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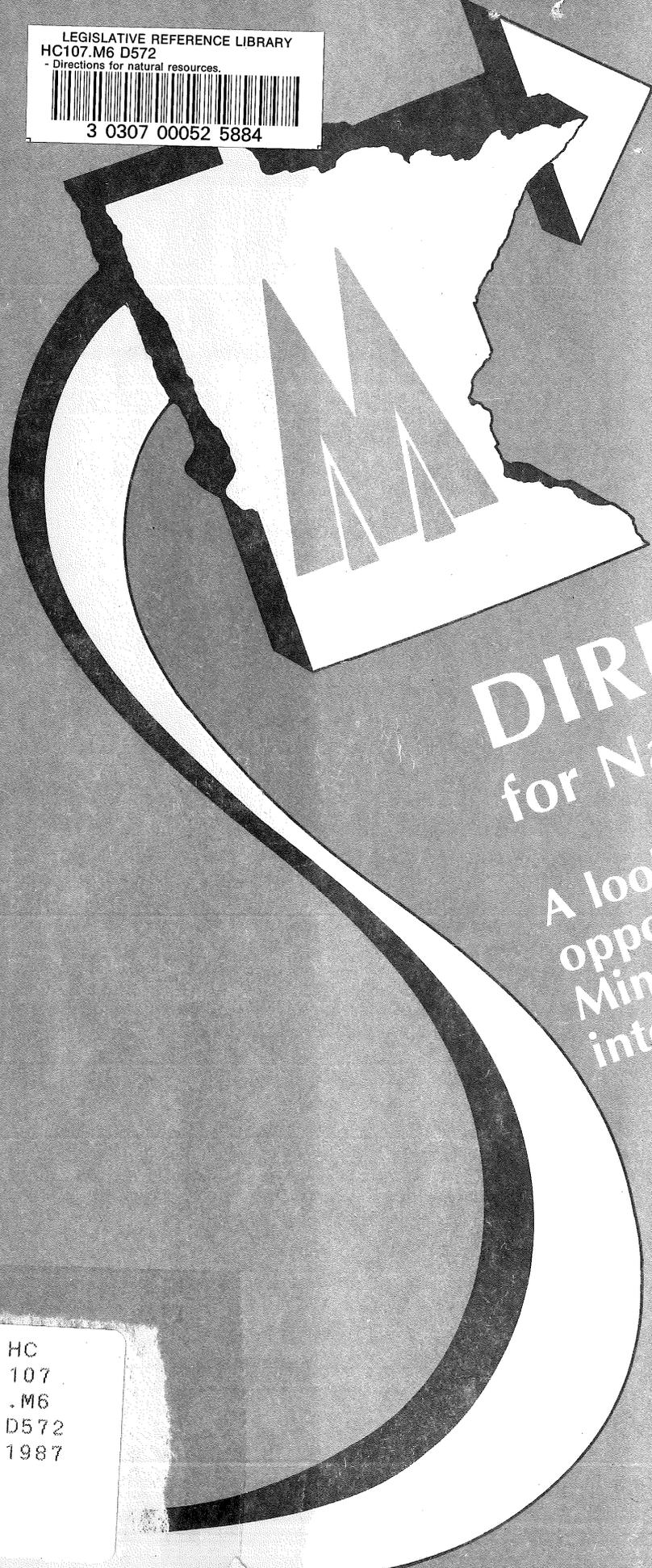
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DIRECTIONS for Natural Resources

A look at problems and
opportunities facing
Minnesota's resources
into the 1990s

Minnesota Department of
Natural Resources
January 1987

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645 State Office Building
Saint Paul, Minnesota 55155

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DIRECTIONS for Natural Resources

A look at problems and opportunities facing Minnesota's resources into the 1990s

ABOUT THIS REPORT

Directions for Natural Resources is an overview of the major natural resource issues facing Minnesota and general directions the DNR intends to take to address them. Some key administrative issues affecting the Department are also identified. The report is not meant to list every resource issue, or address the future of each DNR program and activity, but rather is a broad look at opportunities and difficulties ahead in natural resource management.

This report represents a year-long, department-wide process of issue identification and analysis. Interdisciplinary problem solving was one of the key goals. In addition, much of what is presented here came from other, ongoing natural resource planning efforts that have had extensive public involvement (e.g., the Fish and Wildlife Strategic Plan, the Minnesota Forest Resource Plan, the Commission on Minnesota Outdoors).

Leading off the report is a "Message from the Commissioner" highlighting the overall mission and future directions for the Department. Following this, the natural resource and administrative issues have been organized into nine sections, each with:

- an introduction
- a description of each issue
- a long-term goal summarizing the general direction the DNR wants to take in tackling the problems and opportunities presented in the section
- a listing of strategies and actions DNR will initiate to begin to reach the goal

Telephone numbers and a post card are provided in the middle of the report if you have any questions or comments, or would like additional information about specific DNR programs and activities.

Message from the Commissioner

A LOOK TO THE FUTURE OF NATURAL RESOURCES IN MINNESOTA

Today, changes in our economy and society coupled with an increasing demand for use of natural resources and environmental threats, pose new challenges in resource management. To maintain our natural resource heritage we must respond to emerging issues with the same commitment that has been shown in the past. Through this report, I hope that Minnesotans will gain a clearer sense of opportunities and difficulties ahead in natural resource management, and of DNR's responsibilities.

In approaching each issue, DNR must balance resource use for economic stability and development, with the preservation of our natural resource heritage. This dual charge is an ongoing challenge. I believe the mission of the Department of Natural Resources is *to serve present and future generations of Minnesotans by professionally managing our rich heritage of fish, wildlife, waters, wetlands, forests, prairies, minerals, public lands, and other natural resources, in order to preserve and enhance our environment, economy and quality of life.*

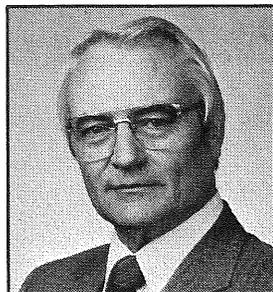
As we move into the 1990s, I have asked the DNR management team to pay particular attention to two overriding areas: (1) the Department's responsiveness and service to the public, and (2) the efficiency of our organization. In the area of public responsiveness, the DNR's goal is to be a state agency recognized for its commitment to high quality service. Service is already an integral part of

the jobs of many DNR employees, but we are now placing even more emphasis on listening, caring, and providing information to the public.

In addressing organizational efficiency, we believe that efficient delivery of quality service equals effective management. DNR employees truly care and are committed to the Department's mission. These employees must be properly supported with training, equipment, and recognition. A combination of committed employees and proper support will ensure that Minnesota resource issues are effectively addressed. Further, the Department will be emphasizing interdisciplinary cooperation and strategic planning to ensure the most efficient provision of service.

While this report focuses on critical, emerging resource issues, the DNR will not lose sight of the other natural resource management basics. These basics — the ongoing maintenance and operations of essential programs — form the foundation of resource management in Minnesota. Only when there is a solid foundation can we build toward the future issues and successfully serve the citizens of Minnesota in managing their natural resources into the 1990s.

Please take a few minutes to review this document. See where *your* Department of Natural Resources is heading. If you have a question or comment, use the enclosed prepaid postcard. Thank you for your time and interest.



Joseph N. Alexander
Commissioner
Department of Natural Resources

MINERAL RESOURCES

A century of mining has hardly touched Minnesota's mineral wealth. The state must play a key role in determining whether this mineral wealth is developed. Minnesota can help stabilize the traditional, existing mineral industries, and it can promote diversified mineral development. This development can provide employment and tax base for rural Minnesota.

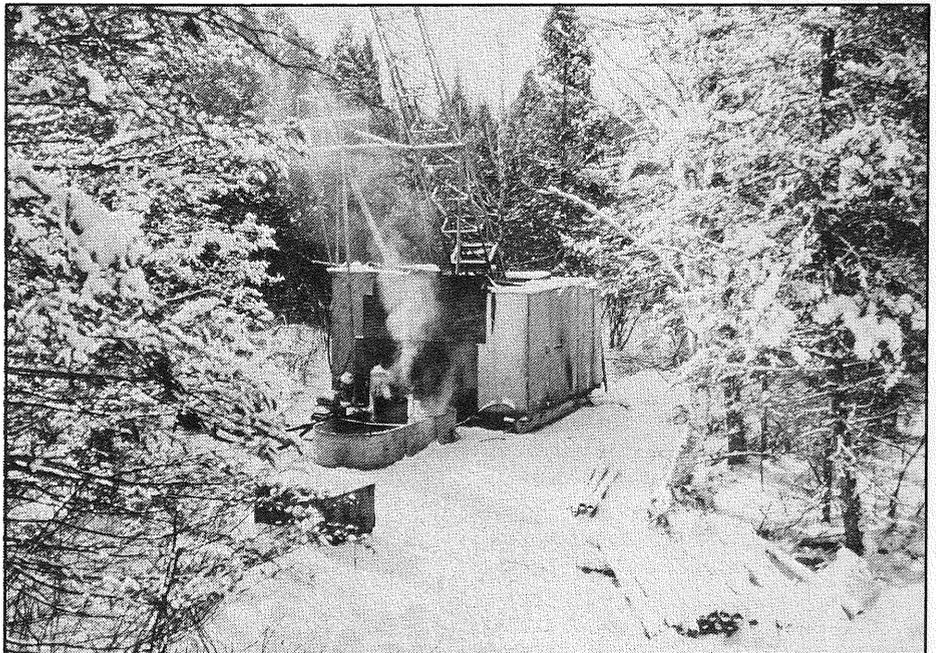
Along with this development is a commitment by the DNR to maintain environmental quality. The Department has developed mineland reclamation programs and other measures to ensure that mining activities occur in an environmentally sound manner.

Non-ferrous Metallic Metals

The bedrock of Minnesota has excellent potential to contain deposits of non-ferrous minerals. Current exploration interest is mainly for precious and strategic metals, including gold, platinum, chromium, and titanium. Past exploration has included copper, nickel and uranium.

Having this mineral potential is not enough. Minnesota competes in a worldwide market in attracting mineral exploration and development. The DNR can stimulate interest in the state's non-ferrous minerals by providing land for exploration, and assembling, developing and maintaining a good mineral data base.

A sound environmental regulatory framework for non-ferrous metal development is also important. Permit programs need to be coordinated among state, federal and local agencies



A drill rig is used to explore for minerals in northern Minnesota.

in order to expedite regulatory review, environmental review procedures, and granting of permits. Environmental studies must be done to provide the basis for good regulatory decision making.

Industrial Minerals and Peat

Minnesota's industrial mineral industry is relatively small. The annual production value of industrial minerals is approximately \$94 million (sand, gravel and peat comprise about \$57 million). In New Mexico, by contrast, this industry has an annual production value of about \$500 million, due in part to the strong commitment New Mexico has made to promoting industrial mineral evaluation.

In addition to sand, gravel and peat, Minnesota's industrial mineral production includes abrasive stone, clays, industrial sand, crushed and dimension stone, lime, and dolomite.

To date, peat development has received the most attention and support. The DNR manages the state's three million acres of publicly owned peatlands. To develop this resource, the Department encourages horticultural and fuel peat industries through site selection and planning services, resource inventory, technology development, and identifying ecologically sensitive peatlands.

