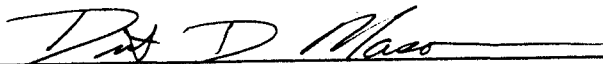


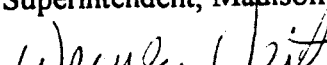



# NORTH COUNTRY NATIONAL SCENIC TRAIL FINAL TRAILWAY PLAN

## Analysis of Alternatives and Environmental Assessment Northwest Wisconsin and Adjoining Minnesota Region

Prepared by

National Park Service  
Ice Age, North Country, and Lewis and Clark National Trails  
Madison, Wisconsin

Recommended By:	<u></u> Recreation Planner, North Country Trail Association	<u>12/18/97</u> Date
Recommended By:	<u></u> Manager, North Country NST	<u>12-18-97</u> Date
Recommended By:	<u></u> Superintendent, Madison Trails Office	<u>12/18/97</u> Date
Concurred:	<u></u> President, North Country Trail Association	<u>12/19/97</u> Date
Approved By:	<u></u> Regional Director, Midwest Region	<u>12/19/97</u> Date

U.S. DEPARTMENT OF INTERIOR  
NATIONAL PARK SERVICE

**NORTH COUNTRY NATIONAL SCENIC TRAIL**

Analysis of Alternatives  
and  
Environmental Assessment  
Northwest Wisconsin and Adjoining Minnesota Region

**Executive Summary**

This document analyzes six alternatives, including the no action alternative, regarding the question of routing and developing the North Country National Scenic Trail across Bayfield, Burnett, and Douglas Counties, Wisconsin, and Carlton County, Minnesota.

In March 1980, Federal legislation authorized the establishment of the North Country National Scenic Trail (NST) as a component of the National Trails System (16 U.S.C. 1241 *et seq.*). To date, Congress has authorized the establishment of eight National Scenic Trails--long distance, non motorized trails that follow major geographic features or pass through scenic areas. National Scenic Trails are patterned after the renowned Appalachian NST.

*The Comprehensive Plan for Management and Use of The North Country Trail - 1982* used a very broad approach for identifying a potential corridor of opportunity in Northwest Wisconsin. Meetings in Wisconsin and Minnesota over the last few years have identified some concerns about the 1982 route. These concerns led to the need to rethink the route from the western edge of the Chequamegon National Forest (Wisconsin) to the Jay Cooke State Park/ Duluth area in Minnesota. A planning team was formed to investigate alternatives and conduct a public involvement process. Five alternatives plus the no action alternative resulted from the scoping and evaluation process. The preferred alternative, Alternative 2, totals 109 miles across Bayfield and Douglas Counties, Wisconsin and Carlton County, Minnesota. Of this total, approximately 88 miles traverse public lands, and 22 miles cross private property.

Since there are private holdings that the North Country NST must cross in Douglas County, Wisconsin and Carlton County, Minnesota and because of the general philosophy and purpose of a NST, the planning team is recommending a trail for foot travel only. This would include such winter uses as snowshoeing, and limited, ungroomed cross-country skiing. Development of a low impact, foot travel only trail using the careful design and construction techniques discussed herein will result in only minimal impacts.

Locating and constructing a new trail across the planning area may produce both positive benefits and negative consequences. Negative impacts on the human environment are generally limited to a perceived, slight increase in what are collectively called nuisance impacts. Adjoining landowners typically have fears about loss of privacy, vandalism, and littering when a new trail is being planned. Past experience and formal studies have shown these fears to be groundless as the perceived impacts do not develop after the trail is constructed. What trail users and neighboring landowners normally experience as the most important benefits of a trail are health, fitness, and recreation opportunities. Other advantages include aesthetic beauty, open space, natural resource protection, and in some instances, higher property resale values. Also, local communities may even experience bolstered economies and increased local pride. The new trail is predicted to have a minimum impact on the natural and cultural environments. These slight impacts are further discussed in Section VIII--Affected Environment and Impacts.

Address your comments to:

Thomas Gilbert  
Superintendent  
North Country National Scenic Trail  
National Park Service  
700 Rayovac Drive, Suite 100  
Madison, Wisconsin 53711  
Telephone number for questions: 608-264-5610



# **NORTH COUNTRY NATIONAL SCENIC TRAIL**

**Analysis of Alternatives  
and  
Environmental Assessment  
Northwest Wisconsin and Adjoining Minnesota Region**

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## **I. Introduction and Background Information**

In March 1980, Federal legislation authorized the establishment of the North Country National Scenic Trail (NST) as a component of the National Trails System (16 U.S.C. 1241 et seq.). It is one of only eight trails authorized by Congress to be National Scenic Trails. Patterned after the renowned Appalachian Trail, NSTs are long distance, non-motorized trails that follow major geographic features or pass through scenic areas.

In many ways, the North Country NST is similar in concept to the Appalachian NST. Yet in other ways, it is uniquely different as it takes the visitor through a diverse series of landscapes rather than following a mountain range or other distinct geographic feature. 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 (Attachment 1), where it joins the route of the Lewis and Clark National Historic Trail. While it was originally thought that the distance required to span these two extremities was about 3,200 miles, as work progresses to complete the trail, a total length of about 4,175 miles is now anticipated. Currently, more than 1,344 miles of the trail are in place and certified as meeting the standards of a NST. Another 800-1,000 miles, some of which are on roads, are walkable but not yet certified.

The National Park Service is responsible for overall administration of the North Country NST. However it is a partnership project where the actual development and management of the trail is intended to be accomplished through many cooperating Federal, State, and local agencies, and private trail organizations. When viewed in this manner, the North Country NST is truly a cooperative endeavor.

When Congress established the trail, a very general route was delineated. A slightly more refined, but still general route was shown in *The Comprehensive Plan for Management and Use of The North Country Trail - 1982* which envisioned approximately 143 miles of the trail route passing through Bayfield, Burnett, and Douglas Counties, Wisconsin, and into Pine and Carlton Counties, Minnesota--from the western edge of the Chequamegon National Forest to Jay Cooke State Park (Attachment 3).

From the west boundary of the Chequamegon National Forest, a long established and certified portion of the trail extends easterly for 60 miles. Within the planning area itself, 4.2 miles of trail within Brule River State Forest was certified as North Country Trail NST in February of 1997. This includes the entire 2.1 miles of the Historic Portage Trail. The balance of the route across all of the counties is located primarily on county and state owned properties with scattered private properties dispersed among the public lands. The purpose of this plan is to identify a specific corridor of opportunity within which a permanent trail can be established, and thereby guide agencies and private volunteer organizations to secure a route for the trail.

## **II. Purpose of the Environmental Assessment**

The National Environmental Policy Act of 1969 (NEPA) requires consideration of the environmental effects of proposed Federal actions, in this case the National Park Service's proposal to select a specific alignment for a North Country NST route across northwest Wisconsin and the adjoining Minnesota region.

This assessment serves to:

- A. Comply with all provisions regarding environmental considerations and public involvement required by the National Environmental Policy Act (NEPA) by carrying out an open, public planning process to determine the ideal location for the trail and to identify and address public issues and concerns.
- B. Comply with 36 CFR Part 800: Protection of Historic Properties, the regulations of the Advisory Council on Historic Preservation governing the section 106 review process and the Programmatic Agreement as implemented by the National Park Service, the National Conference on State Historic Preservation Officers and the Advisory Council on Historic Preservation.
- C. Comply with consultation requirements established in the Endangered Species Act of 1973.
- D. Comply with Executive Order 11988--Floodplain Management and Executive Order 11990--Protection of Wetlands.
- E. Provide information on the physical and social environment through which the trail passes for the local trail clubs and the counties to use as they plan the physical location, construction, and subsequent maintenance of the trail.
- F. Foster public involvement in developing and managing the trail, including recognition and possibly adoption of the trail by public and private land use planning groups.

## **III. Description of Northwest Wisconsin and Adjoining Minnesota Region**

Bayfield, Burnett, and Douglas Counties, Wisconsin, and Pine and Carlton Counties, Minnesota are located in the northwest portion of Wisconsin and the adjoining northeastern portion of Minnesota within a short drive of the "Twin Ports" of Superior, Wisconsin and Duluth, Minnesota (Attachment 2).

The terrain and soil change from gently rolling and sandy in the east to steep, rocky and broken in the west. In the middle of the planning area are vast expanses of remote wetlands. The landscape

offers scenic overlooks and rugged near-wilderness areas. Ice Age glaciers left their mark on the land, along with ancient volcanoes and earthquakes. Reminders of the area's logging past are found in abandoned logging roads and railroad grades. Forest management and the associated manufacturing of forest products remain a major industry in the area. Tourism/recreation is another major industry fueling the local economy throughout the planning area.

