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Trail & Water Recreation

- Assessing the Needs
- Proposing Solutions



Minnesota Department of Natural Resources
Trails & Waterways Unit

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February 1, 1989

To All Minnesota Trail and Water Recreation Participants:

The State of Minnesota is a place of tremendous recreational opportunities. Residents and tourists can use our numerous trails, lakes, and rivers for a variety of sports and outdoor experiences. Participation in such activities promotes physical health and mental well-being. They not only enhance our appreciation of our state's natural resources, these activities also support economic growth and increased tourism in Minnesota.

The Department of Natural Resources (DNR) supplies many of the facilities and services that make Minnesota a four-season recreational wonderland. As we move into a new decade, the challenges facing the DNR are to plan for and to meet our future needs while maintaining our existing facilities and services.

Demand is increasing in all parts of the state for more high quality recreational facilities for public use. The present budget and staffing levels need to be increased accordingly, as indicated in "Directions 1989,"--especially in the area of non-motorized trail recreation such as bicycling and cross-country skiing.

I am confident that through a close working relationship with the various recreation interests and support from the legislature and cooperation among all DNR divisions and support services, the department will be able to meet the challenges and supply the facilities and services that are so important to the high quality of life we enjoy in Minnesota.

The future is full of opportunity. The Department of Natural Resources wants to work with you to meet the challenges.

Yours truly,


JOSEPH N. ALEXANDER
Commissioner

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The Trails & Waterways Unit Provides Needed Facilities and Services

From the legendary Boundary Waters to the dramatic North Shore of Lake Superior to the agriculturally significant Southern Farmbelt to the scenic limestone bluffs on the Mississippi River in Southeastern Minnesota, the Trails & Waterways Unit within the Minnesota Department of Natural Resources (DNR) has developed a network of trails and waterways to meet people's needs for recreation.

Specifically, the Trails & Waterways Unit:

- Plans, develops, manages, and maintains 800 miles of multiple-use state trails that are used year-round.
- Administers maintenance and development funding for 2,200 miles of trails in state parks and state forests.
- Administers the grants-in-aid snowmobile trail program which provides funding to local units of government for the development, maintenance, and grooming of over 10,000 miles of snowmobile trails.
- Administers the grants-in-aid cross-country ski trail program, providing grants to local units of government for the development, maintenance, and grooming of 860 miles of ski trails.
- Manages and maintains 2,865 miles of river canoe routes; acquires and develops public access points, campsites, portages, and rest areas; and removes hazards from rivers such as snags, piers, pilings, and lowhead dams.
- Manages and maintains 1,200 public accesses to lakes and rivers and continues the acquisition and development of public access sites on priority lakes.
- Implements and administers the (All-Terrain Vehicle) ATV program.

- Manages, in cooperation with the DNR's Division of Fish and Wildlife, the fishing pier program.
- Administers land acquisition and recreation management for the wild and scenic rivers program.
- Provides information which promotes use of water accesses, fishing piers, canoe and boating routes, and trails administered by DNR.
- Implements a program of interpretive services on state trails.
- Implements Minnesota's Clean Rivers Project.

The Trails & Waterways Unit's Facilities and Services Are Used by a Large and Diverse Clientele

Trail and water recreation is becoming increasingly popular. Surveys document that Trails & Waterways' facilities are well used. Surveys also show a need for more facilities.

o Registered Recreational Vehicles

The number of registered recreational vehicles in the state is significant:

- 654,000 registered watercraft, including 132,000 registered canoes
- 190,000 registered snowmobiles
- 30,000 registered All-Terrain Vehicles (ATVs)

o Use of Public Access

Seventy-three percent of Minnesota boat owners used a public access in 1987*. A breakdown by boat type is below:

<u>Boat Type</u>	<u>Percent of Owners Who Used a Public Access</u>
Boats, 13 feet or less	73.0
Boats, 14-20 feet	80.8
Boats over 20 feet	59.7
Canoe/Kayak	78.2
Sailboats, 14-20 feet	77.0
Sailboats, over 20 feet	51.4

* Most boat owners have more than one boat type.