To continue to foster development of these peatlands and the growth of the industry, the Department must con-

tinue to identify lower-cost transportation options, suitable sites near markets, and other incentives to growth.

With Minnesota's diverse geology, it is likely that additional sources of industrial minerals exist. The DNR should identify these new sources and create opportunities for development.

Iron Ore/Taconite Industries

This industry still provides two-thirds of the U.S. domestic supply and represents the major portion of Minnesota's mineral production value. It is an important employer and taxpayer, and provides for significant satellite industries and jobs.

However, the industry has suffered a significant decline since 1979 (*see table at right*). With increased mining competition from Michigan, Canada, and Brazil and increased steel-making capacity on a worldwide basis, it is imperative that Minnesota retain as much as possible of the iron ore/taconite industry. The state must also plan for the future by promoting the development of new ferrous and non-ferrous industries based upon value-added technologies.

Enhancing Revenue from State-owned Mineral Rights

The DNR is responsible for managing state-owned mineral rights on behalf of trust funds, local governments and the State of Minnesota general fund. The goal is to maximize revenues while maintaining environmental protection.

To enhance revenues and rural employment, the DNR must ensure that mineral leasing and other programs promote economically sound development, while looking at short- and long-term worldwide market trends for specific commodities. Changing land use patterns must also be monitored and opportunities protected in areas with high potential for mineral development.

Minnesota's Iron Ore/Taconite Industries

	1979	1985
Employees	15,000	6,500
Pellet production (in gross tons)	56,233,000	33,093,000
Taxes collected from the industries	\$133,700,000	\$ 98,000,000
Royalties paid (state leases)	\$ 2,333,000	\$ 1,879,000

Six Reasons Why Mining Companies Should Explore Minnesota

A century of iron mining has barely scratched the surface of Minnesota's mineral wealth. Thousands of square miles of our state await exploration for untapped bodies of ore. The DNR Minerals Division has invited mining companies to explore for this ore. Here are six reasons why they should accept:

- Mineral potential. Much of our geologic terrain is a continuation of the mineral-rich Canadian Shield which has yielded zinc, copper, nickel, titanium, gold, silver, and other sought-after metals
- Extensive data base. Drill cores totaling more than two million feet from many formations are cataloged for convenient reference in a rock library. Available, too, are geologic maps, high-resolution aeromagnetic maps, and geo-chemical results of test drillings
- Land for exploration. Millions of acres of state-owned mineral rights are available for lease
- Mining tradition. The first load of iron ore was shipped on sailing ships from northern Minnesota more than a century ago. This long association with mining has taught Minnesotans how to accommodate mineral development while protecting the environment and the state's economic interests
- Trained workers and support industries. A skilled labor force and network of support industries undergird Minnesota's mining industry. Labor and supplies are available
- Roads, rails, and power. Mining sites are never far from highways, railroads, utilities, and four Great Lakes cargo ports.

Our state's vast mineral wealth has hardly been touched. To mining companies, we're saying, "Explore the possibilities in Minnesota!"

Rudy Perpich, Governor
State of Minnesota

Private Expenditures from Mineral Exploration Programs in Minnesota (Fiscal Year 1986):	\$13,000,000
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Royalty Income to Minnesota from Minerals Developers (Fiscal Year 1986):	\$ 2,864,900
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GOAL

Increase and diversify the sources of revenue and employment from state-administered mineral rights while maintaining environmental quality. Preserve the iron ore/taconite industry, and expand exploration and development of non-ferrous metallic minerals, industrial minerals and peat.

STRATEGIES FOR ACTION

1. IMPROVE INFORMATION ON MINERAL RESOURCES

- Use geoscience studies to expand the data base on Minnesota's mineral resource potential, including inventories of peat and industrial minerals.
- Develop agreements to streamline the regulatory process for mineral development.
- Continue to develop effective techniques to mitigate the impacts of mining and peat removal.
- Facilitate the identification of severed mineral rights and consolidate ownership of surface rights in high mineral potential areas in order to expand leasing opportunities and encourage exploration and development.

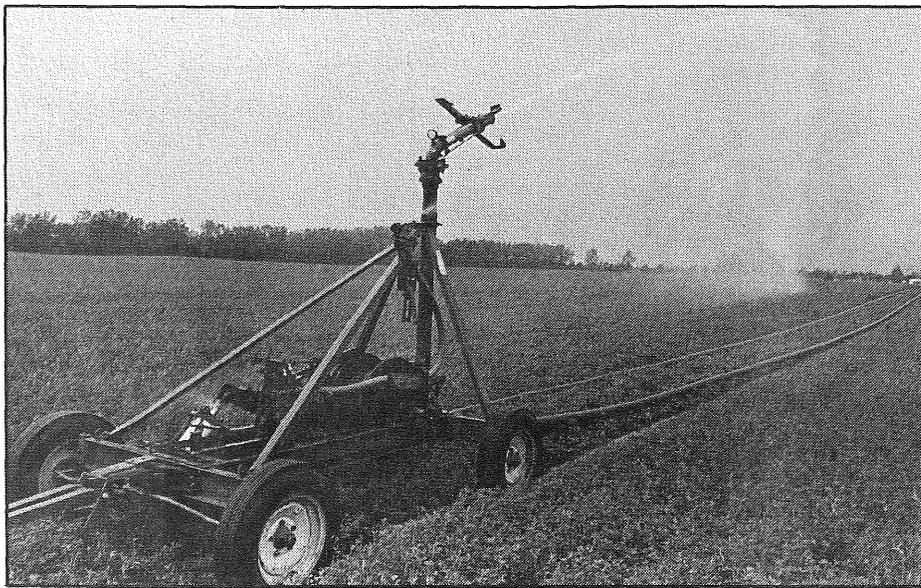
2. MARKET MINNESOTA'S MINERALS

- Identify potential customers for Minnesota minerals. Advertise and produce publications to encourage exploration and development of the state's minerals.
- Monitor trends in foreign and domestic mineral markets.
- Develop marketing programs and incentives for development of peat and industrial minerals.
- Continue to involve local governments and citizens by providing land lease information, technical advice, and public meetings.

3. ASSIST MINNESOTA'S IRON ORE INDUSTRY

- Cooperate with the industry to fund research aimed at reducing costs and improving the quality of taconite pellets.
- Support development of efficient mineland reclamation techniques.
- Expand the industry through value-added processing of iron ore, which uses direct reduction or smelting to produce iron with subsequent processing in a foundry or steel plant.
- Work with other states to protect industries which depend on Minnesota iron ore and taconite.

WATER RESOURCES



Groundwater is used for irrigation of crops.

Minnesota has long been viewed as a water-rich state, but recent issues about water quality and quantity require another look at those resources. Because of its importance to so much of Minnesota's economic base — agriculture, forestry, mining, industry, and tourism — water management has become one of the most crucial natural resource concerns of this decade.

Local Water Planning and Management Assistance

The local water planning process offers

an opportunity to develop a coordinated local/state partnership for water resource management. While counties and watershed districts are developing local water plans, which contain local goals and objectives, state agencies also have an important role in local water planning efforts. Many water management programs are implemented through statewide programs and much of the water resource data is collected by state and federal agencies. DNR must develop technical information and assistance for local water planning efforts.

Lake Management

Over the years, Minnesota has encountered problems that affect the state's most highly prized recreation and tourism attractions — our lakes.

Among the difficulties are rising lake levels, unwise shoreline development, shoreline erosion, algae blooms, excessive weeds, sterility, fish kills, declines in game fish populations, excessive rough fish populations, and conflicts between recreational uses of the lake surface.

Groundwater Management

Groundwater is used by 70 percent of Minnesotans as a source of drinking water, and it supports major economic activities such as irrigation and industry. But better groundwater management in Minnesota is needed.

Some cities have lost their water supplies due to contaminated wells. Pumping groundwater for activities such as irrigation is depleting streamflow in some areas, reducing recreational use as well as fish and wildlife habitat. During periods of drought, problems may occur with wells. There is a statewide need for better knowledge about groundwater resources and management of groundwater.

Because of the complexity of these multiple problems, coordinated action at both the state and local level is needed to effectively address them.

River and Stream Management

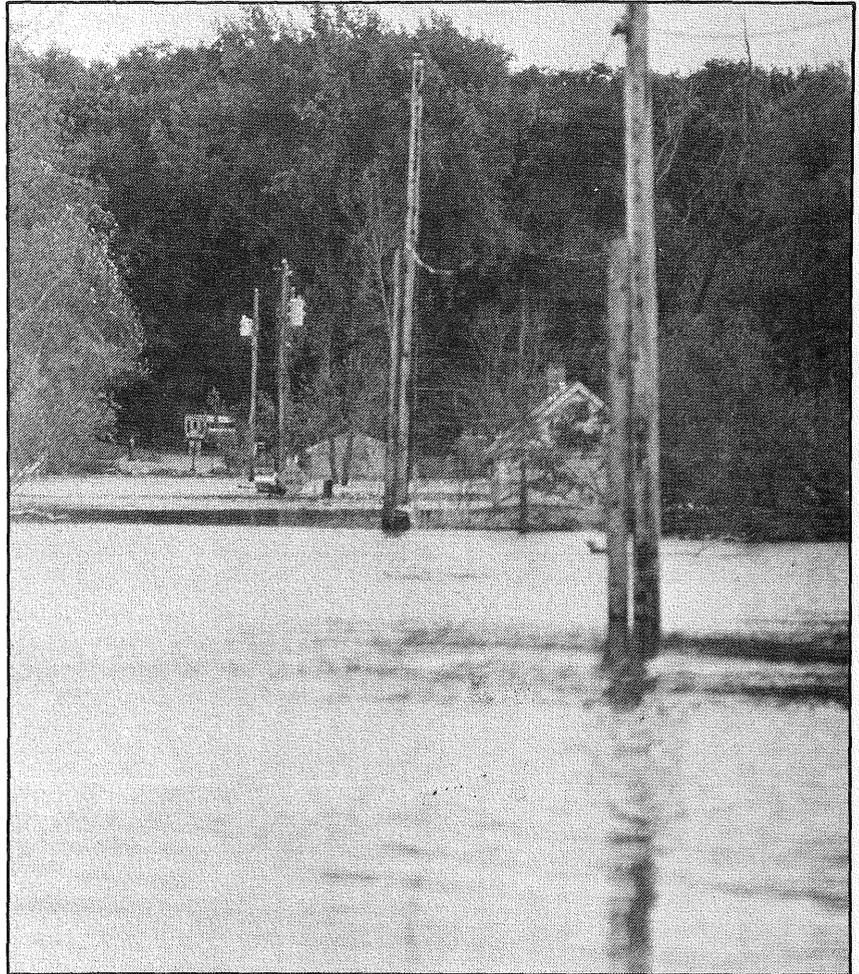
Minnesota's rivers and streams have a tremendous potential for recreational, fish and wildlife, commercial, industrial, municipal and other uses. Taking full advantage of this potential requires extensive coordination between numerous agencies, local units of government, and the public.

Shoreland development, land clearing, drainage, channelization, sedimentation, and other activities can degrade resources on-site as well as miles downstream. A greater focus on river protection and management is needed to address resource degradation, recreation, development and other issues affecting Minnesota rivers and streams.

