Performance Report

Department of Natural Resources

1996

AGENCY PERFORMANCE REPORT

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NATURAL RESOURCES DEPARTMENT

EXECUTIVE SUMMARY

Minnesota Department of Natural Resources
Agency Performance Report
Executive Summary

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The mission of the Minnesota Department of Natural Resources is to work with people to manage the state's diverse natural resources for a sustainable quality of life.

KEY PROGRAM GOALS, OBJECTIVES, AND MEASURES

MINERALS RESOURCES MANAGEMENT

The Division of Minerals, as the trust agent for mineral rights and interests of Permanent School Fund lands, Permanent University Fund lands, and tax-forfeited lands manages mineral exploration, mine development, and mine operation to generate income and maintain job growth for the state. It has the fiduciary responsibility to obtain equitable rental and royalty income for the state trust funds through leasing of lands for exploration and mining. Equally important is the division's stewardship of state lands for future generations. It is responsible for ensuring that mineral development is environmentally sound and mined areas are reclaimed to be safe, free of pollution, and suitable for future use. Mineral interests that the state manages include:

Mineral rights on 12 million acres of state-owned trust and tax forfeited land (including 18% of the Mesabi Iron Range mineral rights); and

Surface rights and mineral rights on 8 million acres of state land for peat, industrial minerals, and construction materials.

The division's strategy is to continue efforts to improve and diversify the state's mineral industry, helping to sustain the state's economic well-being while continuing to responsibly manage the environmental effects of mining. Division priorities are focused on maintaining and supporting a strong, environmentally responsible minerals industry in Minnesota. Key objectives and measures to achieve these priorities include:

Manage mineland reclamation and reclamation research.
Reclamation parameters:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Acres Seeded					
actual	**385**	**239**	**500e**		
target	**385**	**239**	**500**	**500**	**500**
Acres Temporary seeded/dust control					
actual	**1,929**	**2,220**			
target	**1,929**	**2,220**	**2,000**	**2,000**	**2,000**
Acres reclaimed in 10 years					
actual	**312**	**307**	**436e**		
target				**537**	**124**
Acres meeting 10-yr standard					
actual	**283**	**244**			
Permits applied for/granted					
actual	**1**	**0**	**0**		
target	**1**	**0**	**2**		

The Mineland Reclamation Program pertains only to lands disturbed by mining after 1980; therefore the measures apply only to current mining operations and individual mining plans. This program issues permits to mine and permit modifications to mining companies and assures that reclamation standards are met through an ongoing compliance program.

Maintain a strong and viable mining industry.
Mineral leasing and mineral lease management activity (Acres Leased):

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Active taconite/ iron ore leases					
actual	**2,480.85**	**1,800.85**	**2,2322.36**		
target				**2,242.36**	**2,322.36**
Inactive taconite/ iron ore leases					
actual	**7,052.25**	**8,045.77**	**7,483.41**		
target				**7,563.41**	**7,483.41**
Active peat leases					
actual	**2,540.11**	**2,700.11**	**2,800.11**		
target				**2,700.00**	**2,700.00**
Industrial Minerals leases					
actual	**0.00**	**0.00**	**160.00**		
target				**667.00**	**667.00**
Metallic minerals leases (exploration)					
actual	**34,199.23**	**31,239.03**	**35,026.21**		
target				**35,000.00**	**35,000.00**
Total mineral leases					
actual	**46,272.44**	**43,785.76**	**47,692.09**		
target				**48,171.77**	**48,172.77**

The number of acres under lease includes the acreage of new mineral leases and acreage of amendments to existing lease agreements. Because the number of acres leased changes during the year, the mid-year date of January 2 was selected as the reporting date. The acreage of state leases s a broad measure of the vitality of the minerals industry due to the state's significant land ownership position. The measure is one of the only ones in the public domain that reflects the extent of mineral industry activity in the state, even through the majority of the state's ownership occurs in northern Minnesota.

WATER RESOURCES MANAGEMENT

The DNR's Division of Waters is the principal state water resources management agency responsible for the planning and management of water quantity and related regulatory issues through the following interrelated activities:

Ground and Surface Water Appropriation or Diversion: Gathering and compiling information and regulating the amount of water used for commercial, industrial, municipal, agricultural, and other purposes.

Dam Safety: Reducing the risk of loss of life, injury, and property damage associated with the presence of dams.

Construction in Protected Waters and Wetlands: Maintaining and enhancing natural resource values while providing for reasonable use of streams, lakes, and protected wetlands.

Technical Ground and Surface Water Analyses: Collecting, analyzing, and interpreting data on climate, ground water, and surface water and providing information and technical assistance to local government.

Land Use Management: Guiding the development of shoreland and floodplain areas, including wild and scenic rivers, through statewide rules and ordinances administered by local governments.

Efforts continue to balance specific activities with environmental, social, and economic needs in different parts of the state. The Division will give priority to those program activities that provide direct benefits to its clientele. Key objectives and measures to achieve program goals include:

Inspect 100% of the high hazard dams and 25% of the medium hazard dams in the state annually to ensure they are in safe operating condition.

Percentage of high and medium hazard dams inspected annually:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
High/medium hazard dams inspected					
actual	**100/23%**	**100/23%**	**100/24%**		
target	**100/25%**	**100/25%**	**100/25%**	**100/25%**	**100/25%**

Dams are divided into three categories--low, medium, and high hazard. High hazard dams have potential for loss of life and disruption of services if they should fail. There are 40 federal and non-federal high hazard dams and 120 medium hazard dams in the state at this time. These numbers will fluctuate slightly as new dams are built, as old dams are removed, and as development conditions change downstream from dams.

Protected waters permit applications will be evaluated to minimize or eliminate the negative impacts of construction activities on water quality and fish and wildlife habitat.

Total number of protected waters permit applications evaluated each year:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Applications evaluated					
actual	**1,096**	**1,105**	**861**		
target				**825**	**800**

Processing protected waters permit applications is a very high priority because of public safety and habitat preservation concerns and the fact that the construction season is relatively short. It is difficult to measure the effectiveness of the protected waters permit program because of the many types of activities that require permits and because the effects of the projects are usually very site specific. The fact that permits are applied for means that field hydrologists have an opportunity to discuss the project with the applicant and with other government agencies. this provides an opportunity to make modifications to the proposed project to reduce negative environmental impacts or to deny the permit if the proposed project has too many negative impacts.

Approximately one-fourth of the 470 communities enrolled in the National Flood Insurance Program that have significant flooding problems will be contacted each year to monitor the administration of and provide assistance in the implementation of their floodplain management ordinances.

Cumulative number of communities contacted for monitoring and to provide assistance:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Cumulative communities contacted					
actual	**133**	**223**	**243**		
target				**303**	**378**

Of the 472 communities in Minnesota enrolled in the National Flood Insurance Program, 371 have special flood hazards and are required to adopt local floodplain zoning ordinances that meet minimum state and federal requirements that ensure new structures in special flood hazard areas are properly elevated so they will not be subject to flood damage. Requirements of floodplain zoning ordinances are very complex, and there is a need for periodic contact with local governments to provide training, assistance, advice, and monitoring of past actions to make sure they know who to call if they have problems or questions. The effectiveness of the floodplain management program depends upon these contacts and meetings.

FOREST MANAGEMENT

The Forest Management Program exists to maintain and improve the health and productivity of Minnesota's forests to they can produce a wide variety of forest outputs, values, and opportunities to meet the needs of current and future generations of Minnesotans; protect the lives, property, and natural resources of Minnesota citizens from wildfire, and provide productive natural resources work experience and meaningful service-learning opportunities to young men and women in a healthful outdoor environment. The Division of Forestry is the state's forest management agency and accomplishes its goals through the following activities:

Forest Management: Managing the 3.2 million acres of state-owned land within the boundaries of 57 state forests and 1.3 million acres of other state-owned lands for sustainable levels of resource outputs, uses, and opportunities and providing technical forest management information and cost-share assistance to other public and private landowners.

Firefighting: Protecting all non-federal lands in the state (45.5 million acres) from wildfires.

Youth Programs: Operating the Minnesota Conservation Corps (MCC) and Youth in Natural Resource programs.

Sustainable Forest Resources: Implementing the 1995 Sustainable Forest Resources Act, which responds to the recommendations of the Generic Environmental Impact Statement on Timber Harvesting and Forest Management by establishing policies and programs to ensure the long-term sustainability of the state's forest resources.

Key objectives and measures to achieve program goals include:

Reforest an acreage at least equal to the acreage harvested on DNR-administered lands each year.

Reforestation of DNR-administered land as a percentage of acres on DNR-administered lands harvested:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Percent reforestation					
actual	97%	95%	97%		
target	97%	99%	97%	98%	99%

Thousands of acres of DNR-administered lands reforested each year:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Acres reforested (000s)					
actual	33.7	26.4	26.5		
target	38.6	30.6	31.0	33.3	

The DNR currently tracks harvests from DNR-administered lands according to the number of cords harvested. Acres of timber harvest from state land are determined indirectly using a standard conversion of 20 cords per acres of harvest. In the future the direct measure of acres of timber sold will provide a more accurate and reliable measure of acres that will be harvested compared to the current conversion factor. The division gained the ability to directly measure and report the number of acres of timber sold from state lands in FY 1996, and will convert to this measure as longer periods of data are collected.

Maintain harvest levels on DNR-administered lands at or below long-term sustainable levels.

Thousands of acres of timber sold from DNR-administered lands annually:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Cords harvested (000s)					
actual	33.1	33.9	40.9		
target	44.0	38.2	43.5	43.3	43

Acres sold is the number of acres of DNR-administered timber that has been sold through DNR regular or intermediate auction and informal timber sales to be harvested under a variety of management prescriptions. State law directs the DNR to manage the forest resources of state forest lands according to the principles of multiple-use and sustained-yield. Controlled harvesting from state lands is a management tool that provides a method to alter forest composition, age, and structure to meet long-term objectives for wildlife habitat, helps assure a long-term sustainable supply of timber from state forest lands for generations to come; helps increase the growth rate of trees on state forest lands, and provides raw material to help meet Minnesota's wood fiber needs.

Maintain harvest levels at or below projected long-term sustainable levels statewide across all ownerships.

Millions of cords of wood harvested:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Millions of cords harvested					
actual	4.11	4.05			
target			4.1	4.1	4.1

A key factor in the sustainable output of a wide range of natural resources from Minnesota's forest lands is the ability to maintain forest harvests at or below a level that is considered sustainable over the long-term, and it is important that this be measured across all ownerships to be effective. The actual sustainable harvest level may be higher or lower than this depending on the effect of various guidelines and management restrictions needed in the future to protect various forest resources and values and the introduction of new, unanticipated technology.

Designate at least 10% of DNR-administered timberlands as Extended Rotation Forests (ERF) by the year 2005.

Percentage of DNR-administered timberlands designated for ERF management:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Percent designated ERF					
actual	-%				
target	1%	2%	2%	3%	4%

Extended Rotation Forest is defined by the DNR as areas or specific sited that have been assigned a management prescription to lengthen the time to the ultimate harvest of the trees or stand. The DNR ERF Guideline recommends a minimum of 10% of the timberlands administered by the DNR in each landscape be managed as ERF. ERF management will allow older forest stands to develop in meeting a variety of resource management objectives within landscape regions--biological diversity, old-growth forest buffers, habitat for a wide variety of

plants and animals, recreation/aesthetic values, and larger trees to meet saw timber demands--and will insure an adequate acreage of forest older than rotation age are maintained on a continuing basis.

Increase adoption and use of Water Quality and Wetland Best Management Practices for forest management to 90% on professionally managed forest lands by the year 2000 and 85% on non-industrial private forest lands by the year 2005.

Percent compliance with BMPs on professionally managed forest lands:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Percent compliance					
actual	na%	92%	na%		
target	86%	87%	na%	90%	90%

Percent compliance with BMPs on non-industrial private forest land.

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Percent compliance					
actual	n/a%	90%	na%		
target	74%	76%	na%	85%	85%

The forestry community in Minnesota has developed and adopted voluntary Best Management practices to address nonpoint-source (NPS) pollution to surface and ground water and wetlands from forest management activities. Water Quality BMPs have been accepted by the MN Pollution Control Agency and the federal Environmental Protection Agency as an appropriate program to address NPS pollution associated with forest management. BMP Field Audit results provide a cost-effective, surrogate measure of water quality, which is used because of the high costs of direct water quality measurements and the limited ability to isolate the effects of forest management practices on water quality from other sources of water pollution--agriculture, urban run-off, mining, point sources, etc.

Increase the amount of non-industrial private lands that receive professional forest assistance in planning and carrying out tree planting, timber state improvement, and timber harvesting.

Thousands of acres of non-industrial private forest land activities accomplished under the guidance of Woodland Stewardship plans and with professional forestry advice and assistance from DNR Forestry staff:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Thousands of acres					
actual	19.6	17.0	18.0		
target	23.9	22.9	18.4	17.0	17.0

Since 1947 state law has authorized the DNR to provide forest management services to private forest land owners whose ownership does not exceed 1,000 acres. State law defines these management services to include advice in management and protection of timber, selection and marking of timber to be cut, measurement of products, aid in marketing harvested products, and other services to promote maximum sustained yield of timber. Approximately 5.3 million acres (36%) of Minnesota's timberland is owned by individual non-industrial private landowners. the potential productivity of these lands typically is greater than the average for other forest ownerships in Minnesota. It is important that the DNR provides the technical and cost-share assistance needed to continue the stewardship and productivity of these lands.

The median size of wildfires reported to or suppressed by the DNR will be 5 acres or less.

Acres burned by wildfires reported to or suppressed by the DNR.

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Acres burned					
actual	17,236	15,336	17,117		
target	60,942	56,085	52,010	48,838	48,000

By state law the DNR is responsible for the prevention and suppression of wildfires in Minnesota's forested counties. The size of wildfires is a function of the effectiveness of detection efforts and the response time of suppression forces. This measure includes wildfires that the DNR was actively involved in suppressing as well as those suppressed by fire department that were reported to the DNR.

PARKS AND RECREATION MANAGEMENT

The mission of the Minnesota State Park System is to provide a state park system which preserves and manages Minnesota's natural, scenic, and cultural resources for present and future generations, while providing appropriate recreation and education opportunities. This program provides for managing, maintaining, operating, and developing 230,600 acres of outstanding natural resources. Key objectives and measures to achieve this mission include:

Manage state park natural, cultural, and archaeological, and historical resources within the context of Minnesota's ecosystems for sustainability.

Continue to increase the amount of state park lands maintained in its Desired Future Condition:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Parks analyzed					
actual	**n/a**	**2**	**2**	**2**	
target	**n/a**	**2**	**2**	**2**	**2**

Minnesota's State Parks system protects some of the most significant natural resources in the state. To measure how well they are being managed, it will first be necessary to develop baseline data that identifies Desired Future Conditions for the communities in each park. Completed inventories for state parks will provide this baseline information of plant and animal species, communities, special features, and cultural resources, which will be used to develop management options for maintaining healthy ecosystems.

Complete acquisition of land within state park statutory boundaries:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Acres acquired					
actual	**108**	**300**	**1,130**		
target		**1,500**	**1,500**	**1,500**	**1,500**

About 10% of the 230,600-acre State Park system is privately owned (within statutory boundaries). The goal is to acquire the remaining 23,600 acres by 2020. Private in-holdings within state parks create numerous constraints for effective park operations. In-holdings make it more expensive to operate a state park because more time is devoted to law enforcement, hunting/park visitor conflicts are created, segmented lands isolate areas of state ownership making park land inaccessible to the public, and uncontrolled development within the statutory boundary destroys sensitive natural and cultural resources and the quality of the park visitor's experience

Provide appropriate recreational opportunities within state parks and recreation areas.

Percent of state park customers who are satisfied with the services provided with remain at or above 94%.

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
% customers satisfied					
actual			**95%**		
target	**94%**	**94%**	**94%**	**94%**	**94%**
Park visitors surveyed					
actual	**yes**		**yes**		
target	**no**	**no**	**yes**	**no**	**yes**

Assessing public satisfaction, providing quality services, and preserving the unique resources found within state parks are critical components of the division's statutory mandate and mission as an organization. A 1996 survey of Minnesotans on tier attitudes about park fees and services concluded that 95% of the visitors to state parks were satisfied with their visit. Visitors were asked to evaluate the perceived value of the fees charged for the annual permit, daily permit, and camping. Ninety eight percent of respondents who had annual permits reported it was a fair-to-good value; ninety three percent of those who had daily permits reported it was a fair-to-good value; ninety eight percent of the campers surveyed reported that camping fees were a fair-to-good value. The prices for these services may add to visitor satisfaction levels.

Providing accessible interpretive services which create a sense of stewardship for Minnesota's natural and cultural heritage.

The number of people participating in formal environmental learning opportunities in state parks will increase:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Programs conducted					
actual	**5,452**	**4,432**			
target	**6,900**	**7,000**	**7,100**	**7,200**	**7,300**
Attendance					
actual	**120,956**	**96,973**			
target	**169,000**	**172,000**	**175,000**	**178,000**	**181,000**

This indicator measures park visitors' exposure to first-hand environmental education experiences with natural and cultural resources through State Park Interpretive Activities. It does not include exposure to self-guided environmental education opportunities such as exhibits, literature, or trails. The benchmark targets are based on a 6-8% increase in attendance at interpretive activities every five years. This increase is anticipated due to increased environmental education awareness and initiatives and well as to projected interpretive staffing increases.

TRAILS AND WATERWAYS MANAGEMENT

The Trails and Waterways Unit carries out its dual charge through the Trail Recreation and Water Recreation Programs in liaison with other state and federal agencies, the Minnesota legislature, the Governor's Office, various boards, commissions, committees, and citizen groups. Primary program responsibilities include:

Trail Recreation Program: Manage, operate, and maintain the existing 1,060 miles of state trails; assist in the maintenance of 2,023 miles of DNR unit trails; administer grants-in-aid to local governments to support trial development and maintenance; and administer the Adopt-A-River Program

Water Recreation Program: Acquire, develop, operate, and maintain 1,525 public water access sites; acquire, develop, install, and maintain 185 fishing piers and 15 shore fishing sites; maintain access and wayside facilities along 2,865 miles of designated river recreation routes; and acquire, develop, and operate 5 Lake Superior safe harbors in cooperation with local governments.

The priority for the Trails and Waterways Program is its continuation commitment to providing high-quality trail and water recreation programs, facilities, and services. Key objectives and measures to achieve program goals are:

Acquire and develop additional trail miles to meet growing demand for recreational trails.

Miles of state trail, unit trail, and grants-in-aid recreational trails:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
State trails					
actual	**1,025**	**1,028**	**1,060**		
target	**1,024**	**1,050**	**1,050**	**1,060**	**1,092**
DNR unit trails					
actual	**2,012**	**2,033**	**2,023**		
target	**2,012**	**2,033**	**2,033**	**2,023**	**2,023**
GIA trail-snowmobile					
actual	**12,957**	**13,304**	**13,623**		
target	**12,956**	**13,304**	**13,304**	**14,032**	**14,453**
GIA trail-cross country ski					
actual	**1,021**	**1,017**	**1,003**		
target	**1,021**	**1,050**	**1,050**	**1,003**	**1,003**
GIA--ATVs					
actual	**190**	**278**	**394**		
target	**162**	**230**	**300**	**512**	**667**
All trails					
actual	**17,205**	**17-660**	**18,103**		
target	**17,175**	**17,667**	**17,667**	**18,630**	**19,237**

Research suggests that trail-related activities are among he most popular and fastest growing outdoor activities in Minnesota, and elsewhere. State mileage figures provide a gross indicator of available opportunity. State trails are recreational or commuter routes that connect outdoor recreational facilities or significant scenic, historical, scientific, or recreational qualities. Unit trails ar trails administered by the DNR divisions of Forestry or Parks and Recreation. Grants-

in-Aid Trails are recreational travel routes cooperatively acquired, developed, and maintained by local units of government, landowners, and trail user groups through DNR's Trail Assistance Program.

Develop additional public water access sites and related facilities to meet growing user demand.

Number of fishing piers and number of lakes/rivers with DNR public access:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Fishing Piers					
actual	**150**	**160**	**175**		
target	**n/a**	**160**	**170**	**185**	**190**
Lake/river access					
actual	**1,420**	**1,500**	**1,525**		
target	**1,475**	**1,500**	**1,525**	**1,540**	**1,555**

The number of boat launches, fishing piers, and support facilities is an indicator of program activity. Local units of government also provide water access facilities for public use and often cooperate with DNR in maintaining and operating public water access facilities. The 1990 Minnesota Statewide Comprehensive Outdoor Recreation Plan projects that growth in water-based recreation will constitute 28% of all growth in outdoor recreation demand by 2000. The public's ability to access and enjoy Minnesota's lakes and rivers is an important measure of our success in securing such access.

FISH AND WILDLIFE MANAGEMENT

The Fish and Wildlife Division exists to manage and protect Minnesota's populations and natural communities of fish, wildlife, and native plants for their intrinsic values and sustainable benefits to people. The Division is committed to maintaining the tremendous diversity of species and habitats that occur in Minnesota and to providing varied, high quality recreational opportunities and educational activities related to fish, wildlife, and native plants. The Fish and Wildlife Divisions works toward the following goals:

Providing sustainable wild populations of fish, wildlife, and native plants.

Providing sustainable natural communities and ecosystems.

Providing sustainable recreational and commercial opportunities for users; and having people knowledgeable about fish, wildlife, and native plant communities.

Key objectives and measures to achieve program goals include:

Manage terrestrial and wetland ecosystems to protect and improve associated species. Populations of selected game species (deer, ducks, pheasants):

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Proportion of deer permit areas above/ below goal range					
actual	**38/29**	**52/10**	**48/25**		
target	**<25/<25**	**<25/<25**	**<25/25**	**<25/<25**	**<25/<25**
Mallard and blue-winged teal breeding populations (000s)					
actual	**811**	**529**	**614**		
target	**525**	**525**	**650**	**650**	**650**
Fall pheasant populations (000s)					
actual	**1,300e**	**1,300e**	**1,600e**		
target	**3,000**	**3,000**	**3,000**	**3,000**	**3,000**

Populations of selected nongame species and native plants

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Number of Trumpeter swans					
actual	**210**	**295**	**350**		
target				**400**	**475**
Common terns nesting pairs					
actual	**870**	**1,040**			
target			**1,100**	**1,100**	**1,100**

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Prop. of end, thr, & spec con species w/ new location info					
actual	.84	.57	.55		
target				.60	.70

Number and acreage of Wildlife Management Areas (WMAs), Scientific and Natural Areas (SNAs), and prairie Bank (PB). Number of counties where rare species and plant communities have been inventoried:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
WMA number/acres in 000s					
actual	1,211/732	1,240/757	1,254/745		
target	1,600/1,000	1,600/1,000	1,600/1,000	1,600/1,000	1,600/1,000
SNA number/acres in 000s					
actual	102/169	103/170	106/171		
target	98/168	108/170	114/170	110/172	111/172
PB number/acres in 000s					
actual	14/1.4	14/1.4	15/1.9		
target	15/1.7	21/2.3	28/3.0	17/2.2	17/2.2
Cumulative counties inventoried for rare species/communities					
actual	22				
target	22	24	25	29	33
target					

Wetland acreage converted and replaced by state actions including the Wetland Conservation Act.

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Acres of wetland loss					
actual		1,527			
target			1,800	1,800	1,800
Wetlands replaced/ created					
actual	1,527				
target		1,800	1,800	1,800	1,800

Populations of wildlife species are measured through a variety of direct and indirect censuring and indexing methods. Listed species are those at greatest risk of disappearing from the state. For most species target populations are considered to be minimums and higher populations are desirable. Numbers and acres of WMAs, SNAs, and Prairie Bank easements provide a measure of the quantity of direct protection for critical habitats and natural communities. The number of counties that have been inventoried for rare species and communities is also an important

measure because information on the location, extent and importance of rare natural features is essential to determining proper land use at statewide and local levels. measuring acres of wetlands impacted, restored, and created provides an index of wetland status in the state. Inferences can be made regarding basic trends in wetlands conservation, but this is not an absolute measure of wetland status.

Manage fish populations in individual lakes and streams based on current biological data and angler use information.

Number of new or updated fisheries management plans; biological (or fish population) surveys; and recreational use surveys, creel surveys, and special management studies:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
New or updated fisheries mgmt. plans					
actual	**487**	**452**	**443**		
target	**481**	**453**	**441**	**433**	**415**
Biological surveys					
actual	**794**	**703**	**727**		
target	**739**	**746**	**803**	**786**	**755**
Recreation use & creel surveys, special mgmt. studies					
actual	**39**	**30**	**25**		
target	**34**	**33**	**26**	**29**	**26**

Fish population surveys are conducted to obtain baseline data on fish communities, evaluate management actions, and prepare and update fisheries plans for individual lakes and streams. Recreational use surveys and creel surveys are used to determine characteristics of angler catch and harvest, monitor trends in recreational use, and to determine angler success and preferences.