Source: Minnesota DNR and the University of Minnesota's "Boating in Minnesota," a 1988 survey of boat owners licensed in Minnesota. Thirty-two hundred boaters were randomly surveyed with a return rate of 80%.

o Use of Trails Year-Round

<u>Type of Trail Use</u>	<u>Number of DNR Use Occasions for Fiscal Year 1988</u>
Bicycling	255,000
Hiking/Backpacking	2,340,000
Horseback Riding	366,000
Snowmobiling	1,519,000
Cross-Country Skiing by ski pass holders	162,000

o Specific Examples of Trail Use

1. In the winter of 1985-86, the last winter of good snowfall, there were 180,000 snowmobiles registered in Minnesota and an estimated 2.4 million snowmobile trail use occasions.* For this winter of 1988-89, use of state trails in the northern part of Minnesota has far exceeded previous use.

2. In that same winter of 1985-86, 27,600 annual cross-country ski passes were purchased, and there were an estimated 439,000 ski trail use occasions.*

3. It is estimated that 120,000 recreationists used the Hinckley Fire Segment of the Willard Munger State Trail, the Douglas State Trail, and the Heartland State Trail during the summer of 1987. Sixty-five percent of these users were bicyclists.

* A use occasion is a measurement representing one use of a trail by an individual.

o Future Demand

<u>Facility</u>	<u>Percentage of Households Statewide Which Requested More of the Facility</u>
Bicycle Paths	59.5%
Fishing Piers	56.5%
Walking Paths	55.7%
Hiking Trails	54.6%
River Accesses	51.0%
Boat Launches	49.4%
Canoe Routes	47.3%
Horseback Trails	47.0%
Cross-Country Ski Trails	43.0%
Historical Interpretation	40.4%
All-Terrain Vehicles (ATV)	33.7%
Snowmobile Trails	23.7%

Source: The Statewide Comprehensive Outdoor Recreation Plan (SCORP), 1984-1989.

Five Pressing Needs for Today

A. Need to Maintain Trail & Water Recreation Facilities

The condition of many facilities is deteriorating due to age and use. Adequate maintenance and effective operations are essential to protect the investment in facilities and to ensure users' enjoyment, health, and safety. Present funding for maintenance is not keeping up with a growing system of facilities.

B. Need to Acquire and Develop Opportunities for Trail & Water Recreation

To meet present and future recreation needs, trail and water recreation facilities need to be acquired and developed on a timely basis or opportunities will be lost.

C. Need to Increase Resource Management

Active management is essential to preserve natural resources that contribute to high quality trail and water recreational experiences.

D. Need to Expand Interpretive Opportunities and Visitor Services

The Trails & Waterways Unit needs to strengthen its interpretive and educational activities to satisfy the public's increasing requests for information on the natural, cultural, and historical significance of the areas they visit.

E. Need to Plan for the Future

The Trails & Waterways Unit must continue to anticipate and prepare for the future through planning to meet our growing customer needs in an efficient and cost-effective manner.

Sixteen Solutions

A. Need to Maintain Trail & Water Recreation Facilities

Minnesota has made substantial investments in trail and water recreation facilities. Adequate maintenance and effective operations are essential to protect this investment, provide quality public service, and ensure users' health and safety.

In recent years, however, funding available for repair and preventive maintenance has fallen behind the needs of a growing system of facilities. Many trail and water recreation facilities are deteriorating due to age, effects of weather, and increasing use. As the condition of facilities deteriorates, the quality of people's outdoor recreation experience is diminished and safety problems increase. Further, the lack of funding for maintenance of existing facilities makes it difficult to respond positively to new proposals for new facilities by local interests or plan for orderly future expansion.

The following actions are needed to address this need:

SOLUTION 1: INCREASE WATER ACCESS AND RIVER RECREATION FACILITIES MAINTENANCE AND OPERATIONS

The Water Access and River Recreation Maintenance and Operations Program needs increased funds for maintenance on existing and future public access and river recreation sites. Trash pick up, parking lot repair, vegetation control, sign replacement, and the installation of plank ramps are needed on many sites. Other sites need funds to repair ice damage on potholes, ramps, and washouts. Many sites need toilets, docks, and security lighting. River campsites need to be maintained more frequently.