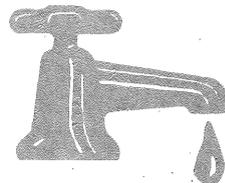
Water Allocation

The DNR regulates the amount of water used for commercial, industrial, municipal, agricultural and other purposes. Occasionally, water appropriations from rivers, streams, and ditches have exceeded the amount of water available.

With increasing water withdrawals in many parts of the state, potential out-of-state diversion, and the possibility of seasonal or long-term drought conditions, this problem could expand rapidly. An effective mechanism must be developed to balance water supplies and diverse demands.



Flooding costs Minnesota an average of \$60 million each year.



70% of Minnesotans use groundwater as their main source of drinking water

Drainage

Minnesota wetlands are still being drained at the rate of 2 to 3 percent annually. Recent changes to the Minnesota Drainage Code (Minn. Stat. Chapter 106) did much to clarify existing law governing public drainage. However, these changes did not address environmental and other concerns.

In addition, very little has been done to improve the poor records associated with public drainageways. An improved inventory is needed. Standard approaches are needed for assessing wetland values for wildlife, water quality, and flood protection.

Flooding

Recent estimates indicate that about 17,000 lake and river structures in Minnesota are subject to flooding, resulting in an average of \$60 million worth of damage each year.

Federal contributions to flood damage reduction continue to decline. State and local governments must pay a greater share of flood damage and disaster assistance costs.

GOAL

Maintain surface water and groundwater supplies that meet long-term requirements for basic necessity, environmental protection, and economic production, by improving state and local coordination in addressing water and related land resource problems.

STRATEGIES FOR ACTION

1. PROVIDE ASSISTANCE TO LOCAL GOVERNMENTS

- Provide information and technical assistance to counties and local governments in preparing local water management plans.
- Establish a program to provide cost-sharing grants for flood damage reduction projects.
- Expand the stream maintenance cost-sharing grant program to remove trees and debris from stream channels.
- Continue the dam repair and abandonment cost-sharing grant program to protect public safety.

2. COORDINATE WATER RESOURCE POLICIES AND STRATEGIES

- Work with the Environmental Quality Board task force to formulate a comprehensive state policy for the use, protection, and enhancement of Minnesota's lakes.
- Develop state water allocation policies to address future interbasin transfers and out-of-state water diversions.
- Support efforts to modify the Drainage Code to improve environmental sensitivity and promote equity and fairness.
- Monitor the impacts of federal budget reductions and program changes.

3. IMPROVE WATER RESOURCE INFORMATION

- Continue development and application of state-of-the-art groundwater investigation techniques to solve complex groundwater problems.
- Develop stream habitat criteria to determine water needs for fish and wildlife habitat, recreation opportunities, and water quality.
- Collect information on the quantity and quality of selected aquifers (underground, water-bearing formations), and develop a computerized data base for lake hydrology information.

4. IMPROVE MANAGEMENT PROGRAMS

- Establish a river management field team to accelerate the implementation of environmental and recreational enhancement projects on the Upper Mississippi River system.
- Establish and implement amended shoreland rules.
- Accelerate the determination of ordinary high water levels for lakes and protected water flow levels on rivers and streams.
- Develop a comprehensive lake management program. State financial and technical aid should be linked to comprehensive local water planning.
- Develop plans and programs for water conservation and drought preparedness.

FOREST RESOURCES

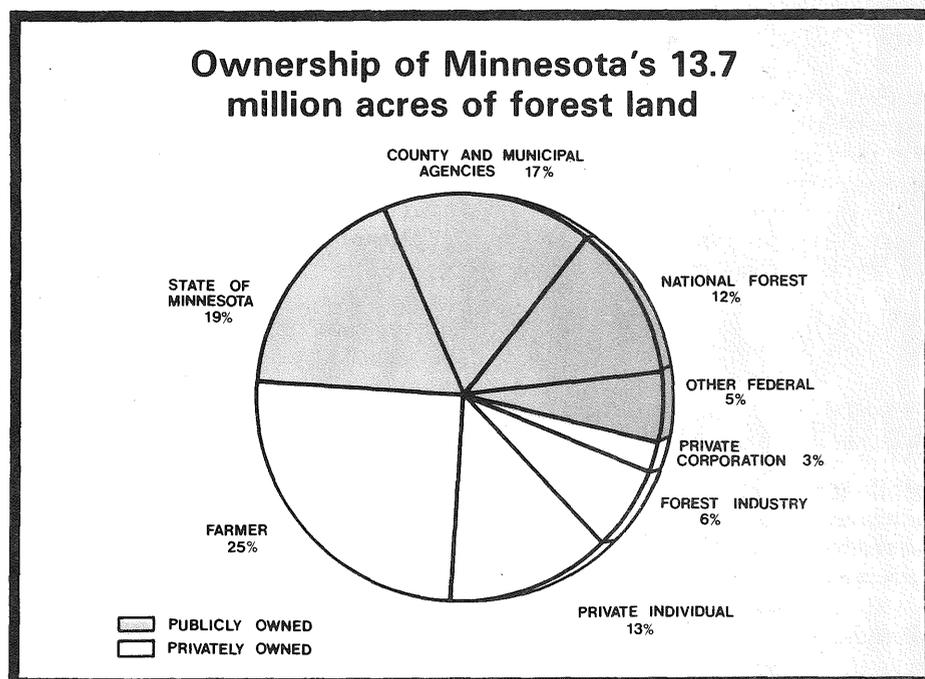
Minnesota's forest resources play an important role in the state's economy and quality of life. The forest products industry, for example, provided over 50,000 jobs and \$1.3 billion in salaries in 1984. Forests provide major habitat areas for wildlife and native plants, as well as opportunities for hiking, skiing, snowmobiling, hunting, fishing, and many other activities.

Demand for the state's forest resources is increasing. The purchase of Minnesota-grown wood has expanded more than 50 percent in the last ten years. Recreational use of forest lands has risen tremendously. Minnesota forests have the potential to meet these increasing demands through intensified management.

Forest Management Assistance

Minnesota has 13.7 million acres of commercial forestland. These lands are about equally divided between public and private landowners (see box above). Through improved forest management, many of these landowners could better meet their own objectives and satisfy the demands from the public and the marketplace for forest products and recreation.

Private owners have an especially wide range of land management interests and objectives. An increasing number of these owners desire technical and financial assistance to improve the management of their forests for multiple-use benefits and to ensure their productive future use.



The Conservation Reserve programs in the federal farm bill and the Reinvest in Minnesota Resources Act of 1986 (RIM) have increased farmer interest in managing some of their lands for forestry purposes.

Counties are increasingly recognizing the role their forest lands can contribute to local economic development. Fifteen northern Minnesota counties administer 2.8 million acres of land, mostly forested land.

Technical and financial forestry assistance is available from state and federal agencies and a variety of other sources including: the timber industry,

forestry consultants, and the University of Minnesota. Better coordination and delivery of this assistance is needed to maintain the contribution of forests to Minnesota's economy and environment.

State-administered Forest Lands

The state is the largest single owner of forest land in Minnesota, with 4.5 million acres administered primarily for forestry purposes. Timber harvested from these lands supplies one-fifth of the wood used by the forest products industry. Sixty percent of big and small game hunting takes place on



public land — much of this on state-administered forest land. Numerous recreational facilities, such as campgrounds, picnic grounds, trails, and water accesses are also provided on these lands.

Long-term investments in the management of state-administered forests must be made now to ensure sustained yields of forest products, and to maintain appropriate forest types that will be able to meet future demands for multiple-use opportunities (timber, wildlife, recreation, and water).

A major challenge in managing state-administered forests is to develop a more even balance of younger and older forest stands. Most of Minnesota's forest landscape is dominated by trees approaching "old age." If the imbalance of age distribution is not moderated now there will eventually be timber supply problems for forest industries, and habitat changes which will affect forest wildlife (e.g. deer and ruffed grouse).

Forest Resource Information

To ensure increased productive use of Minnesota's forest resources, the state must have reliable information about current and future timber supplies, market opportunities, and directions in public and private forest management. Forest industrial expansion over the past 10 years has been largely dependent on having a reliable forest inventory — maintained and collected by DNR — of the condition, volume, growth and use of forest resources on all ownerships. This is a costly investment. Minnesota must continually maintain and update its forest resource inventory information to remain competitive in encouraging forest products industries to locate and expand in the state.

Several other technical information services are important. DNR works directly with the forest products industry and the Minnesota Department of Energy and Economic Development in promoting forest-based industrial development and improved use of Minnesota's forest resources.

DNR also conducts statewide forest resource planning and economic analysis, and develops management information systems for efficiently processing information. Maintaining these information and analytical services is critical to continued forest use and development.

Fire Protection

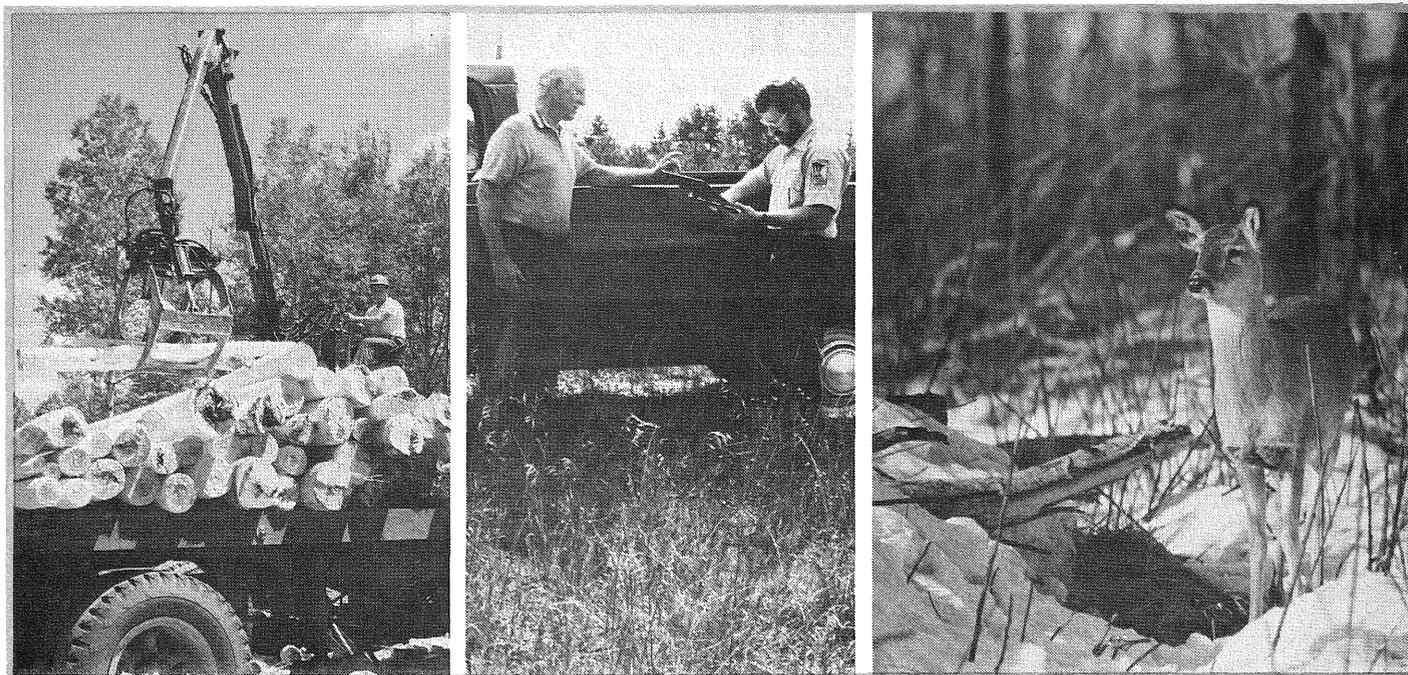
The ability to respond to major wildlife emergencies is a continuing concern. The number of wildfires, acreage burned, and loss of property and natural resources is highly variable from year to year, and place to place in the state. In recent years, construction of large numbers of scattered homes in rural forested areas has also made fire protection more difficult.

