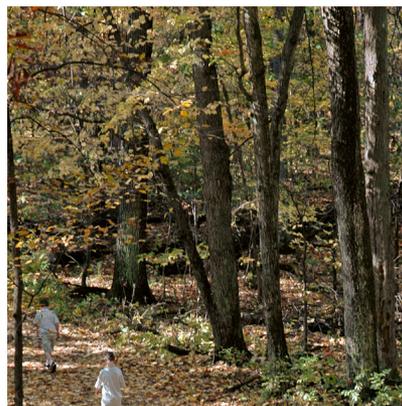
To welcome and facilitate participation among diverse age and ethnic groups before, during, and after visits and create the desire for additional visits:

- // Create marketing materials that target diverse audiences with appropriate languages and pictures with a focus on experiences and benefits, rather than activities.

4. Develop and Launch an Integrated Inclusive Marketing Campaign in Focused Outlets

Inclusive marketing strategies include:

- // Engaging cooperative marketing campaigns across providers within regions.
- // Targeting institutions and organizations where audiences can be reached.
- // Delivering customer service training across providers to ensure providers understand how to welcome diverse age and ethnic groups.
- // Targeting the children in families with limited English speaking and reading skills as they serve as translators and the impetus for family interest and participation in recreation.



Regional Strategies

Authors: Center for Changing Landscapes Staff

// Central
// Metro
// Northeast
// Northwest
// South

Regional Strategies

The Regional Strategies focus on suggestions for enhancing and connecting parks and trails within each region at the landscape scale. The examples given are meant to suggest some of the possibilities inherent in the application of a particular strategy to the region's existing, planned, and proposed parks and trails. The diagrams of each region demonstrate how the strategies could play out across the landscape.

Central Region

The Central Region's parks and trails are concentrated in its southern half and along the Mississippi River. Although there are terrestrial trails in the state parks, the built trail corridors that connect communities are local or regional trails. Lake Wobegon, Soo Line South, the Stearns County Rail Authority, and the Sunrise Prairie are the longest trails; most others are short segments connecting local amenities. The Swedish Immigrant Trail is being developed in Chisago County through local efforts. The Minnesota Department of Transportation is working on the Mississippi River Trail, a bike route on existing roads and trails that parallel the Mississippi. Plans for state trails include extending the Willard Munger State Trail south and terminating it in Interstate Park, where it would connect to the planned final segment of the Gateway State Trail. The Glacial Lakes State Trail is planned to reach Saint Cloud area via the Rocori Extension. The Camp Ripley Veterans is planned to extend from Crow Wing State Park west to the village of Pillager, around the state park, then south along the Mississippi to connect with the Soo Line Trail in Morrison County. The Region has seven state water trails and many snowmobile trails.

State parks include Lake Maria, in the expanding exurban area by Monticello; the Mille Lacs Kathio on a large prehistoric site on the south shores of Lake Mille Lacs, Father Hennepin on Lake Mille Lacs east of Mille Lacs Kathio; Charles A. Lindbergh and Crow Wing on the Mississippi, and Wild River and Interstate, on the banks of the Saint Croix. Most regionally significant parks are clustered south or west of Saint Cloud.

1. Create a Parks/Trails/Byway Network

Examples of using byways as significant parts of the network include:

- // Serving as the backbone of the Region's network system, the Great River Road could link the parks and trail segments along the Mississippi River.
- // Temporarily linking Interstate and Wild River State Parks until the Gateway, the Willard Munger, and the Swedish Immigrant Trails are built, the Saint Croix River Scenic Byway could be the network's eastern segment.

2. Create Signature Park/Trail/Byway Network Facilities

Examples of network facility sites include:

- // Locating network facilities along the Mississippi River because the

Great River Road, the Mississippi River Water Trail, and the Mississippi River Trail all parallel each other and there are a number of state and regionally significant parks along its banks.

- // Locating network facilities along the Saint Croix River or in close proximity to it to serve the Saint Croix Scenic Byway, the Swedish Immigrant Trail, the state parks; the Saint Croix State Water Trail, and the Matthew Lourey, Willard Munger, and the Gateway State Trails.

3. Integrate and Connect Local, Regionally Significant, State, and Federal Trails

Examples of integration and connection include:

- // Creating linkages to the Paul Bunyan and Soo Line Trails, building the authorized, unbuilt Veterans State Trail, and exploring a DNR/MnDOT partnership on the Minnesota River Trail in trail segments along the Mississippi.
- // Combining the Willard Munger/Swedish Immigrant Trails in order to simultaneously connect the Munger to Interstate Park and complete the Swedish Immigrant Trail.
- // Building the Rocori Extension, the Glacial Lake Extension, and finishing the Lake Wobegon Trail, connecting many regional amenities in the Saint Cloud area.

4. Acquire New Parks and Trails

This study's analyses of demographic trends and existing recreational lands identified the Central Region as an area where additional parks and trails are needed, given the current growth and the anticipated future growth. Development patterns predict the likely places where the expanding population is likely to occur. Development is spreading northward from the Twin Cities Metropolitan Area and in the Saint Cloud Area. These patterns are expected to continue. The planned future extension of North Star passenger rail service to Saint Cloud is expected to contribute to the population increase. Because the Northern Lights Express passenger rail service to Duluth would stop at Hinckley and Cambridge, development is also expected to concentrate in the eastern part of the Region.



Examples of potential additional assets include:

- // Adding more park acreage in growth areas in order to meet the current standards used by the Metropolitan Council and Stearns County.
- // Enhancing and adding to the modest facilities of the many existing regionally significant parks that are already clustered in the high growth areas because as population growth increases use, the need for investments to expand and improve facilities is to be anticipated.
- // Linking regional communities to the Region's recreational assets or to each other because there are very few trails in the expanding area north of the Metropolitan Area.

5. Use Abandoned Railroad Infrastructure for Trails

The Central Region's abandoned rail corridors could provide trails in areas with no connections to existing trails and in areas with no regional or state trails at all.

Examples include:

- // Running from Saint Cloud through Foley, Milaca, and Mora to Quamba, an abandoned rail corridor offers a future trail opportunity when linked to another non-rail corridor trail alignment at Hinckley/Brook Park.
- // Running from the Little Falls Area east to the south of Lake Mille Lacs, a second abandoned rail corridor that the Soo Line South ATV trail uses offers the potential to provide connections to the Father Hennepin and Mille Lacs Kathio State Parks.
- // Following an abandoned line, the proposed Swedish Immigrant Trail starts in Wyoming with a connection to the Sunrise Prairie Trail and passes through the Lindstrom Lakes Area to go east to Interstate State Park in Taylors Falls before crossing the Saint Croix River to connect to the Gandy Dancer Trail in Wisconsin.

6. Provide Transit Access to Parks and Trails

The future Northern Lights Express passenger rail station at Cambridge has implications for development patterns and recreational access and needs.

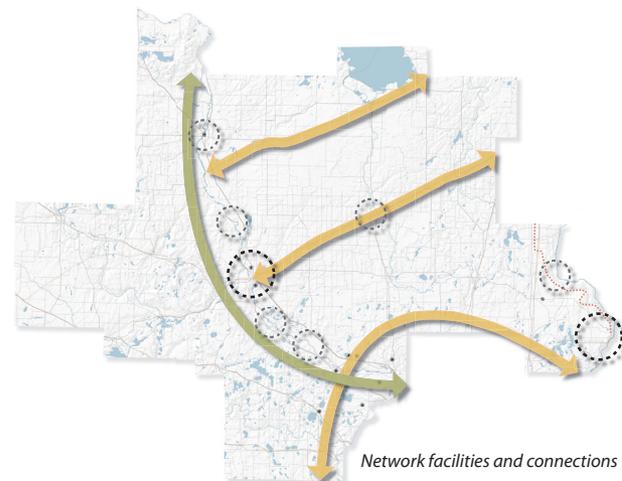
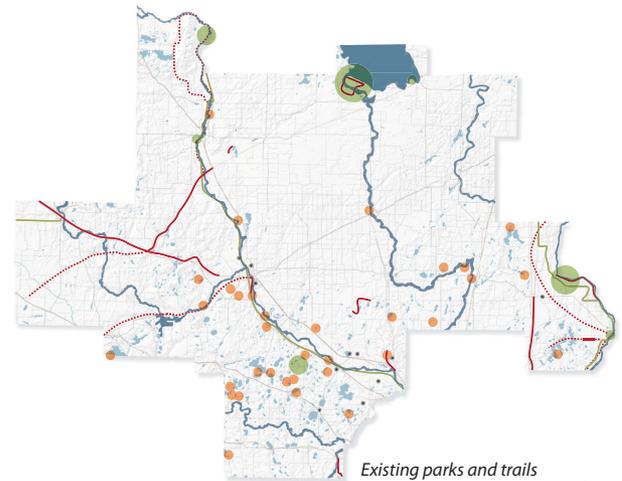
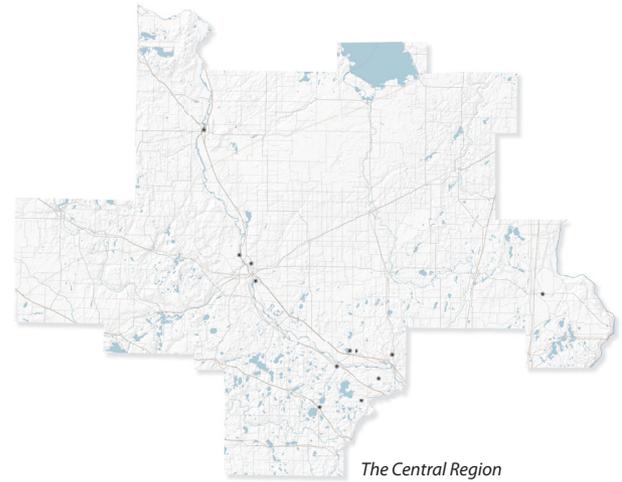
Strategies include:

- // Providing additional parks and trails in the Cambridge Area.
- // Providing for access to recreational amenities from the rail station.
- // Providing trails for commuting to the train station.



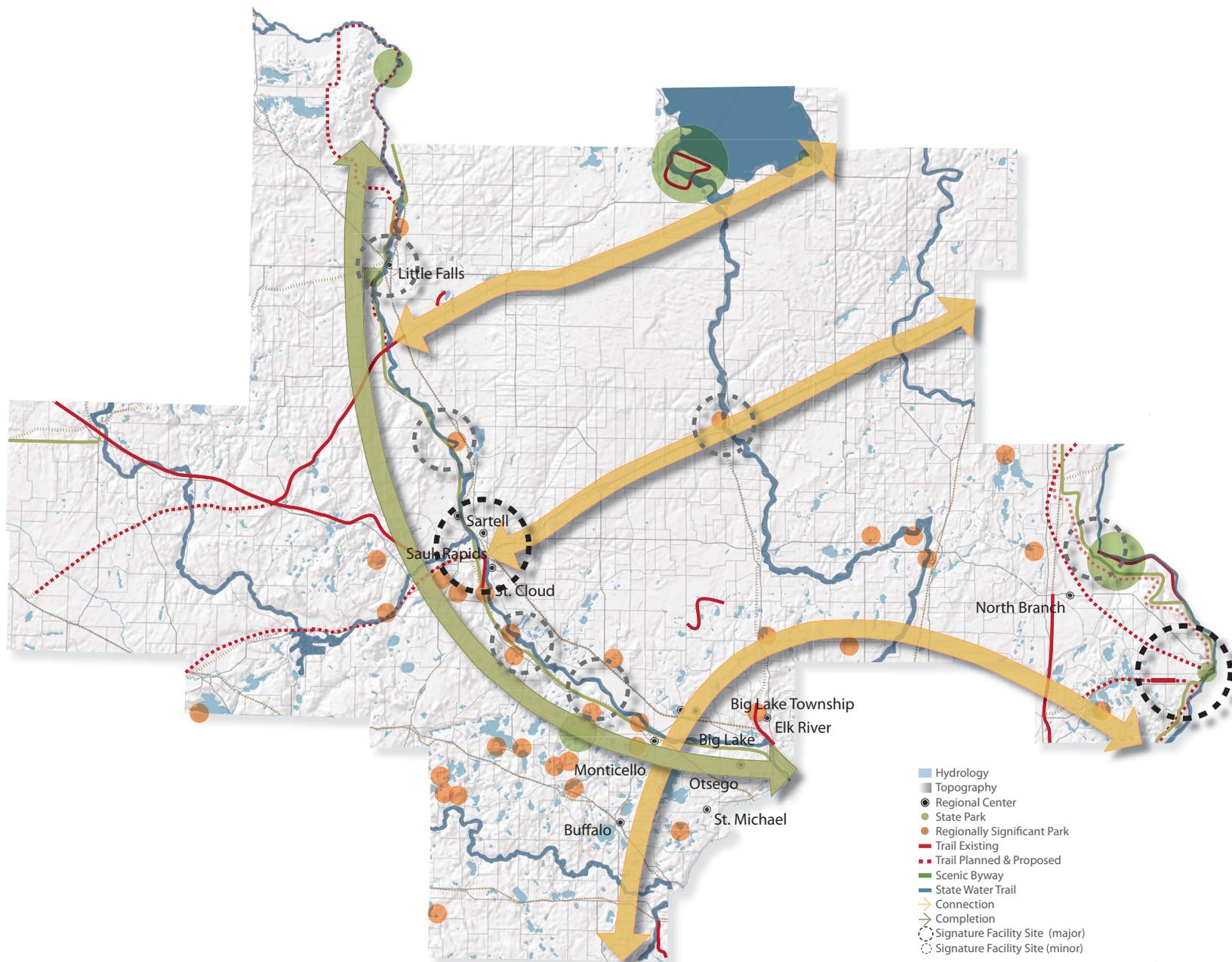
Central Region

Strengthening, Completing, and Connecting Existing and Proposed Systems



Complete Existing Assets and Build State-Authorized Trails

- // Acquiring state park in-holdings: 3,136 acres
- // Building the Camp Ripley Veterans State Trail: 50 miles
- // Completing the Gateway: 9 miles
- // Building the Glacial Lakes Extension: 20 miles
- // Extending the Willard Munger: 31 miles



Regional Strategies

The Regional Strategies focus on suggestions for enhancing and connecting parks and trails within each region at the landscape scale. The examples given are meant to suggest some of the possibilities inherent in the application of a particular strategy to the region's existing, planned, and proposed parks and trails. The diagrams of each region demonstrate how the strategies could play out across the landscape.

Metro Region

The Metro Region has one national recreation area, one national scenic riverway, one state recreation area, three state parks and, three scenic byways, many local parks, three state trails, six state water trails, and forty-six identified regionally significant trails. The Region, unlike the other regions, has had the advantage of nearly four decades of regional planning for parks and trails that has created a region-wide park and trail system. The Metropolitan Council's Metropolitan Parks and Open Space Commission has worked with the Council, local governments, and the ten local implementing agencies to evaluate needs and advocate for funding land acquisitions. Its park and trail plan is updated every four years. Its most recent update was adopted in December 2010. Today the Region has many existing, planned, or proposed regional parks, park reserves, and special recreation features with 53,785 acres and 382 miles of existing, planned, or proposed trails throughout its seven county area.

Many of this study's statewide strategies have already been applied in the Region, but there are additional strategies that could strengthen the system.

1. Create a Parks/Trails/Byway Network

Although the Region has an extensive park and trail system plan, scenic byways have not been integrated into it, with the exception of the Grand Rounds Scenic Byway.

Examples of integrating byways include:

- // Using the Great River Road as linking segments for the Mississippi River Trail, until the planned and proposed segments are built.
- // Linking William O'Brien and Afton State Parks with the Saint Croix Scenic Byway.

2. Create Signature Park/Trails/Byway Network Facilities

Examples of potential network facility sites include:

- // Siting them in intervals along the Saint Croix Scenic Byway.
- // Siting them in the Mississippi National Scenic River and Recreation Area along the Mississippi River.

3. Create Recreational Resources by Partnering on Natural Resource Acquisition Projects

The Dakota County 2030 Park System Plan: Great Places, Connected Place, Protected Places links wildlife habitat, water quality protection, and trails together in a green corridor strategy. Examples of other places to use this strategy include the other counties in the Metro Area.

4. Provide Transit Access To Parks and Trails

Although transportation planning and recreation planning are moving toward a more integrated approach throughout the Region, the current status of transit and recreational systems reflects years of separate planning efforts. The Hiawatha LRT line serves Minnehaha Regional Park and Fort Snelling State Park, but the current bus system configuration and bus schedules are not compatible with recreational use. Bus routes serve very few parks and trails, and bus schedules serve employment, not recreational schedules. There has been considerable local opposition to regular bus service through parks. Given these constraints, a potential strategy for transit access includes:

- // Expanding the current dial-a ride service to include park destinations.
- // Integrating park and trail access into LRT station location and station area planning.

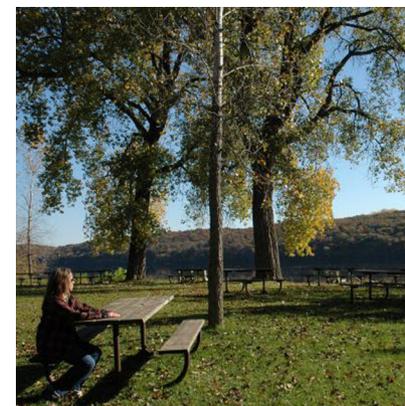
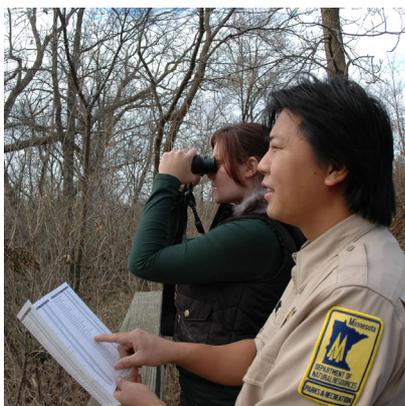
5. Provide Bicycle and Pedestrian Access to Parks and Trails

Within the Region there are many efforts to consider walking and biking as viable modes of transportation. Local entities are addressing recreational and commuter bicycling opportunities and pedestrian safety in their transportation planning efforts. Counties, cities, state agencies, and NGOs are working to create off-road trails and routes on existing roads throughout the seven-county metro area. Federal funding opportunities, funding from the tobacco settlement, recently passed Complete Streets legislation, active living efforts, and environmental concerns have all spurred interest and activity in creating a comprehensive transportation system.