Maintain fish and wildlife populations at levels that accommodate the needs of anglers, hunters, and wildlife viewers.

Number of hunters, anglers, and wildlife viewers; satisfaction rating:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Licensed hunters (000s)					
actual	**575**				
target		**570**	**570**	**580**	**585**
Licensed anglers (000s)					
actual	**1,531**				
target		**1,600**	**1,600**	**1,600**	**1,600**

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Wildlife viewers (000s)					
actual	**2,500**				
target		**2,500**	**2,525**	**2,550**	**2,575**

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Satisfaction rating (fishing/ hunting)					
actual			83/91%		
target	90%	90%	90%	90%	90%

The number of licensed hunters and anglers is the number of individuals licensed, not total license sales or total hunters and anglers (some have license exemptions). This is an important measure for this activity because participants are the primary clientele group for most of the species the program is statutorily mandated to manage. The number of hunters also provides an indication of how well the program is managing resources because there are direct relationships between species abundance, opportunities and participants. The number of wildlife viewers measures participation in observing, feeding, and photographing wildlife by all segments of the state's citizenry. It is also directly related to the abundance of wildlife, its availability and visibility.

Manage lake and stream ecosystems to protect and improve habitat for aquatic species. Number of lakes, or miles of stream, where habitat was improved and protected:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Aeration					
actual	7	2	0		
target	7	6	6	4	4
Acquisition (miles)					
actual	4.82	1.24	3.37		
target	10	12	12	6	6
Lake HI					
actual	0	0	1		
target	1	3	3	3	3
Lake rehab					
actual	3	2	0		
target	3	3	3	3	3
Stream HI (Miles)					
actual	25.7	12.4	6.7		
target	25.7	15.7	12.0	6.9	12.0

Habitat protection and improvement ensure that lakes and streams maintain healthy ecosystems. Aeration, lake rehabilitation, and lake and stream habitat improvement can provide fishing opportunities where none would otherwise exist, or increase fish populations so that more or better fishing can occur. Fisheries acquisition provides angler access to streams and lakes and protection of riparian zones that provide or are adjacent to critical fish habitat.

Improve quality of natural resource education programs to improve comprehension of fish and wildlife ecosystems.

Number of participants, short-term comprehension of course materials, and rating of MinnAqua program. Number of Project Wild/Aquatic Wild workshops:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Number of participants					
actual	25,080	21,214	21,547		
target	25,000	30,000	30,000	21,500	21,500
Percent short-term comprehension of course material					
actual	80%	82%			
target		85%	85%	85%	85%
Percent positive rating by participants					
actual	92%	95%			
target		95%	95%	95%	95%
Number of Project Wild/Aquatic Wild workshops					
actual	60	29			
target			32	35	40

MinnAqua is the aquatic education program coordinated by the Section of Fisheries. this program uses hands-on activities dealing with various aquatic issues and sport fishing. The Project Wild/Aquatic Wild program is coordinated by the Section of Wildlife and is a part of a national school curriculum. Measuring participant numbers give an indication of how many individuals are being reached; however, with an increased emphasis on a quality program we are reaching fewer people because we spend more time with each person. A pre/post-test gives a general idea of the short-term comprehension of topics by those going through the activities.

ENFORCEMENT OF NATURAL RESOURCE LAWS AND RULES

The mission of the Enforcement Division is to ensure the perpetuation of Minnesota's natural resources and ensure the safety of the public through sound educational opportunities and regulatory services for all citizens. This mission is by providing traditional law enforcement services and educational opportunities. The emphasis of the division is shifting toward education as an important tool to achieve voluntary compliance with necessary regulations. The division is also attempting to prioritize environmental protection as an essential method to protect native plant and animal species. Key objectives and measures to achieve program goals include:

Reduce the violation rate to 0.38% per 100,000 licenses sold by FY 2000.

Percentage rate of violations per 100,000 hunting/fishing licenses sold:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Violations/ 100,000 licenses					
actual	**0.46%**	**0.44%e**			
target	**0.40%**	**0.40%**	**0.40%**	**0.40%**	**0.40%**

The measure is derived from the total number of criminal citations and warnings per year issued by conservation officers for violations of law or rule that directly relate to regulation of hunting, fishing, trapping, etc.

Reduce the recreational vehicle violation rate to 0.40% per 100,000 registered recreational vehicles by FY 2000.

Percentage rate of violations per 100,000 snowmobiles/all-terrain vehicles registered:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Violations/100,000 registered vehicles					
actual	**1.1%**	**0.92%e**			
target	**0.50%**	**0.50%**	**0.50%**	**0.50%**	**0.50%**

The measure is derived from the total number of criminal citations and warnings issued by conservation officers per year for violations of recreational vehicle laws and rules.

Reduce the boating violation rate to 0.15% per 100,000 registered watercraft by FY 2000.

Percentage rate of violations per 100,000 registered watercraft:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
Violations/100,000 boats registered					
actual	**0.27%**	**0.28%e**			
target	**0.18%**	**0.20%**	**0.20%**	**0.20%**	

The measure is derived from the total number of criminal citations and warnings issued by conservation officers per year for violations of watercraft and boating laws and rules.

AGENCY PERFORMANCE REPORT

1996

NATURAL RESOURCES DEPT

Final Format **Prepared : December 31, 1996**

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AGENCY : NATURAL RESOURCES DEPT

MISSION

The mission of the Minnesota Department of Natural Resources is to work with people to manage the state's diverse natural resources for a sustainable quality of life.

GOALS

- The Department of Natural Resources' agency goals were developed as part of a strategic planning process and form the strategic direction for the organization. This direction places resource management as the lead goal for the agency and identifies organizational management goals to support this direction. Programmatic goals and their related statutory authorities are presented in the program summary section of the report. The goals for the agency are:

- To maintain, enhance, or restore ecosystems to assure ecological integrity while providing for sustainable use of natural resources for social and economic purposes.

- To enhance the ability of the Department of Natural Resources to meet its resource management goal through a commitment to and respect for a skilled, diverse, motivated, and dynamic work force.

- To ensure the timely, accurate, relevant, and unobstructed flow of informaiton within the department in all directions.

- To create opportunities that engage citizens in productive dialogue on natural resource issues and depaartment initiatives, and to promote and acknowledge customer and stakeholder input.

- To maintain the department's commitment to providing citizens with natural resource information and information regarding the department's goals and strategies.

- To develop DNR fiscal and budgetary policies and processes that enable the department ot achieve its resource management goal.

- To ensure efficient and effective delivery of services in support of the DNR's resource management goal.

ORGANIZATION

The Department of Natural Resources is organized into seven (7) programmatic areas: Mineral Resources Management, Water Resources Management, Forest Management, Parks and Recreation Management, Trails and Waterways Management, Fish and Wildlife Management, and Enforcement of Natural Resource Laws and Rules. These seven programs are supported by nine administrative bureaus under Operations Support.

DNR is the major land management state agency, administering 94% of all state-owned land administered by state agencies. This includes ownership of 12 million acres i mineral rights and 5.3 million acres of land for parks, wildlife areas, public water accesses, scientific and natural areas, state trails, and state forests. These lands provide wildlife habitat and recreational opportunities and play an important role in supporting resource industries. DNR also administers state-owned navigable waters and submerged land and is charged with maintaining surface water and ground water supplies that meet long-term requirements for basic use, environmental protection, and economic production.

Activities regulated by the department include hunting, trapping, and fishing; boating; snowmobiling; wild rice gathering; mineral exploration, mining, and reclamation; dredging, filling, and draining protected waters and wetlands; constructing and maintaining dams; appropriating and using surface and ground waters; establishing lake levels; developing shorelands, floodplains, and the shores of wild, scenic, and recreational rivers; permitting and licensing private game farms, fish hatcheries, roadside zoo operations, and open burning.

In addition the agency creates safe opportunities to utilize resources to provide economic return. It provides forest fire protection to billions of dollars' worth of private and public timber, as well as private property, in forested areas encompassing 45 million acres. It develops and disseminates information on recreational travel and educational materials on natural resource subjects. It provides assistance to local governments, organizations, and individuals on natural resource matters such as forest management, wildlife habitat improvement, and trail development.

The programs of the DNR affect all Minnesota citizens, present and future, as well as large numbers of travelers from other states and nations. Department operations interact directly and indirectly with local and regional governments, the federal government, other state agencies, members of the state's business community, and millions of private citizens.

WAYS TO IMPROVE PROGRAM OUTCOMES

The DNR has adopted an ecosystem-based framework for natural resource management. This methodology is a collaborative process of managing whole interconnected systems of natural resources. The approach requires that DNR work in interdisciplinary teams with strong public participation to develop and implement sustainability goals for entire ecological systems. This is different from the previous models of "competing multiple uses," where programs work in isolation to improve individual resources.

Sustainability is the expected outcome of all resource management activities. Sustainability requires DNR to protect and restore natural systems so that their resources can be used indefinitely by present and future generations. Sustainability requires DNR to reconcile human needs and demands with the capacity of ecosystems to meet those demand. (Directions for Natural Resources, Minnesota DNR Strategic Plan, March, 1995.)

As the DNR moves further into ecosystems-based resource management, statutory and regulatory requirements that advance "competing multiple uses" will be recommended for modification as appropriate. An example would be identifying incentives and disincentives for private land management in support of sustainable resource goals.

The DNR will also examine how the Annual Performance Report can be used to illustrate the interdisciplinary goals of the department vs. portraying programmatic goals and objectives in isolation of one another.

Toward this end, the department is participating in the Environmental Indicators Task Force, appointed by the Environmental Quality Board in 1993. With support of the Legislative Commission on Minnesota Resources the Task Force has developed an initiative to "develop environmental indicators that monitor the health of Minnesota's resources, its ecosystems, and its environment." (MN Environmental Indicators Task Force Report, June, 1994.) Products from this initiative will be completed in June, 1997. The DNR will move toward using this type of indicator to guide our performance in ecosystems-based resource management for sustainability.

The DNR will continue to pursue statutory and regulatory changes that will improve its efficiency and flexibility to respond to changing needs, such as increased delegation authority for human resource and administrative activities and budget flexibility to enhance interdisciplinary team work in resource management.

EMPLOYEE PARTICIPATION

The Department of Natural Resources established an internal team of Performance Report Coordinators to develop the performance report. This team included the following groups.

REPORT COORDINATORS: Representing each department program area, this group took the lead responsibility for preparing program goals, objectives, and measures in the required format. They also worked with Division Directors, Bureau Administrators, and Program Managers to involve them in the report preparation.

WORKER PARTICIPATION COMMITTEE: This group consists of 16 employees from throughout the state who reviewed the Legislative Auditor's comments on the 1994 DNR Annual Performance Report and provided assistance to Report coordinators for updating the report for 1996. The Committee assigned "liaisons" to work directly with the Report Coordinators in preparing the 1996 document.

OFFICE OF PLANNING: A team of three people provided the overall coordination and assistance for report updates based on Department of Finance instructions, entered all data into the PERFORMS System, and developed the Executive Summary for the 1996 report.

Date : December 31, 1996

Agency Expenditure Summary

F.Y. 1996

NAME	(in thousands $)	% of $	FTE	% of FT
AGENCY: NATURAL RESOURCES DEPT	$211,978	100.0%	2,633	100.0%
PROGRAM: MINERAL RESOURCES MGMT	$4,718	2.2%	63	2.4%
PROGRAM: WATER RESOURCES MGMT	$9,646	4.6%	127	4.8%
PROGRAM: FOREST MANAGEMENT	$43,508	20.5%	599	22.8%
PROGRAM: PARKS & RECREATION MGMT	$29,062	13.7%	414	15.7%
PROGRAM: TRAILS & WATERWAYS MGMT	$13,555	6.4%	113	4.3%
PROGRAM: FISH & WILDLIFE MANAGEMENT	$48,597	22.9%	650	24.7%
PROGRAM: ENFORCEMENT--NR LAWS&RULES	$17,159	8.1%	233	8.8%
PROGRAM: OPERATIONS SUPPORT	$45,733	21.6%	434	16.5%

Agency : NATURAL RESOURCES DEPT

Program : MINERAL RESOURCES MGMT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$4,718	2.23%
From Special Revenue Funds	$402	
General	$4,312	
From Gift Funds	$4	
Number of FTE Staff:	63	2.38%

GOALS :

- As fudiciary trust fund manager, to lease iron ore, taconite, non-ferrous metallic minerals, and industrial minerals assets of the state with the approval of the executive council. (M.S. 84.027; 92.50; 93.14; 93.16; 93.19; 93.192; 93.25; 93.335; 93.283; 93.285; 93.55 and M.C. Art. XI, Sec. 8&9)

- In recognition of the effects of mining on the environment, to provide for the reclamation of certain lands hereafter subjected to the mining. (M.S. 93.44-51)

- To provide for the diversification of the state's mineral economy through long-term support of mineral exploration, evaluation, development, production, and commercialization and to investigate environmental issues associated with mineral development. (M.S. 93.001; M.L. 1993, Ch. 172, sec. 5, subd, 2; M.S. 93.002)

- To improve continuously the administration of legislative mandates and services delivered to clients and to the public. (No Statutes Cited)

DESCRIPTION OF SERVICES :

The Division of Minerals, as the trust agent for mineral rights and interests of the permanent school fund lands, permanent university fund lands, and tax-forfeited lands, manages mineral exploration, mine development, and mine operation to generate income and maintain job growth for the state. As such, it has the fiduciary responsibility to obtain equitable rental and royalty income for the state trust funds through leasing of lands for exploration and mining. Equally important is the division's stewardship of state lands for future generations. It is responsible for ensuring that mineral development is environmentally-sound and mined areas are reclaimed to be safe, free of pollution, and suitable for future use. Mineral interests that the state manages include:

* mineral rights on 12 million acres of state-owned trust and tax-forfeited land (including 18 percent of the Mesabi

Iron Range mineral rights); and

* surface rights and mineral rights on 8 million acres of state land for peat, industrial minerals, and construction materials.

In carrying out its management responsibilities, the division has placed high priorities on developing working partnerships with local units of government, communities, and the mineral industry. Minerals staff provide technical expertise and mineral information to local groups throughout the state that are addressing minerals-related issues. Further, through division research partnerships, state dollars are leveraged with non-state monies from industry, the federal government, and local units of governments to fund critically needed, applied research directed to questions ranging from plant improvements to environmental protection.

The division's strategy is to continue efforts to improve and diversify the state's mineral industry helping to sustain the state's economic well-being, while continuing to responsibly manage the environmental effects of mining. Division priorities are focused on maintaining and supporting a strong, environmentally responsible minerals industry in Minnesota.

PROGRAM DRIVERS :

A Taconite Industry in Transition. Minnesota's taconite industry is facing a long-term decline as a result of competition from steel produced by minimills utilizing scrap, imported pellets, and the restructuring of the global economy. A slowing in the rate of decline is anticipated due to recent large increases in the costs of high quality steel scrap. The industry faces increasing pressure to cut costs and increase productivity in order to remain viable. Because taconite is a dominant mineral industry in Minnesota, many of the division's programs are focused on applied research directed at increasing plant efficiency and reducing production costs.

Reduced Non-ferrous Metallic Exploration in North America. The dramatic reduction of exploration for metals in Minnesota is a result of large multinational metals companies continuing to focus exploration efforts in Latin America and developing countries elsewhere. Until this trend is reversed, the likelihood of a discovery in Minnesota -- and its accompanying development -- will be significantly reduced. The challenge for Minnesota is to once again attract the exploration industry to the state -- as occurred in the late nineteen-eighties. Given Minnesota's excellent geological potential for base and precious metals and for industrial minerals, the division is continuing to focus on innovative strategies to attract exploration dollars. Strategies include streamlining leasing methods and constant efforts to collect, organize, and distribute mineral potential information utilizing state-of-the-art technology.

Increasing Environmental Awareness. In order to operate in Minnesota, the mining industry must assure environmentally sound operations and must comply with increasingly stringent environmental regulations mandated by state and federal law. Although the state's mining industry has a sound environmental record, the division must continue to support a strong environmental research program to fully address problems as they arise. The division will continue to focus research on such topics as mineland reclamation and characterization and prediction of mine wastes to maintain environmentally acceptable outcomes from mining.

Sand and gravel - Inventory and Reclamation. In Minnesota, sand and gravel mining is considered an extractive use which is subject to regulation and land use planning by local units of government, whether they be the county, township, or community. Local units of government are increasingly seeking assistance from division staff as they attempt to address concerns for environmentally sound operations and meaningful reclamation of the land for

subsequent uses. This trend is expected to continue as the demand for aggregate materials remains high and the state's demographic patterns continue to evolve.

Goal 1 : As fudiciary trust fund manager, to lease iron ore, taconite, non-ferrous metallic minerals, and industrial minerals assets of the state with the approval of the executive council.

Objective 1 : Manage the state's mineral assests to provide fair and equitable rental and royalty revenue to the state's trust funds.

Measure 1 : Rental and royalty.

Dollars in thousands	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Actual		$6,217.1	$7,468.0	$7,686.3	$e	$e
Target					$5,620.9	$11,887.0

DEFINITION :

Revenue consists of rental and royalty income from state iron ore and taconite mining leases and state peat leases. Revenue also includes rental payments from non-ferrous metallic minerals leases, all of which are in the exploration stage. The rentals are paid to maintain the leases in effect, and the royalties are paid upon removal of ore and peat from the leased lands.

RATIONALE :

The Department of Natural Resources has authority to lease the mineral rights for state trust fund lands, tax forfeited lands, consolidated conservation lands, other state acquired lands, and forfeited and nonregistered severed mineral interests (Minnesota Statutes ch. 93). These lands total approximately 12 million acres (24% of the land area of the state). The department is responsible for about 94% of the mineral rights owned by the state.

To determine "fair and equitable" royalty rates for iron ore and taconite leases, the department compares its royalty rates with those in the marketplace, assuming the efficiency (by implication fairness) of that market. As leases are renegotiated with taconite companies (many fifty-year leases are currently expiring), the department staff analyze royalty rates received by private fee owners (non-public minerals rights owners) in much the same manner as the real estate industry uses analyses of comparable sales to determine the value of residential property. The outcome is negotiated royalty rates for state-owned iron ore and taconite ore comparable with those received by the private sector.

Revenue is a direct measure of income derived from leasing of state lands. Revenue from school, swampland, and internal improvement trust lands is credited to the permanent school fund, which was established by the state constitution. Revenue from university trust land is credited to the permanent university fund, which was established by the Territorial Act and recognized by the state constitution. The principals of these funds are perpetual and inviolate forever. Net interest and dividends from the permanent school fund are distributed to school districts throughout the state, and net interest and dividends from the permanent university fund are distributed to the university for endowed mineral research, endowed scholarships, and endowed chairs.

Eighty percent of the revenue from leasing of tax forfeited lands and tax forfeited severed mineral interests are returned to the counties in which the leased lands and mineral rights lie, and twenty percent is deposited in the state's general fund. The eighty percent is distributed based on the following formula: 3/9 to the county, 2/9 to the town or city, and 4/9 to the school district. Fifty percent of the revenue from consolidated conservation area lands is distributed to the counties in which the leased lands and minerals lie, and fifty percent is credited to the general fund of the state. For other acquired lands, the specific distribution will vary by land type.

DATA SOURCE :

Records maintained by the Bureau of Financial Management, Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

Although rental and royalty rates have varied widely during the mining history of Minnesota, over 80% of the principal of the permanent school fund, valued at $416 million on July 31, 1996, is from revenues from state mineral leases and from certain previously dedicated mining taxes.

PLAN TO ACHIEVE TARGETS :

N/A.

OTHER FACTORS AFFECTING PERFORMANCE :

The world economy and the demand for steel directly impact the demand for the state's iron ore and taconite (i.e., taconite pellets). Taconite pellets produced from state-owned assets must compete in price and quality with iron ore produced elsewhere in the world and by other parties in Minnesota and in the U.S. The revenue the state receives from mining state-owned lands also varies according to the specific mining plans for each company -- as the companies respond to the demand for pellets -- and the economic stability of individual mining companies. The cost of producing pellets is also affected by the costs of labor, power, transportation, and the taconite resources that each mining company incurs.

Revenue streams from the non-ferrous metallic industry are dependent on exploration or the development of a commercial deposit of metallic minerals and the determination that it could be mined in an environmentally sound manner. The metal industry in North America is currently depressed; therefore, any immediate, dramatic increase in non-ferrous metallic revenue is unlikely. State-owned peat assets also compete in quality and price with peat owned by other parties in Minnesota and elsewhere in the U.S.

Goal 2 : In recognition of the effects of mining on the environment, to provide for the reclamation of certain lands hereafter subjected to the mining.

Objective 1 : Manage mineland reclamation and reclamation research.

Measure 1 : Reclamation parameters.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres seeded						
Actual		385	239	500e		
Target		385	239	500	500	500
Acres temporary seeded/dust control						
Actual		1,929	2,200			
Target		1,929	2,200	2,000	2,000	2,000
Acres reclaimed in 10 years						
Actual		312	307	436e		
Target					537	124
Acres meeting 10-year standard						
Actual		283	244			
Permits applied for/granted						
Actual		1	0	0		
Target		1	0	2		

DEFINITION :

The Mineland Reclamation Program pertains only to lands disturbed by mining after 1980; therefore, the measures listed above apply only to current mining operations and individual mining plans. The measures are tracked through the division's geographic information system. The actual acres listed by determined by map and photo interpretation and field inspections using global positioning systems.

RATIONALE :

The division's Mineland Reclamation Program issues permits to mine and permit modifications to mining companies and assures that reclamation standards are met through an on-going compliance program. The reclamation program also conducts mineland research on topics such as revegetation of mine tailings, water quality mitigation, mine waste characterization, and mine waste stabilization to control erosion and provide subsequent land uses. Incorporation of research results to regulatory program is important to the effective mitigation of impacts from mining. Field studies do not provide immediate results as four to five years data is needed to draw reasonable conclusions.

DATA SOURCE :

Mineland Reclamation Program, Division of Minerals, Minnesota Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

Unanticipated changes in mining plans can greatly affect amounts of lands scheduled for disturbance and reclamation. These unanticipated changes result from changing market conditions, ore grades, and operating costs. Cooperative funding from other regulatory sources and industry is not always available and can result in delays in study implementation.

PLAN TO ACHIEVE TARGETS :

N/A.

OTHER FACTORS AFFECTING PERFORMANCE :

In some cases, the acquisition of matching funds from non-state sources.

Goal 3 : To provide for the diversification of the state's mineral economy through long-term support of mineral exploration, evaluation, development, production, and commercialization and to investigate environmental issues associated with mineral development.

Objective 1 : Maintain a strong and viable mining industry.

Measure 1 : Mineral leasing and mineral lease management activity (ACRES LEASED).

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Active taconite/iron ore leases						
Actual		2,480.85	1,800.85	2,322.36		
Target					2,242.36	2,322.36
Inactive taconite/iron ore leases						
Actual		7,052.25	8,045.77	7,483.41		
Target					7,563.41	7,483.41
Active peat leases						
Actual		2,540.11	2,700.11	2,800.11		
Target					2,700.00	2,700.00
Industrial minerals leases						
Actual		0.00	0.00	160.00		
Target					667.00	667.00
Metallic minerals leases (exploration)						
Actual		34,199.23	31,239.03	35,026.21		
Target					35,000.00	35,000.00
Total mineral leases						
Actual		46,272.44	43,785.76	47,692.09		
Target					48,171.77	48,172.77

DEFINITION :

The number of acres under lease includes the acreage of new mineral leases and acreage of amendments to existing lease agreements. Because the number of acres leased changes during the year, the mid-year date of January 2 was selected as the reporting date.

RATIONALE :

The acreage of state leases in effect is a broad measure of the vitality of the minerals industry because of the state's significant land-ownership position. The measure is one of the only measures in the public domain that reflects the extent of mineral industry activity in the state even though the majority of the state's ownership occurs in northern Minnesota.

DATA SOURCE :

Mineral Leasing & Mineral Rights Section, Division of Minerals, Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

The significant drop in metallic minerals lease acreage that occurred prior to F.Y. 1994, is a reflection of the depressed state of the metals industry in North America. Since prices for non-ferrous metals are not predicted to move sharply higher or lower, exploration activity in the state is expected to remain flat.

PLAN TO ACHIEVE TARGETS :

A focus of the division is to identify areas of high non-ferrous metallic mineral potential to attract new industry to explore in the state. As part of this effort, the division is exploring innovative, state-of-the-art methods of publishing and distributing mineral potential data for exploration companies worldwide. Administrative changes to the non-ferrous metallic minerals leasing rules will make certain lands that have been offered at a public lease sale, but not bid upon, available for leasing by application.

OTHER FACTORS AFFECTING PERFORMANCE :

The factors affecting this objective are similar to those stated in Objective 1.

