

# NORTH COUNTRY NATIONAL SCENIC TRAIL



A Handbook for  
Trail Design, Construction,  
and Maintenance

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North Dakota • Minnesota • Wisconsin • Michigan • Ohio • Pennsylvania • New York

# A Handbook for Trail Design, Construction, and Maintenance

August 1996



## **North Country National Scenic Trail**

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United States Department of the Interior • National Park Service

This book is dedicated to the  
hundreds of volunteers and partner agencies  
whose invaluable efforts made  
this trail possible.

## PREFACE

The North Country National Scenic Trail (NST) extends thousands of miles. It requires the participation of a myriad of individuals and groups in its layout, design, construction, and maintenance. Understandably, the level of trail experience and expectations of the finished product often differs among those involved. New volunteers commonly ask for trail standards to guide their work. In the past they were given verbal descriptions and, at best, directed to existing trail construction and maintenance handbooks prepared by other trail agencies and groups. Trail standards are fairly consistent across the nation, and these referrals were made with a certain degree of confidence. However, completed sections of the North Country National Scenic Trail are significantly different in terms of trail standards, signing, location in the area's landscape, and maintenance.

The purpose of this handbook is to lay the foundation upon which the North Country NST will achieve a degree of consistency from one segment to another. Public recognition that the trail is becoming a reality will also be gained. Workable trail standards are identified and defined in the following chapters. It is desired that over time the entire trail will utilize these standards. Local innovation is a trait that is encouraged, but ideas and changes should be channeled within the broader bounds of trailwide standards.

The legislation that created the North Country NST acknowledged that the trail's completion required cooperation among all levels of government and private organizations. The 1982 *Plan for the Management and Use of the North Country Trail* noted that total uniformity was not prescribed because of the diverse nature of managing entities. However, the plan realized that as trail use and popularity increased the importance of uniformity also would increase.

The North Country NST has matured since 1982 and more consistent application of standards is required. Increased uniformity is important for a variety of reasons: recognition and public support for the trail, provision for basic levels of safety, a degree of accessibility, improvements of poorly designed trail segments, and easier maintainability. The objective is to have all completed segments recognized as a national scenic trail.

Although total uniformity is not strictly imposed, adoption of consistent trailwide standards is desired. As old segments of trail are reconstructed, and as new trail segments are built, it is strongly recommended that these guidelines be followed. As experience in trail development and maintenance progresses and suggests changes in application, amendments will be incorporated.

It is hoped that this handbook will assist and inspire all who work for the successful completion and maintenance of the North Country National Scenic Trail.



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## INTRODUCTION

When completed, the North Country NST will extend from the vicinity of Crown Point, New York, to Lake Sakakawea State Park, on the Missouri River, in North Dakota, where it joins the route of the Lewis and Clark National Historic Trail. The length of the trail is officially 3,240 miles. However, by the time it is completed the trail is expected to exceed 4,000 miles.



Threading its way across the landscape, the North Country NST links outstanding scenic, natural, recreational, historic, and cultural areas in seven northern states. Unlike the Appalachian, Pacific Crest, and Continental Divide NSTs, which follow mountain ranges, the North Country NST journeys through a variety of environments in the northeastern and north central United States. From the grandeur of the Adirondack Mountains in New York, it meanders westward through the hardwood forests of Pennsylvania, through the countryside of Ohio and southern Michigan, along the shores of the Great Lakes, and through the glacier-carved forests, lakes, and streams of northern Wisconsin and Minnesota. Its western terminus lies in the vast plains of North Dakota.

The diversity of landscapes and scenic and historic features along the North Country NST is perhaps its most appealing quality. Large areas of publicly owned lands, such as national forests, major state parks and forests, and the Adirondack Park in New York, offer wilderness and near-wilderness experiences. Remote sections of the trail are especially enjoyable to those who value solitude. A journey through secluded areas offers outstanding scenery as well—for example, in Michigan, Pictured Rocks National Lakeshore's 42 miles of the trail follow Lake Superior's shore and features Grand Sable

Dunes, Twelve Mile Beach, and colorful Cambrian sandstone cliffs. In contrast are the portions which pass through or near villages, towns, and a few large cities. These communities offer access to the trail, lodging and other accommodations, opportunities for resupply for long-distance users, and interesting cultural features.

The North Country NST exists as much for the enjoyment of the casual walker as it does for the challenge of hikers who travel its entire length. Whether used for an afternoon of walking, a day of crosscountry skiing, or a week or month of backpacking, adventure is found along forested pathways, marshes and bogs, waterfalls, sand dunes, tallgrass prairies, old logging railroad grades, lighthouses, Revolutionary War forts, and small rural communities. From the Missouri River in North Dakota to the shore of Lake Champlain in New York, diverse features along the trail communicate how the land was formed, how it has been settled, and how it has been used and altered by man.

## **Chapter 1**

# **TRAIL HISTORY AND PHILOSOPHY**

At a time when our nation was building a bridge to the moon, others envisioned trails crossing our continent. A need for trails and other types of recreation facilities was clearly evident in the post-war boom. The Outdoor Recreation Resources Review Commission was created to assess this need and in 1960 their survey ranked walking for pleasure as the second most popular form of recreation.