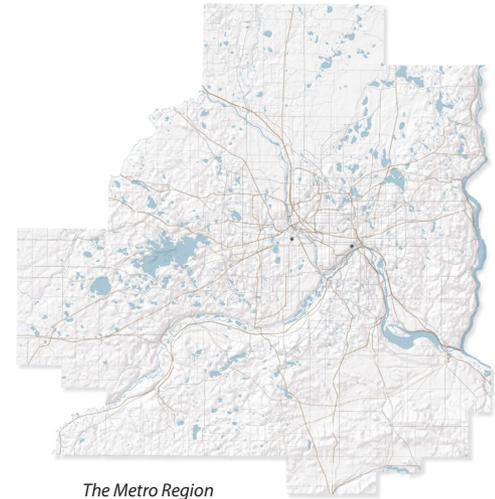
Bicycle and pedestrian initiatives that could improve access to recreation destinations include:

- // Researching how Non-motorized Transportation Pilot Program (NTP) funds awarded to Minneapolis and surrounding communities could be used to address connectivity issues with parks and trails.
- // Adopting and using the forthcoming Cycloplan, a tool for use by municipal and county planning, public works, and parks departments to establish and enhance their bikeways data, have access to regional data and public user data for use in planning for the development of a regional bikeway system, and to respond to identified issues within their jurisdiction (<http://www.bikewalktwincities.org>).
- // Planning across jurisdictions to create bike and pedestrian connectivity across county borders. GIS (mapping) departments and other departments, are working together on mapping and data sharing efforts to create comprehensive biking and walking opportunities that span multiple counties.

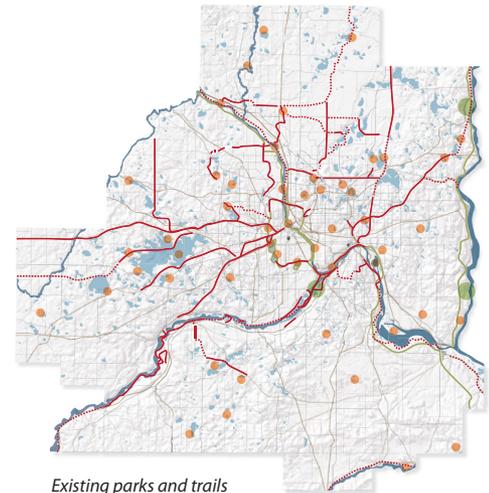


Metro Region

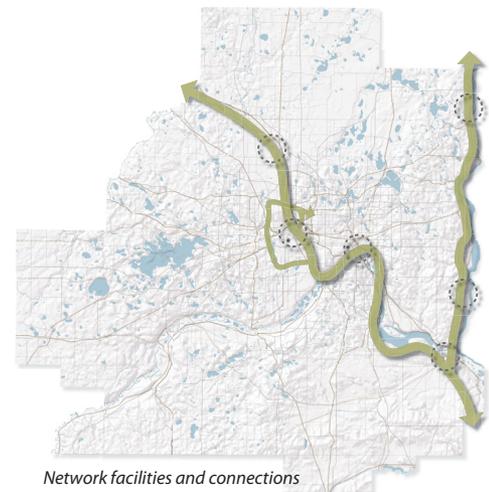
Strengthening, Completing, and Connecting Existing and Proposed Systems



The Metro Region



Existing parks and trails



Network facilities and connections

Complete Existing Assets and Build State-Authorized Trails

// Acquiring state park in-holdings: 1,795 acres

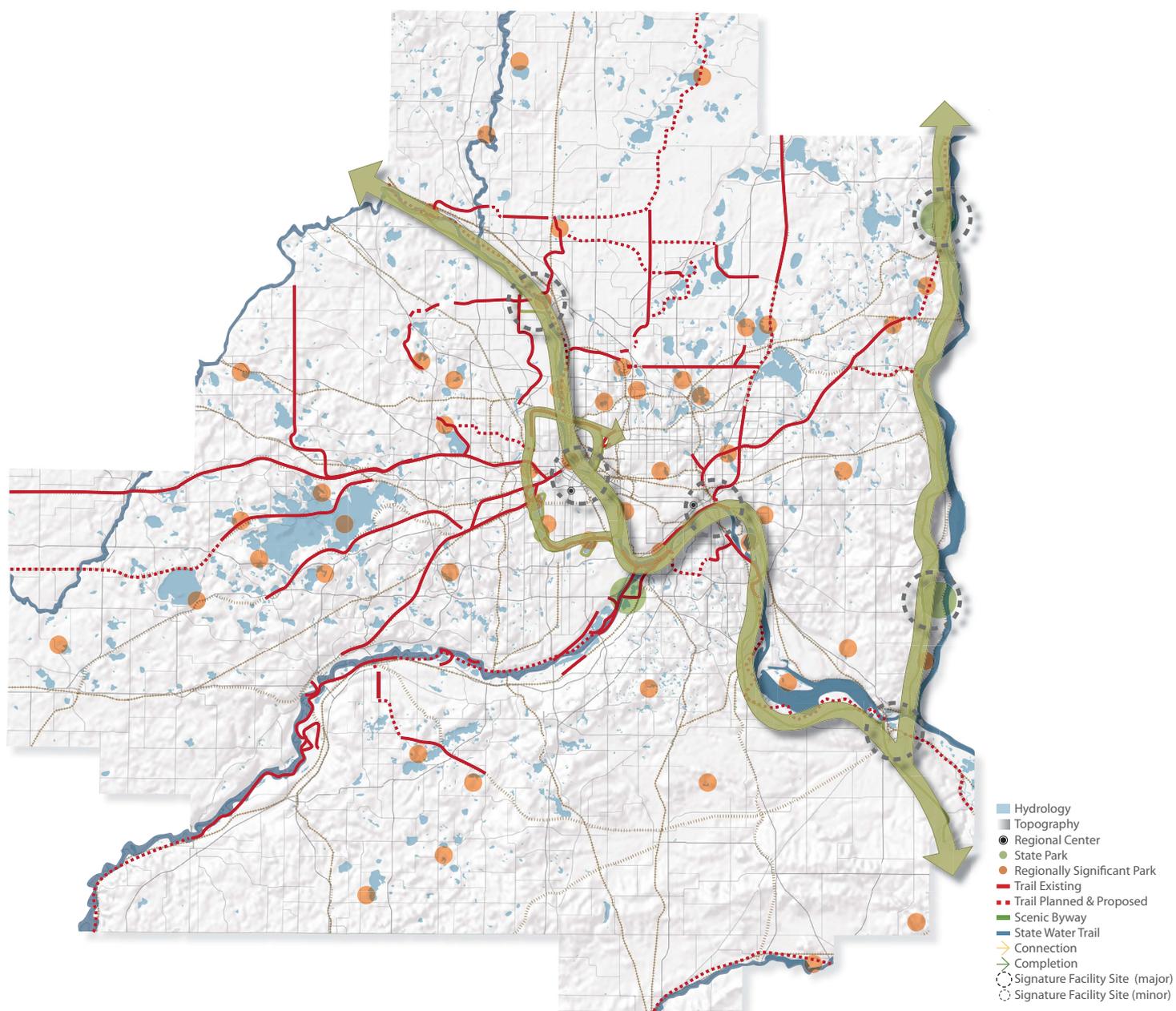
// Completing the Gateway State Trail: 13 miles

// Completing the Minnesota Valley State Trail: 25 miles

// Completing Medicine Lake Regional Trails: 1.5 miles

// Completing Hardwood Creek / Bruce Vento Regional Trails: 9 miles

// Completing East Anoka Trails: 18 miles



Regional Strategies

The Regional Strategies focus on suggestions for enhancing and connecting parks and trails within each region at the landscape scale. The examples given are meant to suggest some of the possibilities inherent in the application of a particular strategy to the region's existing, planned, and proposed parks and trails. The diagrams of each region demonstrate how the strategies could play out across the landscape.

Northeast Region

The Northeast Region has many local-to-federal natural resource facilities, but there are a number of opportunities to create an integrated recreation network by connecting facilities, completing elements, aggregating facilities, and improving access. Currently, the Region's Arrowhead has two parallel lines of recreational amenities that are separated by the Laurentian Divide; using scenic byways to connect across this distance could make an integrated network.

1. Create a Parks/Trails/Byway Network

Byways could provide many important network-connecting functions in the Region such as:

- // Temporarily completing the North Shore portion of the network; the North Shore Scenic Byway segment on old State Highway 61 from Duluth to Two Harbors could "stand in" for the entire length of the Superior Vista State Trail until it is built and could be the missing links of the Gitchi Gami Trail until those trail segments are built.
- // Providing access to the campsites, forests, and lakes in the state and national forests along its route, the Superior National Forest Scenic Byway connects the recreational resources along the North Shore and the Eastern Mesabi Iron Range communities.
- // Connecting the North Shore at Grand Marais to the Boundary Waters Canoe Area Wilderness, the Gunflint Trail follows an historic route with many recreational opportunities.
- // Paralleling a bike route and connecting many of the regionally significant parks located along the ridge overlooking Duluth and Lake Superior, the Skyline Parkway offers park access and spectacular views, but more effective signage and a prominent connection to the North Shore Scenic Byway and the Gitchi Gami Park would improve it.
- // Connecting Banning State Park to Jay Cooke State Park with the Veterans Evergreen Memorial Byway.
- // Linking Duluth/Cloquet Area and the Grand Rapids/Western Iron Range Area with a new byway.

2. Create Signature Park/Trails/Byway Network Facilities

Examples of places for network facilities include:

- // Locating network facilities along the Mississippi River that serve the Mississippi River Trail, the Mississippi River State Water Trail, and the Great River Road.
- // Locating a series of network facilities along the North Shore because the Superior Hiking Trail, the Gitchi Gami State Trail, Great River Road, the Lake Superior Water Trail, the North Shore Hiking Trail (North Country Scenic Trail), and the North Shore Scenic Byway all run parallel to the Lake's shoreline.

3. Create Partnerships for Enhanced Programming and Management

An example of an opportunity to enhance recreational experiences offered and create some efficiency through partnerships is:

- // Creating a seamless connection between Robinson City Park and Banning State Park through a Department of Natural Resources, City of Sandstone, and history group partnership that upgrades and manages more effectively the local, state, and historic sites; improves amenities offered; and provides more extensive interpretation.

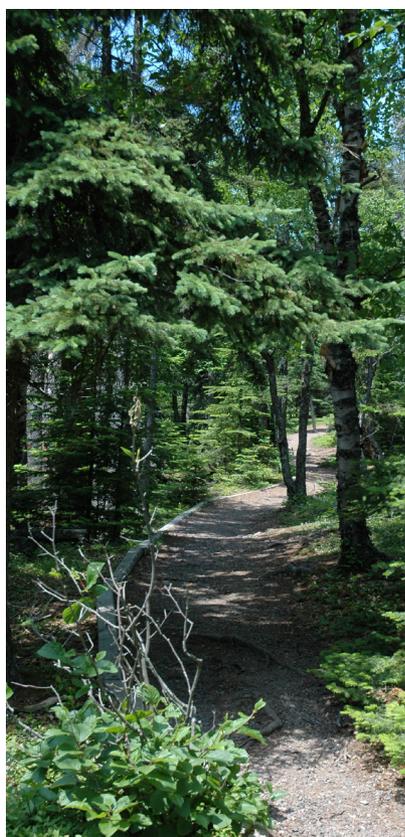
4. Provide Transit Access To Parks and Trails

Currently, access to the Region is mostly car-dependent, but seasonal passenger rail service from Duluth to Two Harbors provides access to some of the North Shore's recreational assets by train. In the future, access will be expanded by the Twin Cities to Duluth passenger rail service, the Northern Lights Express. Potential sites in Hinckley, Sandstone, and Duluth are being considered as designated stops. As the planning proceeds, there may be opportunities for station connections to a number of recreational amenities that also provide station access for commuters.



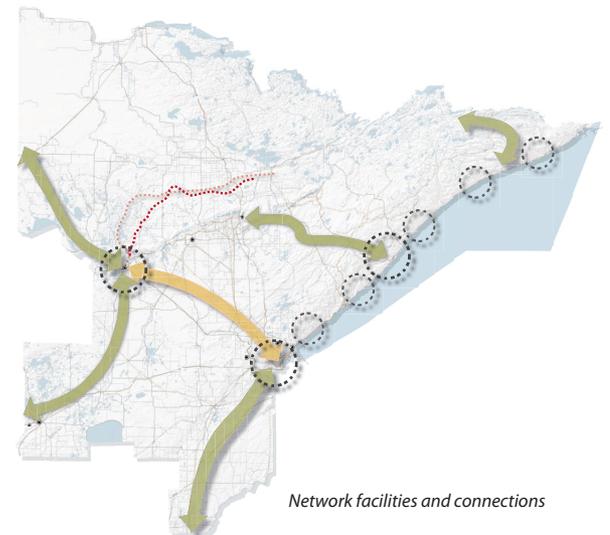
Examples include:

- // Providing connecting trails from the station areas to Duluth's parks and trails.
- // Providing access to the Willard Munger State Trail at the proposed stops.
- // Providing access to Banning State Park in Sandstone.



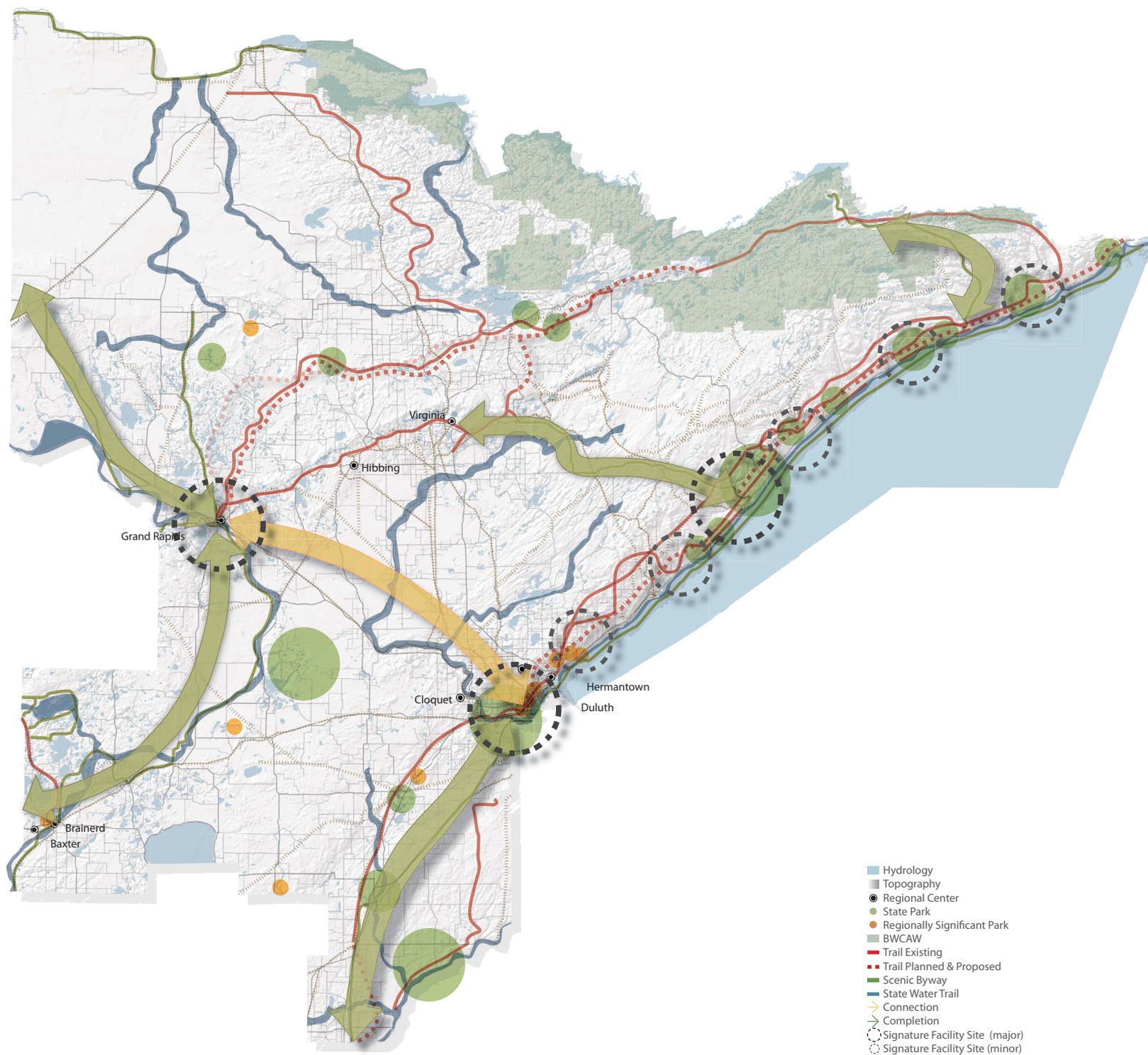
The Northeast Region Network

Strengthening, Completing, and Connecting Existing and Proposed Systems



Complete Existing Assets and Build State-Authorized Trails

- // Acquiring state park in-holdings: 18,302 acres
- // Completing the Mesabi Regional Trail: 33 miles
- // Building the Superior Vista State Trail from Duluth to Two Harbors: 29 miles
- // Acquiring land easements as snowmobile trails where feasible.
- // Creating a permanent route for the Taconite Trail that can also serve as a segment of the North Country Scenic Trail. It could accommodate snowmobile use and hiking in the winter and hiking and mountain biking the rest of the year.



Regional Strategies

The Regional Strategies focus on suggestions for enhancing and connecting parks and trails within each region at the landscape scale. The examples given are meant to suggest some of the possibilities inherent in the application of a particular strategy to the region's existing, planned, and proposed parks and trails. The diagrams of each region demonstrate how the strategies could play out across the landscape.

