

# Project Approach

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

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# 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.