On February 8, 1965 President Lyndon Johnson delivered the Natural Beauty Message. He called for development and protection of a balanced system of trails—in the Nation's metropolitan areas as well as in the countryside—in cooperation with state and local governments and private interests. In part, the President said: "We can and should have an abundance of trails for walking, cycling, and horseback riding, in and close to our cities. In the backcountry we need to copy the great Appalachian Trail in all parts of America." In response to President Johnson's message the Secretary of the Interior directed the former Bureau of Outdoor Recreation to spearhead a nationwide trails study.

By December 1966 the study concluded with the report "Trails for America." It provided guidance and definition: "A standard of excellence in the routing, construction, maintenance, and marking consistent with each trail's character and purpose should distinguish all national scenic trails. Each should stand out in its own right as a recreation resource of superlative quality and of physical challenge." National scenic trails are to be landbased (i.e., not waterway routes) and generally are to be continuous. The report also called for federal legislation to foster the creation of a nationwide system of trails. (Earlier that year the Secretary of the Interior had submitted proposed legislation to Congress to accomplish this task.)

Of the three categories of trails proposed, the report heavily emphasized national scenic trails and the role that they should play in meeting the nation's needs for trail recreation. The Appalachian Trail was to become the first national scenic trail. Three others were also proposed: Pacific Crest, Continental Divide, and Potomac Heritage. Five other routes were identified for further study: Lewis and Clark, Oregon, Santa Fe, Natchez Trace, and North Country.

Congress spent two years working on the national trails legislation, with input from public and private interests. On October 2, 1968, President Johnson signed into law the National Trails System Act (Public Law 90-543, 90th Congress). A process was thus set in motion to create a network of national scenic and national historic trails. The call of hikers and others who sought retreat from a hectic world was answered. Opportunities to explore America along scenic pathways, at a walking pace rather than at freeway speeds, became a reality. The act established two national scenic trails—the Appalachian and the Pacific Crest—and requested studies of 14 other routes, including the North Country Trail.

The 14 original studies, and others authorized since 1968, have been completed. The North Country National Scenic Trail (NST) was designated and added to the National

Trails System on March 5, 1980 (Public Law 96-199). Today, there are eight national scenic trails in various stages of development.

As stated in the National Trails System Act:

SEC. 3. (a) The national system of trails should be composed of the following:

(2) "National Scenic Trails, established as provided in Section 5 of this Act, which will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass. National Scenic Trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms which exhibit significant characteristics of the physiographic regions of the Nation."

The trails community philosophy holds national scenic and national historic trails as the elite of the extended trails. National scenic trails are continuous and provide access to outstanding scenery and natural landscapes, and link significant natural and cultural features by means of simple pathways.

The Appalachian NST generally serves as a model or pattern for the concept of a national scenic trail. Its strong image as a footpath through primarily wooded areas sets a tone for others—the simple pathway and outstanding scenery are considered unifying elements. However, each national scenic trail has a character and identity of its own, influenced by the landscapes through which it passes.

The long-term goal for the North Country NST is to establish a continuous trail that meets the federal legislative intent. It is to be developed and managed as a **premier** hiking trail, nationally significant in its scenic and recreational qualities, and closed to motorized use. Segments which meet this intent and other criteria can be certified by the National Park Service as part of the North Country NST. (Some segments of the trail may be open to one or more non-motorized activities in addition to hiking. However, legitimate resource management activities sometimes require motorized use.)

As a "partnership park," the North Country NST should meet local needs and blend with the character of the landscape. It also needs to exhibit continuity in character, quality, and visual appeal sufficient to distinguish itself as a national scenic trail and offer an experience of higher caliber to its users.

Federal, state, local, and private landowners or managers participate in hosting, developing, and/or maintaining segments of the trail. Public land managing authorities may wish to enter into agreements with private volunteer organizations, to carry out trail development and maintenance activities, while retaining overall management control of

their lands. (These organizations include the North Country Trail Association, the Finger Lakes Trail Conference, Buckeye Trail Association, American Youth Hostel-Pittsburgh, and others). Whatever the arrangements, the national significance and integrity of the North Country NST should be clearly recognized and identified in the management objectives.

## **GENERAL ENVIRONMENTAL CONSIDERATIONS**

National scenic trails should reflect a respect for the land and serve as positive examples which demonstrate that respect. Limitations must not be exceeded in trail development. All those associated with the trail, in any way, should exercise care not to damage the very natural and cultural features that contribute to the beauty and significance of the trail. Everyone has a responsibility, to fellow human beings and to the earth, to treat the land that is temporarily in their care with great respect. By following the points listed below, the integrity of the trail's environment will be protected:

- Applicable laws, regulations, codes and standards will be adhered to.
- Trail designers and developers will accept responsibility for cultural and natural resources and insure that they are protected and/or that unavoidable impacts are mitigated.
- The trail will be designed to lay comfortably on the land. To the greatest extent possible, environmentally benign trail locations will be sought.
- Unnecessarily steep, erodible, and/or dangerous slopes will be avoided whenever possible.
- Wetlands will generally be "skirted" or avoided unless there is a very good reason to enter them—such as bringing the user into intimate contact for interpretive or educational purposes, or there is no other equally feasible trail location.
- Locations of threatened, rare or endangered plants or animals will be identified and protected.
- Trail designers and developers should be sensitive of the trails potential impact on broader habitat areas such as flyways or breeding grounds and the trail corridor should be used to enhance bio-diversity. A constant awareness of the trail's potential impacts should be maintained.