The DNR provides intensive fire protection on 22.8 million acres of land in northeastern, north central, and southeastern Minnesota. It also uses controlled or "prescribed" burning as a tool to improve lands for certain forestry, wildlife or natural habitat management purposes.

Recent reductions in funding and staff have made it difficult to provide the specialized fire equipment and trained crews needed to handle major fire emergencies and effectively use fire as a resource management tool.

GOAL

Work with public and private organizations to promote the conservation, protection, and enjoyment of Minnesota's forest resources through multiple-use management, wildfire control and forest protection, and technical forestry assistance.



The DNR manages forests for many uses.

STRATEGIES FOR ACTION

1. MAINTAIN UP-TO-DATE FOREST RESOURCE INFORMATION

- Upgrade and maintain a current and comprehensive analysis of the timber resources of the entire state, by county.
- Support continued operation and development of an integrated forest management information system to provide time savings to the Department and better service to the forest industry, county land departments, the University of Minnesota, and other cooperating agencies.

2. ADDRESS MANAGEMENT AND PROTECTION NEEDS

- Continue tree improvement and state nursery programs to meet seedlings needs of state, county, and private planting programs.

- Improve wildfire prevention and control activities by providing a better trained and qualified fire fighting labor force in several critical locations in the state.

- Provide improved service levels for evaluation and oversight of planting and seeding activities, urban forestry, timber utilization and marketing, forest recreation and wildlife management, and assistance to private forest land-owners.

- Provide state forest users with maps that have enough information for users to fully enjoy the state forests.

- Continue to address management and protection needs in area forest resource plans.

- Make timber sales procedures more effective by eliminating unnecessary restrictions.

3. IMPROVE ACCESS

- Increase maintenance of the forest road system to provide for safe and

efficient timber harvesting, recreational use, and forest management.

- Revise standards on forest roads.

4. IMPROVE PUBLIC/PRIVATE COORDINATION

- More effectively integrate technical assistance provided by state agencies, timber industry firms and consulting foresters.

- Develop working groups of industry and government to recommend changes in state tax and regulatory policies.

- Increase contracts and service to non-industrial private forest land-owners.

- Continue cooperative efforts with Wisconsin, Michigan, the U.S. Forest Service, and private organizations, to promote forest-based economic development opportunities in the Lake States.

FISH, WILDLIFE, AND NATIVE PLANT RESOURCES

Whitetail deer and common loon, stream trout and walleye, wild rice and native prairie grasses: these and many other species provide Minnesotans with hunting, fishing, birdwatching, wildlife viewing, and other outdoor recreation opportunities.

While Minnesotans demand a natural environment brimming with a diversity of plants and animals, many complex problems confront the DNR in its efforts to effectively manage fish, wildlife and native plant resources.

The Reinvest in Minnesota (RIM) initiative is critical to effectively addressing many of these problems by improving habitat and enhancing wildlife populations (see box at right).

Habitat Changes

Since the 1950s, 5 million acres of Minnesota's natural habitat have been converted into cropland or commercial development. The state has lost a total of 85 percent of its wetlands and 99.9 percent of its native prairies. Land use changes and ecological succession are also changing our forest, grassland, and aquatic habitats.

These and other changes in habitat often result in reduced populations of fish, wildlife, and native plant species. This decreases opportunities for use and appreciation of these resources by Minnesota citizens.

Resource User Demands

Demands from the public for opportunities to hunt, fish, trap, observe wildlife, visit natural habitats and appreciate these resources are accelerating. Unfortunately, land and water areas providing the necessary recreational opportunities are often in short supply.

As a result, individuals often need to use the same land and water areas for different purposes. They also compete with one another when they appreciate and use the same fish, wildlife, and native plant resources in very different ways.

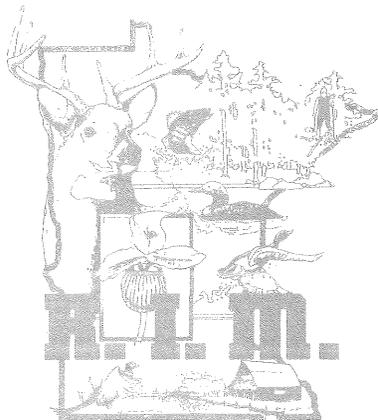
Such conflicts detract from the resource user's experience. These conflicts are accentuated on public lands

and waters where there is a greater potential for multi-purpose use and overcrowding.

Providing the high quality opportunities for resource use and appreciation demanded by Minnesotans requires an intricate balancing of social, economic, and biological concerns.

Environmental Contamination

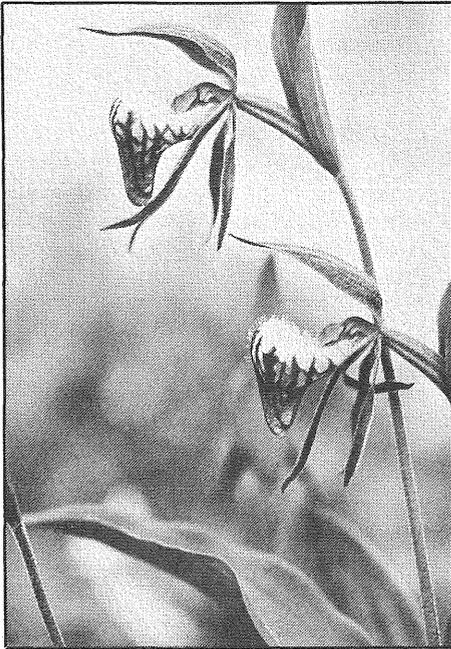
Environmental degradation and contamination are threats to fish, wildlife, native plants, and their communities and, in some cases, are reducing opportunities to appreciate and use these resources.



REINVEST IN MINNESOTA (RIM) will:

- improve habitat by converting highly erodible cropland to permanent vegetative cover
- protect critical habitat through cooperative public and private funding efforts
- enhance fish and wildlife populations and expand opportunities for their use and appreciation

FISH, WILDLIFE, AND NATIVE PLANT RESOURCES 13



Ram's Head orchid, a rare plant.

Certain land and water use practices are increasing the risks of soil erosion, sewage discharge, and nonpoint source pollution. Toxic wastes, industrial and residential wastes, pesticides, fertilizers, sulfur dioxide, and nitrogen oxide emissions all contribute to increasing contamination of the environment. In addition, some chemical contaminants can accumulate within the body tissues of some fish and wildlife species, limiting opportunities for safe consumption.

Resource Management Coordination and Cooperation

Effective fish, wildlife, and native plant resource management requires coordination and cooperation among public and private resource managers.

Programs and activities of other federal, state, and local agencies and private landowners can have a tremendous impact on fish, wildlife, and native plant resources. Similarly, DNR activities designed to enhance and protect these resources can affect the programs of other resource managers.



Revenue Necessary to Support Increased Resource Management

Minnesota's fish, wildlife and native plant management programs are funded primarily through hunting, fishing and trapping license fees. Although total revenues and expenditures have grown in both nominal and constant dollars (as adjusted for inflation), this growth has been in "earmarked" or special use revenues. The basic management programs have not grown in constant dollars, and the 1985 Legislative Audit of the Game and Fish Fund noted "that license fees are no longer adequate to finance all of the current and proposed activities of the fund."

The Governor's "Citizen Commission to Promote Hunting and Fishing in Minnesota" compared Minnesota's fish and wildlife resources to an aging factory that needs major reinvestments to ensure continuing returns to the stockholders — the citizens of Minnesota. These investments are costly. In addition to internal actions and license fee increases, alternative and stable funding sources must be found.

GOAL

Maintain appropriate fish, wildlife, and native plant populations and the viability of their communities, and provide quality opportunities for public use and appreciation of these resources.

STRATEGIES FOR ACTION

1. STRENGTHEN PARTNERSHIPS IN CONSERVATION

- Provide advice and assistance on establishing good fish, wildlife, and native plant habitat to landowners and administering agencies participating in land retirement programs such as the federal conservation reserve and commodity set-aside programs, and the Reinvest in Minnesota (RIM) conservation reserve. Work to improve the conservation provisions in the laws and rules governing these programs.
- Continue working with conservation organizations in co-sponsoring habitat improvements on private

FISH, WILDLIFE, AND 14 NATIVE PLANT RESOURCES

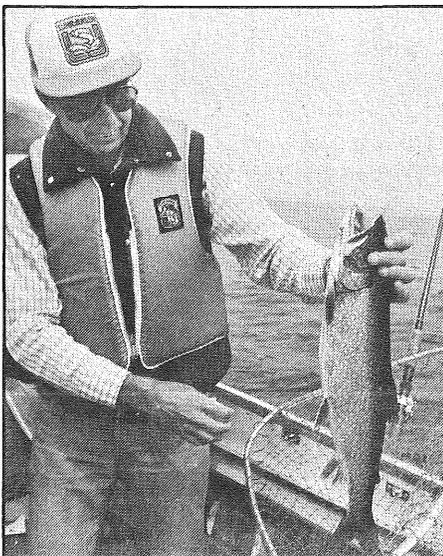


lands such as wetland restoration, wildlife food plots and woody cover.

- Improve local hunting and fishing opportunities, through programs such as Project CORE, in which the state and local communities become partners in projects such as lake aeration systems, fishing piers and fish habitat improvement.

2. EXPAND HABITAT DEVELOPMENT AND PROTECTION

- Improve trout and salmon fishing by increasing the amount of stream



trout lake rehabilitation and by increasing hatchery production of trout and salmon for stocking in inland lakes, streams, and Lake Superior.

- Improve forest wildlife habitat for deer, grouse and other species by improving automated information and increasing forest/wildlife planning coordination.
- Expand prescribed burning efforts to protect native prairie and other fire-dependent ecosystems.
- Promote the Critical Habitat Matching Program (part of RIM): a program that matches private contributions of land or cash, dollar-for-dollar, with state funds to acquire and develop critical fish and wildlife habitat.

3. STRENGTHEN RESEARCH, MONITORING AND ENVIRONMENTAL PROTECTION EFFORTS

- Improve information on resource user demand, socio-economic values, and public attitudes about fish, wildlife and native plant resources.
- Expand information on rare and endangered species and communities through the Natural Heritage Pro-

gram's new systematic county surveys, and non-game program efforts.