Northwest Region

The Northwest Region's recreational amenities are concentrated in three areas: its beach ridge and morainal landscape of glacial lakes and rolling hills that starts in the south and arcs north and east, in the Glacial Lake Agassiz Basin in its northwest corner, and in the northern peatlands towards the Canadian border. The existing and planned state trails connect many of the Region's larger communities. The North Country Scenic Trail, Heartland State Trail, and Paul Bunyan State Trail radiate out from the Walker area providing connections to Bemidji, Brainerd/Baxter, Park Rapids, and other smaller towns. The North Country Scenic Trail connects Fergus Falls, Maplewood, and Itasca State Parks and Walker. When completed the Heartland will extend beyond Park Rapids to Detroit Lakes, Buffalo River State Park, and on to Moorhead. The Central Lakes State Trail connects Fergus Falls to Alexandria. The regional Agassiz Recreation Trail from Crookston and the Soo Line Trail in the Bemidji area are the only terrestrial trails in the whole area northwest of Bemidji. Because the few population centers, relatively sparse population, and the great distances between parks there are challenges to creating trail system that connects the Region together, but a park and trail network that meets regional needs could include the exploring the following strategies.

1. Create a Parks/Trails/Byway Network

Examples of byway strategies to link the Region together into a network include:

- // Using the Otter Tail Scenic Byway to link Maplewood and Lake Carlos State Parks and the regionally significant Delagoon, Pebble Lake, and Arvig Parks.
- // Using the Great River Road to provide a connection to Long Lake Park.
- // Making the King of Trails Scenic Byway the network's backbone along the Region's western border that provides access to Buffalo River and Old Mill State Parks, the Red River Recreational Area, Florian County Park, and the Red River of the North, the Red Lake River, and the Otter Tail River State Water Trails.
- // Having the Glacial Ridge Trail Scenic Byway provide a temporary connection to Glacial Lakes and Lake Carlos State Parks, Kensington

Runestone County Park, and other area regionally significant parks until the Glacial Ridge State Trail is completed.

- // Having the Waters of the Dancing Sky Scenic Byway provide links to Wayside/Lancaster City Park, and the Lake Bronson, Hays Lake, and Zippel Bay State Parks.

2. Create Signature Park/Trails/Byway Network Facilities

The Region does not have many places in its morainal areas where systems parallel each other, so opportunities to share facilities most commonly occur in places where systems cross each other.

Examples of opportunities to develop shared facilities in the Region include:

- // Siting network facilities along the Red River of the North Water Trail/ King of Trails Scenic Byway.
- // Siting a network facility near Fergus Falls that serves Central Lakes State Trails, the Otter Trail Scenic Byway, and Delagoon.
- // Siting network facilities in the Walker, Crookston, and Bemidji communities and at Maplewood State Park.

3. Integrate and Connect Local, Regional, State, and Federal Trails

Examples of how to use trail segments from different trail systems to make a network include:

- // Integrating the sections of the Pope County Bike Trail into the Glacial Lakes State Trail.
- // Extending the Agassiz Recreational Trail north past the intersection of the Red Lake River State Water Trail to the King of Highways Scenic Byway and south to the Heartland State Trail.
- // Creating recreational trails as a part of the Wallace C. Dayton Conservation and Wildlife Area.
- // Identifying alignments that can serve both as permanent snowmobile trails in the winter and hiking/biking trails during the rest of the year such as an Agassiz Recreational Trail extension.



4. Connect with Short Trail Segments

In the Region's sparsely populated areas, where no long state or regional trails are built or planned, short trails could provide access to parks.

Examples of potential short trail strategies include:

// Creating trails that connect communities to recreational facilities where feasible, such as Roseau to Hays Lake, Florian to Old Mill, Haddock to Lake Bronson, and Baudette to Zippel Bay, etc.

5. Enhance Physical Facilities through Partnering with Local Partners

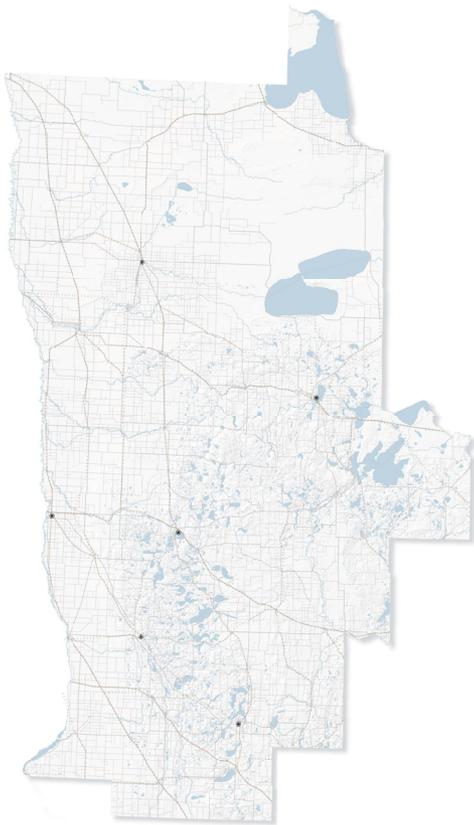
Strengthen the role that the Region's eight water trails play in the Region's network by:

// Providing for more state water trail amenities through local community partnerships and facility investment in existing parks and on other existing public lands such as bridgehead sites.

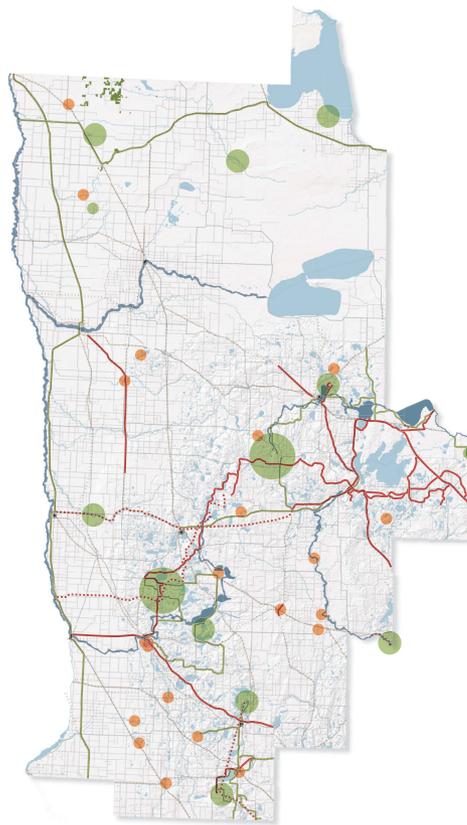


The Northwest Region Network

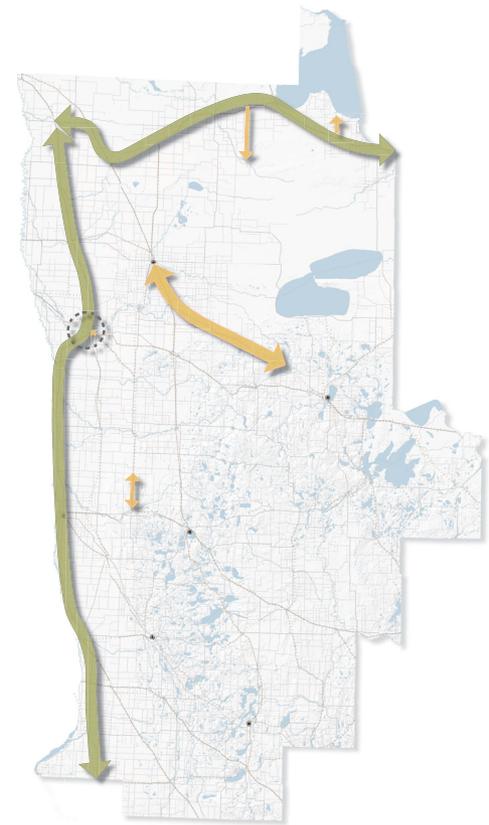
Strengthening, Completing, and Connecting Existing and Proposed Systems



The Northwest Region



Existing parks and trails



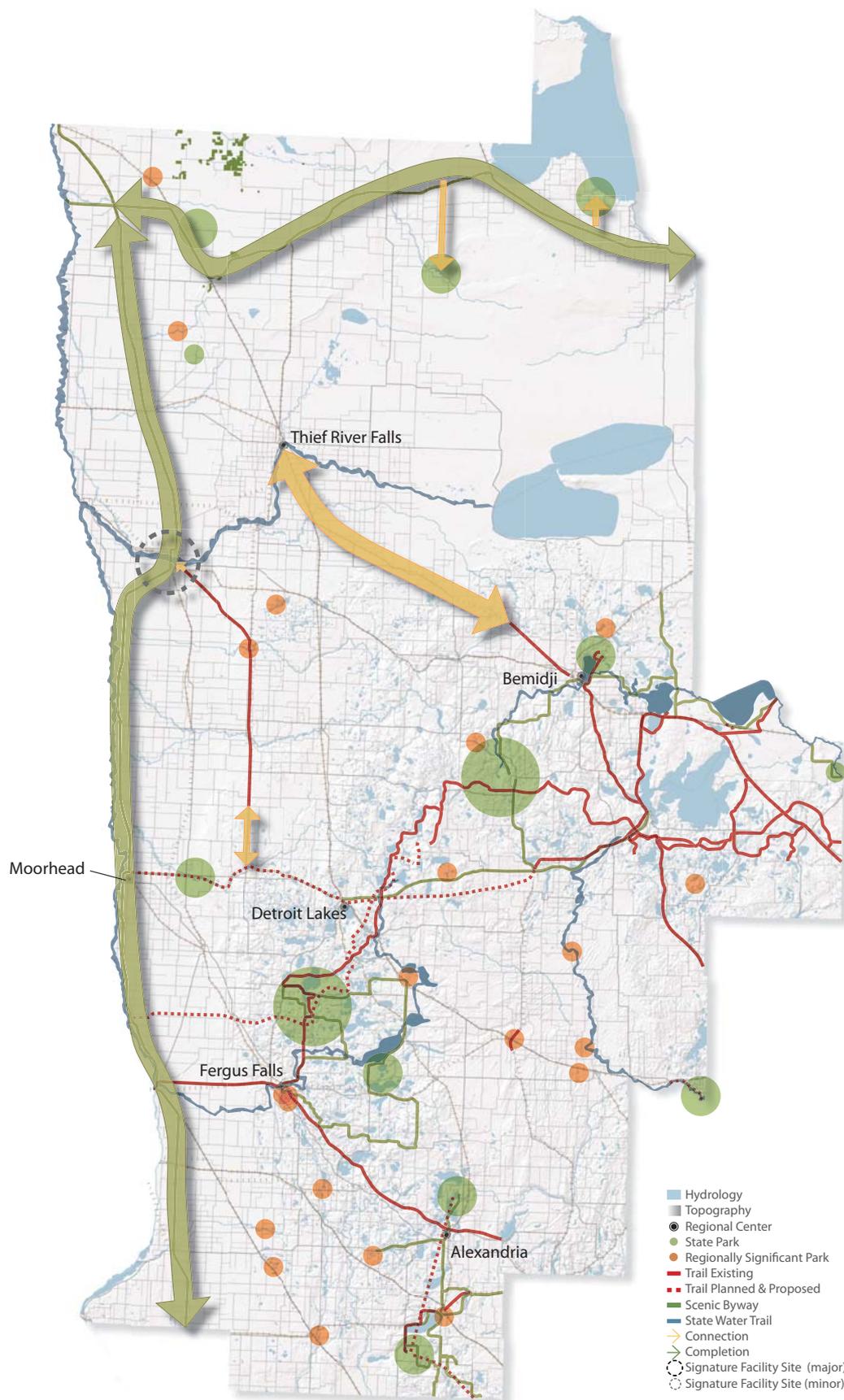
Network facilities and connections

Complete Existing Assets and Build State-Authorized Trails

// Acquiring state park in-holdings: 10,706 acres

// Completing the Heartland State Trail: 85 miles

// Completing the Glacial Lakes State Trail: 47 miles



Regional Strategies

The Regional Strategies focus on suggestions for enhancing and connecting parks and trails within each region at the landscape scale. The examples given are meant to suggest some of the possibilities inherent in the application of a particular strategy to the region's existing, planned, and proposed parks and trails. The diagrams of each region demonstrate how the strategies could play out across the landscape.

South Region

The South Region's outdoor recreation assets vary greatly across this large, diverse region that extends from Minnesota's eastern edge to the South Dakota border. Although the Region's state and regionally significant parks are dispersed throughout its extensive area, the type and status of the Region's trails vary greatly. In the west and north, trails are long and linear. The list of trails reflects the interest in trails, the vigorous advocacy for them, the lack of trails in the region's western part, and the relatively short lengths of the eastern trails that respond to the moraine and driftless topography and the community settlement patterns. The Luce Line is almost complete, a segment of the Glacial Lakes Trail has been built, and short segments of the Casey Jones are on the ground, but most trails have not been built. Regional trails connect Mankato to the Minneopa State Park and to amenities south of the city.

In the east, an extensive web of relatively shorter trails has been authorized and proposed. Sakatah Singing Hills is completely built; most of the Root River has been built; segments of the Minnesota Valley, Blazing Star, Shooting Star, Douglas, and Goodhue Pioneer are on the ground. The Stage Coach has not been built at all and only a short local segment has been built of the Mill Towns. The two existing regional trails are significant parts of the Region's web of trail. The Great River Ridge Trail will eventually connect to two state trails. The Cannon Valley Trail connects Red Wing to Cannon Falls and eventually will be connected to the planned Mill Towns State Trail. The Department of Transportation is currently working on a Mississippi River Trail, a bike route that will follow existing roads parallel to the River. This route has the potential to be an important part of the regional, state, and national recreation network. Examples of potential opportunities to create an integrated recreation network by connecting facilities, completing elements, aggregating facilities, and improving access are listed below.

1. Make a Parks/Trails/Byway Network

Examples of using scenic byways as important network pieces include:

- // Temporarily completing the Minnesota River portion of the network, the Minnesota River Valley Scenic Byway could "stand in" for the entire length of the Minnesota River State Trail until it is built, because it runs parallel to it, crosses the river valley at several points, and provides access to the river communities and the many state and local parks along the River.

- // Providing access to the regionally significant, state, and federal recreational amenities in the western part of the State where few trails exist or are planned, the King of Trails Scenic Byway could also "stand in" for a Casey Jones Trail segment and temporarily connect Luverne to Blue Mounds and Split Rock Creek State Parks.
- // Winding through the moraine, the Glacial Ridge Scenic Byway could connect Sibley, Monson Lake, and Glacial Lakes State Parks and a number of regionally significant parks, and it could link Willmar to the parks via an existing trail segment until the Glacial Lakes Trail is completed.
- // In the southeast, both the Shooting Star and the Historic Bluff Country Scenic Byways could be temporary connectors because they parallel unbuilt segments of the Shooting Star and the Root River State Trails.

2. Create Signature Park/Trails/Byway Network Facilities

Examples of potential places for network facilities include:

- // Siting them along the Minnesota River or in close proximity because the Minnesota Valley and the Minnesota River State Trails, the Minnesota River Water Trail, and the Minnesota River Scenic Byway are parallel systems, and there are six state parks, one state recreation area, and many local parks along the River.
- // Siting them along the Mississippi River or in close proximity because the Great River Road, the Mississippi River State Water Trail, and the proposed Mississippi River Bike Trail are all parallel systems, and there are three state parks and several regional parks in the area.
- // Siting them along the Root River because the Historic Bluff Country Scenic Byway, the Root River Water Trail, and the Root River State Trail parallel each other, and there are local community parks along the River.

3. Integrate and Connect Local, Regional, State Trails

Examples of connection and integration strategies include:

- // Implementing Southwestern Minnesota's regional/county trail plans



to link trails together and create connections to state trails in a part of the State that has very few trails.

// Exploring the potential to connect some of the horse trails in the Richard J. Dorer Memorial Hardwood State Forest.

4. Acquire New Parks and Trails

Population growth across the Region is not uniform, nor are the Region's recreational needs. The west is continuing to lose population, but has few trails. The east, particularly in the Rochester Area, is growing and needs more parks.

Examples of potential acquisitions include:

// Acquiring more parkland in the Greater Rochester Area to accommodate growth.

// Creating acquisition/permitting arrangements to protect the continuity of the snowmobile and biking/ walking trails in the face of the expanding development pressure on land in the Rochester Area.

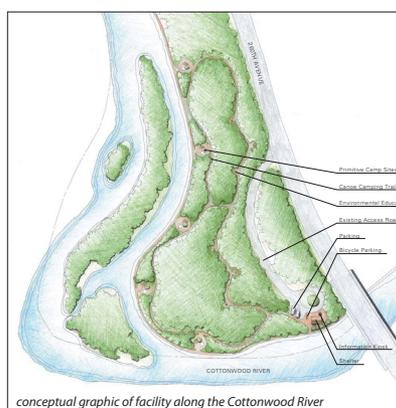
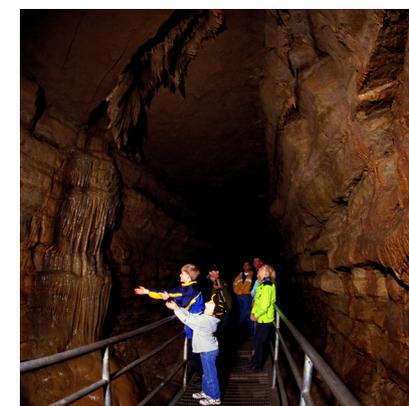
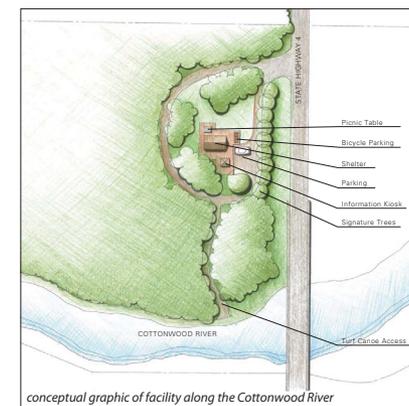
// Acquiring trail alignments to connect communities to each other and to the state parks such as a trail from Granite Falls through Marshall to Camden State Park.

5. Strengthen Water Trails

The Region's many water trails are important recreational assets, particularly in areas with few lakes and in areas with little public lake access. Improving facilities and increasing visibility can strengthen them.