## **USER EXPERIENCE**

Protecting the trail's natural and cultural resources is of utmost importance. Secondly, trail designers and implementers must create the best possible recreational experience for the user. The trail experience is multi-faceted—it offers stimulation of the senses, a

place for learning, a feeling of safety, re-creation for the soul, exercise for the body, and overwhelming satisfaction.

The routing of the trail should stimulate the user. Variety is critical—sameness and predictability should be avoided. Around every bend, at the end of every straightaway, over the crest of every hill, through the bottomlands of every valley a new experience should be found. The sounds made by the water in a rocky brook or of a breeze sifting through a grove of white pine, the familiar smell of apple blossoms along a fence row, the relief of the sudden coolness offered by a deep maple woods on a hot, sultry day, the thrill of an unexpected panorama, or an intensely yellow field of sunflowers filtered through the branches of an oak opening, the imprint of sumac against an autumn sky, all singularly or collectively energize senses and fill memories.

The trail is a place of learning, not only about the geographies and natural communities and individual species, both human and non-human, but a place where opportunities exist for understanding life and connectedness. The trail is rich in history and pre-history, both geologically and culturally. These aspects must be present to all who use the North Country NST so that they have the opportunity to come away from their experience enriched and enlightened.

## **LOOK OF THE TRAIL**

The North Country NST should be easily recognized as a national scenic trail. It is important to maintain the aura, reputation, and national importance associated with the NST designation. The public fully expects this and deserves no less. It is important to maintain consistency throughout the entire length via standardized planning, development, implementation and maintenance. Since this is not currently feasible, the following elements will foster consistency and pride in the trail, and visitors will leave with a positive impression:

- Quality construction of the trail, parking lots, rest areas, bridges and other structures.
- Clear and consistent signage with good attention to detail.
- A well-maintained trail with regular mowing or other vegetative control.
- Timely response to problems created by storms or routine wearing out of the infrastructure.
- Regular cleanup of litter.
- Timely response to public concern on trail related problems.

## ACCESSIBILITY

Over the past few decades the number of persons with disabilities participating in outdoor recreation activities has increased dramatically. (It is estimated that over 43 million Americans have some type of major disability.) Recent trends in our society, influenced by federal laws, have enabled persons with disabilities to be actively involved in the mainstream of society and participate in such outdoor experiences as hiking, camping, picnicking, fishing, boating, and water-based recreation. The North Country NST offers a broad spectrum of opportunities for all people.

In this handbook, we refer to three general classes of accessibility—fully accessible, barrier free, and not accessible. Because of the length and nature of the North Country NST, there are segments that fall within each area. (Recreation Opportunity Spectrum criteria applied—see Chapter 2.)

### ➤ **Fully-accessible**

Portions of new trail segments that will be fully-accessible must be considered during the planning process. Opportunities are most likely to occur at trailheads—especially when a scenic overview or attraction is nearby. Other areas may occur on rail-trail segments. These may provide full accessibility since the proper standards are pre-existing. Ohio's Little Miami Scenic Park segment of the North Country NST is an example. Other fully-accessible segments occur in urban settings where the trail is available for multiple use, such as the segments that follow Battle Creek's Linear Parkway and Petoskey's River Walk.

When a trail segment is fully accessible, it is specifically designed to meet full accessibility standards. Incorporating loop trails to view select sites is suggested. A good source of accessibility standards is *Universal Access to Outdoor Recreation*, by PLAE Inc., MIG Communications, 1802 Fifth St, Berkeley, California 94710. (Further discussion about trail construction and design standards is found in Chapter 4—particularly in Figure 1.)

### ➤ **Barrier-free**

Barrier-free segments of the trail are more accessible than those classed as not accessible, but are less than fully-accessible portions. Parts of the North Country NST should be developed as barrier-free as is practical. Impediments such as steps, waterbars, fords, stepping stones, corduroy, and unusually narrow bridges all tend to create barriers. These types of barriers are often avoidable by choosing another trail location or construction design. Trail segments should be made barrier-free if all it takes is a little extra work or a slightly different location. However, the desired character of the trail must be retained. Standards discussed in Chapters 4 and 5 are specifically designed with the barrier-free objective in mind.

➤ **Not Accessible**

Most segments of the North Country NST are not fully-accessible or barrier-free. Existing natural elements, the remote character of the trail, the use of native material for structures, and respect for the contours of the land all serve as reasons why much of the trail will fall into the not accessible class. Steepness, rocks, and roots are just a few natural impediments. These cannot be altered or eliminated without drastic measures which are insensitive to the environment or destructive to the desired character of the trail.