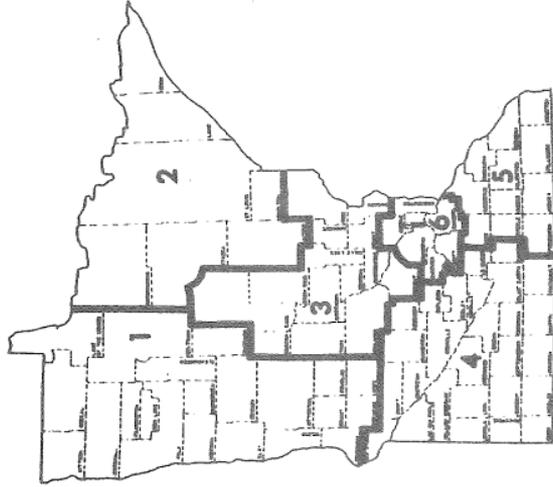
- Identify techniques for restoring fish, wildlife, and native plant resources in areas affected by acid rain in cooperation with the federal Acid Rain Precipitation Mitigation Program.
- Strengthen technical support for developing and implementing mitigation actions for projects that adversely affect fish, wildlife and native plant resources.

4. IMPROVE EFFECTIVENESS THROUGH COMPREHENSIVE PLANNING

- Improve strategic and long-range planning processes for fish, wildlife, native plants, and their communities.
- Implement a new budgeting system through operational planning that will improve programmatic and fiscal accountability of fish, wildlife, and native plant management.
- Expand opportunities for effective public participation in planning fish, wildlife, and native plant resource management.

5. MODIFY FUNDING STRUCTURE

- Strengthen efforts with citizens' groups, public and private organizations, and the Minnesota Legislature to secure a permanent funding source for the Reinvest in Minnesota (RIM) initiative, which will expand, accelerate, and improve fish, wildlife, and native plant management programs.
- Improve the federal financial aid monitoring system to ensure maximum reimbursement of available federal aid dollars.
- Increase and expand revenue sources to ensure a stable Game and Fish Fund.



DNR REGIONAL OFFICES:

DNR Region 1

2115 Birchmont Beach Road N.E.
Bemidji, MN 56601
218/755-3955

DNR Region 2

1201 East Highway 2
Grand Rapids, MN 55744
218/327-1755

DNR Region 3

424 Front Street, Box 648
Brainerd, MN 56401
218/828-2560

DNR Region 4

Box 756, Highway 15 So.
New Ulm, MN 56073
507/354-2196

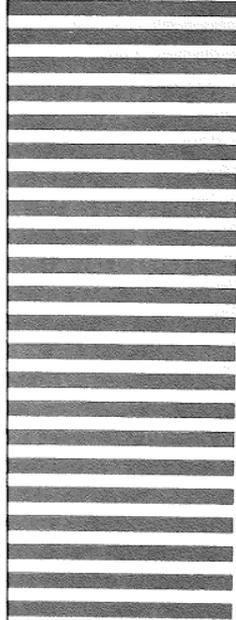
DNR Region 5

P.O. Box 6247
Rochester, MN 55903
507/285-7420

DNR Region 6

1200 Warner Road
St. Paul, MN 55106
612/296-3572

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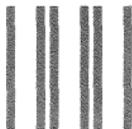
For materials and answers about DNR facilities, services and regulations.

Twin Cities: 296-6157

**MN Toll-free: 800-652-9747
ask for DNR**



DEPARTMENT OF
MINNESOTA
NATURAL RESOURCES



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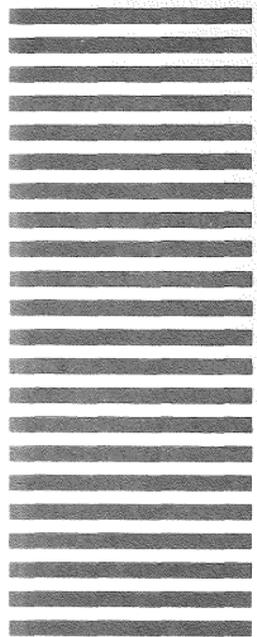
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OUTDOOR RECREATION

Minnesotans like to take part in outdoor activities. On the average, our citizens spend close to 10 percent of their leisure time engaged in some sort of outdoor recreation (camping, swimming, bicycling, fishing etc.). Most feel recreation opportunities have a positive impact on the quality of life in our state. Annual travel-related expenditures for outdoor recreation tourism in the state are estimated to be \$702 million.

The DNR is one of the largest providers of outdoor recreation in Minnesota (see box below). As such, it is faced with demands for outdoor recreation from an increasing number and diversity of users. Significant demographic, social and economic changes are affecting Minnesota's outdoor recreational wants and needs. The DNR must continually assess those needs and respond in providing facilities and programs.

In addition, skyrocketing liability insurance costs threaten the closure of private and public recreation facilities across the nation and discourage development of additional opportunities.

Marketing Outdoor Recreation

Marketing of outdoor recreation is more than just promoting facilities and programs. A comprehensive marketing strategy uses research to identify programs and facilities for the public, evaluates current programs, and promotes opportunities. Through proper marketing, the DNR can satisfy diverse user demands while protecting the state's natural resources by redirecting use to currently underused facilities.

New Recreation Technology

Fifty years ago, "outdoor recreation" was often as simple as taking a short drive to fish on a nearby lake, or packing a picnic lunch for a day in the country.

Today recreation needs and wants are much more complex. There has been a tremendous growth in the use of recreation vehicles — from motor homes to snowmobiles to three-wheel all-terrain vehicles — creating new demands on lands and facilities. Recent advances in fishing and hunting gear such as fish locators, and remote temperature and oxygen meters, result in increased pressure on fish and wildlife populations.

DNR's challenge is to preserve environmental quality and maintain existing opportunities while addressing new recreational demands.

DNR-Administered Outdoor Recreation Opportunities

- 64 state parks (188,000 acres)
- 1,150 state public water accesses
- 2,963 miles of state trails and trails within state forests and state parks
- 8,802 miles of DNR/county grant-in-aid snowmobile and ski trails
- 19 canoe and boating routes
- 61 state forest recreation areas (within 4,500,000 acres of forest land)
- 1,000 wildlife management areas (530,000 acres)
- 17 state waysides
- 44 scientific and natural areas (13,200 acres)

Maintaining a Quality Resource Base

Quality outdoor recreation depends on maintaining a quality natural resource base. However, many of these resources are suffering from overuse, encroachment from development, and major changes in the natural forces that created and shaped them. As a result, many of the unique natural features which are the focus of recreation areas are slowly deteriorating.

For example, the scenic large, old pine forests in many of the state parks are in decline. These pine communities were often established and maintained by wildfires, which have been almost eliminated by human protection and development. Active management is essential to preserve these and other natural resources.

EXPLORE
Minnesota



Providing and Maintaining Outdoor Recreation Areas

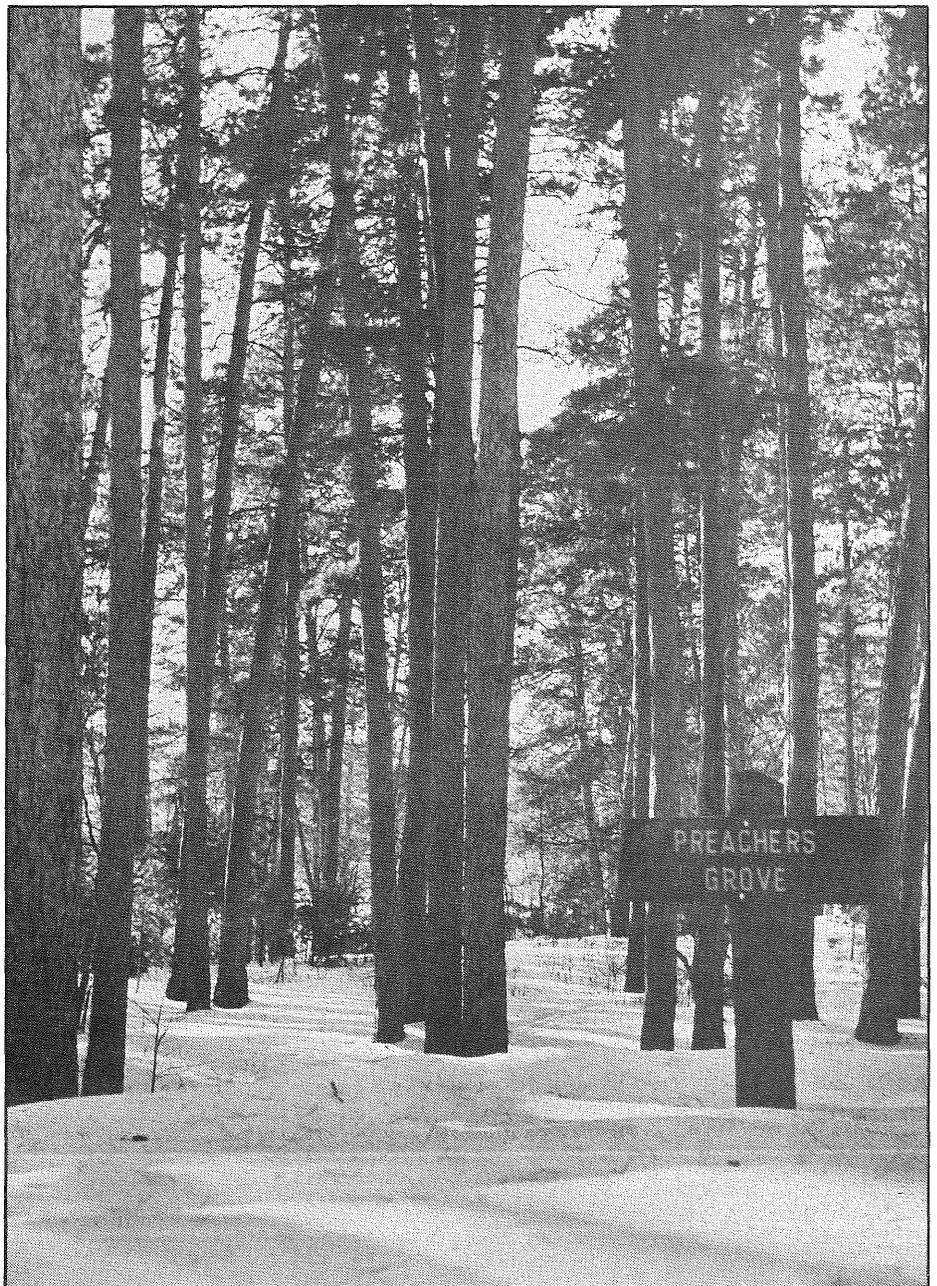
Providing adequate maintenance and operations support for state outdoor recreation facilities is a serious concern. To satisfy documented user demand, ensure the user's health and safety, and protect the state's investment in its existing recreation system, the DNR needs to be able to increase maintenance and improve operations and management support of its facilities.

There is also a continuing need to selectively acquire and develop additional recreation areas, particularly where population is growing rapidly and where there is a shortage of public facilities. Development of existing lands must continue to be a high priority so the public can make full use of recreation areas.

All major sources of federal and state outdoor recreation funding are declining, including the federal Land and Water Conservation Fund. Funding must be stabilized in order to meet existing and future facility needs and ensure that present investments continue to provide long-term benefits.

GOAL

To enhance the satisfaction of existing and new recreational users while preserving the state's recreational resources and environmental quality.



Preachers Grove, a 200-year-old pine stand in Itasca State Park.



areas and management of existing natural habitats (e.g., using prescribed burning on prairies).

- Expand resource maintenance projects such as erosion control, insect and disease control, landscaping, and shade tree maintenance.
- Avoid sensitive natural and cultural areas when developing facilities for visitor use.
- Expand natural and cultural resource interpretation for trail users on state trails.