SOLUTION 2: INCREASE NON-MOTORIZED TRAIL MAINTENANCE AND OPERATIONS

The Non-Motorized Trail Maintenance and Operations Program needs increased funding for maintenance and operations on state trails. Funds are needed for signing, fencing, noxious weed control, grooming, mowing, erosion control, bridge upkeep, and repair of asphalt surfaces. Trails that are maintained for hiking, bicycling, and horseback riding have no dedicated funding as snowmobiling, boating, and ATVs do.

Funding for the maintenance of non-motorized trails has not kept pace with need. Increases in trail use and development of new facilities have occurred while maintenance dollars have, in fact, diminished due to inflation, new sales tax obligations, unfunded contractual salary increases, and static appropriations.

Some facilities have gone without preventive maintenance, in addition to the regular supervision that is needed to prevent damage from occasional vandals and uninformed users. Adequate maintenance funding is needed in order to: 1) ensure the users' enjoyment, health, and safety; 2) assure the quality experience people expect from these facilities; and 3) fulfill legislative mandates for non-motorized use.

B. Need to Acquire and Develop Opportunities for Trail & Water Recreation

To meet the state's growing demand for recreation, the Trails and Waterways Unit needs to continue to acquire land and develop new areas and facilities. Land acquisitions and development are priorities because:

- Use of existing facilities has increased substantially.
- People are seeking more diverse settings for their recreation.
- People want new kinds of facilities for emerging sports such as all-terrain vehicles and ski-skating.
- Local initiatives for abandoned railroad grade trails are occurring. Yet, the state cannot respond in a timely manner due to a lack of funds for land acquisition.
- Land acquisition funding for trails is now totally obligated.
- Technological advancements in new equipment such as fish locators and bigger, faster boats create new management challenges.

The following programs and projects are needed to address this need:

SOLUTION 3: INITIATE SAFE HARBOR PROGRAM ON LAKE SUPERIOR

A safe harbor is a public water access which includes launching facilities, docks, and breakwaters for protection of boaters from storms.

Development of safe harbors will facilitate use of Lake Superior by boaters, anglers, and tourists. Currently, there is a lack of public water access on Lake Superior's 140 miles of shore. A 1988 boater survey indicated 44 percent of boaters would like to boat or boat more often on Lake Superior. These boaters identified the lack of safe harbors as a major barrier. The development of safe harbors will benefit businesses including restaurants, bait shops, and motels, as well as boaters. Tourists will use the facilities to view Lake Superior, and shore anglers will use the facilities to fish.

SOLUTION 4: CONSTRUCT BRIGHTON BEACH BREAKWATER AND PUBLIC ACCESS PROJECT

The Brighton Beach Breakwater Project is a safe harbor project. It includes construction of a public access with breakwater and harbor. The proposed project, to be built in cooperation with the city of Duluth, is located northeast of the Lester River.

Fishing, boating, and sailing are increasing in the Duluth area, but a lack of facilities hinders access. Also, refuge from storms is needed to make boating on Lake Superior a safe experience. Plans for final design and construction are near completion.

SOLUTION 5: ACCELERATE RIVER ACQUISITION PROGRAM

The River Acquisition Program has two objectives:

1. It provides for the acquisition of lands for recreation purposes on designated canoe and boating routes through fee acquisition.
2. It provides for protection of lands on designated wild and scenic rivers through purchase of scenic easements.

River use surveys, the Statewide Comprehensive Outdoor Recreation Plan (SCORP), and analysis of canoe licenses show growing participation in river recreation. Acquisition and subsequent development of recreation sites help distribute use to avoid overcrowding and to ensure public access to waters. Scenic easements protect sensitive areas on wild and scenic rivers from development while keeping them under private ownership and on the tax rolls.

SOLUTION 6: ACCELERATE TRAIL RIGHT-OF-WAY PROTECTION PROGRAM

The Trail Right-of-Way Protection Program will provide for alternative funding (other than fee acquisition) to temporarily secure high priority linear corridors and to rectify any safety hazards on those corridors. The Department of Natural Resources (DNR) would be able to negotiate with railroad companies to secure the right-of-way for trail purposes using methods such as leasing until funding for fee acquisition can be obtained.