Goal 3 : To provide for the diversification of the state's mineral economy through long-term support of mineral exploration, evaluation, development, production, and commercialization and to investigate environmental issues associated with mineral development.

Objective 1 : Maintain a strong and viable mining industry.

Measure 2 : Exploration activity.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Exploration drill holes (number/feet)						
Actual		99	85	72	30	45
Target		21,896	24,292	11,030	9,000	12,500
Drill core sampled (feet)						
Actual		3,475	2,950	1,225		
Target					950	1,225
Geophysical survey line (miles)						
Actual		30	38	15		
Target					10	10
Mineral prospects, occurrences & high potential identified						
Actual		10	7	8		
Target					8	9
Sand/gravel prospects & areas of high potential identified						
Actual		n/a	n/a	27		
Target					35	40

DEFINITION :

The measure of exploration activity, a second measure of industry strength, is best defined by the collective measures of exploration holes drilled, footage of holes drilled, drill core sampled, line miles of geophysical grids, mineral prospects, occurrences, and areas of high mineral potential.

RATIONALE :

There is a direct relationship between the discovery of new mineral deposits and the efforts of exploration firms; however, there is no single measure to determine the extent of exploration activity since much of the activity occurs on private lands.

These data are collected as a result of the Exploratory Boring Law. The registration of explorers, governed by Minnesota Rules, chapter 4727, requires anyone engaged in exploratory boring to be registered with the Division of Minerals, Minnesota Department of Natural Resources. The explorer must also notify the Division of Minerals prior to commencing an exploratory boring program and submit information on the location of each hole drilled. The number of drill cores sampled is tabulated by the Division of Minerals based on outside use of the division's Drill Core Library in Hibbing, MN. The core library is the state repository for all drill core extracted in Minnesota and is utilized by exploration companies to examine the nature of the rocks, including mineralization, and to acquire rock samples for assay. The number of prospects and occurrences identified in the state is based on publicly funded research projects.

DATA SOURCE :

Geoscience Information Unit, Division of Minerals, Minnesota Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

This data reported includes sand, gravel, clay, mineral, and taconite exploration. There is also exploration on private lands which is not always reported to the state; hence we can only estimate that activity. There could be as much activity on private lands as there is on state lands.

PLAN TO ACHIEVE TARGETS :

A focus of the division is to identify areas of high non-ferrous metallic mineral potential to attract new industry to explore in the state. As part of this effort, the division is exploring innovative, state-of-the-art methods of publishing and distributing mineral potential data to exploration companies worldwide and is investigating administrative changes to the non-ferrous metallic minerals lease to fulfill the same ends. Through these means, coupled with improvement in the national economy, the division anticipates a gradual upturn in metallic mineral leasing.

OTHER FACTORS AFFECTING PERFORMANCE :

Similar to the economic factors that affect Objective 1, and Objective 3a, the U.S. and global economy directly affect exploration activity in Minnesota. During the last few years, non-metallic exploration in the U.S. and Canada has decreased dramatically as multinational metal companies have redirected their exploration dollars to Latin America and other developing countries. The reasons for greater exploration investment in these countries include enhanced mineral availability, less stringent environmental regulations, liberalization of mining incentives, and other policy changes. It is difficult to predict exactly when this trend will reverse. In Minnesota, however, the overall level of exploration activity has remained somewhat constant, in spite of lower levels of non-ferrous exploration, due to increased exploration for industrial minerals.

Goal 3 : To provide for the diversification of the state's mineral economy through long-term support of mineral exploration, evaluation, development, production, and commercialization and to investigate environmental issues associated with mineral development.

Objective 1 : Maintain a strong and viable mining industry.

Measure 3 : Minerals research.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Iron ore cooperative research projects						
Actual		19	10	15	e	e
Target					15	15
state appropriation (thousands)						
Actual		$311	$311	$311	$e	$e
Target					$311	$311
non-state matching funds (thousands)						
Actual		$158	$200	$250	$e	$e
Target					$250	$250
Mineral Diversification projects						
Actual		7	7	7	e	e
Target					7	7
state appropriation (thousands)						
Actual		$375	$375	$375		$e
Target					$375	$375
Envrionmental Research projects						
Actual		0	3	2	e	e
Target					3	2
state appropriation (thousands)						
Actual		$37.5	$37.5	$45.0	$45.0	$e
Target						$45.0
non-state matching funds (thousands)						
Actual		$0.0	$62.1	$93.0	$e	$e
Target					$25.0	$30.0

DEFINITION :

Most of the department's mineral research falls under the Iron Ore Cooperative Research, Minerals Diversification, and Cooperative Environmental Research programs.

RATIONALE :

The Iron Ore Cooperative Research Program is a joint undertaking in which the public and private sectors have pooled resources to assist the taconite industry's efforts to remain competitive in an increasingly difficult global marketplace. The research funded by this program is directed exclusively toward projects that can be of immediate benefit to the industry -- either by reducing production costs or improving plant efficiencies.

The Minerals Diversification Program provides for the diversification of the state's mineral economy through long-term support of mineral exploration, development, production, and commercialization. The objectives of the program are to improve Minnesota's iron industry, encourage exploration and the development of the non-ferrous metallic minerals industry, enhance the state's industrial minerals industry, and ensure that mineral development satisfies the highest environmental quality standards.

In 1993, the Minnesota Legislature provided funds to initiate a Cooperative Environmental Research Program to fund environmental research related to the minerals industry. The research projects funded through this program require matching non-state funds. Non-state funding has exceeded the legislatively-mandated match indicating the broad support this program enjoys with various partnerships.

DATA SOURCE :

Division of Minerals, Minnesota Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

Since 1987, the Iron Ore Cooperative Research Program has funded 68 research projects. Thirty three projects were designed to produce information of general interest to the mining companies. An example of this type of project is the series on metallurgical properties of taconite pellets. Thirty five projects were directly aimed at process modification in the taconite plants. Twenty six projects from the latter set were carried forward into plant testing by the companies. The plant tests resulted in eight plant modifications and five projects are still under review. The data show that over 38 percent of the projects resulted in additional work by the taconite plants. Persons familiar with research consider this to be an excellent success rate.

The Cooperative Environmental Research Program began funding projects in F.Y. 1995. Examples of projects include: hydrologic modeling of abandoned mine pits, wetland creation on taconite basins, mine waste characterization, use of native plant species for gravel pit reclamation, and measuring impacts of soil amendments on water quality.

PLAN TO ACHIEVE TARGETS :

The division convenes a number of advisory groups to determine research priorities and track the progress of the various research projects as they proceed.

OTHER FACTORS AFFECTING PERFORMANCE :

A gradual erosion of legislative support has reduced Minerals Diversification funding to less than half of what it was in the F.Y. 1990-91 biennial budget. In some cases acquisition of matching funds has been difficult.

Goal 4 : To improve continuously the administration of legislative mandates and services delivered to clients and to the public.

Objective 1 : Continuously improve the administration of the Mineral Resources Management program.

Measure 1 : Selected efficient adjustments.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Satellite offices and laboratories closed						
Actual		1	1	1	e	e
Target					0	0
Staff reductions						
Actual		3	2	2		
Target					n/a	n/a
Fleet vehicles						
Actual		21	19	15		
Target					n/a	n/a

DEFINITION :

Collectively, these measures can be defined as means to make continuous improvements in management efficiency through innovation and constant attention to change. The measures listed above encompass a few of the broad array of actions that the division has taken to improve and streamline the administration of Mineral Resources Management Program.

RATIONALE :

The Division of Minerals recognizes a need to become more innovative and efficient in order to provide critical services in a period of budgetary restraint while continuing to effectively manage the state's mineral assets and to help keep Minnesota's mineral industry competitive.

DATA SOURCE :

Division of Minerals, Minnesota Department of Natural Resources.

DISCUSSION OF PAST PERFORMANCE :

Improvements in efficiency include: consolidating offices; reducing and cross-training staff; reducing fleet; eliminating programs; increasing the number of non-ferrous metallic lease sales held annually; increasing the use of computer technology in data management; installing geographic information systems in order to analyze and graphically depict information for leases, land ownership, reclamation permits, research programs, mineral potential and geology; utilizing Global Positioning Systems to improve data accuracy; developing low-cost exploration methods; and assisting the industry, where possible, in substituting computer-based modeling for extensive, costly in-plant experimentation.

PLAN TO ACHIEVE TARGETS :

Continue to focus on the efficient administration of the program.

OTHER FACTORS AFFECTING PERFORMANCE :

N/A.

Agency : NATURAL RESOURCES DEPT

Program : WATER RESOURCES MGMT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$9,646	4.55%
From Federal Funds	$305	
From Special Revenue Funds	$523	
From Agency Funds	$790	
General	$8,027	
From Gift Funds	$1	
Number of FTE Staff:	127	4.84%

GOALS :

- To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare: (1) by managing public waters subject to the control of the state; anf (2) by controlling the appropriation and use of waters of the state. (M.S. 103A.201)

- To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare by controlling and supervising activities that changes or will change the course, current or cross section of public waters. (M.S. 103A.201)

- To preserve the wetlands of the state to conserve surface waters, maintain and improve water quality, preserve wildlife habitat, reduce runoff, provide to floodwater retention, reduce stream sedimentation, contribute to improved subsurface moisture, enhance the natural beauty of the landscape, and promote comprehensive and total water management planning. (M.S. 103A.202)

- To develop and manage water resources to assure an adequate supply to meet long-range seasonal requirements for domestic, municipal, industrial, agricultural, fish and wildlife, recreational, power, navigation, and quality control purposes from waters of the state. (M.S. 103G.265)

- To prevent the unwise use and development of shoreland and floodplain areas to protect health and safety, prevent property damage, preserve and enhance water quality, preserve the economic and natural environmental values, and retain the scenic, recreational and scientific values. (M.S. 103A.207; 103F.201; 103F.305)

- To describe the geological sensitivity of ground water resources and provide that information to the public. (M.S. 103H.101)

DESCRIPTION OF SERVICES :

The Water Resources Management Program has a variety of interrelated activities that work toward the fulfillment of the mission and goals:

Ground and Surface Water Appropriation or Diversion

Describing the availability of water; regulating its use for commercial, industrial, municipal, agricultural, and other purposes; avoiding legal and technical problems caused by interbasin diversions; and restricting withdrawals when necessary during drought conditions to ensure adequate supplies for in-stream flow needs and other higher priority uses.

Dam Safety

Reducing the risk of loss of life or injury associated with the potential failure of dams on state waterways through a program of inspection, repair, reconstruction, or removal of dams, and grants to local governments for the same purposes.

Construction in Protected Waters and Wetlands

Preventing degradation of streams, lakes and protected wetlands by regulating development activities in these water bodies through a permit system; preventing destruction and loss of wetlands through implementation of the Wetlands Conservation Act; and responding to surface water problems that arise, such as fluctuating lake levels and conflicts among uses of the water surface, by providing statewide standards and policy development.

Technical Ground and Surface Water Analyses

Conducting investigations that collect, analyze and interpret data on climate, ground water and surface water, adding to and maintaining systems that provide crucial information to guide state and local water policy-making; conducting dispute investigations in water use conflict situations and for well interferences and providing assistance with conflict resolution; providing water resources information and technical assistance to local units of government in development of water plans that detail local roles in regulation of water and land use; and preventing degradation of ground water supplies by providing standards for assessing geologic sensitivity to pollution and applying those criteria throughout the state and continuing development of county ground water atlases.

Land Use Management

Guiding the development of shoreland and floodplain areas, including wild and scenic rivers, through statewide rules and ordinances administered by local governments that seek to prevent erosion, non-point and point source contamination, flood damages, and maintain scenic and fish/wildlife habitat values; and reducing the risk of loss of life, injury and property damage associated with floods through regulation, provision of grants for projects to avoid flood damage, and coordination of governmental response during major flood events.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
W	FY	Number of lakes	N/A	11842
W	FY	Acres of lakes	N/A	4705801
W	FY	Number of protected wetlands	N/A	10029
W	FY	Acres of protected wetlands	N/A	1200000
W	FY	Number of rivers and streams	N/A	6564
W	FY	Miles of rivers and streams	N/A	92000
A	FY	Protected waters permits issued	N/A	1100
A	FY	Appropriation permits processed	N/A	250
W	FY	Amount of water used in Minnesota (billion gallons per day)	N/A	3.2
A	FY	Communities administering floodplain zoning ordinance and participating in the National Flood Insurance Program	N/A	470
A	FY	Communities adopting updated shoreland management ordinances	N/A	208
A	FY	Communities participating in the wild and scenic rivers program	N/A	60

PROGRAM DRIVERS :

Climatic Events

Flood and drought events are the two climatic situations that generate extreme amounts of workload within the Division and the Department. The Division response to these events can only be planned and their occurrence be predicted to a very limited degree. When these climatic events are particularly severe or extend over a long periodof time many other normal program activities virtually come to a halt at least on a temporary basis while staff attempt to deal with the emergency situation at hand. The flooding that occurred in the summer of 1993 was a good example of the disruption caused by extreme climatic events and the effects on workload are felt for a year or two after the event.

Habitat Maintenance

A major function of the protected waters permit program has become the preservation or maintenance of fish and wildlife habitat as people continue to conduct activities that have potential impacts on water resources. In fact, reducing habitat destruction is one of the primary reasons that permits are still required for some activities. Some classes of protected waters permits can reasonably be delegated to local governments, dealt with through a general permit, or deregulated entirely if appropriate standards and monitoring programs can be established. These simplification activities are being pursued wherever feasible. Activities that can have significant irreversible impacts on fish and wildlife habitat need to remain under permit in order to minimize the damage. Water appropriations must be limited due to actual or potential impacts on habitats such as trout streams and wetlands, especially calcareous fens.

Public Health and Safety

Some permit and land use regulation activities exist primarily because of concerns over health and safety. Some examples are unsafe dams, bridges that cause flood stage increases, development of areas that are periodically inundated by flood waters, and development of small lots where there is not enough separation of water supply wells and individual sewage systems. These are situations where the health and in some cases the lives of people are at stake if the Division, either directly or indirectly, does not do a good job of program implementation.

Local Water Planning

Over the last 10 years local government units of all types have become increasingly involved in water resources planning and management. This emphasis has opened up new opportunities for cooperative water resource planning and management that did not exist to any great degree in the past. This has created new demands for water resources data and analyzed information but it may also lead to a situation where more water resources management can occur at the local level with state support rather than being directly managed by the state. The Division of Waters is committed to establishing partnerships and working with local government units to enhance their
capability for water resources planning and management.

Goal 1 : To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare: (1) by managing public waters subject to the control of the state; anf (2) by controlling the appropriation and use of waters of the state.

Objective 1 : Stabilize total water withdrawals by 2000 through improvements in water use efficiencies.

Measure 1 : Total water use in billion gallons (calendar year)

	C.Y.1993	C.Y.1994	C.Y.1995	C.Y.1996	C.Y.1997	C.Y.1998
Water use in billion gallons						
Actual	1105	1187	1100e	1100e		
Target					1100	1100

DEFINITION :

Permitted appropriators are required to report water use to the DNR each year. Actual measurements are not yet available for 1995 and 1996.

RATIONALE :

Total annual water withdrawal data provide a general indicator of water use trends. Recent legislation requires communities to employ demand reduction measures before submitting requests to construct new water supply wells or increases to authorized water volumes. Demand reduction measures include an evaluation of conservation rate structures and a public education program that may include a toilet and showerhead retrofit program. These changes, along with new Federal manufacturing standards for water efficient plumbing fixtures, should improve water use efficiencies by 2000.

DATA SOURCE :

State water use data base.

DISCUSSION OF PAST PERFORMANCE :

Water use in the past has generally been increasing because there has been very little emphasis on water conservation, once-through heating and cooling were fairly common, and droughts would create new interest in establishing permanent or supplemental water supplies. The impacts of pumping on high value resources such as trout streams and calcareous fen wetlands require this objective even without drought as an influence. Development during periods of water excess has led to unsustainable overdevelopment when water availability was not quantified during the planning process.

PLAN TO ACHIEVE TARGETS :

Recent legislation requiring public water suppliers to develop water conservation plans and requiring the elimination of once-through heating and cooling systems will help to stabilize total water use. The Division will monitor the situation annually and provide technical assistance to appropriators to reduce and stabilize total water use.

Goal 1 : To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare: (1) by managing public waters subject to the control of the state; anf (2) by controlling the appropriation and use of waters of the state.

Objective 2 : All public water suppliers serving more than 1,000 persons will have water emergency and conservation plans so that insufficient watersupplies will not prematurely limit future growth. Public water suppliers need to participate more effectively in local water planning.

Measure 1 : Cumulative number of plans submitted to DNR for approval. There are 337 public water suppliers that must submit plans for approval.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Plans submitted						
Actual	0	4	14	260		
Target					300	323

DEFINITION :

Water emergency and conservation plans must include supply and demand reduction measures, alternative sources of water and allocation priorities for use in an emergency.

RATIONALE :

Water emergency and conservation plans will help prepare communities for short-term water shortages and also improve long-term water use efficiencies. There are 337 public water suppliers serving more than 1,000 persons, but the Department will also encourage smaller systems to develop plans.

DATA SOURCE :

Water Appropriation Program Manager

DISCUSSION OF PAST PERFORMANCE :

Until recently there was not a lot of incentive for public water suppliers to conserve water because in many cases the more water sold, the more money made. Several droughts have shown that even communities with good water supplies can have problems or cause problems for others. Water conservation plans can also reduce the large capital expenditures for new wells, water towers and water and wastewater treatment facilities.

PLAN TO ACHIEVE TARGETS :

The Division will provide technical assistance to public water suppliers to insure that conservation plans are developed.

Goal 1 : To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare: (1) by managing public waters subject to the control of the state; anf (2) by controlling the appropriation and use of waters of the state.

Objective 3 : Once-through heating and cooling systems using in excess of 5 million gallons per year will gradually be converted to water efficient alternatives by 2010 to make water available for other uses.

Measure 1 : Total water use by once-through systems in billions of gallons per year and total number of once-through cooling systems remaining in operation.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Water use / Total systems						
Actual	5.4/73	6.1/70	NA/54	NA/49		
Target					5/45	5/43

DEFINITION :

A "once-through system" is a space heating, ventilating, air conditioning (HVAC), or refrigeration system used for any type of temperature or humidity control application, utilizing groundwater, that circulates through the system and is then discharged without reusing it for a higher priority purpose (M.S. 103G.005, Subd. 13a).

RATIONALE :

Once-through systems that use more than 5 million gallons per year must be converted by the end of the design life for the equipment. The Department has amended all once-through system permits to include conversion dates that range from 1995 to 2010. Conversion of once-through systems to water efficient alternatives will save approximately 11 billion gallons of groundwater per year.

DATA SOURCE :

Data base for Water Appropriation Permits.

DISCUSSION OF PAST PERFORMANCE :

Appropriation permits for once-through users have already been modified to insure that systems are converted. The number of once-through users is already coming down.

PLAN TO ACHIEVE TARGETS :

The annual water use report is used to monitor the conversion of once-through systems. Technical assistance can be provided but for most companies it is a question of when they want to make the capital investment for conversion.

Goal 2 : To conserve and use water resources of the state in the best interests of its people, and to promote the public health, safety, and welfare by controlling and supervising activities that changes or will change the course, current or cross section of public waters.

Objective 1 : Inspect 100% of the high hazard dams and 25% of the medium hazard dams in he state annually to ensure that they are in a safe operating condition.

Measure 1 : Percentage of high and medium hazard dams inspected annually.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
High/medium haz. dams inspected						
Actual	100/22%	100/23%	98/23%	100/24%		
Target	100/25%	100/25%	100/25%	100/25%	100/25%	100/25%

DEFINITION :

Dams are divided into three categories of low, medium, and high hazard. High hazard dams have potential for loss of life and disruption of services if they should fail. There are 40 federal and non-federal high hazard dams and 120 medium hazard dams in the state at this time. These numbers will fluctuate slightly as new dams are built, as old dams are removed, and as development conditions change downstream from dams.

RATIONALE :

It is important to frequently inspect high hazard dams and to repair them to insure that they don't fail possibly causing loss of life and disruption of services. Medium hazard dams do not pose a significant risk of loss of life and do not require inspection as frequently.

DATA SOURCE :

DNR Division of Waters Dam Inventory.

DISCUSSION OF PAST PERFORMANCE :

Nearly all high-hazard dams are inspected annually, and this is the highest priority within the program.

PLAN TO ACHIEVE TARGETS :

The Division plans to continue to inspect all high-hazard dams annually under the existing program. It is and will continue to be the highest priority activity in the dam safety program.

Goal 3 : To preserve the wetlands of the state to conserve surface waters, maintain and improve water quality, preserve wildlife habitat, reduce runoff, provide to floodwater retention, reduce stream sedimentation, contribute to improved subsurface moisture, enhance the natural beauty of the landscape, and promote comprehensive and total water management planning.

Objective 1 : Protected waters permit applications will be evaluated to minimize or eliminate the negative impacts of construction activities on water quality and fish and wildlife habitat.

Measure 1 : Total number of protected waters permit applications evaluated each year.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Permit applications evaluated						
Actual	1079	1096	1105	861		
Target					825	800

DEFINITION :

Protected waters permits are required for most activities conducted below the ordinary high water elevation of protected waters and wetlands.

RATIONALE :

It is very difficult to measure the effectiveness of the protected waters permit program because of the many types of activities that require permits and because the effects of the projects are usually very site specific. The fact that permits are applied for means that field hydrologists have an opportunity to discuss the project with the applicant and with other government agencies. This provides an opportunity to make modifications to the proposed project to reduce negative environmental impacts or to deny the permit if the proposed project is unreasonable or has too many negative impacts. Efforts are underway to identify measures that better define the effectiveness of this program.

DATA SOURCE :

DNR Division of Waters Permit Index Database.

DISCUSSION OF PAST PERFORMANCE :

The amount of permit activity varies substantially with climatic factors, interest rates and proposed program changes.

PLAN TO ACHIEVE TARGETS :

The processing of protected waters permit applications is a very high priority because of public safety and habitat preservation concerns, and the fact that the construction season is relatively short.

Goal 4 : To develop and manage water resources to assure an adequate supply to meet long-range seasonal requirements for domestic, municipal, industrial, agricultural, fish and wildlife, recreational, power, navigation, and quality control purposes from waters of the state.

Objective 1 : County atlases or regional studies that map the geology and hydrogeology will be completed for high population areas of the state to better understand the interaction among ground water and surface water availability and water withdrawals.

Measure 1 : Cumulative number of counties with hydrogeologic studies completed.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Cumulative counties with studies						
Actual	7	7	7	8		
Target					10	11
Cumulative regional studies						
Actual	1	1	1	2		
Target					3	3

DEFINITION :

Hydrogeologic studies are quantitative evaluations of the geology and hydrology of aquifers and their potential to supply water.

RATIONALE :

Information about availability of ground water is needed for planning and decision-making at all levels of government.

DATA SOURCE :

Geologic maps, geophysical surveys, hydrologic tests and field data collection, models.

DISCUSSION OF PAST PERFORMANCE :

During the last four years the county atlas and regional studies program was accelerated in order to complete studies in seven more counties, and this accelerated pace was proposed to continue. Funding for the program was switched to the general fund.

PLAN TO ACHIEVE TARGETS :

The only way this activity can meet its objectives is if it is fully funded. Partial funding was received and will reduce the number of counties to be studied. Performance measures reflect the reduced activity due to partial funding.

Goal 5 : To prevent the unwise use and development of shoreland and floodplain areas to protect health and safety, prevent property damage, preserve and enhance water quality, preserve the economic and natural environmental values, and retain the scenic, recreational and scientific values.

Objective 1 : Respond to 100% of "out of water" complaints wihin 24 hours of receipt and respond to 100% of well interference complaints within one week of receipt.

Measure 1 : Percentage of complaint responses within the designated time window.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Responses within time window						
Actual	100%	100%	100%	100%		
Target	100%	100%	100%	100%	100%	100%

DEFINITION :

Disputes over the use of water are common in the state. The Division has the technical staff that are prepared to respond immediately to complaints that a user is out of water due to water use by another party. Well interferences which have not resulted in a total lack of water are also handled as soon as possible. In each of these situations Division staff strive to minimize the economic and personal stress for the parties involved.

RATIONALE :

It is important to investigate water use disputes rapidly and accurately so that the parties involved can settle the dispute as soon as possible.

DATA SOURCE :

Ground Water Unit Supervisor.

DISCUSSION OF PAST PERFORMANCE :

Staff have handled all complaints within the designated time frame since 1989. Only during the drought of 1988 were complaints so numerous that goals could not be met. Out of water complaints are the highest priority for the staff.

PLAN TO ACHIEVE TARGETS :

The Division intends to continue to train staff and maintain equipment so that emergency responses are not hindered. Additional staff and equipment would be needed to continue to meet the goals during a major drought situation.

