Planning with Parks and Trails in Mind: Overview and Implications from
Minnesota’s Network of Parks & Trails

Mary Vogel, Principal Investigator & Cindy Zerger, Research Fellow & Project manager
CTS Conference Presentation May 25, 2011
Project Reports

County Tables & Maps

Minnesota’s Network of Parks & Trails
An Inventory of Recreation Experience
Opportunities in Minnesota
Region Profiles

Final Report

January 2011

Summary Inventory January 2011

Framework January 2011
Project Process

inventory  framework  partner efforts  network of parks & trails
Social Science: Regional Profiles

Recreation Experience Opportunity Inventory

- Region Profiles
- Sociodemographics
- Participation in Recreation Activities
- Nature-Based Tourism
- Recreation Experiences

Davenport, M.A., Schneider, I.E., Date, A. & Filter, L. (2011)
Geodatabase: Useful Decision Making Tool

- Officials: State, Federal, Regional, Local
- Advocacy Groups
- Citizens
Inventory: What Is

Physical & Social Dimensions

• Physical Settings: Local to Federal
• On the Ground
• Planned
• Proposed
• Activities
• Experiences
• Users/ User Groups
• Identifying Gaps
Parks & Trails Framework: What Could Be

Tool to Support of Decision-making at State & Local Levels

**Integrated Network Guidelines**
- Adaptive management
- Linked & complementary settings
- Accessible
- High quality recreation experiences
- Mindful of population dynamics
- Monitor / assess across three aspects:
  - Natural environment
  - Social environment
  - Built & managed environment
Goal
An Integrated, Synergistic Statewide Parks & Trails Network

• Responds to Needs
• Recreational Trends
• A Growing & Diversifying Populace
• Identifies Efficiencies & Leverages Resources
• Suggests Linkages Within & Between Systems
Geodatabase
Physical Setting Inventory Process

• Going beyond the legislative charge
• Development of an agreed upon data model by project partners
• Collecting and creating information

Federal Lands and Trails

State Lands and Trails

Regionally Significant Lands and Trails
Physical Setting Inventory Process
<table>
<thead>
<tr>
<th>Park Name</th>
<th>Trail Attributes</th>
<th>Park Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail 1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Trail 2</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Trail 3</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

27 trail attributes & 34 park attributes
Analysis
Physical Facilities: Gaps & Opportunities

- In-holdings in State Parks
- Authorized State Trails
- Underserved Areas
- Potential connections and coordination in parks and trail systems
Analysis

Recreation Location Quotient (RLQ)

- Snapshot of outdoor recreation resources
- Area based or population based
- Comparison of regions to the study region (Minnesota = 1)

Area-based RLQ of trails, adjusted for inter-regional demand

Population-based RLQs of picnic area facilities

*RLQ analysis conducted by Mae Davenport, PhD, Ingrid Schneider, PhD, and Andrew Oftedal Department of Forest Resources, College of Food, Agricultural and Natural Sciences, University of Minnesota.*
Potential Analysis

Going beyond the buffer

• Focal-sum analysis of recreation areas: determines how many of each destination type (i.e. regional park) exists within a defined radius around each cell, and assigns that value to the cell.
Potential Analysis

Going beyond the buffer

• Networked or street access for parks or trail access points
• Access points on trail system (normalized by mile)

Physical (in)activity, disease, safe routes to school, active living strategies
Potential Use of Data & Project Information

Transportation & Recreation Planning
Future road / trail (re)development
Potential Use of Data & Project Information

Beyond Parks & Trails
Potential Use of Data & Project Information

End users

- Interactive mapping
- Wiki

source: http://a2d.umn.edu/

source: http://magic.cyclopath.org/#
Minnesota’s Network of Parks & Trails

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All project reports / maps are available at: http://ccl.design.umn.edu/mnpat.html