A water trail improvement example includes:

// Adding facilities along the tributaries of the Minnesota River like the Cottonwood River.



Regional Strategies

South Region, continued

6. Use Road Construction Projects to Help Build Trails

Examples of road construction/trail strategies include:

// Linking the construction of the Minnesota River State Trail to the reconstruction of segments of the Minnesota River Scenic Byway to create efficiencies, cost savings, and a shorter construction timeframe.

7. Use Abandoned Railroad Infrastructure for Trails

The Region has used abandoned rail corridors for many trails. Few opportunities currently exist because most of the corridors have been sold and are under cultivation by private landowners.

An example of a current opportunity is:

// Buying the corridor for Chief Sleepy Eye Trail, a spur of the Minnesota River State Trail. The corridor has a landowner who is willing to sell the corridor for the state trail.

8. Enhance Physical Facilities Through Partnering at the Local Level

Examples include:

// Improving the Minnesota State Water Trail, the Minnesota River State Trail, and the Minnesota River Scenic Byway through park partnerships with Renville County, New Ulm, Granite Falls, Montevideo, Saint Peter, \ Appleton, etc.

// Working with the City of Red Wing to extend the Cannon Valley Trail to the Mississippi River, the riverfront city parks, and the City's trail system.

9. Provide Rail Access to Parks and Trails

The passenger rail services proposed in the Minnesota State Rail Plan to many of the cities, including Willmar, Mankato, Albert Lea, Marshall, etc, will improve non-car access to the Region.

Examples to improve recreational access from these communities include:

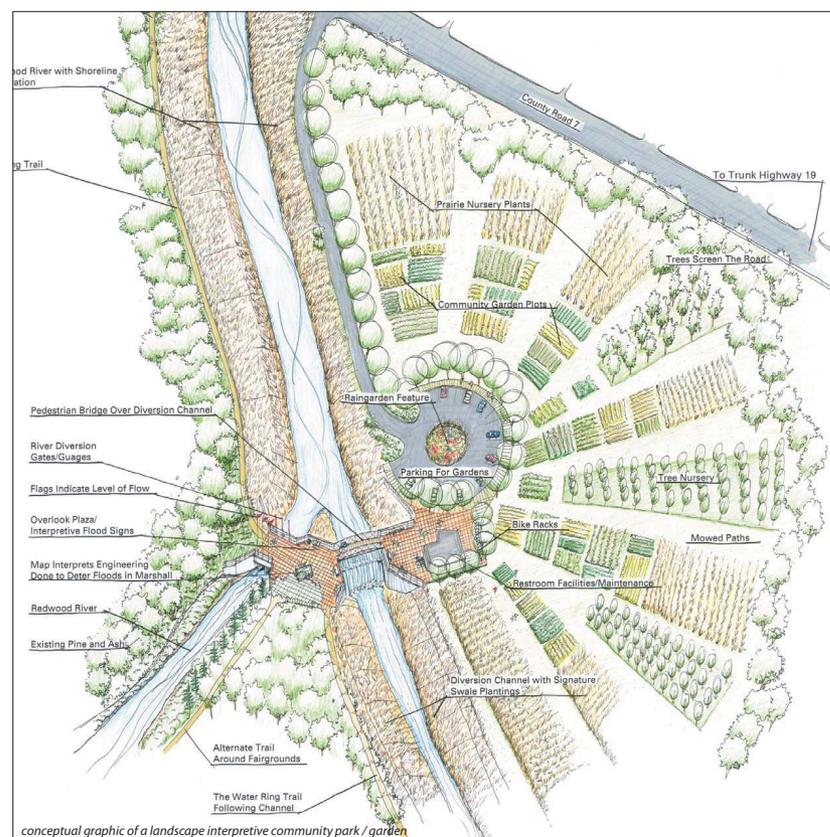
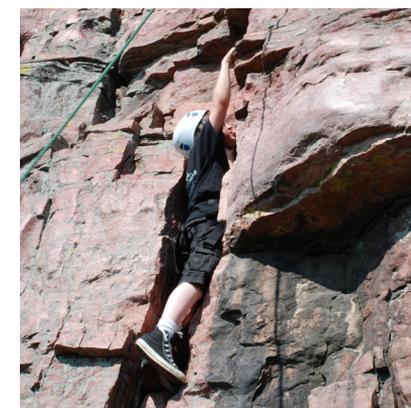
// Providing connecting trails from the station areas to the Region's parks and trails that also provide trail access to the station for commuters.

10. Provide Bicycle and Pedestrian Access to Parks and Trails

Examples include:

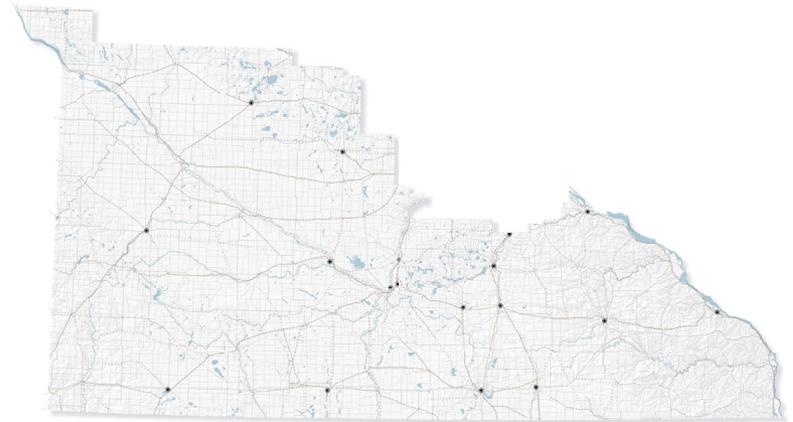
// Completing the Mill Town, the Goodhue Pioneer, and the Blazing Star State Trails in Southeastern Minnesota to create a web of trails that link many communities to the parks and to each other and also provide route for commuting to school and work for those that live in close proximity to a trail.

// Building the proposed state and regional trails in southwestern Minnesota could also provide recreational and commuting access for communities such as Granite Falls and Marshall, New Ulm, Sleepy Eye, Saint Peter, Redwood Falls, Granite Falls, Appleton, Montevideo, Luverne, etc.



The South Region Network

Strengthening, Completing, and Connecting Existing and Proposed Systems



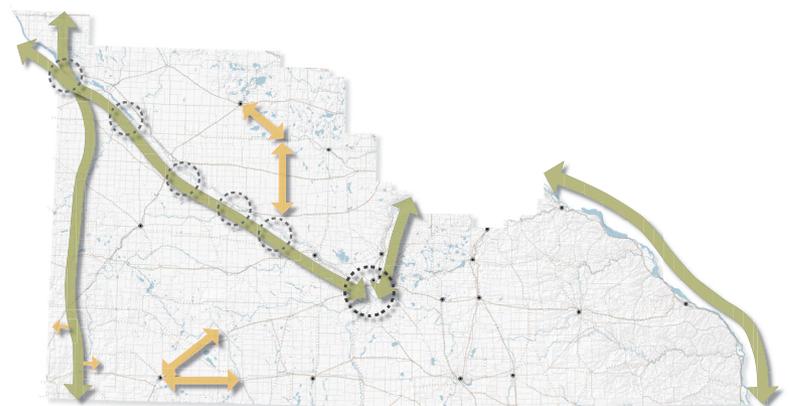
The South Region



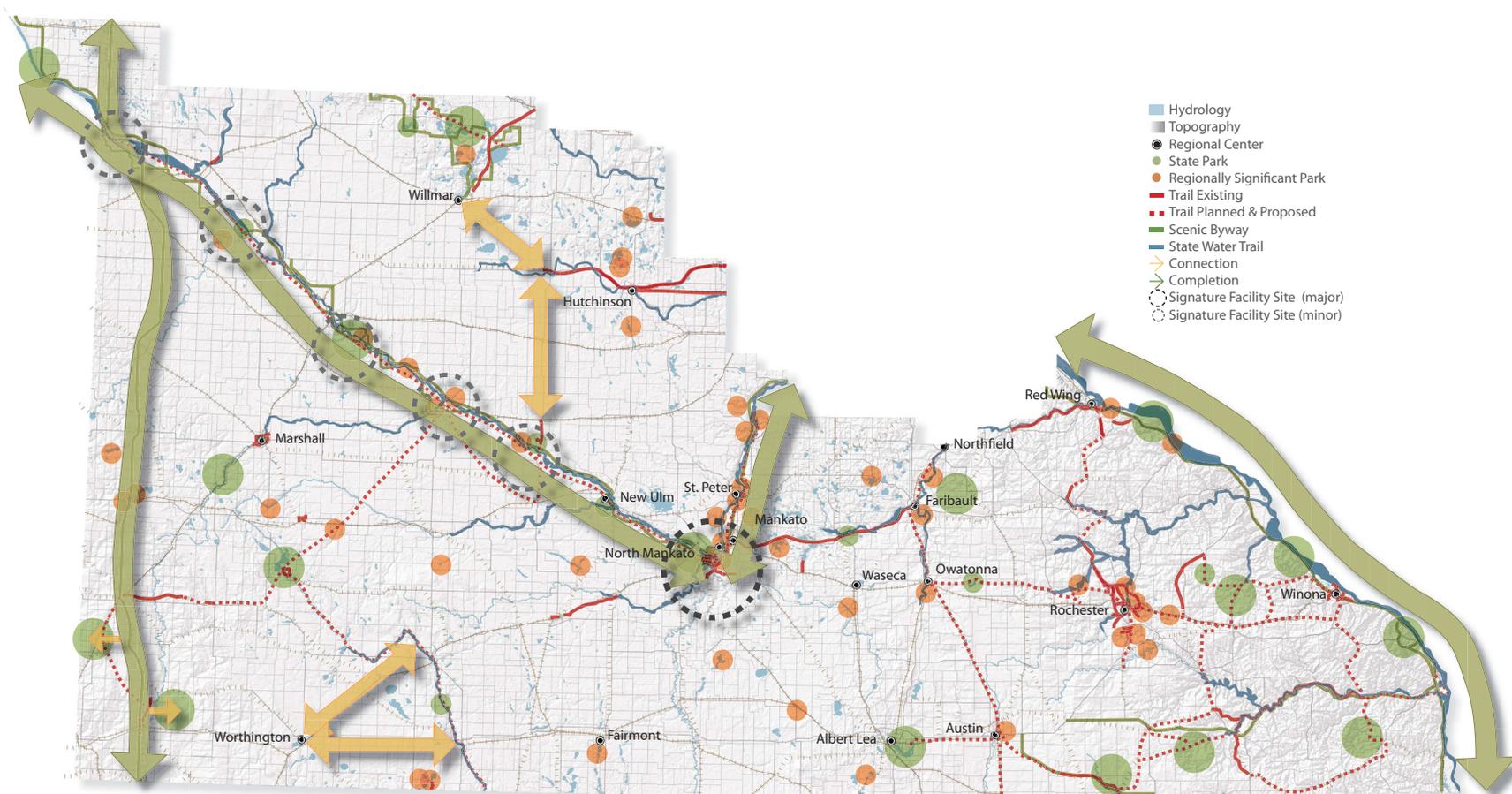
Existing parks and trails

Complete Existing Assets and Build State-Authorized Trails

- // Acquiring state park in-holdings: 12,969 acres
- // Completing the Luce Line State Trail: 1 miles
- // Completing the Casey Jones State Trail: 134 miles
- // Completing the Des Moines River State Trail: 71 miles
- // Completing the Goodhue Pioneer State Trail: 27miles
- // Completing the Stage Coach State Trail: 37 miles
- // Completing the Mill Towns State Trail: 12.4 miles
- // Completing the Great River Ridge State Trail: 2 miles
- // Completing the Blufflands System State Trails: 256 miles
includes the Douglas and Root River State Trails
- // Completing the Blazing Star State Trail: 17.5 miles
- // Completing the Shooting Star State Trail: 26 miles
- // Completing the Prairie Wildflower State Trail: 48 miles



Network facilities and connections



Project Approach

Authors: Mae Davenport, Ingrid Schneider, & Center for Changing Landscapes Staff

// Opportunities Approach
// Regional Focus
// Methodology
project approach // 55

Project Approach

Opportunities Approach

This framework takes an opportunities approach to guide parks and trails planning in Minnesota. A recreation opportunity is created at the intersection of three basic elements: (1) a setting, (2) activities in which visitors engage at that setting and (3) experiences visitors have while participating in activities at the setting.

Minnesotans visit a diversity of nature-based recreation settings (e.g., parks and trails), engage in a wide variety of recreation activities (e.g., kayaking, hunting, and picnicking) in these settings, and, in turn, these settings and activities afford Minnesotans a broad spectrum of individual and social experiences (e.g., solitude, nature observation, and being with family). Understanding and managing for the recreation experiences visitors seek is important, because high quality experiences can bring about positive psychological outcomes both on site (e.g., reducing tension) and off-site (e.g., higher productivity at work) to individuals (Driver, 2008). For instance, a 1993 study conducted in six Minnesota State Parks revealed that many recreationists visit parks to experience natural scenery, enjoy the smells and sounds of nature, be with members of their own group, and get away from the usual demands of life (Anderson, 2008). However, in some circumstances these experiences may not be fully attained because of constraints visitors encounter. Some State Park visitors reported problems related to noise, crowding, motorized use, litter, and full campsites. Similar results were found among Minnesota trail users in 2008 (Schneider, Schuweiler & Bipes, 2009).

Because certain setting attributes or conditions can constrain outdoor recreation opportunities and present problems to visitors, an integrated parks and trails system must take an opportunities approach to consider the diversity of recreation settings, the variety of recreation activities offered, and the quality of recreation experiences visitors have in those settings. Beyond the individual experiences, studies also indicate that parks and trails benefit local communities and society (Anderson, Davenport, Leahy, & Stein, 2008). For example, communities can benefit from nearby parks and trails through increased economic revenue from tourism, an enhanced community identity, and higher quality of life for residents. Regional and societal benefits from the ecosystem services recreation areas provide include flood control, climate regulation, and air and water purification (Millennium Ecosystem Assessment, 2005).

The framework identifies opportunities for investment and offers a range of potential avenues to pursue. The opportunities and strategies are not meant to be prescriptive or exhaustive. Rather, they indicate the breadth of potential investments in natural resource-based park and trail enhancements, developments, and connections.

Regional Focus

The framework focuses on a regional-level analysis and region-specific strategies. A regional focus is important for several reasons. First, the legislation emphasizes statewide and regionally significant parks and trails. Second, the diversity of the landscape and differences in population distribution suggest it is not possible, appropriate, or desirable to create a one-size-fits-all strategy for Minnesota's natural resource-based parks and trails. Third, data confidence and availability was highest and most reliable at the regional level. The regional focus is complemented by further analyses conducted at an ecological scale using the Ecological Classification System (DNR, 1999). Combined, the various comparisons across regions and ecological regions can provide significant insight into regional opportunities across administrative and ecological regions.

Methodology

Physical Setting Data Collection and Analysis

In addition to the work presented in Minnesota's Network of Parks and Trails Summary Inventory document and Minnesota's Network of Parks and Trails: County Maps & Summary of Database, CCL staff conducted field observations of state, federal, and regionally significant parks and trails and conducted an extensive review of park and trail planning and other documents to best understand the various systems. Through these processes and through participation in meetings and conversations with various park and trail planners, managers, citizens, and providers, CCL staff was able to identify current conditions and potential opportunities for future investment.

Social Science Data Collection and Analysis

A recreation experience and supply inventory (see Minnesota's Network of Parks and Trails Summary Inventory document and Minnesota's Network

of Parks and Trails: Regional Profiles) provided data to create and compare Recreation Location Quotients. Recreation Location Quotients (RLQ) are measurements of relative differences in recreation supply and potential demand across a geographical area (Marcouiller & Prey, 2005; Marcouiller, Prey, & Scott, 2009).

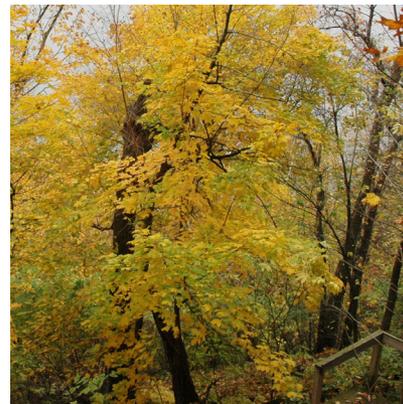
The RLQ analysis provides a standardized score to compare the supply of outdoor recreation resources across regions to the state supply overall using both population size estimates and land area estimates. In every analysis the standardized state score is 1.0. Regional scores indicate the extent to which outdoor recreation resources vary from the state standard. High scores (>1.0) indicate resources are particularly abundant and low scores (<1.0) indicate resources are particularly scarce relative to the state standard. While simple park-to-population ratios (e.g., acres-per-capita) metrics provide a base measurement and are often useful for setting broad recreation supply standards (Orning & Wieteki, 2007), the RLQ analysis provides a more nuanced investigation of resource distribution and supply-demand disparities. RLQ analysis is adaptable to place and purpose.

In this analysis, RLQ scores were calculated using a regional approach. The supply of outdoor recreation resources (ORRs) within five regions (Northwest, Northeast, Central, Metro, and South) were compared to the state overall supply. The regional boundaries chosen are consistent with previous recreation research conducted in the state (DNR, 2005).

There are recognizable limitations to the RLQ. While the RLQ analysis provides insight into recreation resource supply based on the distribution of areas and trails across the state, the RLQ does not assess the adequacy of resources in terms of quality, nor does it speak specifically to whether resources are meeting real demand. For example, not every acre of recreation land or mile of trail provides equal recreation opportunities. Depending on an area's biophysical, managerial, and social setting, recreationists may participate in different activities and achieve varying experiences. To address this limitation, RLQ analysis was conducted on some select resource amenities (e.g., presence of campsites, fishing piers, and equipment rental), however, the RLQ does not account for specific setting attributes beyond these select amenities or the quality of recreation resources.