3. DEVELOP AND MAINTAIN RECREATION SERVICES AND FACILITIES

- Increase operations, maintenance and repairs of recreation facilities in

state parks, forests and trails to protect the health and safety of the user and provide quality recreational experiences.

- Complete development on former railroad grades purchased for trail use.
- Continue facility development as outlined in approved Outdoor Recreation System unit plans (plans for state parks, state trails, forest recreation areas, etc.)
- Accelerate major development and maintenance of river recreation sites in cooperation with local governments.
- Provide fishing piers and other facilities that reflect changing user needs.

STRATEGIES FOR ACTION

1. IMPROVE MARKETING EFFORTS

- Improve market research and marketing plans for DNR's recreation services, and implement marketing recommendations of the Governor's Commission on Minnesotans Outdoors.
- Cooperate in marketing with other public agencies, and with resorts and other private providers.
- Improve data on available facilities and services by updating and maintaining facility inventories and conducting surveys of recreation users.
- Promote recreation facilities and activities through special events, interpretive programs, recreation maps and special user clubs (e.g., State Park Passport Club, Trail Explorers Club).

2. PROTECT RESOURCE BASE

- Maintain or restore the quality of natural resources in state parks through restoration of degraded



The dashboard of a boat reveals today's high-technology fishing aids.

ENFORCEMENT

As natural resource management programs have grown, enforcement has become more complex. In the past, the "game warden" was the familiar local individual who apprehended persons who violated fish and game laws. Today, due to increasing complexity within the Department, the increase in tourist visits, and the increasing illegal commercialization of natural resource products in the state, the role of the former game warden has become more appropriately generalized to "conservation officer."

Increased Responsibilities

In addition to enforcing hunting and fishing regulations, today's conservation officer is called upon to mediate water use and water appropriation disputes, ensure proper use of state trails, investigate arson and trespass in state forests, patrol state parks and state forest campgrounds, register and monitor three-wheel vehicle users, and investigate animal nuisance complaints.

In addition, officers are involved in youth safety education programs that train 20,000 students in firearms safety, 4,000 in snowmobile safety and 1,000 in A.T.V. (All Terrain Vehicle) Safety every year.

This demand for enforcement is outpacing the DNR's ability to provide it. For example, in 1906 when there were fewer than 30,000 licensed deer hunters, there were 120 game wardens and deputy wardens. Now there are ten times as many deer hunters and two million anglers. About 600,000



Youth firearms safety training.

boats and 270,000 snowmobiles are licensed. Yet enforcement officer numbers have not increased proportionately. Today, only 142 conservation officers cover the entire state — one officer for every 379,000 acres, fewer than two wardens per county.

In addition, the Federal Labor Standards Act has eliminated volunteer hours previously donated by conservation officers. In the past, officers had contributed an average of 200 hours per year per person above overtime.

Training to Increase Skills and Public Responsiveness

The Department's increasingly complex enforcement workload calls for a

greater commitment to training to guarantee that conservation officers' skills and knowledge keep pace with their responsibilities.

Along with increased responsibilities have come increased expectations by the public. In order to provide the best service to the public, all conservation officers need training in public relations, sensitivity, and dealing with highly stressful situations — similar to situations encountered by police and other law enforcement officers.

Curbing Illegal Activities

A recently created undercover unit of DNR has found that the illegal taking

of game and fish by commercial operators is more widespread than previously thought.

For example, the DNR estimates that at least 35,000 deer are killed illegally each year: nearly one-third of the annual deer harvest by licensed hunters.

Undercover operations and use of improved surveillance equipment has proven to be successful in identifying and apprehending violators. These efforts need to continue.

Another successful effort has been the TIP (Turn in Poachers) Program. The DNR receives some 1,500 calls each year from citizens reporting the illegal taking of Minnesota's fish and wildlife (see box below).

GOAL

To provide training-based solutions to the DNR's enforcement needs, including being more responsive and accountable to the public, and maintaining conservation officer skill levels in the face of an increasingly complex workload.

STRATEGIES FOR ACTION

1. PROVIDE A COMPREHENSIVE TRAINING PROGRAM FOR CONSERVATION OFFICERS AND OTHER ENFORCEMENT STAFF

- Provide a comprehensive training program at all staff levels, to increase technical skills as well as improve staff ability in public relations and providing service to the public.
- Provide comprehensive training programs geared to supervisory and managerial enforcement staff, which stress evaluation, problem solving, communication skills, delegation of authority and planning.

2. INCREASE EFFICIENCY OF ENFORCEMENT ACTIVITIES

- Intensify enforcement effort in high use areas — in particular, Lake Superior, Lake of the Woods and Crane Lake.
- Review DNR-administered laws and regulations and make recommendations to increase their effectiveness and enforceability.

- Continue cooperative enforcement assistance programs such as the County Boat and Water Safety Grants, and TIP (Turn in Poachers.)

- Provide a statewide on-call response system, through the State Highway Patrol Radio dispatch, to improve public access to conservation officers.

- Limit non-law enforcement activities by contracting out certain activities such as picking up deer killed on roads and nuisance beaver removal.

3. INTENSIFY INVESTIGATIONS

- Increase the number of special investigations.
- Train local conservation officers in the fur, minnow, and commercial fishing industry; improve awareness of license fraud and illegal commercialization.

4. IMPROVE BALANCE OF ENFORCEMENT FUNDING

- Match the contributions from various dedicated accounts (i.e., Water Recreation Fund, Snowmobile Fund, All Terrain Vehicle Fund) for enforcement services to the level of effort each account receives.

TIP (Turn in Poachers)

TIP, Inc. is a nonprofit organization formed by concerned citizens and conservationists who want to stop poaching — the illegal taking of fish and wildlife — in Minnesota.

If you witness or hear about a violation of a fish or wildlife law, call one of the TIP hotline numbers listed below. The hotline calls are answered in the DNR's Enforcement Office in St. Paul and relayed to field officers. Rewards are available and you can remain anonymous.

CALL TIP:

Toll-free: 800-652-9093

Metro area: 297-3999

Or call your local conservation officer



REAL ESTATE MANAGEMENT

The DNR administers 5.3 million acres of public land. Managing this land requires not only expertise in scientific resource management but also in real estate. These activities include realty services for the acquisition, sale and exchange of land; leasing; and administration of records, maps, and documents relating to land ownership rights and transactions.

Through more efficient real estate management, resource benefits and revenues from these lands can be increased.

Increasing Real Estate Activity

Real estate service needs are increasing for DNR-managed lands. For example, DNR land exchanges with the U.S. Forest Service and the forest industry have increased. In addition, due to recent changes in the Minnesota Constitution, the DNR will be exchanging more land with counties.

Other recently passed legislation requires the Department to allow the sale of state-owned lakeshore lots now leased to citizens. The state must survey, appraise and plat these lots prior to their sale.

The State of Minnesota holds title to an unknown but potentially large acreage of land submerged below navigable waters. A recent DNR study has identified opportunities for generating revenue through leasing these lands for recreation, commerce, and other activities. More consultation with both public and private interests is needed to explore these opportunities further.



GOAL

By more effective management of leases, sales, exchanges, acquisitions, and other real estate activities, the DNR plans to enhance state revenues and better serve the public interest.

STRATEGIES FOR ACTION

1. PROVIDE EFFICIENT DELIVERY OF SERVICES

- Enhance the efficiency of land management through an expanded program of land exchanges and cooperative management agreements with counties, the U.S. Forest Service and the forest industry.

- Streamline the land acquisition process.

- Survey, appraise and plat lakeshore lots leased to private parties to make them available for sale in a timely fashion, as required by law.

2. BETTER EVALUATE REAL ESTATE OPPORTUNITIES

- Develop policies and guidelines for submerged land management, and explore leasing opportunities.
- Develop and use better economic information to establish a fair market value for leases, evaluate opportunities to improve net revenues, and identify lands for disposal.

DEPARTMENT MANAGEMENT

This is a time of renewal for large organizations. Private sector companies are planning strategically, hunting for market niches, and developing programs to promote excellence and quality. Recently, the public sector has begun to follow suit.

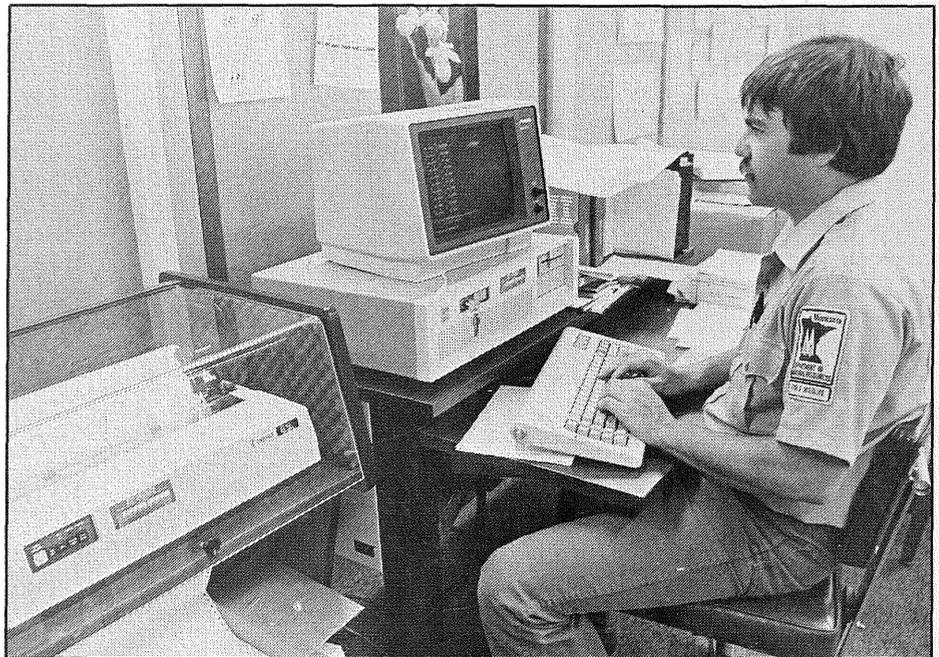
As budgets shrink and staff hiring is curtailed, state agencies must think smarter, become more adept at anticipating future directions, and marshal their organizational resources to deliver desired services and programs.

Along these lines, the DNR is looking to more effectively use organizational resources to manage natural resources. Enhanced capabilities in automation, improved management of facilities and equipment, and innovative containment of costs, all will make more productive use of organizational resources.

Organizational Effectiveness

As service demands increase, DNR is confronted with new responsibilities, an increased workload, and a need for greater productivity. Enhancing the effectiveness of the Department as an organization overall will help meet these demands.

The DNR actively monitors its programs to evaluate their effectiveness in providing service to specific user groups and to the general public. In addition to analyzing and improving current operations, Department managers



must look to the future. As natural resource issues become more complex, long-range strategic planning will become increasingly important. Trends in public finance, economic development, demographics, politics, and technology will continue to be analyzed.

Other capabilities of the organization will also be enhanced and developed: a dynamic corporate identity and culture that serves Department goals, a strong interdisciplinary problem solving and decision making capacity, and an employee involvement program that productively and constructively uses human resources and talents in the management of natural resources.

Human Resources Management

Managing the human resources of the Department is becoming just as important and challenging as managing natural resources.