Irreplaceable long distance trail opportunities are often lost because acquisition dollars are not available to the DNR when these corridors are put up for sale. The ability to secure such corridors until funding can be obtained will allow the DNR to close severances/gaps in existing trails, extend trails into cities and towns, and acquire needed new trails.

SOLUTION 7: ACQUIRE PAUL BUNYAN STATE TRAIL

The Paul Bunyan State Trail will extend from Brainerd to Bemidji, intersecting the Heartland State Trail at Walker.

Proposed by a coalition of local supporters, this trail may provide year-round, multi-purpose, trail opportunities. Further, it connects two population centers and is located in the heart of a tourism area. It has a potential to become a major bicycle trail in the summer. The area has few such trails, and bicycling on the Heartland State Trail, which intersects the Paul Bunyan State Trail, was up six percent between 1985 and 1987. The trail will help satisfy demand for trail recreation in the area and benefit not only trail users, but the tourism industry as well.

SOLUTION 8: ACCELERATE STATEWIDE TRAIL ACQUISITION OF HIGH PRIORITY CORRIDORS

The Statewide Trail Acquisition Program has two distinct objectives. The first objective is to acquire shorter segments of trail that will complete existing trail corridors that are either severed or not completed into towns. These trails include:

- Root River State Trail
- Minnesota Valley State Trail
- Sakatah Singing Hills State Trail
- North Shore State Trail
- Arrowhead State Trail
- Willard Munger State Trail
 - a. Barnum to Carlton
 - b. Carlton to Wrenshall

The second objective is to acquire abandoned railroad grades that will provide new corridors for state trail development. These abandoned railroad grades include Hawick to Cold Spring.

Existing state trails are well used. There were 30,800 summer use occasions* on the Hinckley Fire State Trail in 1987; 40,900 on the Heartland State Trail; and 47,059 on the Douglas State Trail. There was a 300 percent use increase on the Douglas State Trail between 1982 and 1987. Use is generally on the increase on all state trails.

(*) A use occasion is a measurement representing one use of a trail by an individual.

SOLUTION 9: ACCELERATE STATE TRAIL BETTERMENT PROGRAM

The objective of the State Trail Betterment Program is to develop or rehabilitate trail corridors into safe, enjoyable, recreational opportunities for trail users statewide. This development and rehabilitation may include installing bridges, parking lots, and picnic sites; grading and leveling of trail surfaces; resurfacing and/or surfacing for use by bicycles; and implementing other construction projects that would complete trail segments.

The Willard Munger State Trail consists of several segments. Below are two segments needing development:

- a. Gateway (Soo Line) Segment (first phase development)
- b. Barnum to Carlton (development)

Rehabilitation and improvement of existing state trails include:

- Willard Munger State Trail (previously developed segments)
- Root River State Trail
- Luce Line State Trail
- North Shore State Trail
- Sakatah Singing Hills State Trail
- Taconite State Trail
- Arrowhead State Trail
- Douglas State Trail

Development and rehabilitation of existing trails in state parks and state forests will take place as directed by unit management plans.

As previously discussed, use on existing trails is high and there continues to be demand for more trail opportunities. The state's economy benefits from responding to a growing tourism industry.

SOLUTION 10: ACCELERATE MAJOR RIVERS AND LAKES WATER ACCESS ACQUISITION AND DEVELOP- MENT

The Major Rivers and Lakes Water Access Acquisition and Development Program includes public access on the Mississippi River; metro area rivers and lakes; and major lakes such as Gull Lake, Leech Lake, and Lake Darling. Development would include two or more concrete ramps, blacktopped parking areas, landscaping, and fencing.

These proposed accesses are located near population centers and/or in tourism areas. Acquisition and development costs are often higher than usual due to higher land values in these areas and the difficulty of construction. However, the accesses will serve a large number and wide variety of users and benefit local economies with increased tourism and business.