Goal 5 : To prevent the unwise use and development of shoreland and floodplain areas to protect health and safety, prevent property damage, preserve and enhance water quality, preserve the economic and natural environmental values, and retain the scenic, recreational and scientific values.

Objective 2 : The observation well network will contain wells in major water supply aquifers across the state by the year 2000 to monitor the interaction among precipitation, ground water levels and withdrawals.

Measure 1 : Number of wells being measured/number of counties participating.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Wells measured/ counties participating						
Actual	620/59	625/59	662/69	697/76		
Target					695/76	750/80

DEFINITION :

Observation wells are unpumped wells maintained for periodic measurement of static water levels in aquifers.

RATIONALE :

Measurements of water levels in aquifers document the responses of aquifers to climatic conditions or to pumping. Changes in water level alert managers to the response of an aquifer to stress. An adequate observation well network is an indispensible part of an adequate program to assess the availability of groundwater.

DATA SOURCE :

OBWELL Database.

DISCUSSION OF PAST PERFORMANCE :

The activity has been primarily stable until recently when new interest at the state and local levels has resulted in increases in the number of wells and expansion of coverage.

PLAN TO ACHIEVE TARGETS :

Local interest to assist in collecting data and better ability to computerize well data will result in an expansion of the program within current budget constraints. Additional staff and drilling capability will be needed to continue to provide this level of service to local governments as they plan for future growth.

Goal 5 : To prevent the unwise use and development of shoreland and floodplain areas to protect health and safety, prevent property damage, preserve and enhance water quality, preserve the economic and natural environmental values, and retain the scenic, recreational and scientific values.

Objective 3 : The number of lake level and streamflow gages supported by the Division will increase to provide more complete coverage of watersheds statewide and to monitor the interaction among precipitation, surface water levels or flows, ground water levels and withdrawals particularly as they apply to high and low flow/level situations. The eventual objective is to establish a network of approximately 1100 gages.

Measure 1 : Number of lake level and streamflow gages.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Lake level/streamflow gages						
Actual	654/40	662/40	669/40	744/40		
Target					750/40	760/40

DEFINITION :

Lake level elevations are obtained from lake gage readings provided by citizen volunteers. Temporary lake gages are installed and surveyed each spring by Division staff. Most streamflow data are collected and distributed by the United States Geological Survey via a cooperative funding program with the Division of Waters and other partners. The Division currently supports 40 of the 960 stream gaging stations in the USGS network. Streamflow gages are distributed statewide and locations are determined through consultations with other federal, state, and local agencies. The maximum number of lake gages that can be managed by existing staff is about 1000. Division staff also make streamflow measurements on a short-term basis in 8-10 watersheds per year to support special projects and local water planning initiatives.

RATIONALE :

Historic and current lake level and streamflow data is vital to comprehensive and successful water management activities and provides invaluable information during times of flooding and drought. It is important that statewide coverage and long term continuous level records be maintained to understand the variability in surface water supply and provide the basis for analyzing long-term trends.

DATA SOURCE :

Volunteer network of citizen lake gage readers, U.S. Geological Survey, and Division of Waters; LAKES DB Database.

DISCUSSION OF PAST PERFORMANCE :

The number of lake level gaging sites has been steadily increasing in recent years due greater staff efficiency and increased local interest in local water planning and management. The number of USGS networkstream flow gaging sites has declined due to budget reductions and the high cost of maintaining network gages.

PLAN TO ACHIEVE TARGETS :

The lake level gaging program will continue to show modest growth as local volunteers and local governments become interested in and willing to donate time to read gages. It is a very popular program on lakes with active lake associations where there is increasing concern about shoreland use and its impact on lakes. Expansion of the USGS stream gaging network is dependent on additional funding for long-term monitoring.

Goal 6 : To describe the geological sensitivity of ground water resources and provide that information to the public.

Objective 1 : All local governments implementing DNR land use (shoreland, floodplain, and Wild and Scenic Rivers) management programs shall receive training on these programs every five years.

Measure 1 : Number of communities that have sent representatives to DNR-sponsored land use training programs annually.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Communities sent to training						
Actual	244	175	125	123		
Target					120	120

DEFINITION :

Each community participating in one of the DNR land use programs needs to receive training about the programs to encourage proper administration and enforcement and to promote program continuity within the community.

RATIONALE :

There is a fairly high degree of turnover among staff and elected officials in local governments as well as new program initiatives that need to be presented to local officials. Training local officials is also a cornerstone of the multi-agency Minnesota Long Term Hazard Mitigation Plan. By encouraging all participating local governments to send representatives to DNR-sponsored training at least once every five years, the DNR can develop contacts and promote administration and enforcement of DNR land use programs.

DATA SOURCE :

Records of attendance at DNR-sponsored training sessions maintained in DNR training files.

DISCUSSION OF PAST PERFORMANCE :

In recent years there has been a lot of interest in providing training to local government officials but it has come in spurts so that many are trained one year and few the next.

PLAN TO ACHIEVE TARGETS :

The Division wishes to establish an annual training/monitoring program for local government officials so that about 20% of the officials are trained and/or contacted each year. This will make it a regularly scheduled activity with a fixed amount of staff time and budget needed each year.

Goal 6 : To describe the geological sensitivity of ground water resources and provide that information to the public.

Objective 2 : The number of structures subject to flooding in 1990 will be reduced by 25% by he year 2000.

Measure 1 : Estimated number of urban structures subject to flooding.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Structures subject to flooding						
Actual	16,100e	15,500e	10,600e	10,300e	e	e
Target					9,500	9,250

DEFINITION :

Structures in urban areas subject to flooding include all structures (homes and businesses) that have been constructed in designated special flood hazard areas (100-year floodplain) that have not been appropriately elevated or floodproofed. Structures in rural or unincorporated areas are not included because of the difficulty in getting an accurate count of the structures. Rural structure counts will be started once all urban areas are adequately inventoried.

RATIONALE :

A survey was conducted during the late 1970's to determine how many structures were located in designated flood hazard areas. The number determined at the time was approximately 17,000 structures. This number probably continued to rise for a while until most flooded communities joined the National Flood Insurance Program (NFIP). New structures or structures substantially damaged by flooding in these communities must be properly elevated or floodproofed to protect them from flooding.

Since that time fires, natural disasters, flood control projects and active acquisition programs have started to reduce the number of structures subject to flooding in designated special flood hazard areas. The number of structures subject to flooding should continue to go down.

DATA SOURCE :

Estimates made by the DNR Division of Waters, U.S. Army Corps of Engineers, and the Federal Emergency Management Agency. Efforts are underway for a more thorough inventory of structures in flood prone areas but this effort will take several more years to complete.

DISCUSSION OF PAST PERFORMANCE :

There are a small number of structures that have been constructed in violation of local zoning ordinances that are not properly elevated or floodproofed. Many of the structures that have been acquired or that have been protected by flood control projects have been assisted by grants to local government units under the Flood Hazard Mitigation Grant Program.

PLAN TO ACHIEVE TARGETS :

The plan is to continue to promote local floodplain management activities and to solicit flood hazard mitigation grant proposals from local governments. To date grant requests have always exceeded the amount of money available. One significant factor in determining priorities for grants is whether the proposed project will remove homes from the floodplain or provide a significant amount of flood protection. Additional funds are needed to meet the objective and to continue to help resolve both urban and rural flooding problems around the state.

Goal 6 : To describe the geological sensitivity of ground water resources and provide that information to the public.

Objective 3 : Approximately one-fourth of the 470 communities enrolled in the National Flood Insurance Program that have significant flooding problems will be contacted each year to monitor the administration of and provide assistance in the implementation of their floodplain management ordinances.

Measure 1 : Cumulative number of communities contacted for monitoring and to provide assistance.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Cumulative communities contacted						
Actual	73	133	223	243		
Target					303	378

DEFINITION :

Of the 472 communities in Minnesota enrolled in the National Flood Insurance Program 371 have special flood hazards and are required to adopt local floodplain zoning ordinances that meet minimum state and federal requirements. The requirements ensure that new structures in special flood hazard areas are properly elevated so they will not be subject to flood damage.

RATIONALE :

The requirements of floodplain zoning ordinances are very complex and there is a need for periodic contact with the local government units to provide training, assistance, advice, monitoring of past actions and make sure they know who to call if they have problems or questions. The floodplain management program will not be effective if these contacts or meetings are discontinued..

DATA SOURCE :

Spreadsheet files located in the Divsion of Waters and workplans filed with the Federal Emergency Management Agency.

DISCUSSION OF PAST PERFORMANCE :

Over the last few years there has been increasing emphasis on one-on-one assistance to communities administering floodplain management ordinances. Three factors have influenced the level of success in recent years. The first is that when intensive training programs have been put on, the emphasis on one-on-one community assistance is temporarily reduced. A second factor is the availability of staff resources. Due to leaves of absence or mobility assignments this program has been somewhat understaffed at several occasions in recent years. The third factor is that the Federal Emergency Management Agency has been making it a higher priority in its state cooperative programs.

PLAN TO ACHIEVE TARGETS :

The Division's goal for several years has been to contact each participating community at least once every four years. With both the state and the federal emphasis on more community assistance, the momentum is there to see that it happens.

Goal 6 : To describe the geological sensitivity of ground water resources and provide that information to the public.

Objective 4 : The number of communities administering upgraded shoreland ordinances which address shoreland management issues will increase to 278 out of approximately 600 potential shoreland communities by the year 2000.

Measure 1 : Cumulative number of communities actively addressing development issues in shoreland areas.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Communities addressing issues						
Actual	109	183	214	219		
Target					224	229

DEFINITION :

The DNR has identified 606 communities that potentially need to adopt shoreland ordinances. Only 278 are likely to be targeted for adoption under the current program.

RATIONALE :

The communities have shoreland and water resources that could be impacted by uncontrolled development of the shoreland areas. Only the very high priority communities have been notified t adopt shoreland ordinances to date. Communities that do adopt ordinances will administer provision that require new septic systems, establish building and other setbacks, and restrict vegetation removal.

DATA SOURCE :

DNR inventory of shoreland communities.

DISCUSSION OF PAST PERFORMANCE :

Only communities that have large amounts of shoreland have been targeted to adopt ordinances. It is felt that additional communities cannot be handled without increasing staff resources.

PLAN TO ACHIEVE TARGETS :

Sixty ordinances are prjected to be adopted over the next 4 years. This is estimated to be all that can be handled with existing staff considering the training and technical assistance that needs to be provided to communities that have already adopted ordinances.

Agency : NATURAL RESOURCES DEPT

Program : FOREST MANAGEMENT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$43,508	20.52%
From Federal Funds	$4,520	
From Special Revenue Funds	$4,179	
General	$34,785	
From Gift Funds	$24	
Number of FTE Staff:	599	22.76%

GOALS :

- To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values. (M.S. 89.002; 89.21; 89.36-89.37; 89.71; 90; 86A)

- To improve the health and productivity of other public and private forest (including community forest) lands. (M.S. 88.79; 89.01; 89.37; 89.51-89.59; 282.04; 282.131; 282.14)

- To protect life, property, and natural resources from wildfires. (M.S. 88)

- To provide a meaningful natural resource work and educational experience for unemployed youth and young adults while accomplishing significant natural resource conservation/management work. (M.L. 1992, Ch. 513, Art. 2, Sec. 20; M.L. 1989, Ch. 335, Art. 1, Sec. 84.98)

DESCRIPTION OF SERVICES :

The Forest Management Program exists to maintain and improve the health and productivity of Minnesota's forests so they can produce a wide variety of forest outputs, values, and opportunities to meet the needs of current and future generations of Minnesotans; protect the lives, property, and natural resources of Minnesota citizens from wildfire; and provide a meaningful natural resource work and educational experience for unemployed youth and young adults.

The Forest Management activity provides for the management of 3.2 million acres of state-owned land within the boundaries of 57 state forests and 1.3 million acres of other state-owned lands for sustainable levels of resource outputs, uses, and opportunities. This activity also provides technical forest management and

cost-share assistance to other public and private landowners; monitors the health, growth and composition of Minnesota's forests; provides forest resource information to forest land managers and users; produces tree and shrub seedlings for planting on public and private lands; and coordinates the development and delivery of forestry related environmental education materials. Specific activities include:

Forest vegetation management planning for 4.5 million acres of state forest lands. Forest vegetation management planning directs state land timber sales and harvesting, reforestation, and timber stand improvement.

Maintenance and operation of the 2,064 mile state forest road system that provides access to state forest lands for public use and resource management, and to several million acres of federal, county, and private forest lands.

Maintenance and operation of 46 state forest campgrounds (with nearly 1,000 campsites), 44 day-use areas, and 1,200 miles of recreational trails.

Enforcement of state forest rules and regulations.

Forest Stewardship planning, technical, and cost-share assistance for non-industrial private forest landowners.

Technical urban forestry and cost-share assistance to Minnesota communities.

Maintenance and analysis of the management-level forest resource inventory for DNR administered lands, and a statewide forest inventory that encompasses all land ownerships.

Implementation, and monitoring of water quality and wetland Best Management Practices for forest management across all ownerships.

Implementation, and monitoring of visual quality guidelines for forest management across all ownerships through collaborative work with counties, other public agencies, and private landowners.

Development of a statewide ecological classification system (ECS) to support ecosystem-based management.

Development of forest soils interpretations and delivery of management assistance for forest managers.

Forest pest population monitoring and evaluation on forest lands in the state, and the development and communication of pest management guidelines to forest landowners, industry, and other units of government.

Remote sensing products and services (e.g., aerial photography, satellite imagery, interpretation) for use by resource managers and the general public.

Development and coordination of Geographic Information System (GIS) technologies and applications for forest resource management.

Forest resource information and analysis to support forest products and wood energy expansion and development consistent with long-term, sustainable forest management.

Technical assistance to counties without county land departments.

Development of the statewide forest resources plan and assessment.

Coordination of Project Learning Tree, a K-12 environmental education program, and development of other forestry related environmental education materials and programs (e.g., Forestry Fair, Arbor Day).

The Firefighting activity provides for the protection of all non-federal lands in the state (45.5 million acres) from wildfires.

The Firefighting activity includes:

Promotion of wildfire prevention through public education, regulation of open burning, enforcement of wildfire statutes, and fuels management. Prevention activities are designed to reduce the number of wildfires and minimize the damage caused by wildfires. In Minnesota, 98% of all fires are caused by human activity.

Preparedness for wildfire suppression through interagency/cooperative training of firefighters and support personnel, developing and maintaining partnerships with local and national agencies that are involved in fire protection, operation of a statewide interagency wildfire coordination center, maintaining a national interagency fire cache which is located in Minnesota, precontract arrangements for ground and aerial wildfire fighting

equipment, maintenance of a radio communications network, developing mobilization and dispatching plans, and other activities to provide for effective wildfire fighting activities. Wildfire protection in Minnesota functions effectively because of partnerships with fire departments, federal agencies with wildfire responsibilities, and national partnerships.

Detection and suppression of wildfires. The department detects wildfires through planned aerial detection flights and some wildfire lookout towers. The most effective and efficient way to extinguish reported wildfires is through quick initial response. Quick response by a balanced force of trained firefighters, support personnel, and aerial and ground equipment helps minimize overall program costs, and protects life, property, and natural resources.

Planning, coordination, and management of prescribed fires on state-administered lands.

The Youth Programs activity operates the Minnesota Conservation Corps (MCC) and Youth in Natural Resources programs.

MCC provides two primary services:

productive natural resource work experience and meaningful service learning opportunity to unemployed youth and young adults; and

a quality, cost-effective force for accomplishing significant natural resource conservation/management work

The MCC has two components: 1) a summer youth program which employs 15-18 year olds, and 2) a year-round young adult program for 18-26 year olds. Enrollment preference is given to those who are economically, socially, physically, or educationally disadvantaged and to protected classes. Participants develop self-esteem, self-management skills, a strong work ethic, new job skills and attitudes, and an awareness of the natural environment. In return, Minnesotans realize long-term environmental and economic benefits including improved timber production, fish and wildlife habitat, trail and waterway systems, park and recreation resources, and work-prepared citizens. The MCC serves most DNR disciplines and other public and not-for-profit agencies.

The Youth in Natural Resources program is a career exploration program for under-represented groups. This program provides youth and staff with eight weeks of training in career/education options related to natural resource management. Internships and tuition vouchers are also available.

Further, Youth Programs contracts with several agencies to provide services ranging from construction of the Superior Hiking Trail, to employment opportunities for hearing impaired youth, to assisting the Greening of the Great River Way in reclaiming the St. Paul waterfront.

The Sustainable Forest Resources activity provides for the implementation of the 1995 Sustainable Forest Resources Act (Minn. Stat. ch. 89A). The Act responds to the recommendations of the Generic Environmental Impact Statement (GEIS) on Timber Harvesting and Forest Management (MN EQB. April 1994) by establishing a number of policies and programs to ensure the long-term sustainability of the state's forest resources. Among these are:

The Minnesota Forest Resources Council: established with major responsibility for implementing the Sustainable Forest Resources Act, and identifying consensus-based solutions to issues and concerns associated with the sustainable management, use, and protection of the state's forest resources.

Development and implementation of comprehensive timber harvesting and forest management guidelines. Integrated timber harvesting and forest management guidelines are expected to be available in 1998.

Development and implementation of a landscape-based forest resources planning program, to be delivered

through regional forest resource committees established by the Council.

The Forest Resources Research Advisory Committee: established by the Council to address research needs associated with sustainable forest resources management.

The interagency Forest Resources Information Cooperative: established by the Council to coordinate the development and use of, and access to a wide range of forest resource data in Minnesota.

Comprehensive monitoring programs: the DNR, with input and direction from the Council, is establishing programs to better monitor the condition of the state's forest resources, use of various timber harvesting and forest management practices, compliance with voluntary management guidelines, and effectiveness of various timber harvesting and forest management practices.

Continuing education for loggers and natural resources professionals: the newly-established center for continuing education for natural resources professionals and Minnesota Logger Education Program are examples of these efforts.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
A	FY	Cords (000s) of wood harvested from DNR-administered lands	563.6	549.8
A	FY	Acres (000s) of reforestation on DNR-administered lands	26.4	26.5
A	FY	Acres of thinning, pruning, and release of young trees from competing vegetation on DNR-administered lands	3376	3375e
W	FY	Number (000s) of camper nights at state forest campgrounds	96.9	n/a
A	FY	Number of leases administered on state forest lands	2000	2000
A	FY	Acres (000s) of private land for which Woodland Stewardship plans were prepared with professional forestry assistance (DNR only)	37.3	35.3
A	FY	Acres (000s) of private land for which Woodland Stewardship plans were prepared with professional forestry assistance (DNR + other cooperators)	78.7	76.4
A	FY	Number of communities provided technical and cost-share assistance	820	890
A	FY	Tree and shrub seedlings (millions) sold by DNR nurseries.	10.3	9.7
A	FY	Millions acres monitored and evaluated for forest pest outbreaks	14.7	13.9
W	FY	Acres/number of wildfires reported suppressed	15336/1186	17117/1316

A	FY	Number of youth and young adults enrolled in youth programs	340	278
A	FY	Acres (000s) of non-industrial private forest land management acheived under guidance of Woodland Stewardship plans and DNR Forestry staff assistance	17.0	18.0

PROGRAM DRIVERS :

Economic and Environmental Sustainability

The health and vitality of the state's forest products and tourism industries are both heavily dependent on the sustainability of Minnesota's forests. The forest products industry requires sustainable supplies of timber to meeting increasing market demands and compete in a global economy. The tourism industry depends on the aesthetic quality, diversity, spiritual value and recreation opportunities available on forest lands. At the same time, Minnesotans are concerned about a wide range of potential environmental impacts resulting from growing demands for forest resources and amenities.

The ability to provide increased, yet sustainable, levels of forest outputs, while at the same time maintaining (or improving) the health and diversity of forest ecosystems will depend greatly on the degree to which forest managers are successful in implementing provisions of the 1995 Sustainable Forest Resources Act (SFRA. Minn. Stat. ch. 89A) and the associated environmental concerns embodied in the GEIS. A major policy focus of the Division of Forestry and its partners will continue to be implementation of the provisions of the SFRA. The MN Forest Resources Council , MN Forest Resources Partnership and their associated efforts, in particular the development of comprehensive forest management guidelines and a landscape-based forest resources planning and coordination program, will play a key role in establishing policy and direction to address key forest management issues, including those identified in the GEIS.

Annual statewide timber harvests are projected to increase from an estimated 4.05 million cords in 1995 to 4.66 million cords by the year 2000. Directly related to this is over $1 billion in capital investments that have been or are projected to be made by forest products industries during the same time period. The combination of increased timber harvests and capital investments has increased the value of forest products manufactured in Minnesota from $6.2 billion in 1990 to an estimated $7.8 billion in 1993. In 1993, Minnesota's forest products industries had payrolls of over $2 billion and directly employed nearly 60,000 people.

Recognizing the important role state lands play in meet the increasing demand for timber, the 1995 Legislature provided additional appropriations "for implementing the planned harvest on state lands" (Minn. Laws 1995, ch. 220, sec. 5, subd. 4). In implementing the planned harvest, the division was directed to follow existing guidelines for protection of forest resource values, which include: water quality and wetland BMPs, visual quality BMPs, and DNR Old-Growth Forest and Extended Rotation Forest guidelines.

Private Forest Management

Non-industrial private forest (NIPF) lands comprise 40% of the forest land in the state, and as such, play a key role in the overall sustainability of the state's forest resources. Recognizing the importance of NIPF lands, the division developed a vision called "Private Forest Management (PFM) in 2005" which sets an ambitious goal of assuring that at least one-half of NIPF lands in the state (i.e., approximately 2.5 million acres) are being managed using professional forestry advice by the year 2005. Currently, about 20% of NIPF lands are receiving professional forestry advice. PFM in 2005 recognizes that the additional effort needed will have to come primarily from the private sector through partnerships with the DNR and other involved government agencies. Dramatic reductions in federal funding for forest management cost-share assistance on private lands will make the vision and goals established under PFM in 2005 extremely difficult to achieve.

Increasing Residential Development in Suburban Areas, Along Lake Shores, and in Rural Areas. The

occurrence of wildfires, and the potential for destruction of life, property, and natural resources by wildfires is much greater in these "rural/urban interface" areas compared to rural areas. Cooperative efforts with other government agencies and fire departments will be the key to effective and efficient wildfire protection.

Reduced Federal Funding. Federal funding is projected to continue decreasing for a number of important resource management assistance programs. The Forest Management program will need to rely on alternative funding from state and local sources as well as increase the leveraging of state funds with matching private and local government funds or volunteer/in kind contributions in order to achieve planned outcomes.

Aging Workforce. The continued aging of the division's workforce will pose a challenge for future fire prevention and suppression efforts. Fire suppression especially requires long hours of mentally and physically exhausting work, often in continuous stretches of several weeks and even months. In addition to physical and mental stamina, a workforce with a more balanced age structure will provide a greater diversity of skills, knowledge and ideas to address emerging resource management issues.

Increased Interest in Youth Service/Employment/Development Programs. Programming for youth remains a high priority among political leaders and legislators at both the state and national levels. Increased interest may translate into increased opportunities for DNR's Youth Programs. For instance, the federal AmeriCorps program partnership with Youth Programs' Minnesota Conservation Corps (MCC) has provide a much needed benefits package for MCC young adult corps members. The major medical insurance plan, child care assistance, and post-service education award of up to $4,725 have reduced corps member turnover and attracted better skilled and motivated individuals. Increased coordination and partnerships between various youth programs and initiatives will be important for the effective use of available funding and resources. Likewise, increased competition between various youth programs for available funding and resources will affect the performance of the DNR's Youth Programs activity.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 1 : Reforest an acreage at least equal to the acreage harvested on DNR-administered lands each year.

Measure 1 : Reforestation of DNR-administered lands as a percentage of acres on DNR-administered lands harvested (5-year running average).

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent reforestation						
Actual	97%	97%	95%	97%		
Target	100%	97%	99%	97%	98%	99%

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 1 : Reforest an acreage at least equal to the acreage harvested on DNR-administered lands each year.

Measure 2 : Thousands of acres of DNR-administered lands reforested each year.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres reforested (000s)						
Actual	27.7	33.7	26.4	26.5		
Target	31.0	38.6	30.6	31.0	33.3	

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 1 : Reforest an acreage at least equal to the acreage harvested on DNR-administered lands each year.

Measure 3 : Cost per acre for reforestation on DNR-administered lands.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Cost/acre for reforestation						
Actual	$56.79	$46.13	$66.91	$50.76		
Target		$57.00	$59.00	$59.00	$61.00	$63.00

DEFINITION :

Reforestation is the establishment of appropriate tree species at an appropriate stocking on a site. Reforestation is done by means of planting, direct seeding, and natural regeneration (i.e., stump sprouts, root suckers, seeding) from existing trees. The DNR currently tracks harvests from DNR administered lands according to the number of cords harvested. Acres of timber harvest from state land are determined indirectly using a standard conversion of 20 cords per acre of harvest. A five-year running average is used to compensate for year-to-year fluctuations caused by weather, funding, and other unpredictable factors.