Northwest Wisconsin and the adjoining Minnesota region is rich in natural beauty as well as recreational opportunities. Except for the high degree of development adjoining Lake Superior, principally in the Duluth/Superior greater metropolitan area, the planning area is still largely rural in character with small towns dotting the countryside. The planning area is home to permanent populations of Eastern Timber Wolf (*Canus lupis*)--an indication of its wild character.

Water is an abundant resource within the planning area. There are literally hundreds of small, inland lakes, ponds, and streams. As an example, there are 966 inland lakes in Bayfield County and 431 in Douglas County. Most are inhabited by a variety of fish including: several species of trout, bass, perch, walleye, northern pike, muskellunge, various sunfish and others. Lake Superior is the largest, deepest fresh water lake in the world, encompassing 3,200 square miles. It is over 160 miles wide at the widest point with a maximum depth of 1,290 feet.

There are three State Parks (S.P.) and two National Parks in the area; Amnicon Falls S. P. (825 acres), Pattison S. P. (1,374 acres), Jay Cooke S. P. (9,000 acres), Saint Croix National Scenic Riverway (NSR) (39,041 acres), and Apostle Islands National Lakeshore (16,321 land acres). Vast State and County forests cover much of the planning area and account for the bulk of the public land. They are perhaps the biggest reason for the still undeveloped, natural appearing landscape. Public areas include Bayfield County Forest (177,000 acres), Brule River State Forest (40,467 acres), Douglas County Forest (267,000 acres), Douglas County Wildlife area (3,990 acres), St. Croix S.F. (26,000 acres), and Nemadji State Forest (93,300 acres).

#### **IV. Planning Background in Northwest Wisconsin and Adjoining Minnesota Region**

A Final Environmental Impact Statement (FES 75-85 dated October 3, 1975) was prepared by the former Bureau of Outdoor Recreation. This FES titled *The North Country Trail--A Potential Addition to the National Trails System* shows the trail passing through northwest Wisconsin and the adjoining Minnesota Region and describes a very general route on pages 61- 69 of the FES.

As mentioned in Section I, *The Comprehensive Plan for Management and Use of The North Country Trail - 1982* also indicates the trail route as passing through northwest Wisconsin and the adjoining Minnesota Region (Attachment 3). This plan used a very broad approach for identifying a potential corridor of opportunity. Within the last several years, discussions and meetings with St. Croix NSR staff, Burnett County Forestry staff, Minnesota DNR, and others (in both Wisconsin and Minnesota) identified a number of concerns about the 1982 route. Some of these concerns are: 1) When the St. Croix National Scenic Riverway worked on an Environmental Assessment to locate a route for the trail within the park it became obvious that the park is

essentially a narrow, water-based band along the river. Adjoining the river are many wetlands that are not conducive to trail building. In addition, eagle nests are located in several locations within the ownership. These nests and their necessary zones of protection serve as trail barriers. The result of these various factors was a route that was partially on roads. A road route as a permanent solution was unsatisfactory to the Superintendent and Manager of the North Country NST who asked St. Croix's Superintendent to defer any further work until a detailed county-wide planning process could be accomplished. 2) Because of the limited NPS ownership, there were many places where the route had to leave NPS property and enter Burnett County Forestry land. County officials strongly felt that the North Country Trail should follow existing snowmobile and ATV routes. While following a motorized route may temporarily serve as the trail, such a location could never become an officially certified segment of the trail. 3) The 1982 route entered Minnesota west of Danbury, WI. It then turned north following the Minnesota-Wisconsin Boundary Trail to Jay Cooke S.P. After the 1982 plan was written, Minnesota officials pointed out that the Minnesota-Wisconsin Boundary Trail was a snowmobile route and further, it was passable only during the winter months when the extensive wetlands were frozen.

These concerns pointed out the need to rethink the route's Wisconsin/Minnesota connection--essentially from the western edge of the Chequamegon National Forest (WI) to Jay Cooke State Park (MN). A planning team was formed to investigate alternatives and conduct a public involvement process. Five alternatives plus the no action alternative resulted from the scoping and evaluation process.

#### **V. Implementation of the Planning Process**

In December 1995, a planning team comprised of representatives of the NPS-Madison Trails Office, North Country Trail Association, Douglas County Forestry Department, Bayfield County Forestry Department, Wisconsin Department of Natural Resources, and Minnesota Department of Natural Resources initiated a comprehensive planning process for the North Country NST in northwest Wisconsin and the adjoining Minnesota region. The purpose of this process was to determine the ideal location for the trail, and to comply with Federal and State environmental laws.

Each planning team member was asked to provide a list of their organizations goals and objectives for the North Country Trail. The following list was the National Park Service's Goals and Objectives. The selected route and planning should:

- Pass through the most scenic, feasible terrain.
- Connect scenic highlights such as long vistas, waterfalls, points of interest, historically interesting areas, and other attractions.
- Incorporate existing recreation features such as parks, other trails, etc. whenever compatible with the above statements.

- Be non-motorized and include design features to discourage unwanted uses.
- Be designed to be primarily a hiking/walking trail. It should not be designed to allow bikes or horses. Other "foot" type uses such as XC skiing, snowshoeing, etc. are appropriate. Any exceptions would occur only if the route incorporates portion of trails that are constructed to withstand multi-use impacts--such as railtrail segments.
- Take a long term approach for the trail vs. an immediate approach. i.e. Select the highest quality route vs. going for a fast but less significant route. Identify alternate "temporary" routes to bypass blockages on the preferred route.
- For the most part, pass through generally natural and rural areas. Passage through small communities is acceptable but the trail route should not deviate from the best location merely to do so.
- Provide periodic hiker amenities such as areas where camping is permissible, drinking water, and intermittent re-supply opportunities.
- Avoid wet areas and/or design standards should incorporate means to keep boots generally dry.
- Provide for minimum maintenance needs. i.e. Sidehill trail is easier to maintain than trails in other locations.
- Identify local managing authorities.
- Be certifiable - not on road.
- Utilize public land and larger tracts of private land to minimize the number of potential conflicts and contacts.
- Identify a legally defensible location for the trail meeting National Environmental Protection Act (NEPA) and Section 106 of the National Historic Preservation Act, of 1966, requirements.
- Include provisions to develop a broader base of community awareness and local support for the trail.

The planning team then met to combine the above list with the goals and objectives of the other planning team members. After finding commonality, clarifying, adding, and subtracting, they arrived at a total of 16 combined goals/objectives. The following list was the planning team's goals and objectives for the North Country NST in northwest Wisconsin and the adjoining Minnesota region.

The selected route should:

- A. Be volunteer driven.
- B. Provide local economic benefits.
- C. Utilize the most scenic route.
- D. Provide some level of accessibility.
- E. Utilize public land and large tracts of private lands.
- F. Connect with other trails.
- G. Be certifiable.
- H. Avoid wet areas.
- I. Have a preference for hiking.
- J. Be non-motorized.
- K. Offer both short and long distance hiking opportunities.
- L. Achieve long-term permanency.
- M. Provide hiker amenities.
- N. Connect communities.
- O. Link recreation and points of interest sites.
- P. Have the least impact on wetlands and endangered species.

These compiled goals and objectives were then used by the team as they created a criteria prioritization matrix (Attachment 4A). When using this matrix process a team compares each objective with every other objective and makes a decision regarding its comparative value. Is it much more important, more important, equally important, less important, or much less important? This process allows the team to become cohesive and develop a shared vision of what is important in selecting alternatives for further analysis, and eventually, a preferred alternative. The finalized criteria, listed in descending order of importance along with their relative weights (with 5 being the highest weight and 1 being the lowest weight) are given below.

- 1.) Have the least impact on wetlands and endangered species. (5)
- 2.) Achieve long-term permanency. (5)
- 3.) Utilize public lands and large tracts of private lands. (5)
- 4.) Be non-motorized. (4)
- 5.) Be certifiable. (4)
- 6.) Have a preference for hiking. (4)
- 7.) Utilize the most scenic route. (4)
- 8.) Avoid wet areas. (3)
- 9.) Link recreation and points of interest sites. (3)
- 10.) Connect communities. (2)
- 11.) Provide local economic benefits. (2)
- 12.) Provide hiker amenities. (2)
- 13.) Provide some level of disability accessibility. (1)
- 14.) Be volunteer driven. (Dropped--is a must, not a selection factor.)
- 15.) Connect with other trails. (Dropped--is a must, not a selection factor.)
- 16.) Offer short-term and long-term hiking. (Dropped--is a must, not a selection factor.)