In addition to managing personnel under the State system — which is comprised of a complex set of laws, rules, plans, bargaining unit agreements, etc. — the DNR manages staff in diverse occupations, has a geographically dispersed workforce, and is very seasonal in many of its activities. External pressures, such as the aging of the population, the baby boom bulge,

and early retirement options, also impact DNR's workforce.

Meeting this challenge will require a human resource management system that is readily adaptable to changing human resource needs. Human resources planning, further delegation of classification and examining authority from the Department of Employee Relations, and an automated personnel management information system are vital.

Department employees, particularly managers and supervisors, must be better informed of the significance of the personnel function and how it operates. Limited opportunities for advancement within the Department dictate a need to improve career paths and enhance career growth.

Employees need training in new skills, such as human relations, public relations, use of computers, and in dealing with more complex laws and service programs.

Workers' Compensation Costs

Workers' compensation costs are a major expense for the Department. Physical demands of many DNR jobs include heavy lifting and working with potentially dangerous equipment and situations. Remote work sites, as well as the terms and conditions of employment which govern use of the Department's workforce, reduce the DNR's flexibility in lowering costs.

Maintaining Facilities and Equipment

Buildings and equipment are major elements of the state's natural resource management efforts. Currently, many DNR facilities constructed in the 1930s and 1940s by CCC and WPA crews are reaching a critical state — requiring major rehabilitation projects too large for regular maintenance budgets.

Equipment repair and replacement have not kept pace with rising costs,

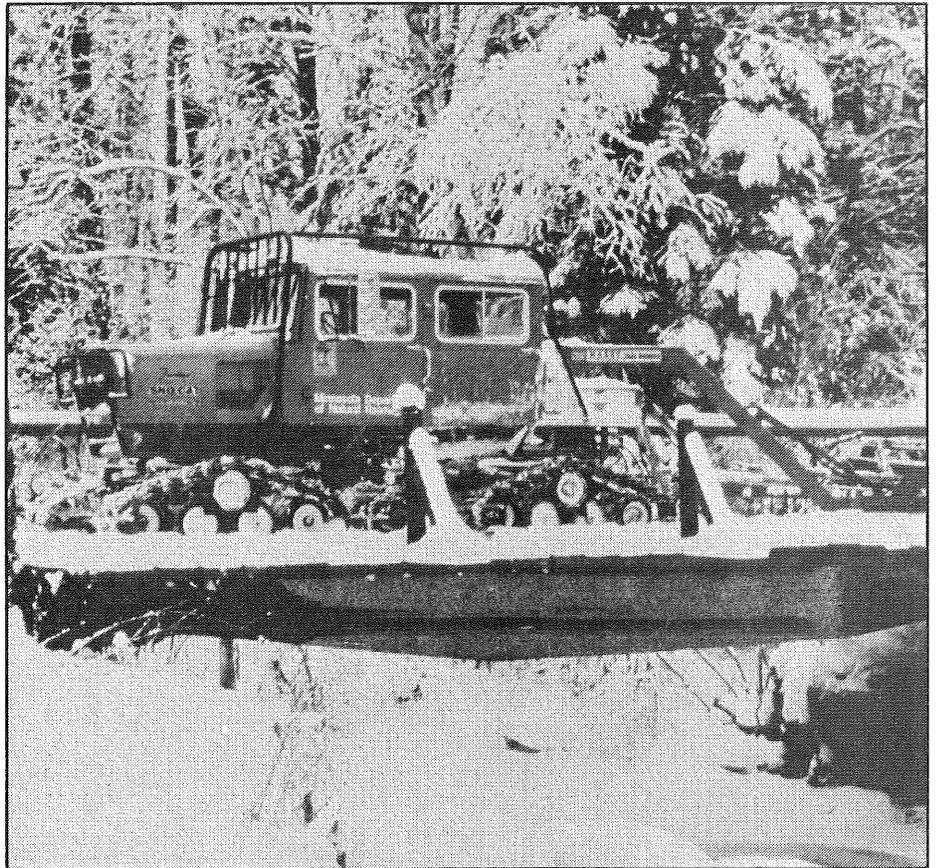
new programs, and program expansions. Older equipment can jeopardize job safety as well as the effectiveness of resource management efforts. In addition, program changes require the purchase of new technology equipment, such as computers, electronic fishing gear, testing equipment, sonar units, helicopter buckets, etc.

Computer Use

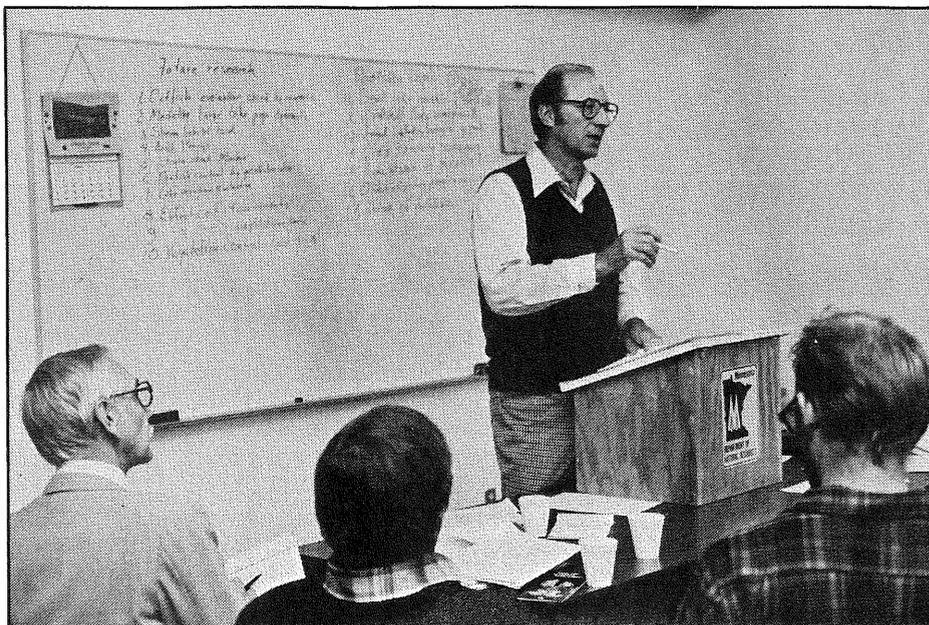
Increased use of computers is essential for the DNR to have improved access

to its own data, as well as to data from other agencies. The Department provides information to many public and private agencies in cooperative programs.

Automation of data has helped improve decision making, minimize time delays in the communication of information, and increase productivity. However, the system is not yet complete, and further training of employees is needed in both basic and specialized computer uses.



DNR equipment grooms a state snowmobile trail.



GOAL

Improve the Department through increased use of long-range planning, computer use, employee and organization efficiency, improved human resource management, better equipment maintenance and replacement, and the reduction of workers' compensation costs.

STRATEGIES FOR ACTION

1. IMPROVE MANAGEMENT AND DEVELOPMENT OF EMPLOYEES

- Implement a program to improve employee development and effectiveness.
- Provide improved career services.

- Develop a nonmonetary program to recognize and reward employees for meeting organizational objectives.
- Implement a "new employee" orientation program. Develop a program to improve managers' and supervisors' understanding of human resource management and relevant personnel information.
- Expand the Department's safety and wellness programs and study other methods to reduce workers' compensation costs.

2. ADDRESS ORGANIZATIONAL EFFECTIVENESS

- Continue and expand studies aimed at improving effectiveness and efficiency of work units.
- Enhance interdisciplinary trend analysis, long-range planning, and problem solving/decision making activities.

- Encourage greater innovation and employee participation in developing Department goals, objectives, and priorities.

- Improve skills of managerial, supervisory, professional and clerical employees to constructively work in groups and solve problems for mutual benefit.

3. IMPROVE DEPARTMENT EFFICIENCY WITH COMPUTERS

- Improve computer use through decentralized access to data systems, electronic mail network, increased computer literacy and skills for employees, use of computer for budgeting, staffing, etc.
- Develop a management information system for the Office of Personnel.

4. MAINTAINING FACILITIES AND EQUIPMENT

- Initiate a fleet management program that will assure better use of equipment, establish a replacement schedule for fleet equipment, and generate funds for replacing equipment through equipment lease charges to work units.
- Bring vehicle and equipment repair budgets in line with liabilities.
- Continue major construction projects aimed at consolidating administrative regional and field offices, and improving field office and storage facilities.
- Increase the level of repair and maintenance on Department facilities. Establish a budget for major building repairs, remodeling due to office consolidations, minor construction such as oil houses, chemical storage buildings, and similar projects required by OSHA.

PUBLIC RESPONSIVENESS



The DNR administers a variety of programs and lands that daily affect the lives of Minnesota citizens. In many studies and public meetings, individuals and organizations have repeatedly requested the DNR to expand its information and education activities, and also to increase the public's opportunity to participate in natural resource enhancement.

Communication and Service

Citizens not only want to be given information, they want their views to be listened to and seriously considered in decision making. The DNR emphasizes citizen participation on natural resource issues. Advisory committees, public meetings on season setting and other issues, legal hearings, and issue workshops or open houses all offer ways to get involved. But Minnesotans are asking for more.

The DNR wants to explore opportunities to work with particular communities. For example, a great potential exists for the DNR to work with farmers to develop natural resources on farmlands and to improve local agricultural economies.

The DNR also wants to work more closely with American Indians. Recent court decisions and tribal government actions regarding American Indian treaty or sovereignty rights are changing the allocation, management, enforcement, and public use of natural resources, on both reservation and non-reservation lands.

PUBLIC RESPONSIVENESS

Information and Education

Providing public information and opportunities for involvement is a major ongoing effort in DNR. The Department produces a bimonthly magazine, **The Minnesota Volunteer**, which is circulated free to 100,000 Minnesotans. Free natural resource films, videotapes and slide shows are distributed and viewed by 900,000 persons each year.

