THE NORTH SHORE SCENIC DRIVE

All-American Road

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"Strong and content I travel the open road."
- Walt Whitman

"...the best of all roads are those which foster the movement towards a desirable social goal."
- John Brinckerhoff Jackson
Minnesota’s North Shore of Lake Superior and the North Shore Scenic Byway All-American Road.
Executive Summary

Minnesota’s North Shore of Lake Superior is a place of special beauty in the American landscape. This project seeks to help communities make decisions about their future growth and development that will be ecologically sustainable, and enhance the aesthetic character of the North Shore.

Introduction

A brief introduction to Lake Superior, the North Shore, and the Scenic Byway program is provided, along with visitor profile statistics and an overview of the guiding principles used to direct this project.

Existing Resources

In order to understand what makes the North Shore special, it is necessary to investigate the existing pattern of natural and cultural resources. The National Scenic Byways Program uses six intrinsic qualities to measure outstanding resources and features that relate to the road and to each other in ways that contribute to the underlying story of the region. The six intrinsic qualities are natural, cultural, historic, archeological, recreational, and scenic. Using the scenic byway’s methodology for measuring cultural and natural resources as intrinsic qualities, this project investigates how the region’s intrinsic qualities combine with the physical layout and construction of the road to create the unique and special character of the North Shore. The bulk of this in-depth analysis is available in the Appendix.

Planning Framework

The North Shore is broken down into five distinct districts, each with their own different combinations of intrinsic qualities and character. The character of each district is analyzed and described in detail. This project identifies six nodes along the North Shore that are population centers and where access to many different intrinsic qualities are concentrated in one place. Nodes are located in transitional areas, where character begins to change from one district to the next. Each node is analyzed and described in detail. This project then identifies 62 stopping points along the scenic drive where it is possible to stop, get out of your car, and experience various aspects of the North Shore. The existing infrastructure at each stopping point is inventoried, and potential improvements are then suggested and prioritized. An integrated system of interpretive opportunities that represents each of the intrinsic qualities at regular intervals along the entire length of the North Shore is created.

Design Strategies

A concept is proposed for the North Shore to unify and organize development efforts and interpretive opportunities. A design vocabulary for logos, road signs, trailheads, gateways, and kiosks supports this concept and promotes a regional identity for the North Shore. A materials palette and plant palette emphasizes the use of local building materials and native plant species. The project suggests site design strategies for implementing potential improvements in the North Shore Scenic Drive viewshed corridor that will enhance the intrinsic qualities and character of the North Shore. Design strategies for road construction and residential and commercial development are included. Finally, some environmental strategies for handling stormwater runoff, controlling shoreline erosion, and improving habitat quality and quantity are suggested to contribute to the sustainability of future development on the North Shore.

Conclusion

This project briefly summarizes its accomplishments and identifies important next steps in the process, some potential partnerships to pursue, and possible sources for additional funding.
Introduction

Lake Superior

Water covers 70% of the earth’s surface area, but only 3% of it is freshwater. Saltwater makes up 97% of the earth’s water supply. Of the earth’s freshwater, 90% is locked up in glaciers, polar ice caps, and groundwater aquifers. Only 0.32% of the world’s water is available in freshwater lakes and rivers. Lake Superior is the largest freshwater lake in the world, and contains 10% of the world’s fresh surface water. Lake Superior, with a volume of 2,934 cubic miles, or 3 quadrillion gallons, holds as much water as the other Great Lakes combined, enough water to cover all of North and South America to a depth of 1 foot.

Lake Superior is 350 miles long and 160 miles wide, with a shoreline length of 2,726 miles. Maximum lake depth is 1,279 feet. The average lake depth is 489 feet. Lake Superior’s water surface area of 31,700 square miles is equal to the area of Massachusetts, Rhode Island, Vermont, and New Hampshire combined. It takes the sun 30 minutes to cross Lake Superior. It is large enough to influence local weather patterns, creating cooler summer temperatures and warmer winter temperatures along the shore than occur just a few miles inland.