Six alternatives for a possible trail route were identified by the planning team. Using the weighted selection criteria, the team then studied each of the trail route alternatives to determine how well each alternative met each of the 13 selection criteria and to choose the team's preferred alternative. After much discussion and utilization of the ranking matrix as a planning tool, the team chose Alternative 2 (Moose River) as the team's preferred route. Refer to Attachment 4B for the specific numerical results. The entire planning process sequence of events is shown as Attachment 5.

## **VI. Description of Alternatives**

Generally, five new alternatives plus the No Action Alternative (the 1982 route) resulted from the scoping and evaluation process described in Section V (Attachments 6A, 6B, 6C, 6D, 6E, and 6F). A description of the five alternatives and a no action alternative is presented in this section.

Alternative 2 is presented first. Due to the fact that it is the preferred alternative, more detailed information is known and presented. Secondly, because several other alternatives are constructed as variations of Alternative 2, presenting it first assists reader understanding.

### **Alternative 2 -Moose River**

Alternative 2 (Attachments 6B, 7, and 8) is the route described in most detail as it is preferred.

Alternative 2 leaves the Chequamegon National Forest at Bayfield County Highway A (south of Iron River) where it heads west through pitted topography on Bayfield County Forest Land. The dominant timber species in this area are Quaking Aspen, Jack Pine, and various oaks. The proposed trail swings northwest and crosses Banana Belt Road. At this point, the route uses a portion of the existing Bayfield County Forest Ahmeek Lake Walking Trail that passes through stands of mature Red Pine and Northern Red Oak with scattered White Pine and mixed hardwoods. The surrounding seepage lakes are without inflow or outlets, and have no surface linkages to other water bodies. After passing south of Erick Lake, the route bends southwest passing an abandoned farmstead where only a root cellar remains. The farmstead's old fields were replanted to Red Pine 40-50 years ago. After crossing a small wet area that may require puncheon or another trail hardening structure, the route heads northwest again where it follows an abandoned town road. The abandoned road carries the trail through a brushy, wet area which has been heavily logged in the past 15-20 years and is dominated with aspen and wetland scrubs. After passing through or near a few Red Pine and White Spruce plantations, the route crosses South Shore Grade Road, entering Douglas County and the Brule River State Forest.

About one mile west of the county line, a spur trail will head west across State Highway 27. The spur trail will travel past a state operated fish hatchery and then climb a hill where it will merge with the existing Stoney Hill Nature Loop Trail until it ultimately ends in the Bois Brule Campground. This campground has 23 sites, and is dominated by a nice grove of 80 year old pine. Returning to the junction of the spur trail and the main trail, the main route heads south remaining east of the Bois Brule River and west of Samples Road. It is on pitted topography but hugs the crest of the hills to take advantage of as many scenic overlooks of the Brule River and its valley as possible. Glacial Lake Duluth once poured through a rift in the Copper Range, and the glacial meltwater formed the present valley of the Brule River. Stony deposits and old dry washes, along the proposed route, provide visible evidence of these ancient streambeds. About a mile past Rush Lake Road, the route briefly crosses a corner of Mosinee Paper Mills Company land and then it is immediately back in Brule River State Forest among the scenic bluff tops and pine flats. At Motts Road, the route continues southwest crossing County Highway S and then

## Jerseth Creek.

Between  $\frac{1}{4}$  and  $\frac{1}{2}$  mile south of Jerseth Creek, the route joins an existing, certified segment of trail for the next 4.2 miles. The first 2.1 miles of certified trail is on a woods road that is gated at both ends. The southerly 2.1 miles follows the Historic Portage which is on the National Register of Historic Landmarks.

Upon reaching Douglas County Highway A, the route turns north, first parallel to and then following the highway shoulder, for a short distance, to cross a wetland. It then leaves Highway A in a northeasterly direction, along a small ridge within the wetland, where after  $\frac{3}{4}$  mile it turns west to cross County Highway P within the upper Bois-Brule River Bog and its associated swamp wetlands. Boardwalk will need to be constructed in this area which remains in a near pre-settlement condition. This structure will provide opportunities to bring trail users into the wetland to observe native plants such as rare orchids and 160-200 year old Northern White Cedars, and to birdwatch. Once across the main bog, the route follows its edge in a southwesterly direction, crossing Porcupine Creek and Catlin Creek before reaching Heyer Road. Beyond Heyer Road, the route continues southwest crossing Sjoberg Road and Highway AA as it heads towards Solon Springs.<sup>1</sup>

Upon crossing County Highway A, at the north edge of Solon Springs, the route follows East Third Street to Main Street (shown on some maps as Lake Avenue). Crossing Main Street, a short, dead end street leads to the gated entrance to the trail system within Lucius Woods County Park. (See Attachment 10).

If the final decision is to use this alternative, Solon Springs will become one of only two "trail towns" in Wisconsin--the other being Mellen which is some 100 miles to the east. For long distance hikers, the town will offer opportunities to resupply and to take a break from the routine of trail life. Within a couple of blocks of the trail route, hikers can find a grocery store, post office, bakery, motels, and restaurants.

Entering Lucius Woods County Park, the route follows an existing trail downhill (southeast) to near the mouth of Park Creek and joins an existing nature trail. The route turns right (west) following the nature trail upstream along Park Creek. At the west end of the nature trail, a snowmobile trail is crossed but the hiking trail continues around the western perimeter of the park--eventually reaching the service road near the entrance/contact station. This makes obtaining information and payment of fees convenient for those hikers wishing to spend the night in the park. A trail to exit the south side of the park will be designated.

Marion Avenue serves as the south boundary of the park. Upon crossing Marion Avenue, the route continues south along Lakeside Street, jogs west, south, and east to gain the north end of Hillside Street which is followed south to Valley Park Avenue. At this point, the street system

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<sup>1</sup>Refer to Attachment 7, Maps 6 & 7 of 15, for a temporary trail route.

begins to break up. Continuing to the south, a route passing through generally undeveloped portions of the village will be identified. It will cross Prevost Drive and gain access to the narrow strip of land between the active railroad and Upper St. Croix Lake.

At the south edge of Solon Springs, the route stays within the narrow strip of land between the railroad and Upper St. Croix Lake crossing Leo Creek and skirting a very wet area. Puncheon or boardwalk will most likely be required in this area.<sup>2</sup> The route then climbs a steep hill and enters the Wisconsin Department of Transportation wayside park that offers a spectacular view of the Upper St. Croix Lake. An informational plaque and statue is also present. After crossing U.S. Highway 53, the route turns west and enters the Douglas County Wildlife Area, locally known as the "Bird Sanctuary." The route continues in a southwesterly direction through the wildlife area, and crosses Bird Road, County Road M, and Stuckey Road.

Upon departing the wildlife area, the route stays on Douglas County Forest land north of the St. Croix Flowage. It crosses Spring Creek, which is a very wet area, and continues to north of Gordon Dam County Park. The wetlands just north of the dam are identified in the Wisconsin Watchable Wildlife Guide. A campground is situated across the dam, on the south side of the flowage. Remaining north of the river, the route enters Federal lands administered by the National Park Service's St. Croix National Scenic Riverway (NSR). The St. Croix NSR was established in 1968 as one of the original eight rivers under the National Wild and Scenic Rivers Act. For about a mile and a half, the route passes through the NSR--mostly along an abandoned road. Before crossing the Moose River and South Mail Road the route passes two NPS designated campsites along the St. Croix River.

Near South Mail Road, the route turns north and leaves Federal lands to follow hills on the west side of the Moose River. The Moose River region is locally known for its interesting historical remnants. These include old ruts, created by logging or settler wagons, and logging sawdust piles from long ago. In addition to opportunities for scenic views of the river, a trail route in this area is able to pass near, and perhaps interpret, these historic features. The topography in this area is hilly and wooded providing opportunities to create a dry, sustainable trail using sidehill construction techniques.

Continuing parallel to Moose River, the route crosses County Highway M and 4-5 miles later a narrow neck of the Moose Branch Flowage. About one mile later, the route crosses an east-west portion of County Highway A and continues north for another mile. It then begins to pull away from the Moose River, in a generally westerly direction, eventually crossing Ericson Creek. The trail then turns to the southwest towards Bear Lake Road. At Bear Lake Road the trail turns south towards Summit Tower Road. The route heads west on Summit Tower Road to cross a wetland.