Cost per acre: total costs, including staff time, coded by DNR Division of Forestry personnel to reforestation on DNR administered lands divided by the total reforestation acres on DNR administered lands.

RATIONALE :

Reforestation of an acreage at least equal to acreage harvested each year is a requirement of the Forest Resource Management Act of 1982. Timber harvesting and reforestation on state forest land are major responsibilities of the DNR Division of Forestry. Reforestation acreage and cords of wood harvested are easily measured. However, a direct measure of acres harvested is not currently feasible nor will it be in the foreseeable future. As a result, acres harvested has been indirectly determined from the direct measure of cords of wood harvested using a standard conversion of 20 cords per acre of harvest.

Beginning in FY 1996, the division gained the ability to directly measure and report the number of acres of timber sold from state lands. However, since there is only one year of data for acres of timber sold and this is a significant shift in how this measure is determined, the division continued the use of acres harvested in FY 1996 as previously described. In the future, the direct measure of acres of timber sold will provide a more accurate and reliable measure of acres that eventually will be harvested compared to the current 20 cords of wood per acre conversion factor. Since timber that has been sold may be harvested over a one to five year period (i.e., length of timber sales permits), acres sold will not be the same as the actual acres harvested in any one year. However, over a period of time, acres of timber sold should be substantially equivalent to acres of timber harvested. This delay between when timber is sold and when it is harvested (and even between when timber is harvested and when it is reforested) also makes year-to-year comparisons between acres sold and acres reforested a poor measure of progress (i.e., reforestation in FY 1996 responds to timber that was sold one to five years ago, but not actually harvested until the current or previous year). Comparisons over longer periods of time (e.g., 10 years) would be more meaningful.

Per acre costs for reforestation can help identify trends resulting from changes in resource management objectives, reforestation techniques, forest regulations, and organization structure/processes. This measure will be most useful in monitoring the costs of administering reforestation contracts and developing reforestation prescriptions to meet resource management objectives. Reforestation is carried out completely through competitively bid contracts.

DATA SOURCE :

Acres reforested is currently reported by DNR Division of Forestry annual reforestation accomplishment records. Acres harvested is provided by computer reports from wood using industries and actual field measurements by DNR personnel as entered into the DNR's Timber Sales Reporting System. Reports are generated quarterly. Acres sold information is reported by the DNR Forest Development Module based on actual field measurements from division timber sale appraisals and the results of DNR auction and informal timber sales.

Cost per acre information is provided by DNR Division of Forestry spending plans and annual reforestation accomplishment records (Forest Development Module), and Forestry Administrative Management System.

DISCUSSION OF PAST PERFORMANCE :

Slight deviations from the target of regenerating an area equal to area sold each year can be attributed to a variety of conditions including availability of funding, adequate nursery planting stock and inclement weather during site preparation and planting seasons. The division has redirected a significant amount of staff energy to its reorganization effort which began in earnest in FY 1993 and continued to affect accomplishments in many areas, including reforestation, through FY 1995. Acres harvested and subsequently requiring regeneration may also fluctuate due to forest products market fluctuations and overall economic conditions.

Some reforestation costs will likely increase in the years ahead as management objectives and approaches change to address issues of sustainability and biodiversity. Specific examples include increased efforts to restore greater numbers of white pine and increase the amount of uneven-aged forest land in the state. Implementation of the comprehensive forest management guidelines being developed through the MN Forest Resources Council will likely result in some increased reforestation costs. Inflation will also push reforestation costs upward. The accuracy of costs coded to reforestation are dependent on accuracy and consistency with which personnel use the cost coding and time reporting systems. As a result, cost-per-acre information is most useful in identifying trends rather than precise cost per unit information. Wet weather, and warm or extremely snowy winters can reduce the amount of site preparation and seeding/planting that can be accomplished. Reductions in planting/seeding will likely reduce overall reforestation expenditures and cost/acre figures.

PLAN TO ACHIEVE TARGETS :

Reforestation of state lands will continue to be accomplished through competitively bid contracts. Increased reliance on natural regeneration and acceptance of lower stocking and mixed species in areas planted or seeded could help balance projected reforestation cost increases. However, desired forest composition goals, and the need to increase timber productivity to meet increasing demands for wood will limit reliance on natural regeneration and stocking/species mix.

DISCUSSION OF PAST PERFORMANCE :

Timber management planning is carried out on a 5-year cycle in each of the DNR Division of Forestry's administrative Areas. In any one year, only a portion of the 40 Areas complete a TMP process. As a result, the sustainable level of harvest (in acres) will change from year to year based on the output of the latest TMP processes. In addition, annual objectives will vary from the identified annual sustainable level of harvest due to adjustments made for unexpected events (e.g., blowdown, insect or disease outbreaks), to maintain progress towards the future forest composition goal (e.g., adjust downward if the number of acres treated in the previous year was higher than the five-year average, or vice versa), or in recognition of staffing/budget limitations.

Weather conditions (e.g., wet, warm winters will reduce the amount of timber that is accessible to be harvested) and the demand for forest products such as paper and lumber, will affect the extent to which planned timber harvests take place on DNR administered lands.

PLAN TO ACHIEVE TARGETS :

Continued implementation of the DNR Old-Growth Forest Guidelines and Extended Rotation Forest Guideline will have some effect on long-term sustainable harvest levels from DNR administered lands. The degree of this effect won't be known until the guidelines are fully implemented through ongoing regional planning efforts and DNR timber management planning. Implementation of the water quality, wetland, visual quality BMPs will also have some effect on long-term harvest levels. Increased emphasis on uneven-aged management of some forest types may initially reduce the volume of timber available from harvest on state lands. Implementation of the comprehensive forest management guidelines currently being developed through the MN Forest Resources Council will also likely have some effect on sustainable harvest levels from state forest lands. Minnesota Laws 1994, ch. 551 and Minnesota Laws 1996, ch. 295 made a number of changes to state timber sale statutes to improve administrative efficiencies. The 1995 Legislature provided additional appropriations in 1995 "for implementing the planned harvest on state lands" (Minn. Laws 1995, ch. 220, sec. 5, subd. 4). In implementing the planned harvest, the division was directed to follow existing guidelines for protection of forest resource values.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 3 : Maintain harvest levels at or below projected long-term sustainable levels statewide across all ownerships.

Measure 1 : Millions of cords of wood harvested.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Millions of cords harvested						
Actual	4.10	4.11	4.05			
Target				4.1	4.1	4.1

DEFINITION :

Estimate of total cords and cord equivalents of wood harvested from all ownerships in Minnesota.

RATIONALE :

A key factor in the sustainable output of a wide range of natural resources from Minnesota's forest lands is the ability to maintain forest harvests at or below a level that is considered sustainable over the long-term. It is important that this be measured across all ownerships to be effective. However, it is difficult to define with certainty what the long-term sustainable level of harvesting is or should be in Minnesota. The GEIS for Timber Harvesting and Forest Management in Minnesota states that the 4.0 and 4.9 million cord harvest levels are sustainable if recommended mitigations are implemented "relatively soon to avoid or mitigate the significant impacts" (p. xxviii, Final GEIS Executive Summary). However, "relatively soon" is not specifically defined. The actual sustainable harvest level may be higher or lower than this depending on the effect of various guidelines and management restrictions needed in the future to protect various forest resources and values, and the introduction of new , unanticipated technology (e.g., large scale planting of fast-growing hybrid poplars on marginal farm lands).

DATA SOURCE :

Annual reports from wood using industries, annual agency timber harvest reports, periodic Forest Inventory and Analysis (Minnesota's statewide forest inventory).

DISCUSSION OF PAST PERFORMANCE :

The DNR only directly controls 21% of the timberland in the state. Government agencies control approximately 50% of the state's timberland. Influence on the remaining 50% of the timberland, the majority of which is controlled by a large number of non-industrial private landowners, is accomplished through technical and cost-share assistance provided by government agencies and private industry.

PLAN TO ACHIEVE TARGETS :

The division will continue analyzing resource and harvest information, and support industry development within the limits of sustainable forest management. Efforts will focus on alternatives to reduce/minimize the potential for over harvesting in species that are reaching sustainable limits. Examples include: use of alternate species, changing industry utilization standards and improve processing technologies, and encouraging greater recycling and wood residue use.

Interagency and interdisciplinary land management planning will be key in defining and achieving long-term sustainable levels of timber harvests. This will be most feasible on public land ownerships. To facilitate interdisciplinary planning, the DNR regional planners are assigned to regional administrators as department natural resource planners. Landscape-level forest resources planning is also a major component of the 1995 Sustainable Forest Resources Act (SFRA)(Minn. Stat. ch. 89A) with the responsibility for its development and implementation assigned to the MN Forest Resources Council. The Council just recently completed defining the process by which the framework for conducting landscape-based planning will be developed. This framework includes defining regional landscapes and the process by which regional landscape-based forest resource management planning will be carried out. In the future, the landscape-based process developed by the Council will play a key role in addressing the issue of sustainable timber harvesting.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 4 : Designate at least 10% of DNR-administered timberlands as Extended Rotation Forests (ERF) by the year 2005.

Measure 1 : Percentage of DNR-administered timberlands designated for ERF management.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent designated ERF						
Actual	-%	-%				
Target	1%	1%	2%	2%	3%	4%

DEFINITION :

Extended Rotation Forest is defined by the DNR as areas or specific sites that have been assigned a management prescription to lengthen the time to the ultimate harvest of the trees or stand. The DNR ERF Guideline recommends that a minimum of 10% of the timberlands administered by the DNR in each landscape be managed as ERF. The DNR Division of Forestry administers three (3) million acres of timberland.

RATIONALE :

The charge of sustained yield of forest resources contained in the 1982 Forest Resource Management Act includes forest resources such as fish and wildlife habitat, rare and distinctive flora and fauna, water, soil, recreation/aesthetic, and forest crops. ERF management will allow older forest stands to develop in meeting a variety of resource management objectives within landscape regions. ERF make an important contribution to conserving biological diversity in Minnesota. Biological diversity conservation requires maintaining portions of forest communities in each successional stage. ERF insure that an adequate acreage of forest older than rotation age are maintained on a continuing basis. ERF will also be important in providing old-growth forest buffers, habitat for a wide variety of plants and animals, recreation/aesthetic values, and larger trees needed to meet saw timber demands. ERF will also help protect water quality, and conserve soil nutrients and maintain productivity on erodible sites.

DATA SOURCE :

DNR ERF Guideline, DNR Timber Management Planning (TMP, completed once every 5 years), DNR Cooperative Stand Assessment (CSA, updated annually). Current reporting capabilities of the TMP have made it difficult to determine the number of acres currently identified for ERF management.

DISCUSSION OF PAST PERFORMANCE :

Continued development of the DNR's Forest Development Module will improve reporting capabilities for this measure. The identification and designation of forest stands to be managed as ERF is being done as part of the DNR's regional landscape-based planning processes and the timber management planning efforts undertaken in each DNR Division of Forestry Area. ERF will only be effective in addressing issues of sustainability and biodiversity if done in concert with the planning of forest composition goals, old-growth forests, and uneven-aged forests.

PLAN TO ACHIEVE TARGETS :

The DNR ERF Guideline provides DNR resource managers with the means to identify and designate DNR administered timberlands to be managed as extended rotation forest. Implementation of the ERF Guideline occurs through the establishment of ERF goals through the department's regional landscape-based planning process and the assignment of management prescriptions through to the Division of Forestry's Area timber management planning process. The department will continue development of an ecological classification system (ECS) to delineate appropriate levels of landscapes for planning and management purposes. Landscape-level forest resources planning is a major component of the 1995 Sustainable Forest Resources Act (SFRA)(Minn. Stat. ch. 89A) with the responsibility for its development and implementation assigned to the MN Forest Resources Council. In the future, the landscape-based process developed by the Council will influence the implementation of the ERF Guideline on department administered forest lands.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 5 : Increase the percent of annual timber harvest on DNR-administered lands conducted using uneven-aged management methods to 10% by the year 2000.

Measure 1 : Percent of annual timber sold on DNR-adminstered forest lands identified for harvest using uneven-aged methods.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent using uneven-aged methods						
Actual	6%	n/a%	n/a%	7%		

DEFINITION :

Annual volume of timber sold through DNR regular or intermediate auction, and informal timber sales to be harvested through uneven-aged management methods divided by the total annual volume of timber sold on DNR-administered lands.

RATIONALE :

Over the period of 1990-1991, 94% of the acres harvested on DNR-administered lands was done using even-aged management methods, which encourage forest stands comprised of trees of relatively the same age (e.g., clearcut harvest, seed tree, thinning). The recently completed GEIS on Timber Harvesting and Forest Management in Minnesota recommends an increase in the use of uneven-aged management and a decrease in the use of clear cutting and other even-aged harvesting systems across all ownerships to address issues of sustainability and biodiversity.

The DNR does not currently have the ability to measure the amount of timber harvested under various harvesting methods (e.g., clear cut, clear cut with residuals, partial cut, thinned, etc.) nor will it have this ability in the foreseeable future. However, beginning in FY 1996, the division does have the ability to report the amount of timber sold from state lands under the various timber harvesting methods through the DNR Forest Development Module. Over time, timber sold under the various management prescriptions should be substantially equivalent to actual timber harvested.

DATA SOURCE :

Beginning in FY 1996, acres sold information will be reported annually by the DNR Forest Development Module based on actual field measurements from division timber sale appraisals and the results of DNR auction and informal timber sales. For years prior to FY 1996, this information was not available.

DISCUSSION OF PAST PERFORMANCE :

The amount of uneven-aged management is limited by the acreage of cover types amenable to this type of management. DNR forest inventory information for DNR administered lands show that approximately 10% of DNR timberlands are comprised of cover types (in whole or in part) that are generally amenable to uneven-age management (e.g., northern hardwoods, lowland hardwoods, ash, and a certain percentage of various other cover types). However, there are opportunities for uneven-age management in other cover types depending on the species composition, age, and condition of individual stands. In a 1992 summary of management prescriptions for DNR timberlands over a 10-year period, approximately 20% of the stands reviewed for treatment were recommended for all-aged (i.e., uneven-aged) management. Relatively few stands recommended for uneven-aged management have actually received any treatment to date. Uneven-aged management requires additional staff time that is rarely available given current staffing levels and other demands on staff time. Forest industries ability to adapt and develop new technologies to use alternative hardwood species in their manufacturing processes will largely determine the extent of thinning and uneven-aged management on state lands..

PLAN TO ACHIEVE TARGETS :

The department will identify appropriate covertypes and areas for uneven-aged management through the use of forest inventory information, desired future conditions (forest composition goals) developed through landscape-based regional planning, and available ecological classification system (ECS) information. A limited number of stands recommended for uneven-aged management through the existing DNR timber management plans (TMP) have received treatment over the past four years through a department hardwoods initiative. The department has contracted with outside consultants to do this when dollars have been available. In the past two years, department staff have conducted or attended hardwood management workshops and field tours for forest managers. Similar efforts are expected to continue or increase during the next biennium. Light-on-the land logging equipment will be field evaluated through a cooperative effort with the U.S. Forest Service, the DNR, and loggers. The extent of these evaluations will depend on available funding. Field evaluation of this equipment is needed to assess the feasibility and effectiveness of this equipment for uneven-aged management, thinning, and on sensitive sites to reduce impacts to soils and the remaining forest vegetation.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 6 : Increase adoption and use of Water Quality and Wetland Best Managemet Practices or forest management to 90% on professionally managed forest lands by the year 2000 and 85% on non-industrial private forest lands by the year 2005.

Measure 1 : Percent compliance with BMPs on professionally managed forest lands.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent compliance						
Actual	88%	n/a%	92%	n/a%		
Target		86%	87%	n/a%	90%	90%

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 6 : Increase adoption and use of Water Quality and Wetland Best Managemet Practices or forest management to 90% on professionally managed forest lands by the year 2000 and 85% on non-industrial private forest lands by the year 2005.

Measure 2 : Percent compliance with BMPs on non-industrial private forest land.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent compliance						
Actual	78%	n/a%	90%	n/a%		
Target		74%	76%	n/a%	85%	85%

DEFINITION :

The forestry community in Minnesota has developed and adopted voluntary Best Management Practices for forest management activities to address nonpoint-source (NPS) pollution to surface and ground water and wetlands from forest management activities. The DNR Division of Forestry coordinates annual field audits of compliance with the BMPs across all categories of land ownership (e.g, federal, state, county, private, industry). The definition of this objective and measure will broaden upon completion of the comprehensive forest management guidelines that are currently being developed as directed in the 1995 Sustainable Forest Resources Act (SFRA)(Minn. Stat. ch. 89A). The comprehensive forest management guidelines will incorporate the existing water quality and wetland BMPs, but will address a number of additional forest management considerations, such as wildlife habitat, riparian zones, soil productivity, and cultural and historic resources. The comprehensive guidelines are expected to be completed by the end of FY 1998.

RATIONALE :

The 1982 Forest Resource Management Act defines forest resources to include, among other things, water. Section 319 of the federal Clean Water Act includes a mandate for states to develop a program to control NPS pollution. Minnesota identified four land uses where NPS control efforts were needed: agriculture, mining, urban development, and forestry. The Water Quality BMPs have been accepted by the MN Pollution Control Agency and the federal Environmental Protection Agency as an appropriate program to address NPS pollution associated with forest management. The Water Quality and Wetland BMPs are based on research and knowledge from across the region and country, and are accepted by the professional forestry community in Minnesota. BMP Field Audit results provide a cost-effective, surrogate measure of water quality. A surrogate measure of water quality has been used because of the extremely high costs involved with direct water quality measurements and the limited ability to isolate the effects of forest management practices on water quality from other sources of water pollution (e.g., agriculture, urban run-off, mining, point sources, etc.).

DATA SOURCE :

Forestry BMP Field Audit Process (Coordinated by DNR Division of Forestry). The future monitoring process for the comprehensive forest management guidelines will occur under the guidance of the MN Forest Resources Council.

DISCUSSION OF PAST PERFORMANCE :

The DNR directly controls only 21% of the timberland in the state. Compliance with BMPs on other ownerships depends on their willingness to participate. The DNR uses information from the field audits to focus education efforts and technical assistance. There results also provide an effective means of targeting limited resources towards areas of concern. Continuation of BMP field audits and education efforts is dependent on continued funding. Reductions in or elimination of field audits or education efforts will reduce the effectiveness and reliability of BMP in protecting water quality and wetlands. Field audits were not done in 1994 due to the focus on development and implementation of wetland BMPs and their integration with the water quality BMPs. Field audits have not been done in FY 1996 due to the refocus of substantial effort towards the development of the comprehensive forest management guidelines called for in the 1995 Sustainable Forest Resource Act (Minn. Stat. ch. 89A) and currently being developed under the oversight of the MN Forest Resources Council.

Field audits are planned to be conducted in 1997.

PLAN TO ACHIEVE TARGETS :

The department will continue to focus education of loggers, landowners, and resource managers based on areas of concern identified through the BMP audit process. The Division of Forestry has reallocated a significant amount of staff time over the past six years to the development, implementation, and monitoring of water quality and wetland BMPs. This commitment will continue indefinitely and will likely need to expand due to the development and eventual implementation of the comprehensive forest management guidelines called for in the 1995 SFRA. The comprehensive guidelines will incorporate the existing water quality and wetland BMPs and will likely use a process similar to the one used for the existing BMPs for implementation and monitoring (i.e., field audit process). As a result, future field audits will become more complex. Compliance with the comprehensive guidelines may be lower, compared to previous audits of water quality and wetland BMPs, during the first several years of implementation due this additional complexity. The number and frequency of future field audits will continue to be dependent on funding levels.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 7 : Maintain a satisfaction rating of 90% or more for state forest campground users.

Measure 1 : Percent of state forest campground users satisfied with services provided.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent satisifed						
Target					90%	

DEFINITION :

A 1989 survey of registered campers was administered by the Division of Forestry recreation staff from St. Paul and field offices. Surveys were handed out by DNR personnel at all state forest campgrounds. The number of surveys handed out at each campground was proportionate to the percentage of total state forest campground receipts collected at each campground in 1988. The survey asked a number of questions about state forest campground users. One question asked campers to rate their overall satisfaction with the campground from "exceeded expectations" to "very dissatisfied." Ninety-four percent (94%) were "mostly satisfied" or better.

RATIONALE :

The Outdoor Recreation Act of 1975 (M.S. 86A) includes state forests and state forest subareas as important components of the state's outdoor recreation system. The statutes define state forest subareas as campgrounds and day-use areas. The Division of Forestry currently administers 46 state forest campgrounds. M.S. 86A further directs state forest campgrounds to provide minimum facilities to accommodate overnight camping. The minimum facilities provided by state forest campgrounds fill a specific niche in Minnesota's outdoor recreation system: more "rustic" camping/outdoor experiences at facilities that are less developed (e.g., no electrical hook-ups, or dump stations for RV's). The satisfaction of campers seeking this type of experience is a true measure of how well the Division of Forestry is fulfilling its role in the state's outdoor recreation system.

DATA SOURCE :

Periodic survey of state forest campground users conducted by the DNR. The initial survey was completed in 1989. The division plans on redoing the survey in 1997 and approximately every five years thereafter. The survey cost approximately $5,000 in 1989 including staff time, survey printing, and analysis of results.

DISCUSSION OF PAST PERFORMANCE :

Most of the state forest campgrounds were constructed in the late 1960's and early 1970's (some as early as the 1930's). From F.Y. 1985 to F.Y. 1995, the division did not receive any funding for recreation facility rehabilitation or development. In F.Y. 1995, $500,000 in capital bonding was available to the division for recreation facility improvements. This funding accomplished significant rehabilitation at 16 state forest campgrounds. However, the remaining 30 state forest campgrounds are still in need of serious work. The 1996 Legislature did not appropriate any capital bonding funds for state forest recreation facilities. As a result, needed work cannot be done until F.Y. 1998 at the earliest, depending on the availability of bonding funds at that time. The 1990 State Comprehensive Outdoor Recreation Plan predicts that demand for most recreational activities will increase significantly on state forest lands in the years ahead. Future funding levels for rehabilitation, maintenance, and operation will have a direct impact on the level of user satisfaction with state forest campground facilities. What effect inadequate levels of funding have had on user satisfaction will not be known until the survey is re-done hopefully in 1997.

PLAN TO ACHIEVE TARGETS :

The division has streamlined procedures to reduce staff time spent on campground fee collection. The division plans to implement a variable fee system to distribute campground use throughout the state forest campground system and lessen impacts at more popular campgrounds. The variable fee system will charge higher fees at our most used campgrounds. To reduce costs, the Division of Forestry has joined together with the Division of Parks and Recreation in soliciting bids and purchasing picnic tables, fire rings, and vault toilets. The division has also received funds from the Department of Administration's Access '92 capital bonding fund to upgrade state forest campgrounds for handicapped accessibility.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 8 : By the year 2000, 100% of class 1-4 state forest roads will be maintained at the DNR Forest Road design standards for which they were built.

Measure 1 : Percent of state forest roads meeting the state forest road design standards for which they were built.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent roads meeting standards						

DEFINITION :

Class 1-4 state forest roads are gravel surfaced and regularly maintained state forest road classes.

RATIONALE :

State law directs the DNR to provide a system of forest roads and trails which provides access to state forest land and which is adequate to permit the commissioner to manage, protect, and develop those lands. The DNR maintains over 2,000 miles of state forest roads that serve 4.5 million acres of state forest land. These roads also serve several million acres of county, federal, and private forest lands. In a recent study of the traffic on state forest roads in Minnesota, over 95% of total state forest road use was found to be for recreational purposes. In addition, some 2,500 loggers and 15 major wood-based industries benefit from a safe, well-maintained state forest road system. This performance measure provides a means to determine the degree to which state forest roads are being maintained to standards that provide for the continued use and safety of all users. State forest roads are built to a standard for their intended use, but subsequent investments are needed (i.e., grading, right-of-way maintenance, resurfacing, signing) to maintain them at those standards. While the number of accidents on state forest roads would be a more direct outcome measure, the means to provide complete, accurate and consistent accident reporting for state forest roads does not exist and will not likely be feasible in the future.