Lake Superior has its own periodic seiche (SAYSH), caused by wind and barometric pressure, which pushes and pulls water from one side of the lake to the other, much like oceanic tides. The lake is classified as ultra-oligotrophic by limnologists who study lakes, meaning its cold, sterile water has few nutrients and slow growth rates. Water temperatures average 40 degrees in the summer. Lake Superior is the cleanest of the Great Lakes, with an unmatched water clarity that allows visibility of 30 feet or more. Because of its large volume, however, the lake has a slow replacement rate, making it highly susceptible to pollution. It takes 191 years for natural processes to replace all the water currently in Lake Superior.

The lake first filled with glacial meltwater 10,000 years ago. The drainage basin of Lake Superior is relatively small, at 49,300 square miles, when compared to the lake’s large 31,700 square mile surface area. The drainage basin is 89% forested, which helps contribute to water clarity. The elevation of Lake Superior is 602 feet above sea level. Over 1,000 ships a year visit the twin ports of Duluth-Superior, making Duluth-Superior the largest freshwater port in the world. Ships export grain, iron ore, and lumber from Minnesota. Fierce storms hit the lake in November and March, whipping up waves 10 to 20 feet high. There are more than 350 shipwrecks in Lake Superior.
The North Shore

Minnesota’s “North Shore” of Lake Superior is like no other place in the Midwest. In a region characterized by flat prairies and rolling farm fields, the North Shore offers deep, dark forests, rugged mountains, and a windswept coastline with crashing waves. Fresh streams tumble through rocky gorges into the ice cold waters of Lake Superior. The North Shore has a refreshing and invigorating character that is unique in the hot and humid upper Midwest.

The North Shore of Lake Superior is a popular destination for recreational drivers from throughout the United States and Canada. The North Shore Scenic Drive winds its way along the narrow edge of Lake Superior, from Duluth to the Canadian Border. Dramatic views of rocky beaches, jagged cliffs, thundering waterfalls, and sheltering pines are revealed around every bend in the road. Brilliant displays of red and gold erupt during the fall color season.

The Arrowhead region of northeastern Minnesota contains the state’s last significant tracts of old-growth pine and white cedar forest. Wolves, moose, deer, black bear, and birds of prey roam the forests, while salmon and trout swim the crystal clear waters of Lake Superior and its tributary streams.

Eight state parks, three state forests, one national forest, a national monument and several wayside parks provide numerous opportunities to get out and experience the outdoors. The Superior Hiking Trail winds 200 miles along the rocky mountaintops overlooking the North Shore. Every state park has a network of well maintained trails. Fishing boats, sailboats, kayaks, and tour boats are available for rent and hire along the shore. In winter, hundreds of miles of groomed trails attract cross-country skiers, snowshoers, and snowmobilers. Lutsen Mountain is the Midwest’s largest downhill ski resort.

The North Shore’s rich history is deeply connected to the cultural traditions of its inhabitants. Native Americans have lived on the North Shore since the retreat of the last glaciers 12,000 years ago. French missionaries and fur traders began arriving over 350 years ago. Many place names along the North Shore originate from Ojibway words or their French translations. Scandinavian immigrants arrived to work the mines and settle the land. The charming logging and fishing communities of the North Shore retain their rich ethnic heritage to this day. The Sawbill, Caribou, Arrowhead, and Gunflint Trails lead inland to the Boundary Waters Canoe Area Wilderness. Museums and state park interpretive centers help tell the story of the North Shore.
The Scenic Byway Program

The National Scenic Byways Program was created by the Intermodal Surface Transportation Act of 1991 to promote the idea that “an outstanding collection of nationally acclaimed roads exists in America.” The program is a grassroots collaborative effort to help recognize, preserve and enhance these nationally acclaimed roads throughout the United States. Since 1992, the National Scenic Byways Program has provided funding for almost 1500 state and nationally designated byway projects in 48 states. The U.S. Secretary of Transportation considers nationally acclaimed roads based on their intrinsic qualities. To earn the scenic byway designation, roads must possess one or more of the following six intrinsic qualities as defined by the Federal Highway Administration:

**Natural Quality**
There may be evidence of human activity, but the visibility and integrity of the landscape’s geologic formations, fossils, landforms, waterbodies, vegetation, and wildlife reveal minimal disturbances to their original pre-European settlement condition.

**Scenic Quality**
The visual quality of the landscape is determined by striking views of the landform, water, vegetation, and human-built development that; 1) are frequent enough to give a sense of continuity, 2) relate to each other to create a coherent image and sense of harmony, and 3) provide a variety of viewing experiences that represents an exceptional example of a common regional landscape.