After crossing the wetland the trail heads north, west of Bear Lake towards Pioneer Road--

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<sup>2</sup>Refer to Attachment 7, Map 7 of 15, for a temporary trail route.

crossing it on high ground west of the Empire Swamp. About 2 ½ miles north of Pioneer Road, the route utilizes the Empire Grade (See Alternative 1) for about 1/8 mile. Reaching the eastern embankment of the Black River, the route turns northeast.

The route then follows the eastern embankment of the Black River taking advantage of as many scenic overlooks as possible. Heading north to Pattison State Park, the route crosses Milchesky Road and soon leaves Douglas County Forest land. Continuing along the Black River, the route turns northwest and enters Pattison State Park. Shortly after entering Pattison State Park, the route gains access to a series of existing hiking trails. In the southern portion of the park, a short spur trail leads to a designated backpack camp area and Little Manitou Falls. Farther north, the route follows portions of the Old Logging Camp Trail and then the Beaver Slide Nature Trail which borders Interfalls Lake. Near the park's swimming beach and nature center, side trails lead to the 59-site campground. State Highway 35 is crossed using an existing pedestrian underpass. Just west of the highway, existing trails provide spectacular overlooks of Big Manitou Falls--a 165-foot-high waterfall named by the Ojibwa Indians. Shortly beyond the falls, new trail will be created along the north rim of the gorge of the Black River.<sup>3</sup>

From Highway 35 to Jay Cooke S.P. the terrain becomes much more rugged and steep. It is dissected by many sizeable creeks and rivers whose valleys must be crossed by the trail.

Exiting the park's north boundary, the route continues along the rim of the river gorge until it crosses Manitou Valley Road. Shortly thereafter, a steep descent (utilizing switchbacks) is made into the gorge and the river is crossed using an existing bridge. Once on the south side of the river, the route generally stays at the base of the hills for close to a mile before climbing steeply and crossing an active railroad track. Continuing through broken terrain, the route crosses Rock Creek and Miller Creek. Before crossing Balsam Creek, the route crosses the Gandy Dancer Trail--a multi-use rail trail that begins near Minneapolis/St. Paul and ends near Superior, Wisconsin. About miles east of Dedham Road, the route descends a steep hill to Balsam Creek. It is anticipated that a bridge will be constructed to cross Balsam Creek at this point. After crossing the creek, the route crosses one small landowner and enters Wausau Paper Mills Company land where it is then parallel to and south of the Nemadji River. The route crosses the Nemadji River on County Highway W and turns back to the west following the north bluff of Mud Creek. Just before reaching the Wisconsin/Minnesota boundary, the route turns north and follows the Saunders Grade--a Wisconsin Department of Natural Resources multi-use railtrail. About ½ mile of the Saunders Grade is used to cross Clear Creek.

Upon crossing Clear Creek, the route turns west, following the north bluff of the creek, and enters Minnesota. About a mile past the state line, the route turns back to the northeast and follows a long-abandoned railgrade for about one-half mile. Upon leaving the grade the route begins to travel north about three-quarter of a mile before crossing railroad tracks. The route begins to meander northwest and soon enters Jay Cooke State Park where very rugged terrain is

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<sup>3</sup>Refer to Attachment 7, Maps 12 & 13 of 15, for a temporary trail route.

encountered. The route crosses State Highway 23 and within two miles begins following existing hiking trails within the park--south of the St. Louis River. The route passes two trail shelters and a backpack campsite on it's way to the swinging bridge where the planning process terminates.

Alternative 2 totals approximately 110 miles. (Note: For comparison purposes, if like other alternatives measurement was from the proximity maps, this alternative would be 75 miles in length. The larger 110 mile figure includes all of the designed twists and turns to insure proper trail grade, dry passage, etc.)

### Summary and Selected Highlights of The Preferred Alternative

The specific location of the North Country NST preferred corridor of opportunity is:

Counties: Bayfield and Douglas in Wisconsin and Carlton in Minnesota.

Communities: Solon Springs, WI

Townships:

#### Wisconsin:

- Hughes -T46N, R9W, Sections 1, 2, and 3.  
-T47N, R9W, Sections 35, 34, 33, 32, 31, 30, and 19.
- Brule -T47N, R10W, Sections 24, 25, 23, 26, and 35.
- Highland -T46N, R10W, Sections 2, 11, 14, 23, 22, 27, 34, 33, 32, and 31.  
-T46N, R11W, Sections 36 and 35.
- Solon Springs -T45N, R11W, Sections 1, 2, 3, 4, 10, 9, 17, 8, 7, and 18.  
-T45N, R12W, Sections 12, 13, 24, 25, 36, and 35.  
-T44N, R12W, Sections 1, 2, and 11.  
-T45N, R13W, Sections 35 and 26.
- Gordon -T44N, R12W, Sections 14, 23, 22, 27, 21, 28, 20, 29, 19, and 30.  
-T44N, R12W, Sections 25, 36, 26, 35, 34, 27, 22, 23, 14, 11, and 2.  
-T45N, R13W, Sections 34, 27, 22, 15, 16, 17, 9, 8, 5, 6, and 7.
- Summit -T45N, R14W, Sections 12, 11, 14, 15, 10, and 3.  
-T46N, R14W, Sections 35, 34, 27, 22, 21, 20, 16, 17, 9, 8, 4, and 3.
- Superior -T47N, R14W, Sections 33, 34, 27, 28, 22, 21, 20, 16, 17, 8, 19, 18, and 7.  
-T47N, R15W, Sections 13, 12, 24, 14, 15, 16, 17, 18, 7, 8, and 6.

#### Minnesota:

- Wrenshall -T47N, R15W, Sections 6 and 7.  
-T47N, R16W, Section 1.
- Silver Brook -T48N, R15W, Sections 31 and 30.  
-T48N, R16W, Sections 36, 25, 24, 23, and 22.
- Twin Lakes -T48N, R16W, Sections 15, 10, and 9.

## Selected Areas of Interest Along the Corridor

**Bayfield County Forest:** This county forest bridges the gap between the Chequamegon National Forest and the Brule River State Forest. It consists of 177,000 acres of public land that is managed to provide for a variety of recreational opportunities as well as to provide for sustained timber production providing income to the county. The county has established special management guidelines for the Wild Lakes Area to protect it from unacceptable impacts. This is an area of small, high quality kettle lakes located in some of the more hilly terrain found in the southern part of the county..

**Douglas County Forest:** At 267,000 acres, this is the largest County Forest in Wisconsin. The lands are managed for multiple use to provide a variety of recreational opportunities as well as to provide for timber production. Douglas County, as Bayfield County, strives to balance the development of the Forest to provide for a variety of recreational uses while also manipulating the vegetation in order to provide for the production of timber products. All of this is done with the ultimate long-term goal of protecting the soils, water, wetlands, wildlife and other natural features.

**Brule River State Forest:** This long, rather linear forest buffering the Bois Brule River contains approximately 50,000 acres, of which 40,467 acres are owned by the State of Wisconsin. It is a working forest as well as a recreation area. Multiple use management provides for the melding of timber production, aesthetics, wildlife, fisheries and watershed protection. The Forest offers hunting, camping, fishing, canoeing, hiking, swimming, cross country skiing, and snowmobiling. The Bois Brule River is one of the best known rivers east of the Mississippi. Five Presidents of the United States have fished this exceptional trout stream. The Brule River contains resident brook and brown trout. Anadromous brown and rainbow trout and coho and chinook salmon migrate up the Brule River from Lake Superior. The southern portion of the river flows through miles of coniferous bog and is fed by numerous springs. Wildlife observed in the Forest includes deer, ruffed grouse, geese, fisher, snowy owls, bald eagles, osprey, black bear, bobcat, and even an occasional timber wolf.

**The Brule-St. Croix Portage Trail:** Within Brule River State Forest, this centuries-old portage, between the upper reaches of the Brule River and the north end of St. Croix Lake has been used by Native Americans, explorers, traders, trappers, and missionaries. It was a vital connection allowing travel and trade between the Lake Superior watershed, with access all the way to the east coast, and the Mississippi River watershed and the Gulf of Mexico or the interior of Minnesota. Along the Historic Portage portion of the trail route are seven sizeable stones, with small brass plates that have a name and a date--Dulhut-1680, Lesueur-1693, Carver-1768, Curot-1803, Cadotte-1819, Schoolcraft-1820, and Lucius-1886. These stones were placed some years ago by a local civic group to serve as "memory stones" commemorating the various historical users of the portage.

**Solon Springs:** This village once was the site where French voyagers bartered and traded with the Chippewa and Sioux Indians at Fort Saint Croix. The log fort and adjacent area was inhabited by hundreds of people. In 1896, the town's name was changed from Nebagamon, meaning "overnight stop" to Solon Springs. Today, Solon Springs, has a year-round population of approximately 600 with a considerably higher population during the summer months.