DATA SOURCE :

The DNR does not currently track this information. An initial survey of all field offices would be required to determine the present status of class 1-4 forest roads. Following the initial survey, a reporting system would have to be established to track changes in forest roads as reconstruction/construction takes place or if the condition of roads deteriorates below standards. Ideally, state forest roads should be resurfaced (gravel) every 15 years and reconstructed every 30 years. However, the DNR does not currently have a data base for tracking or scheduling resurfacing and reconstruction on state forest roads. In addition, annual needs to accomplish the resurfacing/reconstruction cycles have far exceeded annual funding appropriations over the past 8-10 years ($1.8 million annual capital funding need, $300,000 and $200,000 capital bonding approved by the Legislature in 1994 and 1996 respectively). The division has begun a digital inventory of the state forest road system using global positioning system (GPS) technology and software. This digital inventory will likely be completed over the next biennium. The digital inventory will provide the basis for the database needed to track forest road condition and resurfacing/reconstruction needs.

DISCUSSION OF PAST PERFORMANCE :

Weather conditions can affect maintenance and resurfacing needs. Limited budgets for maintenance can hasten the deterioration of state forest roads and increase resurfacing and reconstruction needs. Capital funding levels will determine the amount of reconstruction/resurfacing that can be accomplished, and as a result, how well the DNR meets its stated objective.

PLAN TO ACHIEVE TARGETS :

Limited capital bonding appropriations will require additional seasonal closings of some state forest roads to slow deterioration. Without adequate funding in the future, projected targets will not be feasible.

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 9 : Produce 10 million high quality, low cost, native tree and shrub seedlings each year in a ratio of 50% conifers and 50% other species by the year 2000.

Measure 1 : Millions of trees and shrubs produced and sold by DNR nurseries.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Miilions produced						
Actual	13.2	11.4	10.1	9.7		
Target	24.2	17.7	14.0	14.0	10.0	10.0

Goal 1 : To provide a long-term, sustainable yield of forest resources from state forest lands. Forest resources include timber and other forest crops, fish and wildlife habitat, biological diversity, clean water, recreation, rare and distinctive flora and fauna, air, soil, and educational, aesthetic and historic values.

Objective 9 : Produce 10 million high quality, low cost, native tree and shrub seedlings each year in a ratio of 50% conifers and 50% other species by the year 2000.

Measure 2 : Ratio of conifer seedlings to other seedlings produced by DNR nureseries.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Conifer/other ratio						
Actual	70:30	70:30	60:40	60:40		
Target			60:40	60:40	60:40	60:40

DEFINITION :

Tree and shrub seedlings produced, procured, sold, and distributed by DNR nurseries located at Willow River and Badoura. Ratio of total conifer seedlings produced to total hardwood trees/shrub seedlings produced expressed as a percentage of total seedling production.

RATIONALE :

Minnesota statutes (M.S. 89.36) authorizes the DNR to produce tree planting stock for the purpose of auxiliary forests, woodlots, windbreaks, shelterbelts, erosion control, soil conservation, water conservation, provision of permanent food and cover for wildlife, environmental education, and afforestation and reforestation of public and private lands of any kind. The focus of the DNR nurseries is to produce high quality, Minnesota seed source, Minnesota grown seedlings at a competitive price for conservation programs in the state. Most of the conservation programs in the state require that overall reforestation accomplishments be split 50:50 between conifers and other species. Measures of quality, low cost, and the degree to which DNR nurseries are producing native species are not developed enough at this point to include in this report, but will be pursued as improvements in future reports.

DATA SOURCE :

DNR nurseries sales reports and annual spending plans.

DISCUSSION OF PAST PERFORMANCE :

Seedling production and sales are dependent on the demand from public and private landowners. Decreasing forest development budgets for and increased reliance on natural regeneration by public land managers has precipitated a decline in tree sales. Private landowner interest in tree planting is directly related to the availability of state and federal cost-share funding, and the cost of tree seedlings. Federal cost-share funding has fluctuated overtime according to cycles in major federal initiatives (e.g., CRP, Forest Stewardship). The 1982 Forest Resource Management Act (M.S. 89.06) required the DNR to submit to the legislature a plan describing the benefits and costs of making the DNR Nursery and Tree Improvement Program self-supporting. The nurseries became self-supporting in FY 1985. The cost of tree seedlings produced by DNR nurseries have been increasing because of increased operating costs and this requirement to be self-supporting. Increased competition from private nurseries producing containerized seedlings will also affect DNR nursery sales.

PLAN TO ACHIEVE TARGETS :

The DNR has reduced supervisory levels and costs in order to control operating expenses. In addition, nursery staff are reallocated to other division programs according to seasonal demands of the nursery program. The division has taken a number of steps to increase the ease and flexibility of ordering tree seedlings. Legislation passed during the 1994 session removes the limit on the number of species and the minimum number of trees that can be acquired from other states or the federal Government (MS 89.36, Subd. 3). This will enhance the DNR's ability to cooperate with state and federal nurseries in adjacent states in the growing and sale/exchange of tree seedlings. Cooperation between nurseries allows each nursery to concentrate on species they are particularly well-suited to grow, or that are in high demand in their locale. Through increased cooperation, DNR nurseries will benefit from economies of scale for species they grow well. DNR nurseries will continue to diversify product lines to meet customer needs. Marketing efforts will be focused on traditional sales outlets (e.g., DNR field stations, Soil and Water Conservation District offices, county cooperative offices). Cooperation will continue with forest industry and private sector producers. The special plant materials needs of public agencies will be met.

Goal 2 : To improve the health and productivity of other public and private forest (including community forest) lands.

Objective 1 : Increase the amount of non-industrial private lands that receive professional forestry assistance in planning and carrying out tree planting, timber stand improvement, and timber harvesting.

Measure 1 : Thousands of acres of non-industrial private forest land activities accomplished under the guidance of Woodland Stewardship plans and with professional forestry advice and assistance from DNR Forestry staff.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Thousands of acres						
Actual	24.3	19.6	17.0	18.0		
Target	26.7	23.9	22.9	18.4	17.0	17.0

DEFINITION :

Acres of non-industrial private land that is reforested (e.g., planting or natural regeneration), improved (e.g., thinning, pruning, or release), or harvested according to a professionally prepared Woodland Stewardship plan. Includes only those accomplishments reported through DNR Forestry staff. Additional activities are accomplished under the professional guidance of a number of cooperators. However, reporting of these accomplishments to the DNR is incomplete.

RATIONALE :

Since 1947, state law has authorized the DNR to provide forest management services to private forest land owners whose ownership does not exceed 1,000 acres. State law defines these management services to include "advice in management and protection of timber, selection and marking of timber to be cut, measurement of products, aid in marketing harvested products, and such other services as the DNR deems necessary or advisable to promote maximum sustained yield of timber."

Approximately 5.3 million acres (36%) of Minnesota's timberland is owned by individual non-industrial private forest landowners. The potential productivity of these lands typically is greater than the average for other forest ownerships in Minnesota, and they are capable of providing a diversity of resource benefits. It is therefore important that the DNR ensure that the technical and cost-share assistance needed to continue the stewardship and productivity of these lands is available.

DATA SOURCE :

DNR Division of Forestry Cooperative Forest Management Reporting System. Data is collected quarterly.

DISCUSSION OF PAST PERFORMANCE :

Reforestation, habitat projects, and timber stand improvement on private forest lands are quite dependent on the availability of state and federal cost-share funding. For example, federal and state agricultural land retirement programs (e.g., Conservation Reserve Program (CRP), Reinvest in Minnesota (RIM)) have greatly affected levels of tree planting since 1985. Cost-share funding for forest management practices has decreased dramatically over the past two to four years. Reforestation and TSI levels are also affected by the degree of landowner interest and ability to pay. Accomplishments may also be affected by the number and severity of wildfires both in-state and out-of-state, the suppression of which at times can divert significant staff time away from PFM activities. The division's reorganization which began in FY 1993 affected accomplishments through FY 1995. Program emphasis on generating landowner interest and commitment to ecologically sound forest management through the preparation of Woodland Stewardship plans also became a factor with the 1990 federal farm bill. Reforestation levels also depend on the availability of nursery planting stock, and weather conditions during site preparation and planting seasons. Forest products market fluctuations and overall economic conditions will also influence the amount of timber harvesting on private lands, the subsequent need for reforestation, and landowner interest in investing in reforestation.

PLAN TO ACHIEVE TARGETS :

There is a direct relationship between the preparation of Woodland Stewardship plans and the likelihood that landowners will carry out forest management activities. The DNR has developed a strategic vision entitled "PFM 2005" which establishes a goal of having 50% of NIPF landowners owning more than 20 acres of forest land having professionally developed Woodland Stewardship plans by the year 2005. Future accomplishments should reflect the increased landowner interest as they begin to implement these plans.

If changed, property tax laws could become a strong incentive to encourage stewardship of non-industrial private forest lands. The department will continue to pursue changes to existing property tax laws, including revision of the Minnesota Tree Growth Tax Law, and creation of a new 2g property tax classification that would provide favorable tax rates for landowners who manage their forest lands following a management plan approved by the commissioner.

In federal fiscal year 1995, 50% of the funding for the Agricultural Conservation Program, a prominent federal cost-share program which included some tree planting practices, was eliminated. This resulted in a loss of over $200,000 for tree planting in Minnesota. To stretch the remaining federal cost-share dollars, the DNR and its cooperators plan to lower cost-share rates, drop some forest management practices from cost-sharing, and prioritize cost-share projects.

Efforts will continue to improve the efficiency and effectiveness of the PFM program delivery, including: further automation of Stewardship plan preparation; targeting of technical assistance; and encouraging the use of consulting foresters and partners to provide assistance where needed and appropriate.

Partners will provide direct assistance to landowners in coordination with the Division. These currently include private sector forest consultants, the US fish and Wildlife Service, Soil and Water Conservation Districts, The Nature Conservancy, DNR-Section of Wildlife, and forest industry. Indirect assistance is also provided from partners such as the MN Extension Service, the Natural Resources Conservation Service, the Farm Services Agency, the Board of Water and Soil Resources, the Ruffed Grouse Society, the Audubon Society, and others.

The Legislative Commission on Minnesota Resources has recommended funding in the F.Y. 1998-99 biennium for a project entitled "Creating Sustainable Woodlands on Private Land," a substantial portion of which will provide cost-share assistance to private landowners for forest management activities carried out as prescribed in Woodland Stewardship plans. Cost-share funding provided by the Legislature would be leveraged with matching contributions from landowners and private sector organizations and foundations.

Goal 2 : To improve the health and productivity of other public and private forest (including community forest) lands.

Objective 2 : Reduce the number of oak wilt infection centers below 1.0 per square mile in 75% of a seven county project area by the year 1998.

Measure 1 : Percent of 7 county project area with fewer than 1.0 oak wilt infection centers per square mile.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent area fewer 1.0 centers per square mile						
Actual	55%	65%	70%	70%		
Target					73%	75%

DEFINITION :

Percent of total land area in a seven county area that has less than 1.0 identified oak wilt infection center per square mile. The seven counties included are: Anoka, Chisago, Dakota, Isanti, Ramsey, Sherburne, and Washington. One or fewer infection centers per square mile is considered to be the level at which communities can maintain oak wilt suppression efforts without outside assistance.

RATIONALE :

Oak wilt is the major tree killing disease in the Minnesota's urban areas. Reducing oak wilt infection levels is important in maintaining or increasing the amount of urban area under tree cover since oak is a significant component of the urban forest in the metropolitan area. In some of the northern and eastern counties of the metro area, oak comprises as much as 75%-90% of forested land. Oaks are also the most valuable species in the urban forest. They are long-lived and structurally sound trees that contribute greatly to the urban environment. They are major providers of shade for energy conservation, aesthetics, and property value, and a major provider of food for common urban wildlife species of deer, squirrels, and birds. Over 9,000 acres of oak have already been destroyed by oak wilt in the seven county project area.

DATA SOURCE :

DNR Division of Forestry Cooperative Suppression Program data base. Oak Wilt Annual Reports.

DISCUSSION OF PAST PERFORMANCE :

A federally sponsored project is scheduled to end in December 1997. By the time it is finished, the federally sponsored project will have treated 4,200 of an estimated 6,255 active oak wilt infection centers in the northern and eastern metropolitan area. Prior to the federal project, there was an average of 1.78 oak wilt infection centers per square mile in the federal project area (i.e., the seven counties named above). As a result of the federal project, nearly 3/4 of the project area has oak wilt infection levels less than 1 center per square mile. Success of the program depends on the willingness of communities to participate in the federal cost-share program. Some communities have chosen not to take full advantage of this program. Oak wilt in these communities continues to expand. Failure to continue oak wilt suppression assistance for at least another two years could mean that as many as 30 communities in the seven county project area might experience a rebound in oak wilt infection above those levels found prior to the federal project within as little as 5 to 10 years.

PLAN TO ACHIEVE TARGETS :

Oak wilt suppression assistance to communities needs to be continued for at least another two years to lower oak wilt infection levels below 1 center per square mile over the entire seven county project area. The Legislative Commission on Minnesota Resources has recommended funding for a division project entitled "MN ReLeaf Tree Planting and Preservation Grant Program," part of which would allow expansion of oak wilt infection treatment efforts to counties outside the federal project area in developing areas of the Twin Cities metropolitan area and southeastern Minnesota.

Goal 3 : To protect life, property, and natural resources from wildfires.
Objective 1 : The median size of wildfires reported to or suppressed by the DNR will be 5 acres or less.

Measure 1 : Median size of wilfires reported to or suppressed by the DNR.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Median fire size						
Actual	1	n/a	n/a	n/a		
Target		5	5	5	5	5

Goal 3 : To protect life, property, and natural resources from wildfires.
Objective 1 : The median size of wildfires reported to or suppressed by the DNR will be 5 acres or less.

Measure 2 : Number of wildfires reported to or suppressed by the DNR.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of fires						
Actual	1,340	1,302	1,186	1,316		
Target	1,928	1,856	1,794	1,733	1,695	1,695

Goal 3 : To protect life, property, and natural resources from wildfires.
Objective 1 : The median size of wildfires reported to or suppressed by the DNR will be 5 acres or less.

Measure 3 : Acres burned by wildfires reported to or supressed by the DNR.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres burned						
Actual	18,585	17,236	15,336	17,117		
Target	66,993	60,942	56,085	52,010	48,838	48,000

DEFINITION :

Minnesota Laws 1993, ch. 328 defines a wildfire as "a fire requiring suppression action, burning any forest, brush, grassland, cropland, or any other vegetative material." These measures include wildfires that the DNR was actively involved in suppressing as well as wildfires suppressed by fire departments that were reported to the DNR. A running average is used to establish measure objectives because of unpredictable year-to-year fluctuations caused by varying weather conditions.

RATIONALE :

By state law, the DNR is responsible for the prevention and suppression of wildfires in Minnesota's forested counties: an area encompassing 45 million acres of public and private land. Measuring the median provides a means to determine how well the DNR is doing at reducing the size of wildfires. The size of wildfires is a function of the effectiveness of detection efforts and the response time of suppression forces. Median is a better indicator than the average size of wildfires because averages can be extremely biased by single occurrences of very large wildfires. The objective is to keep as many fires as possible below five (5) acres in size. Median provides a better indication of this. Five acres is the chosen threshold because above this size, wildfires become more difficult and costly to suppress.

DATA SOURCE :

DNR fire suppression data is collected by the DNR Division of Forestry through its Fire Reporting System. Data is reported weekly, with year-to-date summaries produced monthly. However, the median size of wildfires is not currently provided by the reporting system. The current reporting system also does not capture a significant number of wildfires that are suppressed by local fire departments and which are never reported to the DNR. The DNR is currently working with local fire departments to develop a simple, effective system to report these fires to the DNR.

DISCUSSION OF PAST PERFORMANCE :

Weather conditions play a large role in determining the number and size of fires in any one year. Expanding population centers will also increase the frequency of fires, and the threat to life, property and natural resources. To adequately protect property and life in and around these expanding population centers, the median size of wildfires will have to be maintained below five (5) acres. As a result, wildfire suppression needs in these areas will increase and increase the overall cost of wildfire suppression in the state.

PLAN TO ACHIEVE TARGETS :

The DNR hopes to achieve long-term efficiencies in wildfire protection through increased investments in wildfire prevention and presuppression efforts. The division recently filled Fire Prevention Specialist and Rural Fire Programs Coordinator positions to direct increased fire prevention efforts and increased partnerships, training, and preparedness of rural fire departments in wildfire suppression. These increased "preparedness" efforts should result in an overall reduction in the number and size of wildfires in the state.

Goal 3 : To protect life, property, and natural resources from wildfires.
Objective 2 : Maintain or decrease the average dollar value of property lost per wildfire.

Measure 1 : Average dollar value of property lost per wildfire.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Ave $ value of prop.						
Actual	$283					
Target	$532	$530	$530	$530	$530	

DEFINITION :

Estimated total property value lost (in dollars) divided by the total number of wildfires reported to or suppressed by the DNR. Property includes sheds, barns, residences, vehicles, farm implements, timber, etc. Property value losses are estimated by DNR staff.

RATIONALE :

By state law, the DNR is responsible for the prevention and suppression of wildfires in Minnesota's forested counties--an area encompassing 45 million acres of public and private land. The goal of the DNR Wildfire Protection Program is to provide wildfire protection to the level necessary to avoid loss of life and, considering the values at risk, minimize the potential for loss of property and natural resources on public and private land. Measuring structures lost as a percentage of total structures threatened is a better indicator of program effectiveness because of the variability and dependency of wildfires on presiding weather conditions. Also, as urban areas expand, so does the number of wildfires, the number of structures, and the resulting threat to structures.

DATA SOURCE :

DNR fire suppression data is collected by the DNR Division of Forestry through its Fire Reporting System. Data is reported weekly, with year-to-date summaries produced monthly. Value of property lost is currently recorded but not reported by the current reporting system. The value of this measure depends on the accuracy and consistency with which DNR staff estimated the value of property losses. The reporting system also does not capture the property value losses from wildfires that are suppressed by local fire departments and which are never reported to the DNR. The DNR would need to work with local fire departments to develop a simple, effective system to report these fires and related property losses.

DISCUSSION OF PAST PERFORMANCE :

Weather conditions play a large role in determining the number and size of fires in any one year. The resulting threat to property can also be affected. Expanding population centers will also increase the frequency of wildfires, the threat to human life, the value of property and natural resources at risk from wildfires. As a result, maintaining the property value loss per fire will be a real challenge.

PLAN TO ACHIEVE TARGETS :

See previous objective.

Goal 4 : To provide a meaningful natural resource work and educational experience for unemployed youth and young adults while accomplishing significant natural resource conservation/management work.

Objective 1 : Maximize, within available funding, the number of youth and young adults who receive productive natural reosource work and training experience through the DNR's Youth Programs.

Measure 1 : Number of youth and young adults enrolled each fiscal year through the DNR's Youth Programs (MN Conservation Corps/Youth in Natural Resources).

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
# enrolled						
Actual	302	359	340	278	291	
Target		301	308	275	275	275

Goal 4 : To provide a meaningful natural resource work and educational experience for unemployed youth and young adults while accomplishing significant natural resource conservation/management work.

Objective 1 : Maximize, within available funding, the number of youth and young adults who receive productive natural reosurce work and training experience through the DNR's Youth Programs.

Measure 2 : Percentage of enrollees who feel the DNR's youth programs helped them learn or strengthen good work habits, and provided work that was worthwhile and important to the state and its resources.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent who feel helped						
Actual		89%	99%	99%		
Target		85%	85%	94%	95%	95%

DEFINITION :

The number of Minnesota youth and young adults enrolled through the three components of the DNR's Youth Programs:

Minnesota Conservation Corps (MCC) "Summer Youth" component. This is an eight week program for youths age 15 to 18 years. This program is conducted at a work camp located at St. Croix State Park.
Minnesota Conservation Corps "Young Adult" component. This is a year-round program for young adults age 18 to 26 years. The number of enrollees is based on an average of 12 months of service.
Youth in Natural Resources component. This is an eight week program targeted at under-represented groups, ages 15 to 18 years and is designed as a natural resource career exploration program. Youth groups are formed in the Twin Cities, Mille Lacs, and Leech Lake areas.

The number of enrollees who respond positively to certain questions on the DNR's Youth Program exit survey divided by the number of enrollees members who respond to the surveys.

RATIONALE :

The mission of Youth Programs is mandated by state law (1992 Laws of MN, Chapter 513, Article 2, Section 20; and 1989 Laws of MN, Chapter 335, Article 1, Section 84.98). In fulfilling that mission, the office provides employment, training and career exploration opportunities to youth and young adults, ages 15-26, while accomplishing significant natural resource conservation and management work.

Participants engage in meaningful service-learning projects. They receive on-the-job training and education with an aim to develop work maturity, self management, reasoning, and decision making skills, self esteem, and an appreciation for the natural world.

Although the use of an exit survey is subjective, it does provide a good measure of how well the program satisfied its customers (i.e., program participants) in regards to the stated program goal (providing productive natural resource work experience and meaningful service-learning opportunities).

DATA SOURCE :

DNR's Youth Programs' cost code Member Hours by Activity Report, and MCC Exit Survey.

DISCUSSION OF PAST PERFORMANCE :

The level of funding received from the state legislature and leveraged from other sources will continue to directly affect the number of youth and young adults enrolled in these programs. Other factors affecting the programs include: evolving program models and mandates dictated by federal, state, and private funding sources; timely enrollment and placement of participants by host agencies; inflation; the federal minimum wage; and worker compensation payments.

The MCC Flood Recovery Corps will conclude in December, 1996. MCC received $574,000 from the federal Corporation for National Service to assist southern Minnesota with recovery efforts stemming from the floods of 1993. A final report on the impact of the MCC Flood Recovery Corps will be issued in January, 1997.

The MCC became an AmeriCorps program in 1995-96. The federal/state partnership has been renewed for 1996-97. In consideration for the state's funding of MCC's young adult program, AmeriCorps contributes 85 percent of the funds needed to purchase a major medical insurance plan for corps members, provides child care assistance to corpsmembers who meet income guidelines and, awards a post-service education benefit of up to $4725 to members who successfully complete their enrollment. The childcare and education funds are directly administered by the federal government and total approximately $366,000 and $494,000 in state fiscal years 1996 and 1997 respectively. The MCC serves as a pass through agency for the medical insurance funds which total some $47,000 and $62,000 in state fiscal years 1996 and 1997 respectively.

Youth Programs' reorganization within the Division of Forestry was finalized in 1996. Field operations were further decentralized with Youth Programs' staff/crew reportability and budget authority being delegated to the region and, in certain instances, the area levels. Total enrollment declined between FY 1995 and FY 1996 when individual placements and most six-month enrollment slots were eliminated and replaced by 12-month roving crews consisting of three to six corps members. Crews were strategically placed to complement the Department's eco-system based management initiatives. Increased efficiencies, improved program effectiveness and, enhanced stakeholder service are expected byproducts of the reorganization.

PLAN TO ACHIEVE TARGETS :

Changes, both potential and real, in operations and/or funding availability may directly affect Youth Programs' ability to meet previously planned performance targets.

Assuming AmeriCorps continues to be federally funded, the MCC young adult program intends to successfully compete for AmeriCorps health insurance, childcare and post-service education benefits for its corpsmembers. Should funding for AmeriCorps increase in the future, MCC will seek operational funding as well.

Assuming Minnesota's Youth Works grants program continues to be state funded, the MCC young adult program may compete for additional operational funding.

Barring the availability of new revenues, the projected F.Y. 1999 deficit in the Natural Resources Fund, Water Recreation Account, may create a significant negative impact for Youth Programs in terms of fewer young adult FTE participant slots with a corresponding reduction in natural resource work accomplishment.

The Federal Minimum Wage increase ($4.75 an hour as of October 1, 1996, and $5.15 an hour on September 1, 1997) will negatively impact the number of young adult FTE participant slots the program can offer. Using the $5.15 figure, a $32,200 increase in wage obligations is projected for F.Y. 1998 with $38,300 projected for F.Y. 1999.