The RLQ examines potential demand based on population size at the state and regional levels as well as based on inter-regional demand. Unfortunately, a measurement of real demand is not available. Measurements of real demand for outdoor recreation should encompass those who participate, those who want to participate but experience constraints or lack resources to participate, and those who are able and willing to participate but are unaware of existing resources or the resources do not exist (Wall, 1981). Similarly, demand for resources within a region can come from residents within the region and those traveling to the resource from other regions. To address demand outside a region's boundaries, RLQ analysis was conducted using population estimates and state park recreation destination data collected in each region (DNR, 2005) yielding inter-regional demand estimates.

The number and type of RLQ analyses that could be performed are vast. Future RLQ analyses may consider projected population sizes and subpopulation size estimates for specific sociodemographic groups including racial/ethnic minority groups, residents 65 years of age and older, and residents 18 years of age and younger. This framework provides a start to the possibilities to understand supply and demand and investment opportunities.



Recreation Opportunity Analysis

Authors: Mae Davenport, Ingrid Schneider, & Andrew Oftedal

Recreation Opportunity Analysis

2010 Supply of Outdoor Recreation Resources

Minnesota's publicly managed outdoor recreation resources of regional or state-wide significance (ORRs) include 182 regionally significant areas, 1,647 state managed areas, and 18 federally managed areas. In total, Minnesotans have access to more than 11 million acres of regionally significant, state, and federal ORRs across the State, accounting for 22% of the State's total land and water area (Appendix B, Tables 1 & 6). The vast majority of ORRs, more than 9.6 million acres, are managed as state and national forests (Appendix B, Tables 2 & 3). More than 1.5 million acres are protected as state wildlife management areas or national wildlife refuges. Other important resources include state and national parks, state scientific and natural areas, state and national recreation areas, national scenic rivers, national monuments, and state wayside areas. More than 87,000 acres are protected as regionally significant areas in Minnesota (Appendix B, Table 1).

Statewide, Minnesotans have access to more than 11,000 miles of trails managed for summer recreation uses. Almost 5,000 of these trail miles are maintained for non-motorized uses such as walking, hiking, inline skating, and cycling (Appendix B, Table 4). Almost 4,400 miles of trails are state water trails. More than 1,800 miles of these trails are managed for motorized uses such as off-highway and all-terrain vehicles. In the winter, Minnesotans have access to 23,100 miles of trails: both non-motorized trails (1,295 miles) and snowmobile trails (21,805 miles).

Outdoor Recreation Resource Areas and Trails

The amount of land and water protected as regionally or statewide significant outdoor recreation resource (ORR) areas varies across the State. The Northeast and Northwest Regions have the most land set aside for conservation and recreation. The proportion or percentage of land protected within each region also varies quite significantly. For example, more than 55% (7.8 million acres) of the Northeast Region is publicly managed as outdoor recreation resources (Appendix B, Table 6). In contrast, less than 3% (343,606 acres) of the South Region is set aside for these purposes. The more densely populated regions tend to have less land area devoted to regionally significant, state or federal ORR areas. Like the South Region, the Central and Metro Regions have less than 6% of their land area set aside as outdoor recreation resources. However, it is important to note that these figures do not encompass most locally managed ORRs such as county and municipal parklands.

The distribution of trails also varies region to region. The Northeast Region, the largest region in land area, has the most total summer recreation trail miles, including water trails, at almost 5,000 miles (Appendix B, Table 4). This region has more than half of the State's total supply of non-motorized and motorized summer land-based trails. In contrast, the supply of state water trails is dispersed almost evenly across the Northeast (29%), South (29%), and Northwest (27%) Regions. The South has the most total winter trail miles at more than 7,000 miles. While the bulk of the State's motorized winter trails are found in the Northwest (31%) and South (31%), the majority of non-motorized trails maintained for Nordic skiing are found in the Northeast (54%). Overall, the Metro Region has the fewest summer and winter trail miles. However, the trail supply per land area ratios reveal that the Metro Region has the highest density of summer trails at 35 miles per 100,000 acres (Appendix B, Table 7). The Central Region has the highest density of winter trails at 59 miles per 100,000 acres.

Amenities

Not all ORR areas or trails provide the same recreation opportunities for visitors. One approach to examining the supply of recreation resources goes beyond acres and miles and explores the types of amenities that are available. For example, 256 areas inventoried across the state have picnic day use areas (Appendix B, Table 5). Camping facilities are available at 201 areas including 145 with developed camping, 121 with primitive camping, and 75 with group camping opportunities. Playgrounds, visitor centers, and equipment rental facilities are present at 127, 126, and 117 areas respectively. Seventy-nine of the areas inventoried have fishing piers.

Overall, the Metro Region has the highest number of ORRs with inventoried amenities per 100,000 acres of any region, which is primarily a function of the higher density of areas with picnic areas and play grounds (Appendix B, Table 8). The Northwest has the lowest number of ORRs with inventoried amenities per 100,000 acres.

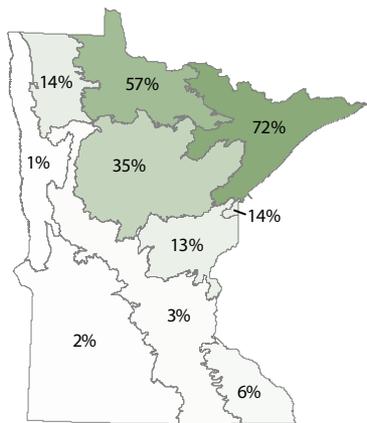
Ecosystem Representation in Outdoor Recreation Resources

Examining ORR supply based on Ecological Classification System Sections (ECS) (DNR, 1999) provides insight into the extent to which varying ecosystems are represented in the state's network of ORR areas and trails.

For example, more than 72% of the Northern Superior Uplands is publicly protected as ORRs (Figure 1; Appendix B, Table 9), while less than 2% of the Red River Valley and the North Central Glaciated Plains has similar protection. The Minnesota and Northeast Iowa Morainal section has less than 3% of its area protected as ORRs.

Per land and water area, the Southern Superior Uplands has the highest summer (98.2) and winter (76.2) trail mileage per 100,000 acres (Figure 2; Appendix B, Table 10). The North Central Glaciated Plains has the lowest density of summer trail miles (8.8) and the Northern Minnesota and Ontario Peatlands has the lowest density of winter trail miles (24.6) per 100,000 acres.

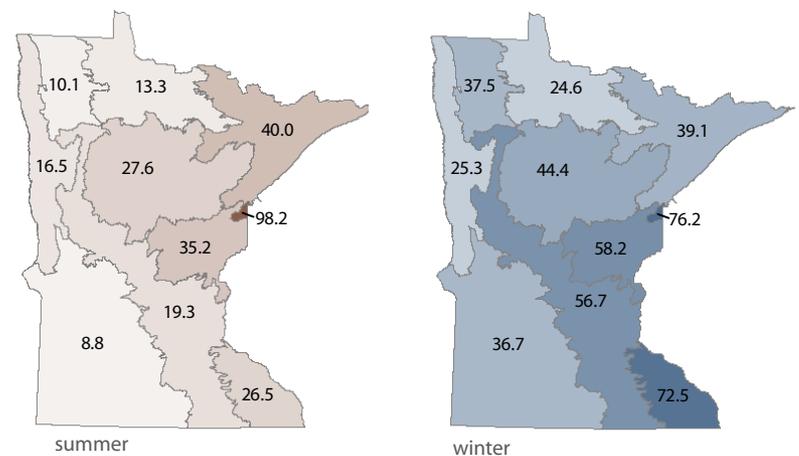
Figure 1 // Percentage of ecological section protected as outdoor recreation resource areas



Potential Demand for Outdoor Recreation Resources

Based on 2009 Minnesota population estimates (U.S. Census), Minnesota's total ORR acreage per capita ratio is 2.24 acres per resident (Figure 3; Appendix B, Table 11). Regional comparisons of acreage per capita estimates show great regional variability: Northeast residents have access to almost 19 acres within their region per resident, and Metro residents have access

Figure 2 // Miles of outdoor recreation resource trails per 100,000 acres by ecological section



to 0.04 acres within their region per resident. Trail miles per capita estimates tell us that Minnesotans have access to 211 miles of summer trails and 436 miles of winter trails per 100,000 residents (Figures 4 & 5; Appendix C, Table 14). The Northeast and Northwest Regions have the highest summer and winter trail miles per capita ratios, while the Metro Region has the lowest trail miles per capita ratio. Per capita ratios reveal that the Northeast and Northwest Regions have the highest number of ORRs with inventoried attributes per 100,000 people, especially with respect to general camping facilities, primitive camping facilities, visitor centers, and equipment rental services.

As many Minnesotans may seek recreation opportunities outside of their own region, estimates of potential recreation visitor demand must take into account inter-regional travel. Using 2009 population estimates and state park recreation destination data gathered from a sample of residents in each region (DNR, 2005), potential recreation visitor demand (i.e., regional and interregional demand) ratios were calculated. In this instance, the number of acres per potential recreation visitor declines in the Northeast to 11 acres. The Metro Region's ratio increases slightly at just less than 0.06 acre per potential recreation visitor (Appendix B, Table 12). With respect to

Recreation Opportunity Analysis

interregional demand for summer trails, the Northeast has 683 miles of trails, while the Metro has 34 miles of trails per 100,000 potential recreation visitors (Appendix B, Table 13).

Given projected population increases and at current supply of recreation resources, both the statewide acreage and trail per capita ratios would decline 11% in 2020 and another 8% in 2035. Region-specific population projections for 2035 reveal the Central Region's ORR per capita ratio will be the most affected by population growth at current supply level, declining more than 40% from 0.39 to 0.23 acres per resident for ORR areas (Figure 3; Appendix B, Table 11). Similarly, trail per capita ratios in the Central Region decline from 148 to 88 miles of summer trails and from 416 to 248 miles of winter trails per 100,000 residents (Figures 4 & 5; Appendix B, Table 14).

Figure 3 // ORR Area Acres per 1,000 Resident by Year

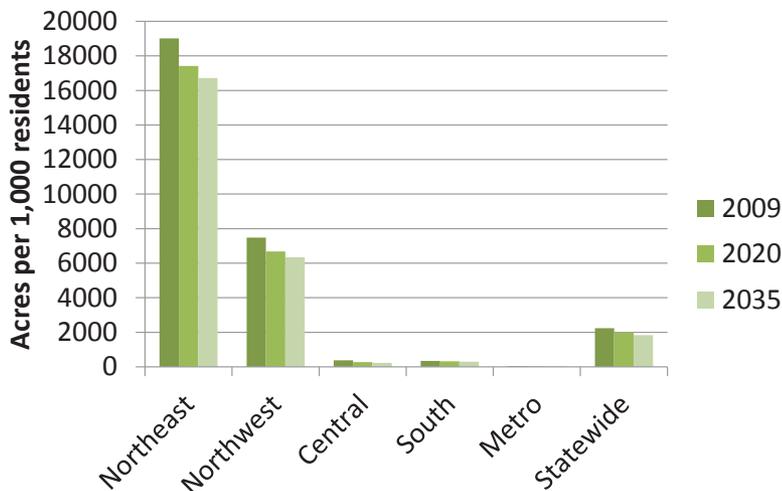


Figure 4 // ORR summer trail miles per 1,000 resident by year

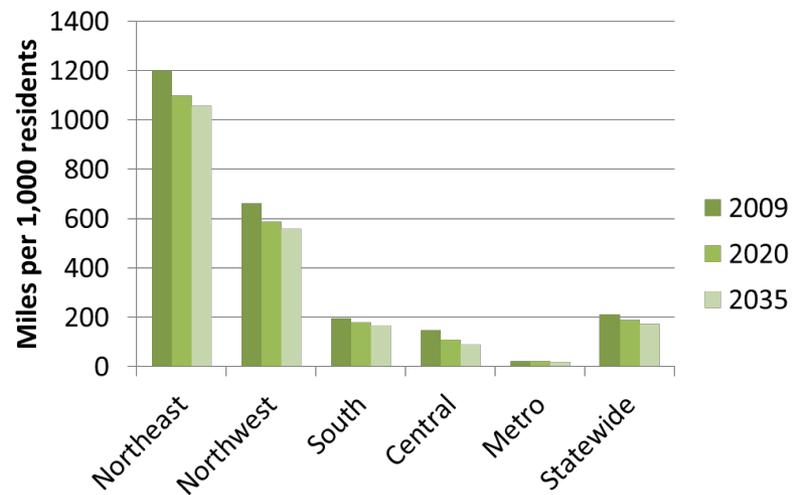
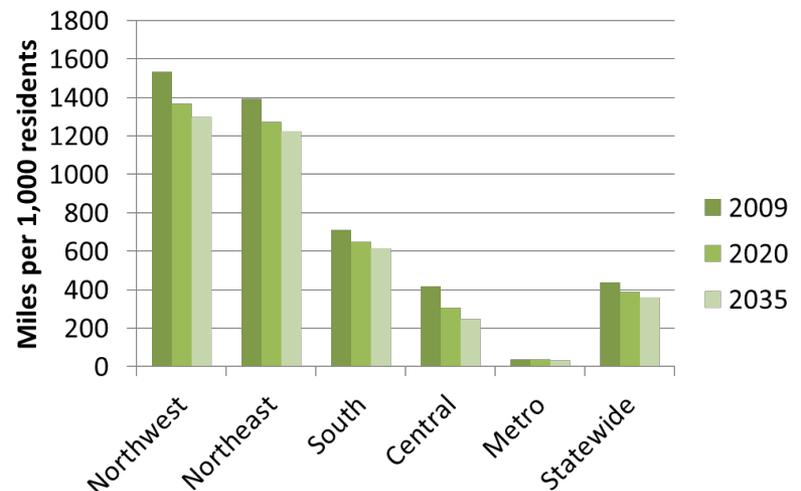


Figure 5 // ORR winter trail miles per 1,000 resident by year

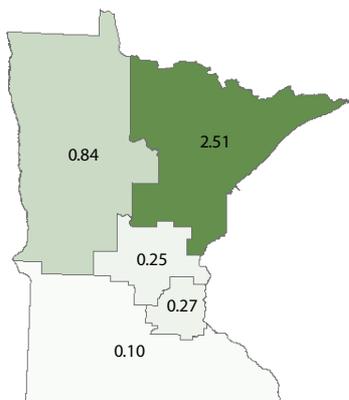


Recreation Location Quotient (RLQ) Analysis

ORR Area and Trail RLQs

The ORR area-based RLQ analysis reveals considerable differences across the State. The Northeast Region has the highest score of any region. This region has 2.5 times the acreage protected, per land area, than the state standardized score (Figure 6, Appendix B, Table 15). In contrast the Central, Metro and South have scores less than 0.30, indicating these regions have about 70% less acreage protected, per land area, than the state standardized score. While the Northeast has the highest score for both state and federally managed ORR areas, the Metro Region has the highest score (16.2) for regionally significant areas—at least 13 times more acreage protected, per land area, than the other regions.

Figure 6 // Area-based RLQ for outdoor recreation resource areas



The trail area-based RLQ analysis reveals that the Metro (1.69) and Northeast (1.68) have the highest scores for summer trails and the Central (1.37) and Metro (1.34) have the highest scores for winter trails (Figure 8; Appendix B, Table 17). The South (0.60) and Northwest (0.88) have the lowest scores for summer and winter trails, respectively. The population-based RLQ analysis, adjusted for inter-regional demand, reveals the Northeast has almost 3 times the summer trail mileage and the Metro has about one-tenth of the summer trail mileage of the state

The population-based RLQ analysis, adjusted for inter-regional demand, analysis shows a similar pattern. The Northeast Region has the highest score of any region at over 4 times the acreage protected, per capita, than the state standardized score (Figure 7; Appendix B, Table 16). The Metro Region has the lowest score, at less than 3% of the state standardized score in acreage protected, per capita. The Central and Southern Regions are similar in their scores, 15% and 16% of the state standardized score, respectively.

The trail area-based RLQ analysis reveals that the Metro (1.69) and Northeast (1.68) have the highest scores for summer trails and the Central (1.37) and Metro (1.34) have the highest scores for winter trails (Figure 8; Appendix B, Table 17). The South (0.60) and Northwest (0.88) have the lowest scores for summer and winter trails, respectively. The population-based RLQ analysis, adjusted for inter-regional demand, reveals the Northeast has almost 3 times the summer trail mileage and the Metro has about one-tenth of the summer trail mileage of the state

Figure 7 // Population-based RLQ for outdoor recreation resource areas, adjusted for inter-regional demand

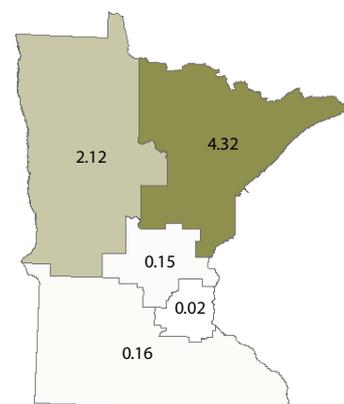
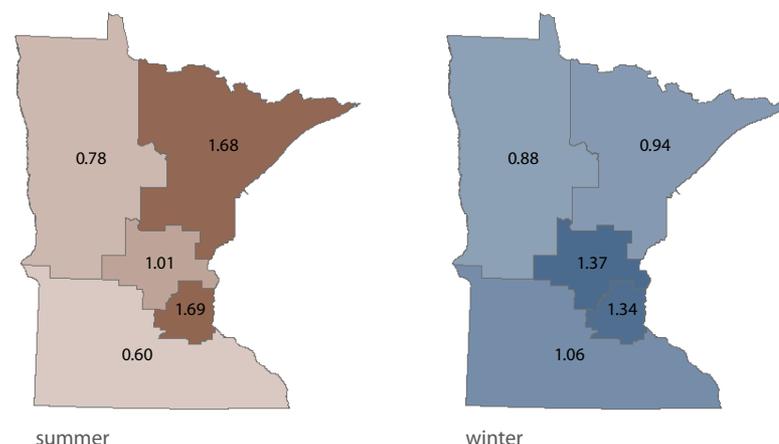


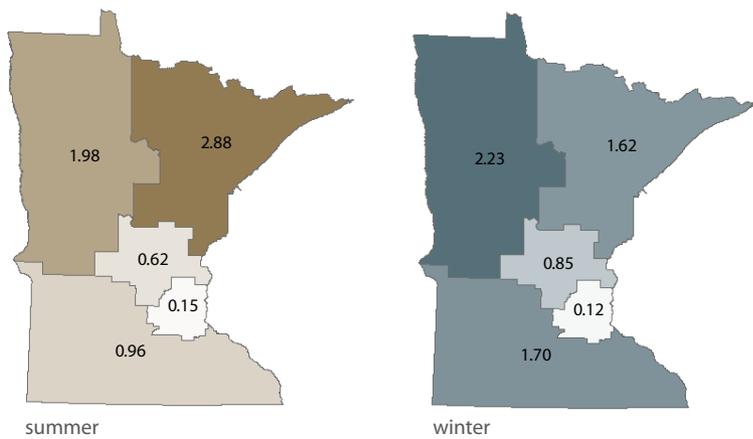
Figure 8 // Area-based RLQ for outdoor recreation resource trails, adjusted for inter-regional demand



Recreation Opportunity Analysis

standardized score (Figure 9; Appendix B, Table 18). For winter trails, the Northwest has 2.2 times the winter trail mileage and the Metro has less than one-tenth of the winter trail mileage of the state standardized score.