When the railroad eventually hardened roads and provided access to the community, it became known as a summer destination for people living farther south. In the early days, passenger trains deposited vacationers who owned cabins where they stayed for a week or the entire summer. The area was (and still is) popular because of its cooler climate and the abundant nearby recreation opportunities. The community is located on the shore of beautiful Upper St. Croix Lake. A city ordinance prohibits the cutting of the large red and white pines. The result is a community heavily populated with large, old growth conifers that surround cabins and line the narrow streets.

**Lucius Woods County Park:** This park is located in the middle of Solon Springs. The park's 40 acres offer a variety of outdoor recreational opportunities including swimming, camping, canoeing, picnicking, and hiking. A self-guided nature trail runs along Park Creek, and an amphitheater showcases a variety of musical and artistic groups. Included within the park is a nice stand of virgin White and Red (Norway) Pine.

Native Americans once traveled through this area and then onto the portage trail on their annual trek to and from Washburn, located on the shore of Lake Superior, where they received their annual stipend from the government. They buried their dead in Washburn, and this trek became a part of Wisconsin's own "Trail of Tears". In 1891, Nick Lucius bought the current park land from the Omaha Railroad and proceeded to operate the park for day-use and camping. In 1950, Mr. Lucius sold the property to the State of Wisconsin for a state park. In 1990, the State deeded the property to Douglas County.

**Upper St. Croix Lake:** This 855 acre lake is very popular for fishing, boating, and waterskiing. This beautiful lake is the result of glacier action some 10,000 years ago. This glacial action also created the unusual flows of the Brule and St. Croix Rivers. A short distance upstream from Upper St. Croix Lake, a divide in the watershed causes the Brule to run north to Lake Superior while the St. Croix River runs south to the Mississippi. The exact boundary of the two watersheds sometimes varies due to beaver activity changing the direction that the water flows.

**The Bird Sanctuary-Douglas Co. Wildlife Area:** Located southwest of Solon Springs, this area is an extensive "barrens" sparsely vegetated with scrub jack pine and hardwoods. It is managed so as to restore and maintain a pine barrens--a once common ecological community in northwest Wisconsin. It is situated on a flat, sandy plain that lies in the drainage basin of the St. Croix River.

The Wisconsin Conservation Commission in 1948 officially created the Wildlife Area as a sharp-tail grouse management area when 2,480 acres were leased for 50 years from Douglas County. The State currently owns 994 acres in fee title while another 2,997 acres are leased from Douglas

County. The entire property is designated a fish and wildlife management area except for a 240 acre Scientific Area. Vegetative management efforts strive to obtain a mixture and dispersion of grass/brush savannah with thickets of young aspen and jack pine--ideal sharp-tail grouse habitat. Repeated, periodic, prescribed fires are used to perpetuate the barrens. In addition to sharp-tail grouse, birds preferring the pine barrens habitat include upland sandpipers, rough-legged hawks, clay-colored sparrows and a host of other songbirds. At least one or two beaver colonies are usually active. Mallards, teal, ring-necked ducks, wood ducks, geese and pied-billed grebes have been observed on the several shallow ponds. Leo Creek, a popular trout stream, flows though the Wildlife Area's northwest corner.

Essentially, a pine barren is a brush prairie or a savannah. The Douglas County Wildlife Area will be the most extensive prairie that east to west hikers will encounter before reaching western Minnesota.

**St. Croix National Scenic Riverway:** The upper part of the St. Croix River and the entire Namekagon River were designated as initial components of the National Wild and Scenic River System by the Wild and Scenic Rivers Act of October 2, 1968 (Public Law 90-542). Administered by the National Park Service, the Riverway is made up of the two rivers plus the riparian settings through which they flow. Today, approximately 252 miles of these rivers are preserved. Along the Riverway, the topography varies from high rock or sand bluffs to low marshy areas with occasional sandy hummocks. The vegetation is varied and includes a variety of conifers and hardwoods, comprised of various pines, spruces, maples, and several other broadleaf species, including an assortment of swamp species. Like all of the northern lake country, the upper St. Croix has a history of Native American presence, logging, farming, and forest fires.

**Pattison State Park:** Water and history merge in this 1,374 acre park. The centerpiece of the park is the 165-foot high Big Manitou Falls--the highest falls in Wisconsin. Two other waterfalls rush through the park as the Black River carves its gorge through volcanic basalt. Little Manitou Falls has a vertical drop of 31 feet. Traces of earlier civilizations remain at Pattison S.P. Nomadic hunters passed through the area following the retreat of the last glacier. Other native populations followed. Between 1840 and 1910, copper was mined in the park. Test holes, pits, trenches, tunnels, and shafts scattered throughout the park serve as reminders. Today, some of Pattison's attractions include a 59-site campground, 10.5 miles of hiking trails, and a beautiful sand beach swimming site.

**Jay Cooke State Park:** Located on the St. Louis River, Jay Cooke S.P. is the third largest State park in Minnesota with an area of over 9,000 acres. The park's terrain has been shaped and reshaped by glaciation in the past million years. The rugged land formations of Jay Cooke State Park include the water-eroded gorge, steep valleys, and massive rock formations comprised of slate, graywacke, and red clay. Although most of the land surrounding the park was cleared over the years, the rough terrain in the park was never successfully cleared for farming.

The park was established in 1915 when the St. Louis River Power Company donated 2,350 acres of land. In 1945, the state purchased additional land. Deer, black bear, timber wolf, and coyote

are among the largest of 46 animal species in the park. The pileated woodpecker, marsh hawk, and great blue heron are just a few of 173 species of birds that nest or feed in the park. Jay Cooke State Park has fifty miles of hiking trails, ranging from easy to difficult.

### **Description of Alternatives (continued)**

#### **Alternative 1 - Empire Grade**

Alternative 1 (Attachment 6A) is identical to Alternative 2 except between South Mail Road at the northwest  $\frac{1}{4}$  of section 35, Gordon Township (Attachment 8-page 9 of 17), and the Bear Lake area near the east  $\frac{1}{2}$  of section 11, Summit Township (Attachment 8- page 11 of 17).

At South Mail Road, Alternative 1 continues west, parallel to the north side of the St. Croix River (within the St. Croix NSR) whereas Alternative 2 turns north, parallel to the Moose River. After crossing Sheosh Creek, Alternative 1 reaches the long abandoned Empire Grade-- a logging railroad established about the turn of the century. This alternative is named after this old grade.

Since the Empire Grade was not intended to be of long duration and because much of its use occurred under frozen conditions, a large built-up subgrade was not established. The grade was barely elevated above the extensive wetlands known as the Empire Swamp--even during the period of its use. Today, due to the lack of substantial substructure, much of the grade has subsided and is wet in many areas. The route follows the old grade northwest all the way to the Bear Lake vicinity. Initially it was thought that Alternative 1 would follow the Empire Grade all the way to the Black River. However, due to the extreme subsidence and wet conditions of the grade farther north, the thought of following it beyond approximately Bear Lake was dropped early in the planning process. Therefore, about east of Bear Lake, the route abandons the grade, angles east to higher ground, and joins Alternative 2. From this point to Jay Cooke S.P., Alternative 1 follows the same route as Alternative 2.

Alternative 1 is approximately 75 miles in length (measured from a small scale proximity map).

#### **Alternative 3 - Belden Swamp**

From the Chequamegon National Forest to South Mail Road Alternative 3 (Attachment 6C) is identical to Alternative 2. At South Mail Road it becomes identical to Alternative 1. However, about two miles north of County Highway M, shortly after crossing Crotte Creek, the Empire Grade intersects with the Empire Wilderness Road. At this location, Alternative 3 turns southwest off the Empire Grade (whereas Alternative 1 continues north on the grade) and follows the Empire Wilderness Road for about  $2\frac{1}{2}$  miles in a southwesterly direction. The route then leaves the road, crosses Chases Brook, and enters the vast Belden Swamp. For many miles it picks its way across the swamp in a northwesterly direction, crossing State Highway 35 and the Spruce River along the way. After crossing Spruce River, the route turns north until it intersects the Black River  $1\frac{1}{2}$  miles north of Summit Trail. The route then turns northeast on the bluffs parallel to and east of the river, crosses State Highway 35 once again, and joins Alternative 2 near the north  $\frac{1}{2}$  of section 20, Summit Township (Attachment 8-page 12 of 17). From this point to

Jay Cooke S.P., Alternative 3 follows the same route as Alternative 2.

Alternative 3 is approximately 80 miles in length (measured from a small scale proximity map).