Agency : NATURAL RESOURCES DEPT

Program : PARKS & RECREATION MGMT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$29,062	13.71%
From Special Revenue Funds	$3,218	
From Agency Funds	$3,020	
General	$22,779	
From Gift Funds	$45	
Number of FTE Staff:	414	15.74%

GOALS :

- To preserve, manage and promote Minnesota state park's natural, scenic and cultural resources utilizing integrated resource management practices when appropriate. (M.S. 86A.02; 86A.05)

- To improve and ensure access to appropriate recreational opportunities. (M.S. 86A.02)

- To improve and ensure access to environmental educational opportunities. (M.S. 86A.05)

- To improve and ensure sufficient and stable funding to provide these services. (No Statutes Cited)

DESCRIPTION OF SERVICES :

The mission of the Minnesota State Park System is: To provide a state park system which preserves and manages Minnesota's natural, scenic and cultural resources for present and future generations while providing appropriate recreational and educational opportunities. This program provides for the management, maintenance, operation and development of 230,600 acres of outstanding natural resources. The division also provides law enforcement, operates and leases concessions, provides night security services, conducts environmental education and interpretive programs for park visitors, and manages parks' natural resources.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
A	FY	Number of visiter occasions to state parks (millions)	8064569	8388977
A	FY	Number of overnight guests	857651	870633
W	FY	Number of full-time employees	226	226
W	FY	Number of seasonal & part-time employees	600	600
W	FY	Number of needy/elderly and work experience employed by Greenview Inc.	200	200
A	FY	Number of programs offered	5452	N/A
A	FY	Number of program visitors	120956	N/A
W	FY	Number of state parks	66	66
W	FY	Number of state recreation areas	3	3
W	FY	Number of state waysides	9	9
W	FY	Acres of park land to manage	231008	231008
A	FY	Acres acquired	300	1130
W	FY	Number of campsites	5600	5600
W	FY	Miles of trails	1200	1200
W	FY	Number of picnic areas	93	93
W	FY	Number of buildings	1600	1600
W	FY	Miles of roads	320	320

PROGRAM DRIVERS :

Increases in Operations Costs. The average cost to operate a state park is about $275,000 annually; individual park operation costs range from $25,000 to $1.6 million. The park that costs $1.6 million to operate, Itasca, generates $1.5 million in revenue annually. State parks generate about $5.9 million per fiscal year in fees (from park permits, camping fees, merchandise sales profits and associated sales tax); this represents approximately one-third of the system's annual operating budget. State parks will be expected to direct limited resources to highest priority programs, to redesign and restructure programs and service delivery to benefit our customers and stakeholders, and to improve efficiency.

Greater Emphasis on Physical Fitness and Outdoor Recreation. In 1993, the DNR Information Center answered 18,726 State Park calls (14% of total calls received). Customers were seeking information on reservations, camping, interpretive programs and hiking. The Information Center carries 157 different Parks brochures, and distributed 55,283 through the mail and over the counter. Participation in appreciative outdoor recreation activities like hiking and camping is a valuable predictor of environmental concern - outdoor recreation participation is positively associated with environmental concern (Bikales, Manning 1990). Geographic access to outdoor recreation facilities is an important issue throughout Minnesota, with the heaviest demand being in the Twin Cities Metro area.

Aging Population. The largest growing segment of the population between 1993 and 2010 will be persons 40 to 60 years old. In the Journal of Gerontological Nursing, Moore (1989) finds that the benefits of regular physical activity (e.g. walking for seniors) include: improved cardiopulmonary function, lowered blood pressure, increased bone mineral content, increased muscle strength and joint flexibility, and improved psychological well being. Older people often experience a loss in aerobic power (oxygen uptake) which can have debilitating

effects. In a longitudinal study, it was concluded that habitual exercise can be effective in preventing, or slowing this decline (Kasch et al.: 1990). State Parks needs to respond with increased efforts to accommodate this group, by providing more park benches along trails, interpretive programs catered to their interests and volunteer opportunities.

Changing "Family" Structures. More households have two working parents, making it more difficult to find compatible timetables for recreation. There is also a significant increase in single parent families and varied "family" groupings. Couchman (1988), in his extensive work with families, states that leisure is the single most important force for developing cohesive, healthy relationships between husbands and wives, and between parents and their children. State parks need to take the lead in making recreation easy and accessible for all types of families by pursuing camping options such as: camper cabins, furnished campsites, double campsites, opportunities for groups to be near each other and provide facilities where everyone can feel "safe."

Emergence of New Recreational Opportunities. Recent recreation trends which have put pressure on Minnesota State Parks include roller blading, skate skiing, mountain bikes, jet skies, and ATV's. In a review of literature on leisure and mental health, Westland (1991) refers to research by Kooher (1971) that suggests "learning new skills (in leisure) improved one's self-esteem because of an increase in the sense of competence." State Parks need to evaluate new recreation trends in a timely manner in order to determine if they are appropriate recreational activities for state parks and recognize the costs of land, facilities, maintenance, and enforcement that these new activities may generate.

Increased Emphasis on Accessibility. The 1990 Americans with Disabilities Act (ADA) sets guidelines for accessibility to buildings and facilities by individuals with disabilities. These guidelines are to be applied during the design, construction, and alteration of buildings and facilities. Outdoor adventure activities for people with limited physical ability give participants feelings of success and improved feelings of confidence (Searle (1989). In 1993 park managers, naturalists and technicians were trained on how to implement the ADA program. State Parks needs to increase efforts to ensure that this population group has access to quality outdoor recreation and environmental education opportunities.

Increased Emphasis on Integrated Resource Management. Teams, partnerships and stakeholder involvement projects have demonstrated significant success, and we need to build on these models, finding more effective ways to involve our constituents and local governments in resource management.

Goal 1 : To preserve, manage and promote Minnesota state park's natural, scenic and cultural resources utilizing integrated resource management practices when appropriate.

Objective 1 : To manage state park natural, cultural, archeological and historical resources within the context of Minnesota's ecosystems.

Measure 1 : Continue to increase the amount of state park lands maintained in its Desired Future Condition.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Parks analyzed						
Actual	NA	NA	2	2	2	
Target	NA	NA	2	2	2	2

DEFINITION :

Minnesota State Parks protect some of the most significant natural resources in the state. To measure how well they are being managed, it will first be necessary to develop baseline data that identifies Desired Future Conditions for the communities in each park. This is a large task that will require significant staff time to complete, but once completed, targets can be established and the division's performance can be measured.

RATIONALE :

Much of the resource management necessary is a result of human disturbance. Changes in natural ecosystems that are a result of human disturbance often require intervention to return these systems to healthy states. Examples of disturbances that impact a park's natural resources include nearly 8 million visitors annually that demand increased and more intense and diverse use of parks, road construction, utility installation, and park facility development. In addition, many problems are caused indirectly through such means as the introduction of exotic species. Healthy ecosystems are necessary for natural resources to be adequately protected and preserved for future generations. Natural resource projects conducted in parks assist in restoring and maintaining park resources.

DATA SOURCE :

Completed natural and cultural inventories for state parks will provide baseline information of plant and animal species, communities, special features, and cultural resources. The Natural Resource Program Supervisor will maintain records of inventories being conducted in State Parks. The inventories will be completed through contracts with the MN County Biological Survey unit of the DNR, the University of MN, the MN DNR, and other sources. Cultural resource inventories will be conducted under the direction of Parks and Recreation and documented by the State Park Archeologist.

DISCUSSION OF PAST PERFORMANCE :

Many resource actions are being carried out by the state to address clearly identified needs. Even though collection of resource inventories has been accelerated during the past 2 years, accurate data at the desired level of detail is currently available at only a few state parks.

PLAN TO ACHIEVE TARGETS :

Accelerated funding will be necessary to adequately inventory park resources and to manage these resources effectively. Present funding levels would allow us to identify Desired Future Conditions based on ecosystem and landscape needs for two parks each year.

OTHER FACTORS AFFECTING PERFORMANCE :

Project completion is dependent on existing funding. Cultural and resource management will continue to rank high on the division's priorities, however, the increased cost of operating and maintaining parks may not allow for desired results. The County Biological Survey currently being conducted state-wide, with more concentrated work being focused in State Parks, is dependent on biennial legislative funding. Cultural inventories are currently done primarily in conjunction with development projects. Additional and stable funding for resource inventories is not available but will be sought.

Goal 1 : To preserve, manage and promote Minnesota state park's natural, scenic and cultural resources utilizing integrated resource management practices when appropriate.

Objective 1 : To manage state park natural, cultural, archeological and historical resources within the context of Minnesota's ecosystems.

Measure 2 : Park management staff will be actively involved in integrated resource management projects state wide.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of projects						
Actual	59					
Target			69	69	69	69

DEFINITION :

Many natural resource issues cannot be adequately addressed within the confines of a state park. Some can only be addressed by the coordinated effort of a variety of land owners & agencies. It is important that state park staff continue to be involved in IRM (Integrated Resource Management) projects that may help address natural, cultural, archeological and historical resource issues within state park boundaries.

DATA SOURCE :

Park staff will be surveyed annually to identify how much they have been involved in IRM projects.

DISCUSSION OF PAST PERFORMANCE :

In FY 1992 no record was made of the IRM projects that park staff was involved with, however park staff have been active in IRM projects for many years. In FY 1993, Minnesota State Park Staff were involved with 59 IRM projects across Minnesota. During F.Y. 1996 & 1997 park staff were encouraged to become involved with IRM projects. They were not surveyed to identify exactly how many IRM projects they were involved in, but informal discussions indicate an expanded involvement with IRM projects statewide.

PLAN TO ACHIEVE TARGETS :

State Park Administrative Staff will support park staff involvement in appropriate IRM programs. IRM will be part of annual performance reviews, and annual awards will continue to be presented to staff for outstanding efforts in IRM projects. Each park manager will be expected to become involved with at least one IRM project each year.

OTHER FACTORS AFFECTING PERFORMANCE :

Divisional staff need to continually reassess the proportion of time staff devote to ongoing internal park management and IRM projects.

Goal 1 : To preserve, manage and promote Minnesota state park's natural, scenic and cultural resources utilizing integrated resource management practices when appropriate.

Objective 1 : To manage state park natural, cultural, archeological and historical resources within the context of Minnesota's ecosystems.

Measure 3 : Complete acquisition of land within state park statutory boundaries.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres acquired						
Actual	4000	108	300	1130		
Target			1500	1500	1500	1500

DEFINITION :

About 10% of the 230,600 acre State park system is privately owned (within statutory boundaries). The division would like to acquire the remaining 23,600 acres by the year 2020. Private in-holdings within state parks create numerous constraints for effective park operations. In-holdings make it more expensive to operate a state park because more time is devoted to law enforcement, hunting/park visitor conflicts are created, segmented lands isolate areas of state ownership making park land inaccessible to the public, and uncontrolled development within the statutory boundary destroys sensitive natural and cultural resources and the quality of park visitor's experience.

RATIONALE :

The State Park System preserves and manages the uniqueness and diversity of Minnesota's natural, scenic and cultural resources for present and future generation. State Park natural and cultural resource preservation efforts are often endangered by private in-holdings of land within a state park.

DATA SOURCE :

Minnesota Department of Natural Resources, Division of Parks and Recreation, land acquisition data file is the primary data source for this measure. The benchmark target of acquiring at least 5900 acres of land during each 5 year period is based on the need to maintain a consistent and ongoing program to complete the purchase of all lands within the statutory boundaries of all existing state parks by the year 2020.

DISCUSSION OF PAST PERFORMANCE :

The state legislature has continued to provide the division with some funds to acquire land within state park statutory boundaries. The amount of funding however, has varied dramatically from biennium to biennium. A stable source of funding is needed to acquire and preserve these lands. Division staff have pursued land acquisition through a variety of techniques, such as donations, or partial donations when the opportunity arose. In this way acquisition funds are used as effectively as possible.

PLAN TO ACHIEVE TARGETS :

Division staff will provide the legislature with information that clearly shows the critical need for acquisition funds and provide land owners with information that shows the benefits of selling to the state. The funds allocated will be used to acquire the most important parcels from willing sellers.

OTHER FACTORS AFFECTING PERFORMANCE :

The division may purchase land at fair market value from willing sellers within each state park's statutory boundary. Funding must be available when a landowner is ready to sell in order for the state to acquire. During the F.Y. 94-95 biennium, the Division was only allocated enough funds to acquire a twenty eight acre parcel in Afton State Park, of the 23,600 acres of private land. The Division was also able to acquire 80 acres in Judge Magney State Park at no cost to the state. The land was acquired by members of the Minnesota Parks and Trails Council and donated to the state.

Goal 2 : To improve and ensure access to appropriate recreational opportunities.
Objective 1 : To provide appropriate recreational opportunities within state parks and recreation areas.

Measure 1 : The percent of state park customers that are satisfied with the services provided will remain at or above 94%.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent customers that are satisfied						
Actual				95%		
Target	94%	94%	94%	94%	94%	94%
Park visitors surveyed						
Actual		yes		yes		
Target	no	no	no	yes	no	yes

DEFINITION :

Assessing public satisfaction and providing quality service and preservation of the unique resources found within state parks are both critical components of the Division's statutory mandate and mission as an organization. A 1996 survey of Minnesotans on their attitudes about park fees and services concluded that 95% of the visitors to state parks were satisfied with their visit. In addition, visitors were asked to evaluate the perceived value of the fees charged for the annual permit, daily permit, and camping fees. Ninety eight percent of the respondents who had annual permits reported it was a fair to good value. Ninety three percent of the respondents who had daily permits reported it was a fair to good value. Ninety-eight percent of the campers surveyed reported that the camping fees were a fair to good value. The price for these services may add to visitors satisfaction level.

DATA SOURCE :

A 1988 survey of Minnesotans on their attitudes, perceptions and use of Minnesota State Parks concluded that 94% of the visitors to state parks enjoyed their stay and 98% would return. The 1988 results are based on a state park visitors survey and a general population survey. The visitor survey was conducted from late July to mid-August and involved 1,316 respondents from all state parks. The general population survey involved a tabulation of 3,100 questionnaires and 500 telephone contacts which represented all segments of the population within 13 regions of the state.

DISCUSSION OF PAST PERFORMANCE :

Customer service has been a high priority for Minnesota State Park System for many years. Customer surveys to measure the actual percent of satisfied customers has not always been a high enough priority to justify diverting funds from public service to measuring satisfaction.

PLAN TO ACHIEVE TARGETS :

Division managers must continually balance the amount of effort invested in resource management and customer service. Both these activities are necessary for continuing to satisfy our customers, but each visitor has a different idea of what the mix should be. Division management will decide as each budget is distributed what amount of staff hours we can afford to dedicate to providing public service as compared to resource management activities. Visitor research will help determine these funding priorities.

OTHER FACTORS AFFECTING PERFORMANCE :

There are at least 3 factors that affect visitor satisfaction that the Division has no control over: 1) Funding levels adequate to enable the Division to operate parks at minimum standards. 2) Weather can have a significant impact on a visitor's experience, and catastrophic weather that destroys park facilities and impacts our ability to maintain facilities and resources will impact visitor satisfaction. 3) Changes in recreation patterns, where customers who are interested in new recreational activities that are not currently provided, may require land acquisition and development funding before they can be satisfied.

Goal 2 : To improve and ensure access to appropriate recreational opportunities.
Objective 1 : To provide appropriate recreational opportunities within state parks and recreation areas.

Measure 2 : Benefits-driven management objectives will be developed for state parks.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
State parks with benefits-driven mgmt. objectives						
Target	3		6		2	4

DEFINITION :

Benefits-driven management objectives are based on the assumption that there should be a relationship between the experiences and benefits which visitors receive from participation in outdoor recreation activities within state parks and the overall management objectives established for state parks. Visitor surveys were conducted in 6 Minnesota state parks during FY 1994 aimed at providing an initial set of data documenting the experiences and benefits obtained from state parks. The data from this research project is being used to develop benefits-driven management objectives for the 6 state parks. The resultant management objectives will become a component of the overall management strategies for these parks. During 1995 it was decided that the concept of benefits-driven management needed to be broader and also address the benefits that adjacent communities received from state parks. Research was conducted in 2 state parks during FY 1996 to assess these community benefits.

DISCUSSION OF PAST PERFORMANCE :

Although the benefits-driven management theory has been evolving since the 1970s, application of such an approach to actual management decisions for outdoor recreation areas is in its infancy. The Minnesota state parks' benefits-driven research project is one of five pilot tests nationally being conducted in cooperation with the US. Forest Service to assess the actual experiences and benefits accrued to outdoor recreation site visitors. The initial research from the pilot tests will be used to develop management objectives for the research sites, improve the specific research instruments used, develop a more defined concept of research needs and advance the basic theoretical framework surrounding the research work.

Previous performance in state parks has been based on activities provided, number of visitors, number of camping nights and revenue generated from state park receipts. The benefits-driven approach recognizes the importance of these measures and incorporates the visitors goals, expectations, experiences and benefits into making management decisions.

PLAN TO ACHIEVE TARGETS :

Benefits driven management objectives and actions will be developed and implemented for six state parks based on the data collected from the initial survey. Benefits-driven management objectives will be established for two parks during FY 1997, and four more parks during F.Y. 1998.

OTHER FACTORS AFFECTING PERFORMANCE :

Two major factors will influence the ability to achieve the anticipated performance; 1) staff time available both at the DNR and the University of Minnesota to conduct the research and analysis, and 2) budget available to fund additional research efforts.

Goal 2 : To improve and ensure access to appropriate recreational opportunities.
Objective 1 : To provide appropriate recreational opportunities within state parks and recreation areas.

Measure 3 : The areas within state parks that are heavily impacted by high visitor use will be managed.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Areas heavily impacted						
Target					pilot inv.	3 areas

DEFINITION :

Intensive use of areas in state parks can often result in destroyed ground cover, barren compressed soil, soil erosion, exposed roots, reduced vigor & eventual death of trees, and shrubs. This result can be minimized by redirecting visitors, channeling visitor use, changing the type of visitor use and distributing visitor use, intensive management of the soil & ground cover to withstand use, and or developing manmade surfaces that can withstand intensive use with less change.

DISCUSSION OF PAST PERFORMANCE :

This is a continuing effort for state park management. State parks are usually established around spectacular natural features. These features are natural magnets for park visitors, and tend to focus use in particular areas. These are also often in areas that are highly susceptible to erosion, such as near river banks, waterfalls, cliff tops, or along steep slopes. Although state park staff have worked with this concern for over 100 years, there has been no attempt to quantify the amount of area impacted, rather the effort has been focused on minimizing the impact and sharing successful techniques.

PLAN TO ACHIEVE TARGETS :

Each park will need to be surveyed to identify areas which are presently heavily impacted by visitor use. This survey will have to be redone every few years to assess the progress that is being made to minimize the impact of park visitors. The state parks along the North Shore of Lake Superior will be use as a pilot area to develop survey techniques and definitions for future use state wide.

OTHER FACTORS AFFECTING PERFORMANCE :

A variety of factors may affect performance in managing for intensive visitor use such as funding, availability of proven management techniques, land ownership patterns, intensity of use, management and enforcement staff availability, pattern of visitor use, and natural disasters. Funding to survey the heavily impacted areas may or may not be provided by the legislature. Funding needed to implement the actions that will mitigate the results of intensive use may also be variable. Park staff will have to make the most effective use of whatever funds are available. Research will have to continue to help identify the most effective management techniques.

Goal 3 : To improve and ensure access to environmental educational opportunities.
Objective 1 : To provide accessible interpretive services which create a sense of stewardship for Minnesota's natural and cultural heritage.

Measure 1 : State park visitors are more environmentally aware than other Minnesotans.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Park visitor environmental awareness						
Actual			baseline			
Target			survey			

DEFINITION :

The Interpretive Services Program provides visitors with first-hand experiences with natural and cultural resources, which can lead to deeper awareness and concern for stewardship of those resources. Interpretive activities and services use the outdoors as a learning environment, making visitor experiences more interesting and enjoyable and building public understanding and support for wise resource management. Park visitors want and expect opportunities to better understand the natural, cultural and historic significance of the parks they visit and the resources they experience. Park visitors with this improved understanding of resource issues are much better prepared to make decisions in their own life that make them stewards of our environment.

DATA SOURCE :

A survey instrument will be developed that measures the level of knowledge and awareness regarding environmental issues for a random sample of park visitors and non-park visitors. This survey will be administered annually to allow comparison between park visitors and non-park visitors. Other information will also be collected that will help us to continually improve the state park interpretive services program.

DISCUSSION OF PAST PERFORMANCE :

The number of visitors who have attended state park interpretive programs has continued to grow through the years as the program has expanded and as park visitation has increased. No attempt has been made in the past to measure the difference in environmental awareness between park visitors and non-park visitors.

PLAN TO ACHIEVE TARGETS :

By continually improving the state park interpretive program and expanding the program through a variety of options, we will continue to have a positive effect on the environmental awareness of park visitors. State park visitors were surveyed during the summer of 1995 to determine their interpretive needs and expectations. The results of this survey will provide a baseline to assess the effectiveness of the interpretive program.

OTHER FACTORS AFFECTING PERFORMANCE :

Additional funding for staff, interpretive displays and handouts, and visitor centers will have a major impact on the number of visitors to state parks and the interpretive techniques that can be used. This can have a major impact on the effectiveness of the program.

Goal 3 : To improve and ensure access to environmental educational opportunities.
Objective 1 : To provide accessible interpretive services which create a sense of stewardship for Minnesota's natural and cultural heritage.

Measure 2 : Number of people participating in formal environmental learning opportunities in state parks will increase.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Programs conducted						
Actual	6782	5452	4432			
Target		6900	7000	7100	7200	7300
Attendance at programs						
Actual	165901	120956	96973			
Target		169000	172000	175000	178000	181000
Visitor center attendance						
Actual	448805	387387	202034			
Target		456000	505000	513000	520000	527000

DEFINITION :

This indicator measures park visitors exposure to first-hand environmental education experiences with natural and cultural resources through State Park Interpretive Activities. It does not include exposure to self-guided environmental education opportunities such as exhibits, literature or trails. As awareness of environmental problems increases, public demand for experiences and knowledge about resources and issues continues to increase. The desire is to meet the public demand and to implement a 1990 law which requires environmental education opportunities for all Minnesotans. State Park enabling legislation also requires educational opportunities for park visitors. State Parks receive over 8 million visitors annually. Activity attendance is dependent upon stable staffing patterns. The benchmark targets are based on a 6-8% increase every five years in attendance at interpretive activities. This increase is anticipated due to increased environmental education awareness and initiatives as well as to projected interpretive staffing increases.

DATA SOURCE :

DNR interpretive personnel collect attendance at all interpretive activities on a daily basis and results are tabulated annually. The indicator includes attendance by K-12 school groups, post-secondary school groups, other organized groups by request, and public participation. Data is available from DNR Division of Parks and Recreation Central Office.

DISCUSSION OF PAST PERFORMANCE :

Minnesota State Parks Interpretive Program has been a leader in providing environmental learning opportunities for many years.

PLAN TO ACHIEVE TARGETS :

The greatest challenge is to provide effective professional vision in an environment that is continually changing. The interpretive program will continue to expand its clientele by embracing the shifting trends in recreation and resource management and by employing ever improving media and techniques at the emerging edge of environmental interpretation. The state park interpretive program has re-focused its efforts to use non-personnel interpretation methods due to budget constraints and recent survey results. This has reduced the number of programs offered and the hours that visitor centers are staffed. The measure will remain a priority and will be addressed, but good methods to measure the success of non-personnel interpretation have not been implemented yet.

OTHER FACTORS AFFECTING PERFORMANCE :

The number of learning experiences that can be provided is directly linked to funding levels. Increased funding for professional environmental education staff and interns would allow greater opportunity for public participation. Funding for building major environmental interpretive centers at state parks throughout Minnesota would improve environmental education opportunities.

Goal 4 : To improve and ensure sufficient and stable funding to provide these services.
Objective 1 : To provide adequate and stable funding to insure quality public service.

Measure 1 : State park minimum operating standards are fully funded each biennium.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Minimum operating standards						
Actual	79%	82%	82%	82%		
Target				100%	100%	100%

DEFINITION :

In 1990, Minnesota State Parks established minimum standards for maintenance and operation of state parks. This system provides a means to establish budgets, allocate funds equitably, communicate management expectations and evaluate park staff performance. Any funding below minimum standards results in fewer outdoor recreation opportunities, reduced resource protection, deterioration of park facilities, and loss of jobs. The minimum operating standards process identifies state park staffing needs to meet increasing and changing public demands. Information on State Park Minimum Standards is available from the Division of Parks and Recreation Central Office. Staffing standards were developed in FY 1990 through division wide work groups. These standards have been refined annually and checked for accuracy using cost accounting information.

DISCUSSION OF PAST PERFORMANCE :

The state park system has never had enough funding to fully fund minimum operation standards. Therefore some facilities are falling into disrepair, resources are being neglected, and less then desirable customer service is provided. In 1991, the state park system was funded for 95% of minimum operating standards, but that is the closest that funding has come to meeting these standards since they were initiated.

PLAN TO ACHIEVE TARGETS :

Clearly describe the division's minimum operating standards to the legislature and request sufficient funding. Division management will continue to seek efficiency measures to ensure that the identified needs truly are minimum operating standards.

OTHER FACTORS AFFECTING PERFORMANCE :

Two critical factors for this measure are the level of funding received and union contract settlements. Other factors that can be significant include worker's compensation costs, unemployment costs, major facility infrastructure failure, Minnesota's overall economy, and the number of park visitors.