Figure 9 // Population-based RLQ for outdoor recreation resource trails, adjusted for inter-regional demand



Amenities RLQ

The amenities area-based RLQ analysis produced scores ranging from 0.48 for fishing piers in the South to 9.69 fishing piers in the Metro Region (Appendix B, Table 19). Not surprisingly, the Metro has the highest density for all attributes except areas with primitive camping, which is highest in the Northeast. The population-based RLQ analysis, adjusted for inter-regional demand, suggests high potential demand for areas with ADA accessible camping opportunities within the Central and Metro Regions (Appendix B, Table 20). The Metro Region has scores below the state standardized score for each of the attributes, save picnic areas, fishing piers and playgrounds. The Northeast and Northwest appear to have an abundance of areas with the select inventoried attributes. The South Region has scores below the state standardized score in fishing piers and visitor centers.

Ecosystem Representation RLQs

The area-based RLQ analysis for ECS Sections suggests some disparities among Sections: the Northern Superior Uplands has the highest score (3.28) and the Red River Valley has the lowest score (0.05) (Figure 10; Appendix B,

Table 21). For summer trail area-based RLQ analysis, the Southern Superior Uplands, the smallest Section in area, has the highest score (4.74) (Figure 11; Appendix B, Table 22). The North Central Glaciated Plains has the lowest summer trail score (0.43). Winter trail scores were the highest in the Southern Superior Uplands (1.78) and the Paleozoic Plateau (1.69) and the lowest in the Northern Minnesota and Ontario Peatlands (0.57) (Figure 11; Appendix B, Table 22).

Figure 10 // Area-based RLQ for outdoor recreation resource areas by ecological sections

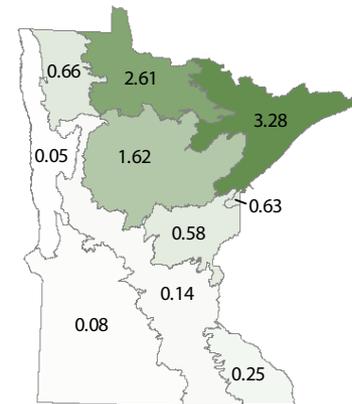
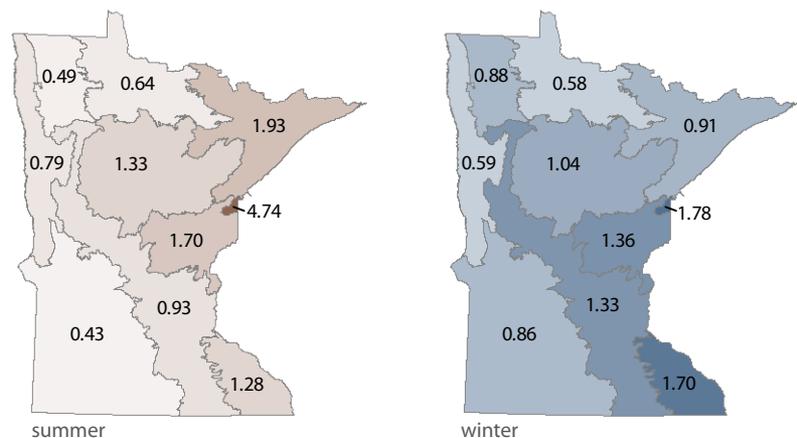


Figure 11 // Area-based RLQ for outdoor recreation resource trails by ecological sections



References

- Anderson, D.H. (2008). Targeting visitor benefits for Minnesota state parks. In Driver, B.L. (ed.), *Managing to Optimize the Beneficial Outcomes of Recreation* (pp. 239-251). State College, PA: Venture Publishing.
- Anderson, D.H., Davenport, M.A., Leahy, J.E., & Stein, T. (2008). Outcomes focused management and local community benefits. In Driver, B.L. (ed.), *Managing to Optimize the Beneficial Outcomes of Recreation* (pp. 311-334). State College, PA: Venture Publishing.
- Driver, B.L. (Ed.) (2008). *Managing to optimize the beneficial outcomes of recreation*. State College, PA: Venture Publishing.
- Marcouiller, D.W., & Prey, J. (2005). *The tourism supply linkage: Recreational sites and their related natural amenities*. Journal of Regional Analysis and Policy, 35(1), 23-32.
- Marcouiller, D.W., Prey, J., & Scott, I. (2009). *The regional supply of outdoor recreation resources: Demonstrating the use of location quotients as a management tool*. Journal of Park and Recreation Administration, 27(4), 92-107.
- Millennium Ecosystem Assessment. (2005). *Living beyond our means: Natural assets and human well-being*. Island Press, Washington, D.C.
- Minnesota Department of Natural Resources. (1999). *Ecological classification system*. Retrieved December 30, 2010, from <http://www.dnr.state.mn.us/ecs/index.html>.
- Minnesota Department of Natural Resources. (2005). *2004 Outdoor recreation participation survey of Minnesotans: Report on findings*. Saint Paul, MN: Office of Management and Budget Services, Minnesota Department of Natural Resources.
- Orning, G., & Wieteki, M. (2007). *Regional parks for Minnesota's new outstate urban complexes*. Saint Paul, MN: Department of Forest Resources, University of Minnesota.
- Schneider, I.E., Schuweiler, A., & Bipes, T. (2009). *Profile of 2008 recreation trail users*. Saint Paul, MN: University of Minnesota Tourism Center.

Additional Resources

- American Society of Landscape Architects, Lady Bird Johnson Wildflower Center, University of Texas, United States Botanic Garden. (2009). *Sustainable sites initiative: Guidelines and performance benchmarks*. Retrieved from <http://www.asla.org>.
- Audubon Minnesota. (2009). *Important bird areas of Minnesota*. Retrieved from <http://mn.audubon.org/>.
- Benson, D. R. (2002). *Stories in log and stone, the legacy of The New Deal in Minnesota state parks*. Saint Paul, MN: Minnesota Department of Natural Resources.
- Cambridge Systematics, Inc, Kimley Horn and Associates, Inc., TKDA. (2010). *Minnesota comprehensive statewide freight and passenger rail plan*. St Paul, MN: MNDOT.
- Davenport, M.A., Schneider, I.E., Date, A., & Filter, L. (2010a). *Minnesota's network of parks and trails: An inventory of recreation experience opportunities: Central region*. Minneapolis, MN: University of Minnesota Center for Changing Landscapes.
- Davenport, M. A., Schneider, I.E., Date, A., & Filter, L. (2010b). *Minnesota's network of parks and trails: An inventory of recreation experience opportunities: Metro region*. Minneapolis, MN: University of Minnesota Center for Changing Landscapes.
- Davenport, M.A., Schneider, I.E., Date, A., & Filter, L. (2010c). *Minnesota's network of parks and trails: An inventory of recreation experience opportunities: Northeast region*. Minneapolis, MN: University of Minnesota Center for Changing Landscapes.
- Davenport, M.A., Schneider, I.E., Date, A., & Filter, L. (2010d). *Minnesota's network of parks and trails: An inventory of recreation experience opportunities: Northwest region*. Minneapolis, MN: University of Minnesota Center for Changing Landscapes.
- Davenport, M.A., Schneider, I.E., Date, A., & Filter, L. (2010e). *Minnesota's network of parks and trails: An inventory of recreation experience opportunities: South region*. Minneapolis, MN: University of Minnesota Center for Changing Landscapes.
- Information Specialists Group, Inc. (2009). *Metropolitan council regional parks and trails survey 2008*. Retrieved from <http://www.metrocouncil.org/planning/parks/ParksSurvey2008pdf>
- Lessard-Sams Outdoor Heritage Council. (2010). *25-Year funding framework*. Retrieved from <http://www.lsohc.leg.mn/>.
- Metropolitan Council, Community Development Committee. (2010). *2030 Regional parks policy plan*. Retrieved from <http://www.metrocouncil.org/planning/framework/documents.htm>
- Metropolitan Council. (2010). *2030 Transportation policy plan*. Retrieved from <http://www.metrocouncil.org/planning/framework/documents.htm>.
- Metropolitan Council. (2008). *2030 Regional parks policy plan: 2008-2013 Metropolitan regional parks capital improvement program*. Retrieved from <http://www.metrocouncil.org/>

[planning/framework/documents.htm](#).

Minnesota Department of Health. (2010). *Statewide health improvement, report to the legislature*. St Paul, MN: MNDH.

Minnesota Department of Natural Resources. (2008). *Adapting to change: Minnesota's 2008-2012 state comprehensive outdoor recreation plan*. St. Paul, MN: MNDNR.

Minnesota Department of Natural Resources: Division of Parks and Trails. (2010). *Connecting people to Minnesota's great outdoors: Ten-year strategic state parks and trails plan, 2011-2020 draft*. St. Paul, MN: MNDNR.

Minnesota Department of Natural Resources: Trails and Waterways Unit. (2000). *Guidelines for managing and restoring natural plant communities along trails and waterways*. St. Paul, MN: MNDNR.

Minnesota Department of Natural Resources. (2010). *Cross-country skiing trail information*. Retrieved from http://www.dnr.state.mn.us/state_parks/skiing.html.

Minnesota Department of Natural Resources. (2010). *Horse trail information*. Retrieved from http://www.dnr.state.mn.us/horseback_riding/index.html.

Minnesota Department of Natural Resources. (2010). *Off highway vehicle information*. Retrieved from <http://www.dnr.state.mn.us/ohv/index.html>.

Minnesota Department of Natural Resources. (2010). *Regional trail information*. Retrieved from http://www.dnr.state.mn.us/state_trails/othertrailshtml.

Minnesota Department of Natural Resources. (2010). *Snowmobile trails information*. Retrieved from <http://www.dnr.state.mn.us/snowmobiling/index.html>.

Minnesota Department of Natural Resources. (2010). *State park information*. Retrieved from http://www.dnr.state.mn.us/state_parks/index.html.

Minnesota Department of Natural Resources. (2010). *State trail information*. Retrieved from http://www.dnr.state.mn.us/state_trails/index.html.

Minnesota Department of Natural Resources. (2010). *State water trail information*. Retrieved from <http://www.dnr.state.mn.us/watertrails/index.html>.

Minnesota Department of Natural Resources, State Planning Agency. (1971). *Minnesota resource potentials in state outdoor recreation, project 80 staff report no. 1*. St. Paul, MN: MNDNR.

Minnesota Historical Society. (2010). *Historic sites information*. Retrieved from <http://nrhp.mnhs.org/Minnesota>

Nord, M.A. (2003). *National register of historic places in Minnesota: A guide*. St. Paul, MN: Minnesota Historical Society Press.

Ojakangas, R.W. & Matsch, C.L. (1989). *Minnesota's geology*. Minneapolis, MN: University of Minnesota Press.

Rubinstien, S.P. (2003). *History along the highways*. St. Paul, MN: Minnesota Historical Society Press

University of Minnesota College of Natural Resources and Minnesota Department of Natural Resources Division of Parks & Recreation. (2000). *Minnesota state park system land study*. Saint Paul, MN: Minnesota Department of Natural Resources.

Vogel, M., Pettinari, J., Martin, R., & Fernandez, C. (2005). *Beaver Bay: Community design & trailhead*. Minneapolis, MN: Center for Changing Landscapes, University of Minnesota.

Vogel, M., Martin, R., Detzler, L., & Vanagaite, E. (2010). *County trail system design: Brown, Lyon, Redwood, & Renville Counties*. Minneapolis, MN: Center for Changing Landscapes, University of Minnesota.

Vogel, M., Pettinari, J., Martin, R., Rapson, R., & Schlepp, N. (2008). *MnPASS Transit & community form: Creating access to transit & destinations in the I-394 corridor*. Minneapolis, MN: Center for Changing Landscapes, University of Minnesota.

Vogel, M., Martin, R., Schlepp, N., & Detzler, L. (2008). *A pedestrian and bikeway plan: A safe & healthy Marshall*. Minneapolis, MN: Center for Changing Landscapes, University of Minnesota.

Vogel M., Martin, R., & Fernandez, C. (2005). *Red Lake River corridor enhancement project*. Minneapolis, MN: Center for Changing Landscapes, University of Minnesota.

Wovcha, D.S., Delaney, B.C., & Nordquist, G.E., Minnesota Department of Natural Resources. (1995). *Minnesota's St. Croix River valley and Anoka sandplain: A guide to native habitats*. Minneapolis, MN: University of Minnesota Press.

Photography

Cover Page & CD Cover Images: Image bottom left, Carol Henderson.

All other images from Minnesota Department of Natural Resources. Used with permission.

Appendices

// Appendix A: Authorizing Legislation

// Appendix B: Tables

// Appendix C: Definition of Regionally Significant Parks & Trails

Appendix A: Authorizing Legislation

State Statute Authorization of Inventory and Framework

Legislation (64.8 § 6) CREATION OF A PARKS AND TRAILS INVENTORY, FRAMEWORK, AND PLAN. Subdivision 1. Inventory and framework development. (a) The University of Minnesota Center for Changing Landscapes is directed to create a long-range framework for an integrated statewide parks and trails system that provides information on the natural resource-based recreational opportunities available throughout the state. The detailed framework must include an inventory of existing regionally and statewide significant parks and trails, respond to recreational trends and demographic changes, and identify underserved areas, overused facilities, and gaps in the current parks and trails system. The framework must identify opportunities for enhancing existing assets, developing new assets, and linking those assets together effectively within realistic financial resources. (b) As part of the inventory, the Center for Changing Landscapes shall develop a user-friendly Web-based guide for information on state and regional parks in the state. The Department of Natural Resources, the Office of Explore Minnesota Tourism, and the Metropolitan Council shall work with the Center for Changing Landscapes to ensure that all the information currently available on their Web sites is incorporated into the newly developed statewide Web system. The statewide parks and trails Web guide shall be incorporated into the Department of Natural Resources Web site. (c) In developing the framework and inventory, the Center for Changing Landscapes shall consult with the Department of Natural Resources, the Office of Explore Minnesota Tourism, the Metropolitan Council, local units of government, park and trail groups, the public, and other stakeholder groups. The Center for Changing Landscapes shall participate and be actively involved in the collaborative under subdivision 2. (d) The Center for Changing Landscapes shall submit the framework and a summary of the inventory in a report to the commissioner of natural resources and to the chairs and ranking minority members of the senate and house of representatives committees and divisions having jurisdiction over natural resources policy and finance by January 15, 2011.

Appendix B: Tables

Table 1 // Regional acreage of outdoor recreation resource areas as of 2010

REGION	REGIONAL ¹	STATE	FEDERAL	TOTAL
Central	7,741	172,061	34,557	214,359
Metro	50,121	49,612	12,735	112,468
Northeast	12,714	5,115,058	2,686,049	7,813,821
Northwest	6,166	2,894,114	461,627	3,361,907
South	10,861	283,006	49,739	343,606
State	87,603	8,513,851	3,244,707	11,846,161

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Table 2 // Regional acreage of state-managed outdoor recreation resource areas as of 2010

REGION	STATE FOREST ¹	SCIENTIFIC & NATURAL AREA	STATE PARK	RECREATION AREA	STATE WAYSIDE	WILDLIFE MANAGEMENT AREA	TOTAL
Central	65,145	4,528	19,112	-	-	83,276	172,061
Metro	7,095	2,574	5,835	4,465	-	29,643	49,612
Northeast	4,847,680	69,014	101,507	4,626	533	91,698	5,115,058
Northwest	1,848,644	100,647	54,032	11,017	84	879,690	2,894,114
South	45,252	7,647	29,990	-	3	200,114	283,006
State	6,813,816	184,410	210,476	20,108	620	1,284,421	8,513,851

Note: 1 = Includes approximately 2.9 million acres of county administered forest lands

Table 3 // Regional acreage of federally-managed outdoor recreation resource areas as of 2010

REGION	NATIONAL FOREST	NATIONAL MONUMENT	NATIONAL PARK	NATIONAL RECREATION AREA	NATIONAL SCENIC RIVER	NATIONAL WILDLIFE REFUGE	TOTAL
Central	-	-	-	-	2,472	32,085	34,557
Metro	-	-	-	62	947	11,726	12,735
Northeast	2,458,500	714	204,587	-	2,053	20,195	2,686,049
Northwest	353,400	-	-	-	-	108,227	461,627
South	-	284	-	-	-	49,455	49,739
State	2,811,900	998	204,587	62	5,472	221,688	3,244,707

Appendix B: Tables

Table 4 // Regional mileage of outdoor recreation resource trails as of 2010

REGION	SUMMER NON-MOTORIZED	RECREATION MOTOR VEHICLES	STATE WATER TRAILS	SUMMER OVERALL	WINTER NON-MOTORIZED	SNOWMOBILE	WINTER OVERALL
Central	225	64	542	832	82	2,260	2,342
Metro	399	-	270	680	103	990	1,093
Northeast	2,695	957	1,282	4,934	696	5,017	5,713
Northwest	1,071	724	1,175	2,970	106	6,777	6,883
South	597	73	1,263	1,933	308	6,761	7,069
State	4,988	1,818	4,392	11,198	1,295	21,805	23,100

Table 5 // Number of outdoor recreation resource areas with select amenities as of 2010