#### **Alternative 4 - 18th Street/Amnicon Falls**

From the Chequamegon National Forest to County Highway P near the south ½ of section 8, Solon Springs Township (Attachment 8, page 6 of 17) Alternative 4 (Attachment 6D) is identical to Alternative 2. After crossing County Highway P, Alternative 4 turns north terminating on the Bong Bridge, in the City of Superior. In contrast, Alternative 2 continues west from County Highway P and terminates in Jay Cooke State Park.

After turning north, the route crosses Stone Chimney Road, Wilson Creek, County Highway L, and North Bennett Road. Turning northwest, the route crosses County Highway B and 3½ miles later reaches an abandoned railgrade/multiple use "trail" known as the South Shore Grade. Portions of this grade are developed as multi-use snowmobile trail while other portions are utilized as public roads. Other portions are fenced and are being pastured or cultivated for agricultural purposes. Prior to reaching Lackson Road/Kent Road, the route leaves the grade and turns north. The original alternative was to follow the South Shore Grade all the way to near Superior. This alternative was developed as an attempt to devise a route that would include Amnicon Falls S.P.

After leaving the grade and turning north, the route passes through scattered woodlots. It eventually crosses to the west side of Lackson Road but after another 1½ miles returns to the road in order to cross Middle River. It then turns west until crossing County Highway U where it turns north running parallel to and east of Amnicon River to enter Amnicon State Park.

Within Amnicon State Park, the Amnicon River produces a series of waterfalls and cascades. The route follows an existing hiking trail that offers outstanding views of these falls. The trail also crosses two covered bridges. Hikers using this route alternative could partake of the park's 36 unit campground.

Upon departing Amnicon S.P., the route continues north along the east side of the Amnicon River until crossing the river on the State Highways 13 bridge. Heading west and then northwest, the route stays north of State Highway 13 and 13/53 in a mixture of wooded areas and shrub wetlands-- skirting ravines along the way. The route connects with the City of Superior's partially completed waterfront trail system at the southeast corner of Allouez Bay. When completed the Waterfront Trail is intended to be a paved, multi-use trail. In winter months, it already serves as a snowmobile trail providing access to the city. Interspersed by scenic stretches of natural beauty along Lake Superior, the route would pass grain elevators, a shipyard, and industrial properties. One of the city's main attractions is Lake Superior, the largest fresh water lake in the world. The City of Superior also offers museums explaining the shipping and lumbering history, a tourist information center, parks, restaurants, and lodging. At Belknap Street, the route leaves the waterfront trail system and heads west on sidewalks through the city

to cross the St. Louis River on the Bong Bridge. This alternative ends at Bong Bridge.

Alternative 4 is approximately 56 miles in length (measured from a small scale proximity map).

#### **Alternative 5 - 18th Street/South Shore**

Except for the section between Lackson Road/Kent Road and the southeast corner of Allouez Bay, Alternative 5 (Attachment 6E) is identical to Alternative 4. Near Lackson Road/Kent Road, Alternative 5 continues to follow the South Shore Grade in a northwesterly direction whereas Alternative 4 departs the grade and turns to the north. Following the South Shore Grade the route crosses State Highway 53, the Amnicon River, several county roads, and once again State Highway 53 to reach the southwest corner of Allouez Bay, where the route connects with the Waterfront Trail and rejoins Alternative 4. From this point to the trail's western terminus at Bong Bridge, Alternative 5 is identical to Alternative 4.

Alternative 5 is approximately 57 miles in length (measured from a small scale proximity map).

#### **Alternative 6 - 1982 Route (No Action)**

Under this alternative, except for minor refinements, the trail would be located along the route shown in *North Country National Scenic Trail-Comprehensive Plan for Management and Use - 1982*. Since this route has already been studied it is the route of the trail until some other study supersedes it. It is therefore the obvious No Action Alternative.

From the Chequamegon National Forest to Gordon Dam the 1982 route is very similar to Alternative 2 except that Alternative 2 is much more refined. Just north of Gordon Dam, the 1982 route departs from Alternative 2, crossing to the south side of the St. Croix River on the dam structure. From this point, it follows the course of the river in a southwesterly direction all the way to Danbury, Wisconsin. Throughout this stretch, the route is primarily within the National Park Service lands of the St. Croix NSR. However, due to the ownership patterns, there are many locations where portions of the route are on Burnett County Forestry lands. Regardless of ownership, the route offers many scenic views of the river.

West of Danbury, the route crosses into Minnesota using the Wisconsin SR 77/Minnesota SR 48 bridge. It then turns north and follows the Minnesota-Wisconsin Boundary Trail most of the way to Jay Cooke S.P. Along the course of the route in Minnesota, the trail would pass through portions of the St. Croix and Nemadji State Forests.

Alternative 6 is approximately 143 miles (measured from a small scale proximity map).

## **VII. Analysis of Alternatives**

The five alternative alignments and the no action alternative were reviewed in terms of their relative feasibility and desirability. Public response to the proposed trail routes was received at open house meetings in Solon Springs, Superior, and Ashland on August 6-8, 1996. Review of the public response contributed to the following analysis. The conclusion was that Alternative 2 is the Preferred Alternative. Public input from the open houses resulted in several improvements to the initial proposal. These suggestions have been incorporated into the description just covered in Section VI. The preferred trail alignment is graphically depicted on Attachments 7 and 8.

### **Alternative 1 - Empire Grade**

Alternative 1 became a discussed option mainly because the planning team initially believed that the Empire Grade, which had grown back to a natural state, would offer a dry route through a largely swampy area of Douglas County. This route also remained within the St. Croix NSR longer than the other alternatives and this too was thought to be a factor worth exploring. Unfortunately, upon site investigation of the grade, it was discovered that it was not as dry as the planning team had originally thought. In fact, there were varying degrees of wetness all along the grade. Alternative 1 was wetter than all of the other alternatives except for Alternative 3. In addition to the wetness factor, the grade does not provide for scenic variety or elevation changes and there would not be dry places to camp along the way.

### **Alternative 2 - Moose River (PREFERRED)**

The primary reason for studying and favoring this alternative is because it consistently scored the highest in the ranking process (Attachment 4B). Factors such as having the least impact on wetlands and endangered species, utilizing public lands and large tracts of private lands, and others were among its strengths. Alternative 2 is also very appealing from a feasibility standpoint as approximately 80-percent is on public ownership.

Alternative 2 is located in the most scenic areas of the planning region and offers exposure to a wide variety of experiences including forests, lakes, bogs, rivers, creeks, pine barrens, waterfalls, rolling hills, rugged terrain, and steep rock formations. Significant stretches are within several river corridors such as the Bois Brule, the St. Croix, the Moose, the Black , the Nemadji, and the St. Louis. Forested hills adjoin the rivers to create outstanding views, sidehill trail construction opportunities, and interesting hiking experiences. The rivers offer a relaxing atmosphere, opportunities to observe wildlife, and possible sources of treatable water.

Alternative 2 links recreation and points of interest sites such as: A Special Conservation Bayfield County Forestry Area and the Wild Lakes Area, Brule River State Forest, Upper St. Croix Lake, Village of Solon Springs, Lucius Woods County Park, The Bird Sanctuary - Douglas County Wildlife Area, Douglas County Forestry lands, St. Croix National Scenic Riverway, Moose River historical remnants, Pattison State Park, Nemadji State Forest, and Jay Cooke State Park.

It traverses the areas of the planning region with the most public and largest land ownership patterns. Alternative 2 totals 109 miles. Of this total, approximately 88 miles traverse public lands, and 22 miles cross private property.

The main concern with Alternative 2 is that it has to cross short stretches of private land-- primarily near the Village of Solon Springs, near Douglas County Highway M, near Pattison S. P., along the Nemadji river (most of this is industrial forest land), and approaching Jay Cooke S.P. Since the National Park Service has no authority to purchase either fee simple lands or easements for the North Country NST, the completion of the trail is heavily dependent on the voluntary cooperation of landowners. The North Country Trail Association could purchase lands or easements if funds were available, but only on a willing seller basis. Because of these restrictions, the support of the general public and especially of the landowners is crucial. In all likelihood, a trail following this corridor of opportunity will be many years in the making.

See section VIII for a more complete description of the environment affected by Alternative 2. It should be noted that except for a few limited circumstances where the corridor of opportunity is hampered by physical constraints, the corridor of opportunity is at least one mile in width to provide for flexibility in routing the trail.