SOLUTION 11: ACCELERATE FISHING PIER PROGRAM

The Fishing Pier Program includes construction of approximately 65 fishing piers on lakes and rivers throughout the state to provide shore fishing opportunities. A fishing pier is a T-shaped floating dock ranging from 40 to 100 feet in length made by Minnesota Correctional Industries at Stillwater State Prison. Fishing piers are generally operated and maintained through a cooperative effort with local units of government and local sports groups.

Fishing is on the increase in Minnesota. The Statewide Comprehensive Outdoor Recreation Plan predicts an 11.8 percent increase in fishing by 1995. Fishing piers particularly benefit the handicapped, the elderly, children, and those who don't own a boat. The program is extremely popular and has a large backlog of over 50 requests for piers.

SOLUTION 12: IMPLEMENT ALL-TERRAIN VEHICLE (ATV) PROGRAM

The All-Terrain Vehicle (ATV) Program will provide grants to local units of government for the development of ATV trails and areas.

Unresolved questions need to be addressed, including the identification of areas that ATVs can use without negatively impacting natural resources, user safety, and state liability in providing trails and facilities.

C. Need to Increase Resource Management

Active management is essential to preserve natural resources that contribute to high quality trail and water recreational experiences.

SOLUTION 13: ACCELERATE MINNESOTA CLEAN RIVERS PROJECT

The Minnesota Clean Rivers Project 1) informs and educates the public about current river cleanup and beautification issues and resources; 2) creates public awareness of environmental concerns; 3) promotes cleanup action; and 4) provide recognition for successful cleanup and beautification projects.

Minnesota has over 93,000 miles of rivers and streams offering recreational opportunities and scenic beauty in addition to basic water for living and industry. However, dumping trash and chemicals into rivers has created surface and groundwater pollution, visual blight, and loss of recreational and tourism opportunities.

Major dumpsites have been identified, and a major cleanup of trash in rivers and on public and private lands through a coordinated state effort and grants to local government is needed. Coordinated efforts between state agencies, local units of government, and private groups are essential to cleanup projects as demonstrated by the successful public/private pilot projects conducted in 1988.

D. Need for Expansion of Interpretive Opportunities and Visitor Services

The Trails & Waterways Unit needs to strengthen its interpretive and educational activities to satisfy the increasing requests for information on the natural, cultural and historical significance of the areas they visit.

SOLUTION 14: ACCELERATE PLANNING AND DEVELOPMENT OF INTERPRETIVE FACILITIES ON STATE TRAILS

Interpretive facilities include signs along the trail and wayside exhibits.

The development of signs and displays along state trails will make trail users' experiences safer, more informed, and more enjoyable. The development of interpretive exhibits is also a way for Trails & Waterways to communicate goals, objectives, and management concerns to our customers in response to their needs as well as to provide information on the historical and educational significance of the landscape they are visiting.

E. Need to Plan for the Future

Changes in recreation trends, population, leisure time, urbanization, and technology dramatically impact the need for the Trails & Waterways Unit's facilities. To be responsive to such diverse trail and water recreation interests of Minnesotans, the Trails & Waterways Unit must expand its effort to manage for the future. Formalized planning for trail and water recreation is an effective process for anticipating and preparing for those needs.

SOLUTION 15: INITIATE AND COMPLETE TRAILS PLANNING AND MANAGEMENT PROJECT

The Trails Planning and Management Project will 1) inventory abandoned railroad grades and other long distance trail opportunities and 2) establish a mechanism to assign priorities for action by appropriate agencies.

The demand for recreational use of abandoned railroad grades is at an all time high. However, the state currently lacks a statewide strategic planning and management process for abandoned railroad grades and other long-distance trail opportunities. Consequently, many opportunities are being lost. The development of a strategic plan would ensure a coordinated and timely response by the DNR and other units of government for the provision for recreation trail corridors.

SOLUTION 16: INITIATE AND COMPLETE THE NORTH SHORE HARBORS STUDY

The North Shore Harbors Study will determine the number, size, and location of harbors and public accesses needed

on Lake Superior outside Duluth. The DNR will provide funds to the North Shore Management Board for the study.

A lack of protected harbors is one of the major barriers to use of Lake Superior by boaters. Boaters will benefit by having launch facilities, docks, and a place of refuge during storms. The local economy will benefit by increased boating, tourism, and business associated with harbors and marinas.