REGION	CAMPING FACILITIES, ANY TYPE	DEVELOPED CAMPING, ANY TYPE	DEVELOPED CAMPING, RV/CAMPER	DEVELOPED CAMPING, ACCESSIBLE CAMPSITES	GROUP CAMPING	PRIMITIVE CAMPING
Central	20	14	10	3	10	11
Metro	18	17	11	8	12	7
Northeast	69	36	26	15	17	57
Northwest	54	32	22	10	18	36
South	55	51	42	16	21	22
State	201	145	108	51	75	121

Table 5, cont. // Number of outdoor recreation resource areas with select amenities as of 2010

REGION	PICNIC AREA	FISHING PIER	PLAY GROUND	VISITOR CENTER	EQUIPMENT RENTAL
Central	32	8	15	12	12
Metro	68	27	41	17	12
Northeast	50	15	14	56	51
Northwest	51	19	22	34	34
South	65	11	35	21	22
State	256	79	127	126	117

Table 6 // Percentage of region protected as outdoor recreation resource area

RECREATION TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH	STATE
2009 Regionally Significant ¹	0.19%	2.63%	0.09%	0.03%	0.07%	0.16%
State Forest	1.63%	0.37%	34.17%	10.11%	0.29%	12.62%
Scientific & Natural Area	0.11%	0.14%	0.49%	0.55%	0.05%	0.34%
State Park	0.48%	0.31%	0.72%	0.30%	0.19%	0.39%
State Recreation Area	0.00%	0.23%	0.03%	0.06%	0.00%	0.04%
State Wayside	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wildlife Management Area	2.09%	1.56%	0.65%	4.81%	1.28%	2.38%
State total	4.32%	2.61%	36.05%	15.83%	1.81%	15.77%
National Forest	0.00%	0.00%	17.33%	1.93%	0.00%	5.21%
National Monument	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
National Park	0.00%	0.00%	1.44%	0.00%	0.00%	0.38%
National Recreation Area	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
National Scenic River	0.06%	0.05%	0.01%	0.00%	0.00%	0.01%
National Wildlife Refuge	0.81%	0.62%	0.14%	0.59%	0.32%	0.41%
Federal total	0.87%	0.67%	18.93%	2.53%	0.32%	6.01%
Overall	5.38%	5.91%	55.08%	18.39%	2.20%	21.94%

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Appendix B: Tables

Table 7 // Regional mileage of outdoor recreation resource trails per 100,000 acres

TRAIL TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH	STATE
Summer non-motorized	5.65	20.98	19	5.86	3.82	9.24
<i>Regional non-motorized</i>	2.43	11.78	0.82	0.51	0.54	1.14
<i>State non-motorized</i>	2.89	7.75	9.19	3.08	3.27	4.89
<i>Federal non-motorized</i>	0.33	1.44	8.99	2.27	0.01	3.21
Recreation motor vehicles	1.61	-	6.74	3.96	0.47	3.37
State water trails	13.61	14.16	9.04	6.43	8.07	8.13
Summer Overall	20.87	35.13	34.78	16.25	12.36	20.74
Winter non-motorized	2.06	5.42	4.91	0.58	1.97	2.4
<i>Local nordic ski</i>	0.22	-	-	-	0.13	0.05
<i>State nordic ski</i>	1.84	5.42	2.56	0.54	1.84	1.71
<i>Federal nordic ski</i>	-	-	2.35	0.04	-	0.63
Snowmobile	56.7	52.01	35.36	37.08	43.22	40.38
Winter Overall	58.77	57.43	40.27	37.66	45.19	42.78

Table 8 // Number of outdoor recreation resource areas with select amenities per 100,000 acres

AREA AMENITY	Central				Metro				Northeast				Northwest				South				State			
	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total
Camping facilities	0.2	0.3	0	0.5	0.7	0.2	-	0.9	0	0.4	0	0.5	0.1	0.2	0	0.3	0.2	0.2	-	0.4	0.1	0.2	0	0.4
Developed camping	0.1	0.2	0	0.4	0.7	0.2	-	0.9	0	0.2	0	0.3	0.1	0.1	0	0.2	0.2	0.2	-	0.3	0.1	0.1	0	0.3
<i>RV/camper</i>	0.1	0.2	-	0.3	0.5	0.1	-	0.6	0	0.1	0	0.2	0	0.1	0	0.1	0.1	0.2	-	0.3	0.1	0.1	0	0.2
<i>ADA camp</i>	-	0.1	-	0.1	0.4	0.1	-	0.4	0	0.1	0	0.1	0	0	0	0.1	0	0.1	-	0.1	0	0.1	0	0.1
Group camping	0	0.2	-	0.3	0.5	0.2	-	0.6	-	0.1	0	0.1	0	0.1	0	0.1	0	0.1	-	0.1	0	0.1	0	0.1
Primitive camping	0.1	0.2	-	0.3	0.2	0.2	-	0.4	0	0.4	0	0.4	0	0.2	0	0.2	0	0.1	-	0.1	0	0.2	0	0.2
Picnic area	0.6	0.2	0	0.8	3.3	0.3	-	3.6	0.1	0.2	0	0.4	0.1	0.1	0	0.3	0.3	0.1	0	0.4	0.3	0.2	0	0.5
Fishing pier	0.2	0.1	-	0.2	1.3	0.1	-	1.4	-	0.1	0	0.1	0	0.1	0	0.1	0	0	-	0.1	0.1	0.1	0	0.1
Play ground	0.3	0.1	-	0.4	2.1	0.1	-	2.2	0	0	0	0.1	0.1	0	0	0.1	0.1	0.1	-	0.2	0.2	0	0	0.2
Visitor center	0.1	0.2	0	0.3	0.6	0.2	0.1	0.9	0	0.3	0	0.4	0	0.2	0	0.2	0.1	0.1	0	0.1	0.1	0.2	0	0.2
Equipment rental	0	0.3	-	0.3	0.5	0.2	-	0.6	0	0.3	-	0.4	-	0.2	-	0.2	0	0.1	-	0.1	0	0.2	-	0.2
Total areas	0.6	0.3	0.1	0.9	3.3	0.3	0.1	3.7	0.1	0.4	0.1	0.6	0.1	0.2	0	0.4	0.3	0.2	0	0.5	0.3	0.2	0	0.6

Table 9 // Percentage of area protected as outdoor recreation resource by ecological section

RECREATION TYPE	LAKE AGASSIZ, MINNESOTA & NE IOWA			NORTHERN MINNESOTA & ONTARIO PEATLANDS			NORTHERN MINNESOTA DRIFT & LAKE PLAINS			NORTH CENTRAL GLACIATED PLAINS			NORTHERN SUPERIOR UPLANDS			PALEOZOIC PLATEAU			RED RIVER VALLEY			SOUTHERN SUPERIOR UPLANDS			WESTERN SUPERIOR UPLANDS			STATE
	ASPEN PARKLANDS	MORAINAL																										
2009 Regionally Significant ¹	0.02%	0.67%		0.00%	0.06%		0.04%	0.15%	0.11%	0.02%	0.29%	0.08%	0.16%		0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.16%		
State Forest	0.69%	0.31%		46.03%	24.81%		0.00%	31.62%	1.87%	0.00%	3.75%	8.83%	12.62%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
Scientific & Natural Area	0.19%	0.06%		2.69%	0.08%		0.03%	0.12%	0.14%	0.16%	0.00%	0.07%	0.34%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
State Park	0.11%	0.29%		0.11%	0.59%		0.13%	0.61%	0.40%	0.03%	6.13%	1.63%	0.39%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
State Recreation Area	0.00%	0.05%		0.18%	0.05%		0.00%	0.00%	0.00%	0.03%	0.00%	0.02%	0.04%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
State Wayside	0.00%	0.00%		0.00%	0.00%		0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
Wildlife Management Area	0.00%	0.00%		0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
State total	14.45%	2.99%		57.19%	35.45%		1.66%	72.00%	5.57%	1.16%	13.92%	12.80%	21.94%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
National Forest	0.00%	0.00%		0.00%	7.90%		0.00%	35.99%	0.00%	0.00%	0.00%	0.00%	5.21%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
National Monument	0.00%	0.00%		0.00%	0.00%		0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
National Park	0.00%	0.00%		0.00%	0.00%		0.00%	3.37%	0.00%	0.00%	0.00%	0.00%	0.38%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
National Recreation Area	0.00%	0.00%		0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
National Scenic River	0.00%	0.01%		0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	0.01%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
National Wildlife Refuge	2.15%	0.56%		0.00%	0.66%		0.10%	0.00%	1.42%	0.00%	0.00%	0.10%	0.41%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Federal total	2.15%	0.57%		0.07%	8.56%		0.10%	39.37%	1.42%	0.00%	0.00%	0.23%	6.01%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Overall	14.45%	2.99%		57.19%	35.45%		1.66%	72.00%	5.57%	1.16%	13.92%	12.80%	21.94%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

Table 10 // Miles of outdoor recreation resource trails per 100,000 acres by ecological section

TRAIL TYPE	LAKE AGASSIZ, ASPEN PARKLANDS			MINNESOTA & NE IOWA MORAINAL			NORTHERN MINNESOTA & ONTARIO PEATLANDS			NORTHERN MINNESOTA DRIFT & LAKE PLAINS			NORTH CENTRAL GLACIATED PLAINS			NORTHERN SUPERIOR UPLANDS			PALEOZOIC PLATEAU			RED RIVER VALLEY			SOUTHERN SUPERIOR UPLANDS			WESTERN SUPERIOR UPLANDS			STATE
Summer non-motorized	1.36	9.17		3.68	12.13		2.72	31.04	7.46	2.22	68.88	10.29	9.24																		
Local non-motorized	0.41	3.47		-	0.77		0.63	1.18	1.24	0.93	-	0.12	1.14																		
State non-motorized	0.9	4.44		3.41	6.32		2.01	11.06	6.22	0.5	55.5	10.17	4.89																		
Federal non-motorized	0.05	1.27		0.27	5.03		0.08	18.8	-	0.79	13.37	-	3.21																		
Recreation Motor Vehicles	4.95	0.4		3.26	7.59		0.2	2.67	1.82	0.93	22.2	15.77	3.37																		
State Water Trails	3.77	9.71		6.33	7.93		5.91	6.28	17.19	13.32	7.15	9.1	8.13																		
Summer Overall	10.08	19.28		13.27	27.64		8.83	39.99	26.47	16.47	98.22	35.16	20.74																		
Winter non-motorized	0.51	2.85		0.47	0.97		0.67	9.74	4.88	0.12	24.23	2.6	2.4																		
Local nordic ski	-	0.1		-	-		-	-	0.78	-	-	-	0.05																		
State nordic ski	0.51	2.73		0.25	0.91		0.67	4.35	4.1	0.12	24.23	2.6	1.71																		
Federal nordic ski	-	0.03		0.22	0.06		-	5.38	-	-	-	-	0.63																		
Snowmobile	36.96	53.86		24.11	43.41		36.07	29.37	67.62	25.21	51.93	55.56	40.38																		
Winter Overall	37.47	56.71		24.58	44.38		36.74	39.11	72.5	25.33	76.16	58.16	42.78																		

Table 11 // Regional acres per capita of outdoor recreation resource areas by year

RECREATION TYPE	CENTRAL			METRO			NORTHEAST			NORTHWEST			SOUTH			STATE		
	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035
2009 Regionally Significant ¹	0.01	0.01	0.01	0.02	0.02	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
State Forest	0.12	0.08	0.07	0	0	0	11.8	10.81	10.37	4.12	3.67	3.49	0.05	0.04	0.04	1.29	1.15	1.06
Scientific & Natural Area	0.01	0.01	0	0	0	0	0.17	0.15	0.15	0.22	0.2	0.19	0.01	0.01	0.01	0.03	0.03	0.03
State Park	0.03	0.02	0.02	0	0	0	0.25	0.23	0.22	0.12	0.11	0.1	0.03	0.03	0.03	0.04	0.04	0.03
State Recreation Area	-	-	-	0	0	0	0.01	0.01	0.01	0.02	0.02	0.02	-	-	-	0	0	0
State Wayside	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Wildlife Management Area	0.15	0.11	0.09	0.01	0.01	0.01	0.22	0.2	0.2	1.96	1.75	1.66	0.2	0.18	0.17	0.24	0.22	0.2
State total	0.31	0.22	0.18	0.02	0.02	0.01	12.45	11.41	10.95	6.44	5.74	5.46	0.28	0.26	0.25	1.61	1.43	1.32
National Forest	-	-	-	-	-	-	5.98	5.48	5.26	0.79	0.7	0.67	-	-	-	0.53	0.47	0.44
National Monument	-	-	-	-	-	-	0	0	0	-	-	-	0	0	0	0	0	0
National Park	-	-	-	-	-	-	0.5	0.46	0.44	-	-	-	-	-	-	0.04	0.03	0.03
National Recreation Area	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	0	0	0
National Scenic River	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	0	0	0
National Wildlife Refuge	0.06	0.04	0.03	0	0	0	0.05	0.05	0.04	0.24	0.21	0.2	0.05	0.05	0.04	0.04	0.04	0.03
Federal total	0.06	0.05	0.04	0	0	0	6.54	5.99	5.75	1.03	0.92	0.87	0.05	0.05	0.04	0.61	0.55	0.5
Overall	0.38	0.28	0.23	0.04	0.04	0.03	19.02	17.42	16.72	7.49	6.67	6.34	0.34	0.32	0.3	2.24	1.99	1.84

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Appendix B: Tables

Table 12 // Regional acres per capita of outdoor recreation resource areas adjusted for inter-regional demand

RECREATION TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH	STATE
2009 Regionally Significant ¹	0.014	0.026	0.018	0.01	0.013	0.019
State Forest	0.115	0.004	6.706	2.921	0.053	1.44
Scientific & Natural Area	0.008	0.001	0.095	0.159	0.009	0.039
State Park	0.034	0.003	0.14	0.085	0.035	0.044
State Recreation Area	-	0.002	0.006	0.017	-	0.004
State Wayside	-	-	0.001	0	0	0
Wildlife Management Area	0.147	0.015	0.127	1.39	0.234	0.271
State total	0.304	0.025	7.076	4.574	0.331	1.799
National Forest	-	-	3.401	0.558	-	0.594
National Monument	-	-	0.001	-	0	0
National Park	-	-	0.283	-	-	0.043
National Recreation Area	-	0	-	-	-	0
National Scenic River	0.004	0	0.003	-	-	0.001
National Wildlife Refuge	0.057	0.006	0.028	0.171	0.058	0.047
Federal total	0.061	0.007	3.716	0.73	0.058	0.686
Overall	0.378	0.058	10.809	5.313	0.402	2.503

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Table 13 // Regional mileage per 100,00 people of outdoor recreation resource trails adjusted for interregional demand

TRAIL TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH	STATE
Summer non-motorized	39.72	20.42	372.8	169.27	69.93	105.41
<i>Regional non-motorized</i>	17.09	11.47	16.17	14.84	9.83	13.02
<i>State non-motorized</i>	20.31	7.54	180.28	88.93	59.83	55.78
<i>Federal non-motorized</i>	2.32	1.41	176.35	65.5	0.27	36.61
Recreation motor vehicles	11.3	-	132.35	114.36	8.57	38.41
State water trails	95.72	13.78	177.4	185.65	147.86	92.82
Summer Overall	146.75	34.2	682.55	469.28	226.35	236.64
Winter non-motorized	14.5	5.28	96.27	16.73	36.07	27.37
<i>Local nordic ski</i>	1.55	-	-	-	2.42	0.62
<i>State nordic ski</i>	12.95	5.28	50.19	15.52	33.66	19.55
<i>Federal nordic ski</i>	-	-	46.08	1.21	-	7.2
Snowmobile	398.77	50.63	693.97	1,070.98	791.54	460.78
Winter Overall	413.28	55.92	790.24	1,087.71	827.61	488.16

Table 14 // Regional mileage per 100,000 people of outdoor recreation resource trails by year

TRAIL TYPE	CENTRAL			METRO			NORTHEAST			NORTHWEST			SOUTH			STATE		
	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035	2009	2020	2035
Summer non-motorized	40	29	24	14	13	12	656	601	577	239	213	202	60	55	52	94	84	77
<i>Regional non-motorized</i>	17	13	10	8	7	7	28	26	25	21	19	18	8	8	7	12	10	10
<i>State non-motorized</i>	20	15	12	5	5	4	317	291	279	125	112	106	51	47	44	50	44	41
<i>Federal non-motorized</i>	2	2	1	1	1	1	310	284	273	92	82	78	0	0	0	33	29	27
Recreation motor vehicles	11	8	7	-	-	-	233	213	205	161	144	136	7	7	6	34	31	28
State water trails	96	71	57	9	9	8	312	286	274	262	233	222	127	116	110	83	74	68
Summer Overall	148	108	88	23	21	20	1,201	1,100	1,056	661	589	560	194	177	168	211	188	174
Winter non-motorized	15	11	9	4	3	3	169	155	149	24	21	20	31	28	27	24	22	20
<i>Local nordic ski</i>	2	1	1	-	-	-	-	-	-	-	-	-	2	2	2	1	0	0
<i>State nordic ski</i>	13	10	8	4	3	3	88	81	78	22	19	19	29	26	25	17	16	14
<i>Federal nordic ski</i>	-	-	-	-	-	-	81	74	71	2	2	1	-	-	-	6	6	5
Snowmobile	402	295	239	34	32	30	1,221	1,119	1,074	1,509	1,345	1,278	678	621	588	411	367	338
Winter Overall	416	305	248	38	35	33	1,390	1,274	1,223	1,533	1,366	1,298	709	649	615	436	389	358

Table 15 // Area-based RLQ for outdoor recreation resources

RECREATION TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH
2009 Regionally Significant ¹	1.197	16.227	0.552	0.208	0.428
State Forest	0.13	0.03	2.708	0.802	0.023
Scientific & Natural Area	0.333	0.396	1.424	1.612	0.143
State Park	1.23	0.786	1.836	0.758	0.492
State Recreation Area	-	6.297	0.876	1.619	-
State Wayside	-	-	3.274	0.399	0.016
Wildlife Management Area	0.878	0.655	0.272	2.023	0.538
State total	0.274	0.165	2.287	1.004	0.115
National Forest	-	-	3.328	0.371	-
National Monument	-	-	2.721	-	0.984
National Park	-	-	3.806	-	-
National Recreation Area	-	28.363	-	-	-
National Scenic River	6.121	4.909	1.428	-	-
National Wildlife Refuge	1.961	1.5	0.347	1.442	0.77
Federal total	0.144	0.111	3.151	0.42	0.053
Overall	0.245	0.269	2.51	0.838	0.1