### **Alternative 3 - Belden Swamp**

Alternative 3 was discussed as an option because the planning team believed it to be a good representation of Northwest Wisconsin and it was very remote and undeveloped. Unlike the Empire Grade, which is a straight shot, it offered a few topographical changes. However upon field checking Alternative 3, it was discovered that the route passed through extensive wetlands and was dependent on somehow avoiding these wet areas or constructing many miles of boardwalk and puncheon--a very expensive and impractical solution. Rather than offering scenic variety, the route lacks diverse experiences since it exists in mainly swampy vegetation. This alternative is the wettest of all of the alternatives. Due to all of these insurmountable obstacles, Alternative 3 is not favored. The site investigation determined that it is simply not feasible to pass through this swampy region.

### **Alternative 4 - 18th Street/Amnicon**

Alternative 4 could actually be called a sub-alternative to Alternative 5. Alternative 5 was the alternative originally proposed by the planning team because it was thought that there was potential to use a couple of abandoned railgrades. Alternative 4 was developed as an attempt to devise a route that would include Amnicon Falls S.P. (a jewel of waterfalls) as well as the advantages of passing through the City of Superior. It was considered advantageous to include the City of Superior's numerous qualities and Lake Superior. Additionally, a route through the City of Superior provided an opportunity to promote interest within a large population center, and the route is tied into the city's planned waterfront trail system.

Upon further field checking, several drawbacks appeared. Overall, Alternative 4 is not as wooded

or undeveloped as the other alternatives. It is more pastoral and would have to pass through many private properties with their associated fences, pastures, and buildings. The hiking experience was more rural to suburban in nature with not as many wild areas or rivers. While field checking the route, extensive areas of shrub swamp wetland and heavy soils, with no easy way around them, were discovered between Amnicon Falls S.P. and Allouez Bay. The quality of the hiking experience along State Highway 2 and the Bong Bridge in the City of Superior was also questionable. Due to these drawbacks, Alternative 4 would not be the best representation of a national scenic trail in comparison to Alternative 2.

#### **Alternative 5 - 18th Street/South Shore**

Since Alternative 5 is similar to Alternative 4 except for the variation of following an abandoned railgrade and not passing through Amnicon Falls State Park, refer to the above analysis for explanation of why Alternative 5 is not preferred. In addition to the above reasons for dismissal, this portion of the grade was continuously broken up into segmented pieces--gated and fenced off by the numerous private landowners along the route. Plus, there is established motorized activity occurring on the route in the form of snowmobile use.

#### **Alternative 6 - 1982 Route (No Action)**

Selecting this alternative would have done nothing to solve the concerns about the 1982 route that led to initiating this study. These concerns are discussed in Section IV. However, due to the fact that the 1982 Route was THE currently approved route of trail, it had to be compared to the new alternatives to see if it was still the best route, despite the identified concerns.

Fortunately, better alternatives were identified by the planning team. As can be seen in Attachment 4B, this alternative actually scored the lowest of any alternative. Due to these reasons, Alternative 6 was dismissed.

### **VIII. Affected Environment and Impacts**

This section discusses the potential impacts to natural, cultural, and socio-economic resources associated with selecting the proposed corridor and developing the trail.

#### **A. Impacts to Physical Resources**

##### **Soils**

Soil type, slope, and drainage all influence the suitability of an area to withstand the potential impacts of trail construction and use. The trail route chosen will attempt to minimize the possibility of compaction or erosion of the soil surface. In addition, soils that are rocky or frequently wet create difficult hiking conditions and will be avoided if possible. Most of the soils along the proposed alignment are well suited for trails. The primary limiting factor is the poorly drained soils in low areas, creating a potential for compaction. However, since these low areas

are generally flat, little erosion is expected.

With proper layout of the trail on the landscape, erosion control techniques, construction of appropriate trail structures such as puncheon, boardwalks, or bridges, all potential impacts from constructing and using the trail can be mitigated to a non-significant level. Even in steep or unstable soil conditions, careful design and construction techniques, such as those shown in the *National Parks Service's Trail Management Handbook*, the *North Country National Scenic Trail - A Handbook for Trail Design, Construction, and Maintenance*, the *Appalachian Mountain Club's Field Guide to Trail Building and Maintenance* by Proudman and Rajala, or the Student Conservation Association's *Lightly on The Land* will minimize erosion problems and soil impacts.

### **Wetlands, Water, and Water Quality**

Small kettle lakes, streams and rivers, marshes and other wetlands are some of the features included within the proposed trail corridor. The trail crosses or closely follows some of these features.

Under Alternative 2 (preferred), depending on the trail's exact location and site specific investigations, a few small bridges may be necessary. Most moderate to major streams are crossed utilizing existing road bridges. The majority of the wetlands are located in Douglas County and for this planning project, structures such as boardwalk and puncheon are more likely to be needed than are bridges.

Actions involving water crossings and wetlands will be conducted with the use of appropriate erosion control techniques. Placement of any type of fill in wetlands is subject to regulation. The rules in place that govern activities in wetlands include Wisconsin Department of Natural Resources NR 1.95 and NR 103, Wisconsin Administrative Code. Any work on the bed or banks of navigable waters, including bridges, is governed under Chapter 30, Wisconsin Statutes. The State of Minnesota has similar jurisdiction and permitting requirements. Permits from both DNRs will be needed for bridges and work in wetlands.

Additionally, the U.S. Army Corps of Engineers has jurisdiction over wetlands and waters of the United States under Section 404 of the Clean Water Act. Permits will be needed from the COE for bridges and boardwalks in wetlands.

Minimum impact on aquatic resources is anticipated when construction, use, and maintenance of the proposed route occurs. Where necessary, bridges will be constructed over streams and other wet-area structures will be utilized in wetland areas. Experience on other parts of the North Country NST has shown that with careful trail design and construction, water quality will not suffer.

## **Floodplains**

Executive Order 11988--Floodplain Management-- governs potential impacts of Federal projects on flood plains. NPS regulations for implementing this order provide under Section 5, Scope, Part B Excepted Actions, 2a: ". . . foot trails are excepted from compliance with this order."

## **Prime Agricultural Lands**

Prime farmland as defined by the Soil Conservation Service is "farmland which meets a set of technical criteria based upon soil water capacity or availability of irrigation, temperature regime, pH, depth of water table, conductivity, sodium exchange, flood potential, erosion potential, permeability and percentage of fragment rocks." In general, wherever the corridor of opportunity passes through soil types classified as prime farmland soils it avoids open fields and follows wooded areas, fringes of wetlands, and wooded fencerows--areas that the landowners have not developed for agriculture. However, in the case of the current planning location, the area is largely forested and no prime farm lands are involved.

## **St. Croix National Scenic River**

Alternative 2 (preferred) closely parallels the St. Croix NSR from Gordon Dam to the Moose River--approximately two miles. Under the definitions found in the act creating the Riverway, this portion of the river is designated as "Scenic."

The Act does not prohibit a hiking trail within the river corridor. However, location and construction of the trail does have the potential to be in conflict with the river's management regulations. Since new bridges crossing a designated river are usually not allowed, the trail location is to take advantage of existing bridges. In this instance, this is a moot point as no crossings of the St. Croix are proposed. The management regulations pertaining to a National Scenic River also affect other aspects of trail location and construction techniques. Under the preferred alternative, the trail route would not be visible from the river itself except in a couple of locations where it approaches existing campsites. Even in those locations, river users will probably not realize that the trail is present unless they explore from the campsite and observe the trail's blazes or small signs. Mitigating measures are outlined in Section IX--Trail Use, Development, and Management Standards.

## **Air Quality**

Under all alternatives, air emissions may increase slightly due to increased automobile traffic by visitors to the trail and due to the use of construction and maintenance equipment such as chainsaws, brush mowers, etc. or it may be reduced by people walking the trail instead of driving.

In any case, since the ambient air quality of the study area is good and current and anticipated use of the trail is low to moderate, the effect of the North Country NST on air quality is probably negligible.

## **B. Impacts to Biologic Resources**

### **Wildlife**

In general, under the preferred alternative, securing a trailway and constructing the trail will have no significant effects on wildlife. The area that the proposed corridor is located in is rural to roaded natural area with the dominant use being forestry with pockets of agriculture. This type of land use creates good wildlife habitat for both "edge" and "interior" species.

The primary effects on wildlife would be the occasional sightings of wildlife by users of the trail. It is possible that some wildlife will be disturbed by these sightings but this disturbance would be very short-term and most wildlife become accustomed to the occasional presence of a trail user. It has been the experience of the North Country NST that users are concerned and aware of the surrounding environment and take great precautions to preserve the habitats that surround the trail.

### **Fisheries**

No adverse effects to the fishery resource surrounding the trail should occur with proper trail design and erosion control during construction.