**Historic Quality**
There are enough historic legacies of the past, reflecting the actions of people, to stir an appreciation for the past and help create a story that links diverse events in a place through time, providing a means of interpreting resources to the visitor.

**Cultural Quality**
There are events, crafts, foods, music, rituals, and festivals expressing the customs and traditions of a distinct group of people that are not necessarily expressed in the landscape and arise from unique aspects of geography (settlement patterns, climatic influence on building styles, place names, stories, and legends), economy (occupations, products, training, landuse, yearly cycles), community life (civic and religious buildings, institutions, festivals, customs, and rituals), domestic life (households, housing styles, foods, family traditions, and gender and age roles), and artistic genres (folklore, music, customs, legends, dance, drama, games, music, art, architecture, crafts, dress, and costumes).

**Recreational Quality**
There are outdoor activities, that depend on the natural and cultural elements of the landscape, while providing active experiences including downhill skiing, rafting, boating, fishing, and hiking, as well as passive experiences such as wildlife viewing, attending cultural festivals, or quiet enjoyment of the corridor’s beauty that; 1) are available throughout the year, 2) exist in many places along the corridor, 3) are of significance, and 4) should be related to each other and other resources so they support the overall theme or story of the byway corridor. Driving the road itself may qualify as a pleasurable recreational experience.

**Archaeological Quality**
There is visible, physical evidence of historic or prehistoric human life that can be inventoried and interpreted including ruins, artifacts, and structural remains that are of scientific significance, educate the viewer, and stir an appreciation for the past.
The All-American Road Program

National Scenic Byways are considered to be regionally significant corridors with at least one outstanding intrinsic quality. They are generally a means to a traveler's predetermined end, offering a scenic route to get them where they are going. All-American Roads, on the other hand, are considered to be nationally significant corridors with at least two outstanding intrinsic qualities. All-American Roads are the “best of the best,” and become destinations unto themselves. Travelers seek out these routes for the sheer pleasure and excitement of driving the corridor. A total of 29 roads have been designated with All-American Road status. All of America’s Byways are “scenic.” They represent the depth and breadth of natural and man-made scenery in America, from electrifying neon landscapes to breathtaking vistas of mountains and river canyons.

The North Shore Scenic Drive has been awarded All-American Road status, based on its recreational and scenic qualities. The citation describes the North Shore as some of the most spectacular scenery in the country, wedged between the rugged Superior Highlands and the vast expanse of a shining inland sea. High quality experiences abound with unlimited opportunities to enjoy the outdoors along one of the greatest trail systems in the nation. The North Shore is one of the primary destinations for recreational driving in the Midwest. The unique geography, spectacular topography, diversity of habitat, and colorful heritage of its settlers combine to tell the story of a rich history, deeply rooted in plentiful natural resources, and dotted with innumerable points of interest giving visitors a reason to come back and visit again and again.

Project Scope

The scope of this project entails the North Shore Scenic Drive All-American Road corridor as it travels 125 miles northeast along the North Shore of Lake Superior from Two Harbors to the Canadian border. The diversity of available resources and recreational opportunities along the North Shore at times results in a confusing amalgamation of management structures that includes both governmental agencies and private entrepreneurs, all working to meet the needs and desires of the general public. As a consequence, the recreational opportunities are often presented to the public as a series of unconnected activities having little or no relationship to one another. The need exists to tie together all the disparate elements of the North Shore experience into a functioning whole which uses the tremendous potential of the North Shore to its fullest extent in an environmentally sensitive and sustainable manner. The scope of services includes the following nine goals:

- Define the intrinsic essential scenic elements along the corridor.
- Identify districts, nodes, and amenities along the route.
- Create an overall design theme that encompasses the entire North Shore Scenic Drive.
- Enhance interest in the North Shore Scenic Drive among communities along the route.
- Work closely with communities to incorporate the vision they have for their community and the North Shore.
- Identify and prioritize sites for interpretive design.
- Promote community livability with environmental sensitivity throughout all phases of planning.
- Gather information on partners, and possible funding sources for future projects.
- Produce a report that addresses the above goals.
I N T R O D U C T I O N

Statement of Priorities

The following guiding principles were used to shape the project’s goal:

- Preserve the character of the North Shore.
- Reflect what happened here in the past with future developments.
- Protect and enhance the natural resources of the North Shore.
- Protect economic opportunity for residents.
- Respect the needs and desires of residents.
- Experience a community of people, as well as the larger natural community in which the social community is embedded.
- Provide a full mix of land uses without adverse impact on the environment.
- Recognize the recreational and aesthetic value of the North Shore to residents and visitors.
- Ensure consistency of actions.