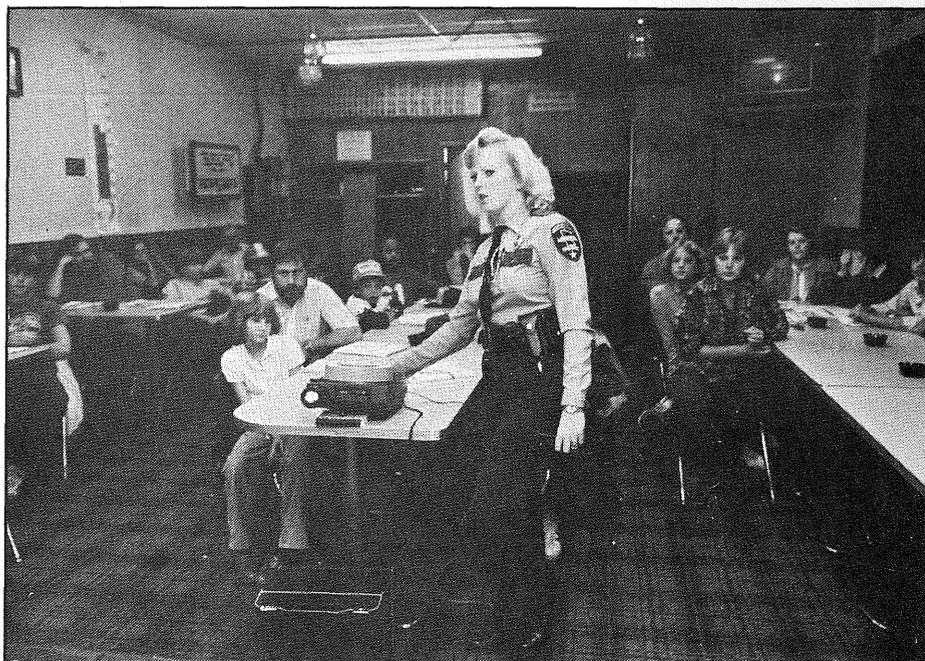
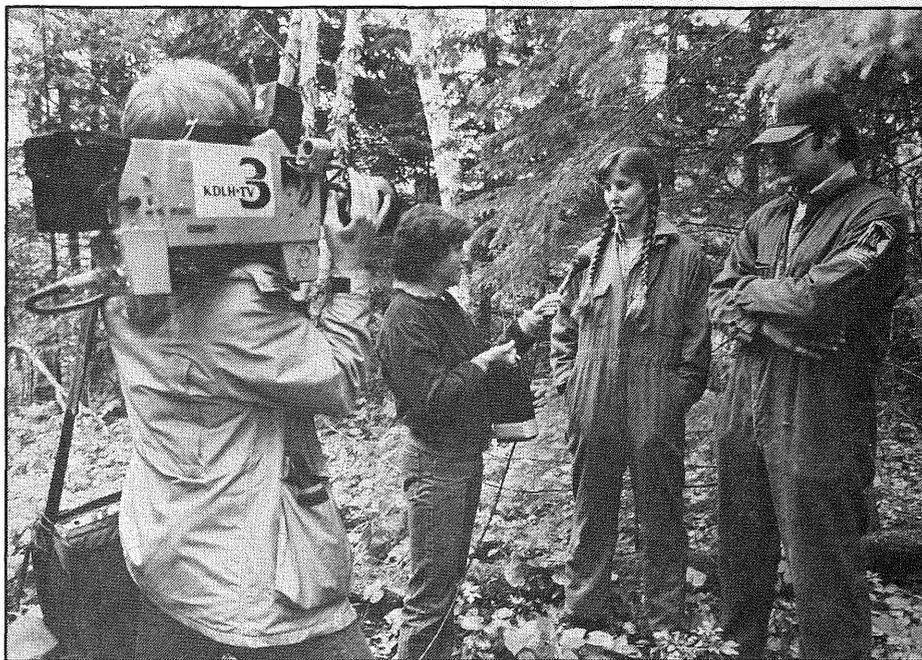
Informational displays are viewed by thousands at state and county fairs, boat and sport shows, and other special events. DNR staff present programs to hundreds of sports clubs, civic and community groups each year. The Department's Information Center provides information, mails materials, and answers questions in response to some 600-800 calls and walk-in visitors daily. However, the public demand for timely information continues to increase.

The Department also develops educational materials for school-age children through adults, including the areas of outdoor recreation, environmental and natural resource education, boating safety, firearms safety and hunter education.

Volunteers participate in a wide variety of Department activities and the DNR's Minnesota Conservation Corps offers unemployed youths a chance to work on meaningful conservation projects.

GOAL

To be a state agency recognized for its service to the public. To achieve a broad public understanding of, and participation in, natural resource management programs.



STRATEGIES FOR ACTION

1. IMPROVE COMMUNICATION WITH, AND SERVICE TO, THE PUBLIC

- Conduct a public survey to assess the public's understanding of DNR programs and determine how the agency can improve its communications with, and service to, the public.
- Continue to improve efficiency of responses to daily phone and walk-in requests from citizens.
- Improve service provided to the public by providing training to DNR employees in human/public relations skills.
- Develop a long-range marketing plan for DNR services. Identify key user groups, such as hunters, anglers, applicants for DNR permits, industry groups, resort owners, etc. Develop appropriate methods to discover the needs of these groups and how best to meet those needs.
- Review effectiveness of DNR information and services in light of changing trends. For example, look at changes in demographics, such as the aging of the population, to determine what type and mix of programs and services will best serve the public.
- Increase staffing to handle increasing requests for DNR involvement in special events, including events at state parks, trails and other facilities, public meetings, county and state fair exhibits, displays for sports clubs, etc.

2. ENSURE THAT DNR PUBLIC INFORMATION AND PARTICIPATION OPPORTUNITIES ARE AVAILABLE STATEWIDE

- Staff each DNR regional office with an information officer, to make it



easier to get information on the DNR and to increase opportunities for direct public interaction.

- Provide more opportunities for volunteers, and double the number of volunteer hours provided to DNR from 30,000 to 60,000 hours per year.
 - Increase summer youth employment opportunities, help youth develop marketable job skills, and accelerate the progress of projects on public land through the Minnesota Conservation Corps.
- ### 3. PROVIDE ENVIRONMENTAL EDUCATION MATERIALS
- Provide workshops, curriculum planning and development seminars, and develop environmental

education programs for teachers and administrators who must implement the environmental education requirements in the Department of Education's new Elementary Education Rule.

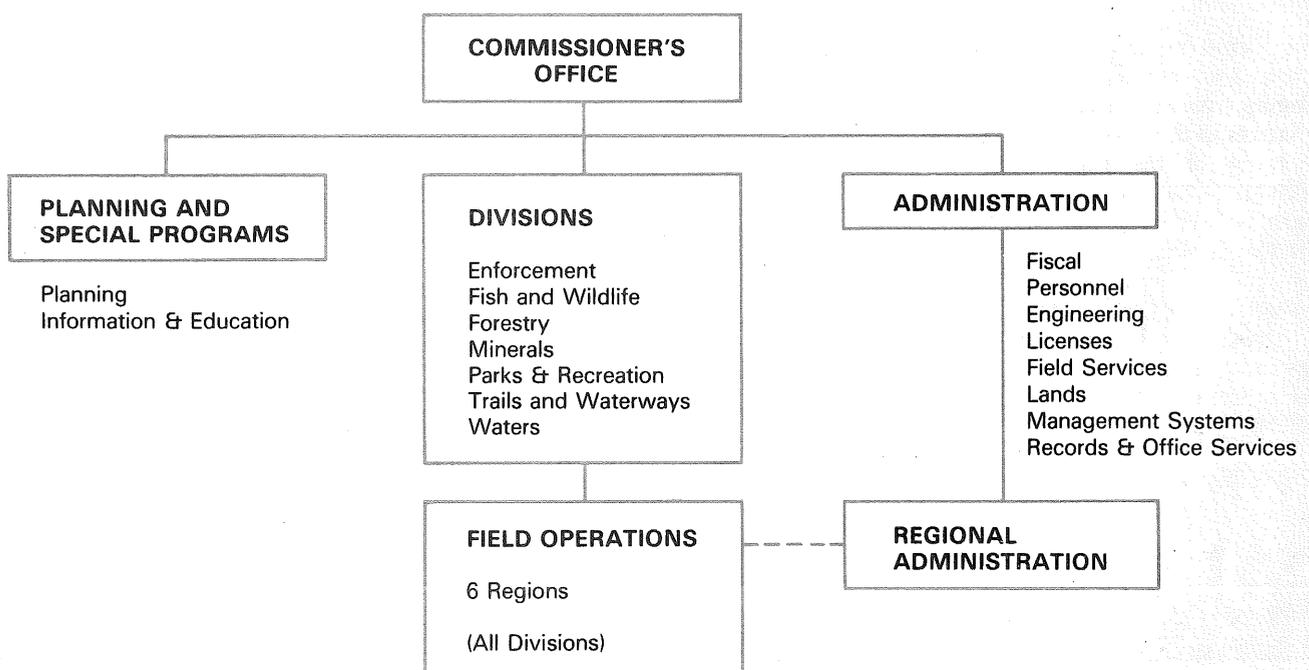
4. FOSTER MUTUAL UNDERSTANDING AMONG THE DNR AND AMERICAN INDIANS REGARDING RESOURCE RIGHTS

- Coordinate management of natural resources between DNR and each Indian band, through meetings and cooperative agreements.
- Improve public and DNR staff awareness and understanding of how Indian rights affect resource management, through publications, community education programs, staff training programs, etc.

ABOUT THE DNR

With approximately 1600 full-time employees, 1400 seasonal employees, and operations in every county of the state, the DNR is a complex organization. The following is a brief overview of how the department is organized.

- **COMMISSIONER'S OFFICE** - DNR's top management consists of a Commissioner who serves in the Governor's cabinet, a Deputy Commissioner, an Assistant Commissioner for Administration, and an Assistant Commissioner for Planning and Special Programs.
- **DIVISIONS** - There are six divisions and one special unit of Trails and Waterways. Each is responsible for the management and regulation of the natural resources reflected in its title. The director of each division and unit is appointed by the Commissioner.
- **FIELD OPERATIONS** - The DNR operates in six administrative regions in Minnesota. Field structure below the regional level varies by division. DNR field offices are located throughout the state based on resource and public service needs.
- **REGIONAL ADMINISTRATION** - In each DNR region, a regional administrator and administrative support staff provide services to field operations, coordinate and monitor departmental programs, and ensure public participation in DNR programs.
- **ADMINISTRATION** - Divisions are supported by several administrative bureaus to generate efficiencies through functional specialization and prevent unnecessary duplication.
- **PLANNING AND SPECIAL PROGRAMS** - These programs also provide support to the divisions. The two larger bureaus are Planning, and Information and Education. Smaller specialized units include Volunteer Services, Citizen Participation Coordinator, Youth Programs, Affirmative Action, Training, Minnesota Environmental Education Board, and the department library.



Facts about Minnesota's Natural Resources

DID YOU KNOW THAT...

Over \$2 billion is spent on outdoor recreation each year in Minnesota, about half of which is spent on hunting and fishing.

Minnesota's 6 million acres of peat resources are the largest of any state in the contiguous United States.

Minnesota has more shoreline than California and Oregon combined.

Minnesota raises and hatches nearly one-half of all walleyes on the North American continent — in 1986, the state stocked 5.5 million fingerlings weighing a total of 100 tons.

Minnesota was ranked first in conservation of natural resources by the Conservation Foundation, Washington D.C., in 1983.

In the past 30 years, more than a half-million young people in our state have completed firearms safety training programs.

Minnesotans own more boats and other recreational watercraft per person than any other state in the nation.

Of the 33 states that have income-tax checkoffs for nongame wildlife, Minnesota has the highest rate of donation: donations are made on 10 percent of all Minnesota tax returns, generating about \$800,000 per year.

The Land of 10,000 Lakes actually has more than 12,000 lakes and 92,000 miles of rivers and streams.

Each year, wood harvested from Minnesota forests would make a stack 4 feet wide and 8 feet high, stretching from San Francisco to Boston.

Do You Know Your Natural Resources?

1. What river in Minnesota was the first to be named a state wild and scenic waterway?
2. What is the highest waterfall in the state?
3. When was Minnesota's first Migratory Waterfowl Stamp issued, and what bird was featured on that stamp?
4. What are the two most sought-after fish species in Minnesota?
5. What mine near Hibbing is the largest open pit mine in the world?

(1) The Kettle River; (2) 80-foot High Falls on the Baptism River at Tettegouche State Park; (3) In 1977; Mallard; (4) Crappie and sunfish; (5) HullTrust.