### **Rare, Threatened, and Endangered Species**

Under the consultation requirements of the Endangered Species Act, the planning team requested the U.S. Fish and Wildlife Service's opinion regarding the presence of any rare, threatened or endangered species within the preferred corridor (Attachment 14). The U.S. Fish and Wildlife Service reported that the gray wolf (*Canis lupis*), a Federally listed endangered species, and the bald eagle, (*Haliaeetus leucocephalus*), a Federally listed threatened species, have a range that lies within Bayfield and Douglas Counties, Wisconsin. They also listed the Fassett's locoweed (*Oxytropis campestris* var. *Chartacea*) in Bayfield County as a Federally threatened species; and Kirtland's warbler (*Dendroica kirtlandii*) and the piping plover (*Charadrius melodus*) in Douglas County as Federally endangered species.

While the U.S. Fish and Wildlife Service determined that the Fassett's locoweed, Kirtland's warbler, and piping plover would not be affected by the proposed trail segment; they did state that, "a number of occurrences of the bald eagle and gray wolf are known from the vicinity of the project corridors being studied. The bald eagle and gray wolf tend to change the locations of nests or dens from year to year, and "both species are sensitive to disturbance near their breeding territories. Since the proposed trail construction is not likely to take place for several years, it is difficult for the U.S. Fish and Wildlife Service to currently predict the specific areas which may be sensitive to disturbance." They have recommended contacting their office again at least 12 months prior to actual construction of these trail segments. They will then evaluate the specific plans at that time. They did state, "As a guide for planning purposes, we suggest that you plan your trails routes such that they are wide enough to accommodate the avoidance of sensitive

locations by at least one fourth (1/4) of a mile. This distance should be sufficient to avoid disturbance to either of these species, in the event that they are found to occur near your proposed trail route.”

As stated in Section VI--Description of the Proposed Corridor of Opportunity and Alternatives, the corridor of opportunity is at least one mile in width to provide for flexibility in routing the trail, except for a few limited circumstances where the corridor of opportunity is hampered by physical constraints. This office will also obtain more specific information on exact locations of eagle nests, and wolf den and rendezvous areas from the Wisconsin Department of Natural Resources, Bureau of Endangered Resources, and the Minnesota Department of Natural Resources as the planning and implementation proceed on this project.

Footpath construction and use have the potential to cause some local disturbance to vegetation and wildlife, but usually this will be slight. In most instances, the trail alignment can be adjusted or relocated within the proposed corridor to reduce impacts, should anything of concern be identified. In Wisconsin, both the Timber Wolf and the Bald Eagle are being declassified from Endangered to Threatened, which allows more leeway in management options.

### **C. Impacts to Cultural Resources**

#### **Historic Properties and Archeological Sites**

Section 106 of The National Historic Preservation Act requires that the Advisory Council be given an opportunity to comment during the planning process. The regulations that the Advisory Council prepared to carry out Section 106 include the involvement of State Historic Preservation Officers (SHPOs). Responsibility for involving the above parties has been delegated to NPS Superintendents. Accordingly, the NPS Madison Trails Office has involved the Advisory Council as well as both the Wisconsin and Minnesota SHPOs.

During the preliminary review of the route by the Wisconsin SHPO, information was provided only on the history of Pattison S.P. The transmittal letter stated: “This should be incorporated into your plan in choosing an alternative route...” The information supplied concerned the Pattison S.P. Ranger Station which dates back to the depression era and was completed by the Civilian Conservation Corps (CCC) in September 1937. The associated service building and storage building were constructed in 1935 and 1936 respectively. They were relocated to the ranger station site in the early 1950's. One of the two (probably the storage building) served as the National Park Service field office at Camp Pattison for the supervision of state program projects at the park. Also during 1936, CCC enrollees constructed a sand beach and a bath house at the park. Since the entire trail route within Pattison S.P. follows the park's existing trail system, the designation of the North Country NST will have no effect on historic resources.

During the preliminary review of the route by the Minnesota SHPO, three recorded inventory sites, none of which have been evaluated in order to determine National Register eligibility, were identified. These were: Silver Creek Historic, Sliver Creek Overlook, and Pt. Douglas-Superior

Military Road. We do not believe that the proposed trail alignment affects any of these sites. However if after seeing the detailed plan maps during the review of this Environment Assessment, the Minnesota SHPO (or the Wisconsin SHPO) provides more detailed information, adjustments will be made to the plan. The Minnesota SHPO letter also mentioned: "Inventory sites in the general vicinity of the project also include those at Fond du Lac, and the Grand Portage of the St. Louis River." Since the planning area does not encompass Fond du Lac, no further discussion is offered herein. Where the proposed trail approaches the St. Louis River (possible location of the Grand Portage), it is on existing park trails in Jay Cooke S.P. Since it is on existing trails, the designation of the North Country NST will have no effect on historic resources. The Minnesota SHPO goes on to say: "Finally, we believe that any project areas that are within 1,000 feet of water, on hilltops, or on glacial lake beaches have high potential of containing archaeological sites. Survey of these project areas is recommended."

Further discussion on archeologic protection can be found in Section IX--Trail Use, Development, and Management Standards.

#### **D. Socio-economic Impacts**

##### **Land Use/Land Ownership**

Construction and use of a new trail across northwest Wisconsin and the adjoining Minnesota region may produce both positive benefits and negative consequences from a landowner's point of view. Negative impacts are generally limited to a perceived, slight increase in "nuisance" type activities. Adjoining landowners typically have fears about loss of privacy, vandalism, and littering when a new trail is being planned.

Past experience and formal studies have shown these fears to be groundless as the perceived impacts do not develop after the trail is constructed. In 1992, the National Park Service in cooperation with Pennsylvania State University conducted an extensive study, *The Impact of Rails Trails*. This study showed that problems along trails had not developed, as feared, and that the vast majority of landowners were more satisfied with the trail after it was in place than they were before it was in place. Additionally, adjoining landowners found that they personally made use of the trail.

Trail users and landowners alike normally find recreation and health and fitness opportunities to be the most important benefits of a trail. However, other benefits normally include aesthetic beauty, open space, and in some instances higher property values.

Many of the issues raised by adjoining landowners are legitimate concerns, but they can be addressed through trail design solutions. These design solutions are spelled out in Section IX--Trail Use, Development, and Management Standards. Additional information to resolve landowner concerns about ownership are found in Attachment 16--Questions and Answers.

##### **Visitor Use and Protection**

As a result of the establishment of the trail, increased human access to many areas is expected. Along with this increased activity some secondary impacts may occur such as litter and interruption of wildlife use patterns. These impacts will be minimal because, by its nature, the North Country NST is designed and managed to be a low-impact experience.

The trailway passes through existing county and State recreation areas. These areas may receive a few additional visitors as a result of the trail. However, it is more likely that the impact to these areas will be that the trail will provide additional recreation opportunities to park visitors. The projected use of the trail is difficult to estimate. Based on patterns of use on other national scenic trails and on other already completed portions of the North Country NST, it is likely that use will be highest near populated areas or existing recreation areas. If uses increase considerably, conflicts between users may develop. This is also difficult to predict. However, because the trail is being designed as a foot travel only trail, use conflicts should be very minimal. The trail will be monitored by trail volunteers, local law enforcement agencies, NPS officers, and WDNR enforcement officers if necessary.

In the case of an injury to a trail user or a fire along the trail, there may be a need for an emergency response. The closest community or emergency unit would respond to such an emergency. However, the risk of such an event is minimal. The risk of environmental damage from a response to such an event is also minimal.

### **Developed Areas and Communities**

Generally, the planning area is undeveloped. The preferred corridor of opportunity includes one community, the Village of Solon Springs. Trail development provides increased opportunities for local recreationists. Providing the public with additional recreational opportunities may increase the numbers of people who flow into the region and this increased public use of the area may benefit local businesses.. Additional trailheads with parking areas may be developed.

Although the trail may attract some new commercial establishments, catering to trail users, to the local communities, a significant increase in that type of development is not expected. As awareness and use of the North Country NST increases, some economic benefits to area businesses will result from spending by day hikers and overnight backpackers.

### **Public Health and Well Being**

Northern Wisconsin and adjoining Minnesota already abound with opportunities for motorized recreation experiences. Development and completion of the North Country NST will help create a new social environment by providing the public with access to the surrounding resources, via non-motorized means, for purposes of outdoor recreation. The trail will provide links to many area parks, forests, and recreation lands. The trail will be used primarily as a hiking trail. Other uses will include ungroomed cross-country skiing, snowshoeing, birdwatching, interpretive walks, and education.