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Appendix B: Tables

Table 16 // Population-based RLQ for outdoor recreation resource areas, adjusted for inter-regional demand

RECREATION TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH
2009 Regionally Significant ¹	0.738	1.384	0.95	0.526	0.687
State Forest	0.08	0.003	4.657	2.029	0.037
Scientific & Natural Area	0.205	0.034	2.45	4.081	0.23
State Park	0.758	0.067	3.157	1.92	0.789
State Recreation Area	-	0.537	1.506	4.097	-
State Wayside	-	-	5.631	1.01	0.026
Wildlife Management Area	0.541	0.056	0.467	5.122	0.863
State total	0.169	0.014	3.933	2.542	0.184
National Forest	-	-	5.723	0.94	-
National Monument	-	-	4.681	-	1.579
National Park	-	-	6.546	-	-
National Recreation Area	-	2.42	-	-	-
National Scenic River	3.772	0.419	2.456	-	-
National Wildlife Refuge	1.208	0.128	0.596	3.651	1.236
Federal total	0.089	0.009	5.419	1.064	0.085
Overall	0.151	0.023	4.318	2.122	0.161

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Table 17 // Area-based RLQ for outdoor recreation resource trails

TRAIL TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH
Summer non-motorized	0.611	2.271	2.056	0.634	0.413
<i>Regional non-motorized</i>	2.13	10.329	0.722	0.451	0.471
<i>State non-motorized</i>	0.591	1.585	1.879	0.63	0.668
<i>Federal non-motorized</i>	0.103	0.45	2.801	0.707	0.005
Recreation motor vehicles	0.477	-	2.003	1.176	0.139
State water trails	1.673	1.74	1.111	0.79	0.992
Summer Overall	1.006	1.694	1.677	0.783	0.596
Winter non-motorized	0.86	2.261	2.045	0.241	0.821
<i>Local nordic ski</i>	4.055	-	-	-	2.419
<i>State nordic ski</i>	1.075	3.166	1.493	0.314	1.073
<i>Federal nordic ski</i>	-	-	3.72	0.066	-
Snowmobile	1.404	1.288	0.876	0.918	1.07
Winter Overall	1.374	1.343	0.941	0.88	1.056

Table 18 // Population-based RLQ for outdoor recreation resource trails, adjusted for inter-regional demand

TRAIL TYPE	CENTRAL	METRO	NORTHEAST	NORTHWEST	SOUTH
Summer non-motorized	0.377	0.194	3.537	1.606	0.663
<i>Regional non-motorized</i>	1.313	0.881	1.242	1.141	0.755
<i>State non-motorized</i>	0.364	0.135	3.232	1.594	1.072
<i>Federal non-motorized</i>	0.063	0.038	4.817	1.789	0.007
Recreation motor vehicles	0.294	-	3.446	2.977	0.223
State water trails	1.031	0.148	1.911	2	1.593
Summer Overall	0.62	0.145	2.884	1.983	0.957
Winter non-motorized	0.53	0.193	3.517	0.611	1.318
<i>Local nordic ski</i>	2.499	-	-	-	3.882
<i>State nordic ski</i>	0.662	0.27	2.567	0.794	1.721
<i>Federal nordic ski</i>	-	-	6.399	0.168	-
Snowmobile	0.865	0.11	1.506	2.324	1.718
Winter Overall	0.847	0.115	1.619	2.228	1.695

Table 19 // Area-based RLQ for outdoor recreation resource areas with select amenities

AREA AMENITY	Central				Metro				Northeast				Northwest				South			
	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total
Camping facilities	1.39	1.33	1.23	1.35	5.84	0.93	-	2.54	0.39	1.72	2.42	1.31	0.52	0.92	1.07	0.79	1.47	0.74	-	0.94
Developed camping	0.86	1.72	1.23	1.31	6.3	1.2	-	3.33	0.42	1.18	2.42	0.94	0.56	0.67	1.07	0.65	1.48	1.17	-	1.21
<i>RV/camper</i>	1.32	1.38	-	1.25	6.23	0.96	-	2.89	0.37	1.03	2.85	0.92	0.43	0.65	1.11	0.6	1.52	1.4	-	1.34
<i>ADA camp</i>	-	1.27	-	0.8	18.05	0.89	-	4.45	0.35	0.95	2.85	1.12	0.27	0.55	1.11	0.58	0.63	1.51	-	1.08
Group camping	1.04	2.14	-	1.81	19.64	1.49	-	4.54	-	0.87	3.04	0.86	0.45	0.73	1.18	0.71	0.27	1.21	-	0.97
Primitive camping	1.69	1.24	-	1.23	5.32	1.16	-	1.64	0.24	1.94	3.26	1.79	0.74	0.9	0.84	0.88	1.29	0.56	-	0.63
Picnic area	1.89	1.47	0.9	1.69	11.31	1.71	-	7.53	0.34	1.33	1.78	0.74	0.36	0.93	1.18	0.59	0.9	0.91	0.46	0.88
Fishing pier	2.03	0.82	-	1.37	17.73	1.72	-	9.69	-	1.27	2.54	0.72	0.37	0.98	1.48	0.71	0.35	0.73	-	0.48
Play ground	1.75	1.63	-	1.6	12.2	1.13	-	9.16	0.29	0.46	1.69	0.42	0.38	0.71	1.31	0.51	0.85	1.66	-	0.95
Visitor center	0.97	1.37	1.51	1.29	11.14	1.27	6.3	3.83	0.54	2.05	1.69	1.69	0.32	0.93	0.98	0.8	0.99	0.47	0.38	0.58
Equipment rental	0.75	1.51	-	1.39	14.18	0.86	-	2.91	0.42	1.88	-	1.66	-	1.01	-	0.86	1.15	0.56	-	0.65
Total areas	1.76	1.26	1.35	1.53	10.57	1.1	2.84	6.24	0.41	1.77	1.52	1.03	0.38	0.92	1.18	0.65	0.92	0.7	0.35	0.79

Appendix B: Tables

Table 20 // Population-based RLQ for outdoor recreation resource areas with select amenities, adjusted for interregional demand

AREA AMENITY	Central				Metro				Northeast				Northwest				South			
	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total	Regional	State	Federal	Total
Camping facilities	0.86	0.82	0.76	0.83	0.5	0.08	-	0.22	0.67	2.95	4.17	2.25	1.32	2.33	2.72	2.01	2.36	1.18	-	1.52
Developed camping	0.53	1.06	0.76	0.81	0.54	0.1	-	0.28	0.73	2.03	4.17	1.63	1.42	1.69	2.72	1.65	2.37	1.87	-	1.95
RV/camper	0.81	0.85	-	0.77	0.53	0.08	-	0.25	0.64	1.78	4.91	1.58	1.09	1.65	2.8	1.52	2.43	2.25	-	2.15
ADA camp	-	0.78	-	0.49	1.54	0.08	-	0.38	0.6	1.64	4.91	1.93	0.68	1.4	2.8	1.47	1.01	2.42	-	1.74
Group camping	0.64	1.32	-	1.11	1.68	0.13	-	0.39	-	1.49	5.24	1.48	1.15	1.84	2.99	1.79	0.43	1.94	-	1.55
Primitive camping	1.04	0.77	-	0.76	0.45	0.1	-	0.14	0.41	3.34	5.61	3.08	1.87	2.29	2.14	2.22	2.08	0.9	-	1.01
Picnic area	1.16	0.91	0.56	1.04	0.96	0.15	-	0.64	0.58	2.29	3.05	1.28	0.9	2.34	2.99	1.49	1.44	1.47	0.74	1.41
Fishing pier	1.25	0.51	-	0.85	1.51	0.15	-	0.83	-	2.18	4.36	1.24	0.93	2.49	3.74	1.8	0.55	1.18	-	0.77
Play ground	1.08	1	-	0.99	1.04	0.1	-	0.78	0.49	0.79	2.91	0.72	0.96	1.79	3.32	1.3	1.37	2.66	-	1.53
Visitor center	0.6	0.84	0.93	0.8	0.95	0.11	0.54	0.33	0.94	3.53	2.91	2.91	0.8	2.35	2.49	2.02	1.58	0.75	0.62	0.92
Equipment rental	0.46	0.93	-	0.86	1.21	0.07	-	0.25	0.73	3.24	-	2.85	-	2.57	-	2.17	1.85	0.9	-	1.04
Total areas	1.09	0.78	0.83	0.95	0.9	0.09	0.24	0.53	0.7	3.04	2.62	1.77	0.97	2.32	2.99	1.65	1.48	1.12	0.55	1.27

Table 21 // Area-based RLQ for outdoor recreation resource areas by ecological sections

RECREATION TYPE	LAKE AGASSIZ, ASPEN PARKLANDS	MINNESOTA & NE IOWA MORAINAL	NORTHERN MINNESOTA & ONTARIO PEATLANDS	NORTHERN MINNESOTA DRIFT & LAKE PLAINS	NORTH CENTRAL GLACIATED PLAINS	NORTHERN SUPERIOR UPLANDS	PALEOZOIC PLATEAU	RED RIVER VALLEY	SOUTHERN SUPERIOR UPLANDS	WESTERN SUPERIOR UPLANDS
2009 Regionally Significant ¹	0.102	4.102	-	0.394	0.261	0.899	0.667	0.105	1.765	0.523
State Forest	0.055	0.025	3.648	1.966	-	2.506	0.148	-	0.297	0.7
Scientific & Natural Area	0.555	0.182	7.878	0.245	0.087	0.354	0.399	0.482	-	0.217
State Park	0.277	0.735	0.274	1.502	0.333	1.575	1.022	0.087	15.718	4.177
State Recreation Area	-	1.304	4.908	1.29	-	-	-	0.901	-	0.472
State Wayside	-	0.783	-	-	0.029	7.78	-	-	-	-
Wildlife Management Area	4.751	0.441	3.407	0.545	0.57	0.051	0.687	0.383	1.579	0.813
State total	0.779	0.112	3.623	1.701	0.096	2.06	0.256	0.072	0.865	0.792
National Forest	-	-	-	1.517	-	6.911	-	-	-	-
National Monument	-	-	-	-	1.267	6.466	-	-	-	-
National Park	-	-	0.18	-	-	8.883	-	-	-	-
National Recreation Area	-	5.874	-	-	-	-	-	-	-	-
National Scenic River	-	1,016	-	-	-	-	-	-	-	13.165
National Wildlife Refuge	5.226	1.36	-	1.604	0.237	-	3.464	-	-	0.237
Federal total	0.357	0.095	0.011	1.424	0.017	6.552	0.237	-	-	0.038
Overall	0.659	0.136	2.607	1.616	0.076	3.282	0.254	0.053	0.634	0.583

Note: Regional¹ = "regionally significant" as defined by the 10/25 Parks and Trails Legacy Planning Steering Committee and identified in the Legislative Commission on Minnesota Resources Greater Minnesota Park Inventory Regional Park Criteria Final Report (January 2005), Metropolitan Council 2010 Regional Parks list, and DNR Grant Recipient list.

Table 22 // Area-based RLQ for outdoor recreation resource trails by ecological sections

TRAIL TYPE	LAKE AGASSIZ, ASPEN PARKLANDS	MINNESOTA & NE IOWA MORAINAL	NORTHERN MINNESOTA & ONTARIO PEATLANDS	NORTHERN MINNESOTA DRIFT & LAKE PLAINS	NORTH CENTRAL GLACIATED PLAINS	NORTHERN SUPERIOR UPLANDS	PALEOZOIC PLATEAU	RED RIVER VALLEY	SOUTHERN SUPERIOR UPLANDS	WESTERN SUPERIOR UPLANDS
Summer non-motorized	0.147	0.993	0.398	1.313	0.294	3.36	0.808	0.24	7.456	1.114
<i>Local non-motorized</i>	0.357	3.038	-	0.679	0.554	1.031	1.086	0.816	-	0.107
<i>State non-motorized</i>	0.183	0.907	0.697	1.294	0.411	2.263	1.273	0.102	11.353	2.08
<i>Federal non-motorized</i>	0.016	0.397	0.084	1.567	0.024	5.86	-	0.247	4.168	-
Recreation Motor Vehicles	1.471	0.118	0.969	2.254	0.059	0.793	0.54	0.277	6.594	4.686
State Water Trails	0.464	1.193	0.778	0.974	0.727	0.773	2.113	1.638	0.878	1.118
Summer Overall	0.486	0.93	0.64	1.333	0.426	1.928	1.276	0.794	4.736	1.695
Winter non-motorized	0.215	1.188	0.196	0.404	0.281	4.058	2.034	0.052	10.1	1.086
<i>Local nordic ski</i>	-	1.772	-	-	-	-	14.243	-	-	-
<i>State nordic ski</i>	0.3	1.592	0.147	0.529	0.393	2.54	2.394	0.072	14.142	1.52
<i>Federal nordic ski</i>	-	0.041	0.347	0.1	-	8.531	-	-	-	-
Snowmobile	0.915	1.334	0.597	1.075	0.893	0.727	1.675	0.624	1.286	1.376
Winter Overall	0.876	1.326	0.575	1.037	0.859	0.914	1.695	0.592	1.78	1.36

Table 23 // Area-based RLQ for outdoor recreation resource areas with select amenities by ecological section

AREA AMENITY	LAKE AGASSIZ, ASPEN PARKLANDS	MINNESOTA & NE IOWA MORAINAL	NORTHERN MINNESOTA & ONTARIO PEATLANDS	NORTHERN MINNESOTA DRIFT & LAKE PLAINS	NORTH CENTRAL GLACIATED PLAINS	NORTHERN SUPERIOR UPLANDS	PALEOZOIC PLATEAU	RED RIVER VALLEY	SOUTHERN SUPERIOR UPLANDS	WESTERN SUPERIOR UPLANDS
Camping facilities	0.555	1.49	1.013	1.633	0.818	1.26	0.913	0.273	7.348	1.822
Developed camping	0.513	1.742	0.702	0.976	1.135	0.998	0.985	0.378	3.395	1.647
<i>RV/camper</i>	0.688	1.469	0.66	0.953	1.359	1.005	1.133	0.254	4.559	1.327
<i>ADA camp</i>	-	1.612	0.998	1.388	0.697	1.596	1.6	0.538	9.653	1.561
Group camping	0.743	1.253	0.95	1.03	0.593	0.965	1.904	0.548	6.564	1.698
Primitive camping	0.921	1.068	1.43	2.234	0.441	1.794	0.843	0.113	12.206	2.105
Picnic area	0.435	2.662	0.517	0.98	0.764	0.812	1.036	0.268	5.769	1.182
Fishing pier	0.706	2.9	1.417	1.059	0.563	0.801	0.258	0.347	-	1.008
Play ground	0.439	2.868	0.16	0.709	1.015	0.427	0.803	0.324	-	0.752
Visitor center	0.737	1.492	1.212	1.992	0.353	1.866	0.971	0.109	11.722	1.895
Equipment rental	0.476	1.506	1.392	1.98	0.38	1.623	0.872	-	12.624	2.177
Total areas	0.467	2.327	0.704	1.194	0.643	1.138	1.026	0.259	4.645	1.402

Appendix C: Definition of Regionally Significant Parks & Trails

Park of Regional Significance

1. *Natural Resource Based Settings and Range of Activities Offered: The park should provide settings with high quality natural resources and offer outdoor recreation facilities and activities that are primarily natural resource based. Examples include camping, picnicking, hiking, swimming, boating, canoeing, fishing, and nature study. A related measure is the range of these activities accommodated within the park (e.g., a park with a beach, campground and boat launch facilities is more likely to attract a regional clientele than a park with only one of these facilities).*
2. *Use: Evidence that the park serves at least a regional clientele (multiple communities). Other related factors may include evidence that the facility currently or potentially may draw tourists and generate economic impact from outside the local area.*
3. *Size: 100+ acres, with exceptions based on use characteristics, special features, etc.*
4. *Special Features: Unique or unusual landscape features, historically significant sites, or parks containing characteristics of regional or statewide significance.*
5. *Scarcity of Recreational Resources: The park provides public natural resource based recreational opportunities that are not otherwise available within a reasonable distance. Examples include water-based activities, such as swimming, fishing and boating; interpretive nature trails; public campgrounds; etc.*
6. *Consistency: In the Seven County Twin Cities Metropolitan Area, the proposed park must be consistent with the Metropolitan Council's Regional Parks Policy Plan or go through the proscribed amendment process. If the managing entity is applying for a Legacy Parks grant, the proposed park project must be part of a site plan, as required in the grant application, in addition to having formal approval of the relevant governing body.*

Trail of Regional Significance (Defining Regional Trails)

1. *Regionally desirable setting: The trail is located in a regionally desirable setting. Criteria include attractive, unusual, and/or representative landscapes, important destinations, or high quality natural areas.*
2. *High quality opportunity and use: The trail serves as a destination, providing high quality recreational opportunities, attracts a regional clientele (multiple communities), potentially may draw tourists, and generates an economic impact from outside the local area. The trail should be developed and maintained to include easy access, secure parking, access to drinking water and other necessary services, and is wide enough or designed in such a way to avoid user conflict and provide a safe experience.*
3. *Adequate length: The trail provides at least an hour of outdoor recreation opportunity, or connects to other facilities that can provide at least an hour of recreation in total.*
4. *Connections: The trail currently or potentially will link to an existing trail of regional or statewide significance. This includes providing connections between significant trails, or connecting communities/ community facilities to these trails. The regional trail cannot be entirely contained within a regional park unit.*
5. *Consistency: For the Seven County Twin Cities Metropolitan Area, the proposed trail must be consistent with the Metropolitan Council's Regional Parks Policy Plan or must go through the proscribed amendment process. If the managing entity is applying for a Legacy Trails grant, the proposed trail project must be part of a site plan, as required in the grant application, in addition to having formal approval of the relevant governing body.*