Project Goals

The North Shore is a special and unique place as evidenced by its All-American Road status. The scenic beauty of the North Shore attracts visitors from throughout the upper Midwest, who come to enjoy the scenic drive. The goal of this project is to create a framework for decision-making on future development and resource management issues that face North Shore communities and affect the North Shore of Lake Superior. As we build the necessary infrastructure to support the growing numbers of residents and travelers, it is important that we don’t destroy the very qualities of the North Shore that attract people in the first place.

This framework will be helpful in making decisions that preserve the North Shore’s character and sustain natural and social communities, so that future generations will have the same opportunity to experience the North Shore as a place where your soul can be perfectly still and completely moved. This framework helps create a unique identity for the North Shore that unifies and organizes the full range of available experiences into a comprehensible whole. By describing the North Shore Scenic Drive All-American Road as a scenic drive, it is possible to suggest design strategies for future development that reinforces and enhances its existing naturally beautiful and scenic character.

This framework can be used to enhance existing scenic vistas and reveal previously hidden aspects of the landscape. It can be used to express the unique and diverse cultural attributes of the North Shore. This framework may be used as an educational tool to deepen travelers’ awareness of the North Shore and enrich their experiences. It may entice travelers to explore new areas along the North Shore. Finally, it can be used to help spread an understanding and appreciation of the North Shore and the unique opportunities it offers.

Minnesota’s North Shore of Lake Superior is an awe inspiring place, full of mystery, beauty, and opportunity. Not all of it can be experienced from inside an automobile at 55 miles per hour. This project seeks to create a framework that will provide information to future decision makers so they are able to make informed decisions that respect and enhance the wild and rugged character of the North Shore. After all, who wouldn’t want to be able to sit by a waterfall, in the shade of a towering white pine, eating a piece of homemade pie and skipping stones in the surf, watching the sunlight sparkle in the waves spread out to the horizon.
Visitor Profile

The Minnesota Office of Tourism reports the following statistics for North Shore visitors:

- Between 60-70% are Minnesota residents.
- Over 50% are from either the Twin Cities or Chicago.
- 58% of visitors come to the area 2-3 times per year.
- 45% are between the ages of 35-54.
- 27% are over the age of 65.
- 80% have some college education.
- 25% have an advanced degree.
- 60% are on a vacation or pleasure trip.
- 20% are visiting friends or relatives.
- 12% are passing through the area to somewhere else.
- 7% are residents of the North Shore.
- 75% of those on vacation participate in outdoor recreation, including: camping, hiking, bicycling, fishing, kayaking, boating, swimming, inline skating, and bird watching.
- The most popular autumn activity is viewing fall colors.
- The most popular winter activities include: cross-country skiing, snowmobiling, snowshoeing, ice climbing, downhill skiing, and dog sledding.
- 75% are family groups.
- 42% of those family groups are empty nesters with grown children.
- 28% of those family groups are 2 parent families with children under the age of 18.
- 55% of repeat visitors do so with different companions at different times of the year.
- 35% of traveling parties consist of 4 people.
- 45% of traveling parties consist of 2-3 people.
- 72% visit during the summer.
- 13% visit during the fall.
- 9% visit during the winter.
- 6% visit during the spring.
- 80% travel by automobile or RV.
- The average daily traffic count ranges from 1800 to 7500 for tourist traffic.
- The average daily traffic count ranges from 125 to 370 for commercial traffic.

The top reasons given for visiting the North Shore in order:

- The scenic drive
- The wilderness experience
- Fishing
- The scenic streams and inland lakes
"Roads no longer merely lead to places; they are places."

- John Brinckerhoff Jackson

"Our destination is never a place, but a new way of looking at things."

- Henry Miller