Agency : NATURAL RESOURCES DEPT

Program : TRAILS & WATERWAYS MGMT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$13,555	6.39%
From Federal Funds	$591	
From Special Revenue Funds	$11,061	
From Agency Funds	$766	
General	$1,131	
From Gift Funds	$6	
Number of FTE Staff:	113	4.28%

GOALS :

- Satisfy public demand for additional recreational trail miles. (M.S. 85.015; 86A.05 subd. 4)

- Secure safe and adequate public access to Minnesota's lakes and rivers. (M.S. 86A.04 subd. 9-10; 97A.141)

DESCRIPTION OF SERVICES :

The Unit carries out its dual charge through the Trail Recreation and Water Recreation Programs in liaison with other state and federal agencies, the Minnesota Legislature, the Governor's Office and various boards, commissions, committees, citizen's associations, and user groups. Primary program responsibilities include:

Trail Recreation Program [Budget Activities: Trail Recreation and Trails & Waterways Management]
Manage, operate and maintain the existing 1,060 miles of state trails.
Assist in the maintenance of 2,023 miles of DNR Unit Trails.
Administer grants-in-aid to local governments to support trail development and maintenance.
Administer the Adopt-a-River Program.

Water Recreation Program [Budget Activity: Water Access & Recreation]
Acquire, develop, operate and maintain 1,525 public water access sites.
Acquire, develop, install and maintain 185 fishing piers and 15 shore fishing sites.
Maintain access and wayside facilities along 2,865 miles of designated river recreation routes.
Acquire, develop, and operate five Lake Superior safe harbors in cooperation with local governments.

Since the Trails and Waterways Unit began in 1979, this popular system has grown very rapidly to include many high-quality recreational facilities. These facilities enable Minnesotans to enjoy the state's natural resources

safely and responsibly, while protecting environmental values and promoting local and regional economic development. As a state-level recreation provider, Trails & Waterways seeks to showcase scenic, natural, historic and cultural features unique to Minnesota. Trails and Waterways personnel are actively involved in all facets of system planning, design, land acquisition, construction, maintenance and operations. They also work closely with local public and private sector interests providing financial and technical support and other assistance upon request.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
W	FY	Miles of state trail	1,028	1,060
W	FY	Miles of DNR unit trail	2,033	2,023
W	FY	Miles of Grants-In-Aid trail	14,599	15,020
W	FY	Number of cross-country ski passes	49,018	47,067
A	FY	Adopt-A-River groups/miles adopted	230/800	250/950
W	FY	DNR public water access sites	1,420	1,525
W	FY	Number of fishing piers	160	175
W	FY	Miles of canoe & boating routes	2,865	2,865
W	FY	Number of registered boats	728,116	748,000
W	FY	Number of licensed MN anglers	1,500,000	1,500,000
W	FY	Number of registered all-terrain vehicles	64200e	n.a.
W	FY	Number of registered snowmobiles	216461	233443

PROGRAM DRIVERS :

Increased Maintenance and Operating Costs - Funding for facility maintenance, operations and services has not kept pace with increased operating costs and growing visitor use. Inflation and other under-funded liabilities have seriously eroded operating dollars. As new facilities are added, this problem grows more acute. Regular funding is unavailable for routine maintenance, preventative maintenance, and operation of water access and trail facilities. Deferred maintenance is becoming increasingly problematic in terms of its impact on visitor satisfaction and basic infrastructure integrity. Dollars spent on needed repairs extends the useful life of these facilities and can help avoid costly replacement or major redevelopment projects later on.

Capital Funding Availability - New facility construction depends upon appropriations for land acquisition and facility development. The amount, timing and specific legislative direction accompanying these appropriations helps determine project priorities. Competition for such dollars has grown in recent years given the need to supplement and revitalize Minnesota's aging public infrastructure. Appropriations for new construction, however, when not linked to added maintenance and operations support, leads to a reduced level of maintenance over the entire system.

Social, Economic and Demographic Change - Minnesota's aging, increasingly urbanized, and ethnically diverse population will enjoy less leisure time and disposable income than did their predecessors. Today's visitors demand accessible, high-quality facilities conveniently located near major transportation routes, population centers and tourist destinations. Likewise, many local businesses have come to depend upon recreation visitors for their livelihood. These businesses are also directly affected by cutbacks in facility operations and maintenance. These social, economic and demographic shifts illustrate the need to tailor recreation programs and services to reflect the changing face of Minnesotans. Trails & Waterways is committed to providing safe, convenient, affordable, accessible recreation facilities, especially for those who would otherwise be unable to access and enjoy the outdoors.

Goal 1 : Satisfy public demand for additional recreational trail miles.
Objective 1 : Acquire and develop additional trail miles to meet growing demand for recreational trails.

Measure 1 : Miles of state trail, unit trail, and grants-in-aid recreational trail.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
State trails						
Actual	1012	1025	1028	1060		
Target	1011	1024	1050	1050	1060	1092
DNR unit trails						
Actual	2046	2012	2033	2023		
Target	2118	2012	2033	2033	2023	2023
GIA trail - snowmobile						
Actual	12847	12957	13304	13623		
Target	12847	12956	13304	13304	14032	14453
GIA - cross country ski						
Actual	1013	1021	1017	1003		
Target	1013	1021	1050	1050	1003	1003
GIA - all terrain vehicles						
Actual	137	190	278	394		
Target	112	162	230	300	512	667
All trails						
Actual	17055	17205	17660	18103		
Target	17101	17175	17667	17667	18630	19237

DEFINITION :

A "trail" is defined as any continuous pathway intended for recreational use for all or part of the year. Designated trails must be signed, mapped and available for public use. This definition excludes road shoulders or bikeways that lack physical separation from the roadway. "State trails" are recreational or commuter routes that connect outdoor recreational facilities or significant scenic, historical, scientific or recreational qualities (DNR Policy 11, Dated 02/25/81). "Unit Trails" are trails administered by the DNR Divisions of Forestry or Parks and Recreation and managed in a manner consistent with the primary purposes of the State Park or forest. "Grants-In-Aid Trails" are recreational travel routes cooperatively acquired, developed and maintained by local units of government, landowners, and trail user groups through MN DNR's Trail Assistance Program.

RATIONALE :

Research suggests that trail-related activities are among the most popular and fastest growing outdoor activities in Minnesota (and elsewhere). Survey respondents consistently rank trail development as a high priority. State trail mileage figures provide a gross indicator of available opportunity.

DATA SOURCE :

Trail mileage data is from the Minnesota Registry of Public Recreational Trail Mileage, and is reported annually as required by MS Chapter 85.017. Data is maintained in an automated recreation facility database (called RECFAC) managed by the DNR Management Information Systems Unit on a COMPAQ 386 microcomputer.

DISCUSSION OF PAST PERFORMANCE :

New trails and major trail improvements seek to connect existing trails with cities, towns and recreational facilities, and with popular tourist travel destinations. They showcase unique scenic, natural, historic or cultural features of the Minnesota landscape. Increasingly, major trail development projects are undertaken in response to local public demands as expressed through the state's political process.

PLAN TO ACHIEVE TARGETS :

In all but the case of All-Terrain Vehicle GIA Trails, trail mileage is expected to grow very slowly, if at all. This projection assumes that funding will remain essentially constant as system maintenance needs will undoubtedly grow as new trail miles are added, and as existing trails age and experience heavier use over time.

OTHER FACTORS AFFECTING PERFORMANCE :

The pace of recreational trail development depends upon the level of community and legislative support, capital funding availability, and observed trends in railroad abandonments.

Goal 1 : Satisfy public demand for additional recreational trail miles.
Objective 2 : Secure Adopt-A-River volunteers to clean up the shorelines of Minnesota's rivers, ravines, lakes and surrounding areas.

Measure 1 : Number of volunteer groups/miles of shoreline adopted.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Groups/miles						
Actual	188/632	225/800	250/950	260/1050		
Target	160/472	250/700	260/900	260/1000	270/1150	280/1250

DEFINITION :

"Groups Enrolled" refers to the number of volunteer groups enrolled in the Adopt-a-River Program. "River Miles Adopted" refers to actual shoreline miles committed to annually by Adopt-a-River volunteers, reported by calendar year. Cleanup reports are actually filed by about 50% of the groups annually depending in part on local shoreline conditions.

RATIONALE :

By removing refuse along Minnesota's waterways, volunteers restore the health and natural beauty of these once-majestic shoreline corridors. Fish and wildlife habitat is improved and community awareness reduces the potential for the release of toxic pollutants into the environment. This hands-on working/learning experience teaches Minnesotans practical ways to protect and become care givers to the state's natural heritage.

DATA SOURCE :

Site-specific data is collected by volunteers on a continuing basis and submitted to MN DNR Trails and Waterways for summary, review and public distribution. Data includes numbers of individual volunteers, hours volunteered and tons of refuse collected.

DISCUSSION OF PAST PERFORMANCE :

Past performance has been linked to volunteer involvement at the local level. High turnover among adopting clubs continues to be a limiting factor which is in turn reflected in the number of cleanup reports received.

PLAN TO ACHIEVE TARGETS :

Funding is being sought to add a position for this program. Also, communication networks continue to improve and are becoming more extensive. This will increase program visibility for the most likely community service volunteers.

OTHER FACTORS AFFECTING PERFORMANCE :

Future objectives are based upon relatively conservative growth projections and the expectation of stable future funding and staffing. Long-term success will depend upon marketing the program to an ever broadening audience, beyond those groups that most commonly participate in community service to improve the environment.

Goal 2 : Secure safe and adequate public access to Minnesota's lakes and rivers.
Objective 1 : Develop additional public water access sites and related facilities to meet growing user demand.

Measure 1 : Number of fishing piers and number of lakes/rivers with DNR public access.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Fishing piers						
Actual	140	150	160	175		
Target	N/A	N/A	160	170	185	190
Lake/river access						
Actual	1400	1420	1500	1525		
Target	1450	1475	1500	1525	1540	1555

DEFINITION :

The number of boat launches, fishing piers and support facilities (i.e., parking areas, rest stops) is an indicator of program activity. Local units of government also provide water access facilities for public use and often cooperate with the DNR in maintaining and operating public water access facilities.

RATIONALE :

The 1990 Minnesota Statewide Comprehensive Outdoor Recreation Plan projects that growth in water-based recreation will constitute fully 28 percent of all growth in outdoor recreation demand by the year 2000. The public's ability to access and enjoy Minnesota's lakes and rivers is an important measure of T&W's success in securing such access.

DATA SOURCE :

Facility data is contained on the RECFAC automated database which is maintained by the DNR, Management Information Systems Unit on a COMPAQ 386 microcomputer. T&W has developed its own facility data base which was completed in FY 1996.

DISCUSSION OF PAST PERFORMANCE :

The number of public water access sites developed or fishing piers constructed is directly related to available funding. The budget for water access acquisition and development was cut substantially in FY 95 and this is reflected in the numbers above. Although the LCMR has traditionally funded the fishing pier program, there is no assurance that they will continue to so.

PLAN TO ACHIEVE TARGETS :

A restoration of funds for water access development will be sought and funding will again be requested from the LCMR.

OTHER FACTORS AFFECTING PERFORMANCE :

The pace of public water access development depends upon continued program funding and the availability of long-term capital improvement dollars.

Goal 2 : Secure safe and adequate public access to Minnesota's lakes and rivers.

Objective 2 : Implement legislation directing MN DNR to plan, acquire, develop and operate 5 Lake Superior safe harbors in cooperation with local governments. Plan, acquire and develop protected public accesses in between north shore communities as recommended by the North Shore Management Board and local units of government.

Measure 1 : Progress in planning, acquiring, and developing Lake Superior safe harbors and accesses.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Planning						
Actual	2	3	4	4		
Target	2	3	3	3	2	2
Acquisition						
Actual	N/A	1	2	1		
Target	N/A	N/A	2	1	1	2
Development						
Actual	N/A	N/A	1	2		
Target	N/A	N/A	1	2	1	2

DEFINITION :

Recreational boat harbors differ from commercial harbors in that they are typically smaller, surface water conditions are calmer to accommodate smaller watercraft, and they feature various amenities such as fuel, food, drinking water and dockage for harbor customers. Each harbor will include a public access.

RATIONALE :

There are currently no recreational boat harbors along the north shore of Lake Superior between Knife River and Grand Marais, a distance of 90 miles. This lack of protected boat launch and retrieval facilities serves as a barrier to use of Lake Superior by recreational boaters. Construction and operation of these harbors is also expected to boost tourism in communities located along the north shore of Lake Superior.

DATA SOURCE :

Data is from the North Shore Harbors Plan, prepared by the North Shore Management Board (June 1991); the Harbors Plan Economic Study, Public Sector Consultants, Inc. (May 1992); and from Recreational Boating On Lake Superior, prepared by the Minnesota Extension Service Tourism Center (1989). Copies of these reports are available from MN DNR Trails & Waterways or the North Shore Management Board.

DISCUSSION OF PAST PERFORMANCE :

This program was initiated following the completion of the North Shore Harbors Plan (1991) by the North Shore Management Board (NSMB). Following approval of the plan, the NSMB and MN DNR jointly developed the Site Planning & Technical Assistance Manual, which outlines planning responsibilities for the NSMB, the DNR, and for local units of government. The five harbor system was authorized in 1993 by the Minnesota Legislature. Planning and preliminary design work has been completed for Knife River, Silver Bay, and Taconite Harbor. Development of the Silver Bay harbor was fully funded in 1994. The Taconite Harbor Project is being planned using MN DNR's authority to build water access sites.

PLAN TO ACHIEVE TARGETS :

The DNR will continue to work with the NSMB and local units of government using the process outlined in the Site Planning and Technical Assistance Manual. The same group will also work to develop guidelines for development, operation and maintenance of the harbors. Currently, the DNR is working with the City of Silver Bay and the U.S. Army Corps of Engineers to acquire and develop the Silver Bay harbor. The DNR is also working with the town of Schroeder, the City of Two Harbors, and Lake County, Minnesota to secure funding for the Taconite Harbor and Knife River projects, and to complete plans for the Two Harbors project. Initial acquisition and design funds were appropriated for the McQuade project, a protected access being completed in cooperation with the townships of Lakewood and Duluth, St. Louis County and the City of Duluth.

OTHER FACTORS AFFECTING PERFORMANCE :

Progress in achieving this objective is dependent upon funding for land acquisition and harbor development, and active participation by local units of government.

Agency : NATURAL RESOURCES DEPT

Program : FISH & WILDLIFE MANAGEMENT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$48,597	22.93%
From Federal Funds	$1,287	
From Special Revenue Funds	$35,229	
From Agency Funds	$2,544	
General	$9,222	
From Gift Funds	$315	
Number of FTE Staff:	650	24.68%

GOALS :

- To provide sustainable wild populations of fish, wildlife, and native plants. (M.S. 84.941; 97A.045; 84.0895; 84.091)

- To provide sustainable recreational and commercial opportunities for users. (M.S. 84.941; 97A.045; 97A.135)

- To provide sustainable natural communities and ecosystems. (M.S. 84.941; 97A.101; 97A.145; 84.091; 84.967; 84.968; 84.033)

- To have the public knowledgeable about fish, wildlife, and native plant communities. (M.S. 97A.051; 97C.001; 97C.005; M.L. 1991, Ch. 254, Subd. 8; M.L. 1992, Ch. 126A)

DESCRIPTION OF SERVICES :

The Fish and Wildlife Division exists to protect and manage Minnesota's populations and natural communities of fish , wildlife, and native plants for their intrinsic values and sustainable benefits to people. The Division is committed to maintaining the tremendous diversity of species and habitats that occur in Minnesota, and to provide varied, high quality recreational opportunities and educational activities related to fish, wildlife, and native plants.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
W	FY	Number of WMA, SNA and Prairie Bank	1340	1360
W	FY	Acres of WMA, SNA and Prairie Bank	915000	915000
W	FY	Acres of undisturbed grassland	2500000	2500000
W	FY	Number of protected fish and wildlife species	658	658
W	FY	Number of managed lakes	5363	5363
W	FY	Acres of managed lakes	3800000	3800000
OD	FY	Big game harvest (number of deer, bear, moose)	197000	220000
OD	FY	Small game harvest	3000000	3000000
OD	FY	Fish harvest (in pounds)	35000000	35000000
A	FY	Number of anglers	1900000	1900000
A	FY	Number of hunters	600000	600000
A	FY	Number of viewers	2800000	2800000
OD	FY	Total annual expenditures (in billions)	$1.5	$1.5
OD	FY	Annual fishing expenditures (in millions)	$846	$846
OD	FY	Annual hunting expenditures (in millions)	$290	$290
OD	FY	Annual viewing expenditures (in millions)	$363	$363
OD	FY	Cost per person reached by MinnAqua program	$18	$18
OD	FY	Jobs created	34000	34000

PROGRAM DRIVERS :

Protecting Ecosystems While Maintaining Economic Opportunities. Increased development of Minnesota's lands and waters heightens concerns for maintaining the viability of ecosystems in the state while supporting economic growth. Stewardship of ecosystems and while creating economic opportunities presents a great challenge to citizens.

Providing High Quality Recreation. Expectations for quality hunting, fishing, and viewing experiences are as varied as the individuals pursuing them. This variety of expectations for quality experiences can create conflict among users.

Adequate Funding for Programs. Funds from license fees for fishing, hunting, and trapping may fall short of that needed to meet the demands for recreation and the challenges of protecting ecosystems. Other programs in the department are receiving less funding reducing their ability to contribute to the management of fish, wildlife and native plants.

Maintaining a Healthy, Productive Workplace. Employees are highly trained and motivated. They require healthy, productive workplaces. As funding becomes more scarce and the work force is reduced more work is delegated to fewer personnel increasing stress in the workplace.

Improving Organizational Effectiveness and Efficiency. The organization must continue to evaluate itself. New technologies, as well as new goals and objectives, can improve effectiveness. Inadequate information reduces the

capability of resource managers to administer programs.

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 1 : Populations of selected game species (deer, ducks, pheasants).

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Proportion of deer permit areas above/below goal range						
Actual		38/29	52/10	48/25		
Target		<25/<25	<25/<25	<25/<25	<25/<25	<25/<25
Mallard and blue-winged teal breeding populations (000s)						
Actual		811	529	614		
Target		525	525	650	650	650
Fall pheasant populations (000s)						
Actual		1300e	1300e	1600e	e	e
Target		3000	3000	3000	3000	3000

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 2 : Populations of selected nongame species and native plants.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of Trumpeter swans						
Actual		210	295	350		
Target					400	475
Common terns nesting pairs						
Actual		870	1040			
Target				1100	1100	1100
Prop. of end, thr, & spec con species w/ new location info						
Actual		.84	.57	.55		
Target					.60	.70

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 3 : Number and acreage of Widlife Management Areas (WMAs), Scientific and Natural Areas (SNAs), and Prairie Bank (PB). Number of counties where rare species and plant communities have been inventoried.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
WMA number/acres in 000s						
Actual		1221/732	1240/757	1254/745		
Target		1600/1000	1600/1000	1600/1000	1600/1000	1600/1000
SNA number/acres in 000s						
Actual		102/169	103/170	106/171		
Target		98/168	108/170	114/170	110/172	111/172
PB number/acres in 000s						
Actual		14/1.4	14/1.4	15/1.9		
Target		15/1.7	21/2.3	28/3.0	17/2.2	17/2.2
Cumulative counties inventoried for rare species/communities						
Actual		22				
Target		22	24	25	29	33

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 4 : Wetland acreage converted and replaced by state actions including the Wetland Conservation Act.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres of wetlands loss						
Actual			1527			
Target				1800	1800	1800
Wetlands replaced/created						
Actual		1527				
Target			1800	1800	1800	1800

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 5 : Acres of wildlife habitat and natural plant communities managed.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres of farmland/grassland managed						
Actual		12000	10814	11440	12000	
Target					12000	12000
Acres forest/brushland managed						
Actual		35000	26724	29617	30000	
Target					25000	25000
Acres wetland managed						
Actual		15000	9255	6203	10000	
Target					10000	10000

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 1 : Manage terrestrial and wetland ecosystems to protect and improve associated species.

Measure 6 : Environmental assessment acres reviewed for potential effects to habitat.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Acres of woodland reviewed						
Actual		1700	2400			
Target				2000	2000	2000
Acres of grassland reviewed						
Actual		1300	2200			
Target				2000	2000	2000
Acres of wetland reviewed						
Actual		1700	6000			
Target				4000	4000	4000

DEFINITION :

Populations of wildlife species are measured through a variety of direct and indirect censuring and indexing methods. Deer populations are estimated through modeling based on harvest and productivity parameters. Waterfowl populations are estimated using standardized spring aerial transacts of waterfowl breeding grounds, corrected for visibility by ground crew observations. Pheasant populations are estimated by extrapolating from harvest data derived from mail surveys of hunters. Nesting pairs of piping plovers and common terns are counted at colonial nesting sites. Listed species (endangered, threatened, or special concern) are those at greatest risk of disappearing from the State. Management actions to aid the recovery of these species or to reduce the risk of extirpation require accurate and up-to-date information on the distribution, abundance, and life history of these species.

For most species, target populations are considered to be minimums, and higher populations are desirable. However, deer populations are managed within a goal range because if there are too few deer, it creates concern among hunters and wildlife viewers, and if there are too many deer, it creates crop depredation, vehicle, and habitat damage problems. Data are from records kept on file by the Forest Wildlife and Nongame Wildlife programs, and from the Natural Heritage Information System.

RATIONALE :

Numbers and acreage of wildlife areas, scientific and natural areas and prairie bank easements provide a measure of the quantity of direct protection for critical habitats and natural communities. Acquisitions and easements are a good index to activities under this objective because they are used to provide for long-term protection, management and public use of the highest priority critical habitats and natural communities. However, the program also gives very strong emphasis to identifying and protecting these resources on other lands through management agreements, technical assistance, environmental review and education.

The number of counties that have been inventoried for rare species and communities is also an important measure for this objective because information on the location, extent and importance of rare natural features is essential to determining proper land use at both statewide and local levels. In areas where county biological surveys have been completed, public and private sector decision-makers are able to use the information to identify, evaluate and avoid or mitigate potential adverse impacts to rare natural features. Although this measure is not a direct outcome, it is a very good indicator of the potential of the program to provide protection to these resources because, without this information, there is no systematic way to identify potential impacts to natural communities in land-use decisions. Data for this measure is from DNR acquisition and easement files and the Natural Heritage Information System.

DATA SOURCE :

Annual reports to the legislature of state agency and Wetland Conservation Act (WCA) activities are required under Executive Order 91-3 and the WCA. The acreage figures taken from the reports reflect wetland acres lost to development activities, acres restored or created as mitigation to offset those losses and wetland acres created or restored by state agencies to achieve management goals.

Measuring acres of wetlands impacted, restored and created under these regulations provides an index of wetland status in the state. Inferences can be made regarding basic trends in wetlands conservation by looking at the net acreage restored/created (restored + created - impacted.) This is not an absolute measure of wetland status since wetland losses associated with activities exempt from regulation under the WCA are not measured, nor are wetland impacts or restorations associated with the state protected waters program. In this respect, a positive net result will not necessarily mean that no net loss has occurred. The Department of Natural Resources and Board of Water and Soil Resources are required to complete an annual wetlands report covering implementation of Executive Order 91-3 and WCA. This report provides detailed data on wetlands impacts and restorations.

DISCUSSION OF PAST PERFORMANCE :

Generally, habitat protection and enhancement activities and regulation of harvests have resulted in stable or increasing populations of many game species. However, external factors such as weather can have significant impacts, despite protection efforts. The cool, wet summers of the past few years created poor nesting conditions for many upland species such as pheasants. However, the same weather was generally beneficial to wetland species such as waterfowl. Severe winter weather in some areas has also affected deer and other game species populations. With over 1 million acres of conservation reserve program (CRP) cover in Minnesota eligible to start to come out of contracts in 1996, the wildlife program's habitat management, policy development, and education and technical assistance for land managers will be critical in the coming biennium.

Trumpeter swans were extirpated from the state due to over hunting in the 19th century. A restoration plan was initiated in 1982 in collaboration with a number of other partners. The program has been very successful and the population continues to grow. Common terns are nongame species for which population trends have been disappointing in recent years, but for which active management holds some promise of reversing these declines. Nesting success can be strongly dependent upon the existence of stable lake levels which depends on precipitation and lake level management activities. Predation also has a significant effect on nesting success. The success of restoration and management depends on accurate information about the distribution and abundance of these species.

Endangered, threatened and special concern(listed species) are designated according to criteria in Minnesota statutes. A new revised list became effective on July 1,1996. The objective of the listing process is to identify species needing conservation action to prevent their further decline and extinction. This work is accomplished through direct actions, such as habitat management, which are carried out in collaboration with state, federal, and local agencies and conservation groups, and by providing technical assistance and education to land managers and local governments. Here again, accurate information about distribution and abundance is critical to listing decisions.

The amount of land that can be directly acquired and managed for wildlife and native plant species and communities is limited by the availability of appropriations for these purposes and by the availability of willing cooperators. Direct management of wildlife habitats has declined because of reduced resources and staff, and because of shifting priorities. Increasingly, the program is emphasizing influencing land-use and land management decisions through: 1.) providing technical assistance and education to private property owners and local governments; 2.) environmental review of project proposals; and 3.) participating in the development of federal, state and local land management laws, policies, and plans. There are three key requirements to providing effective technical assistance, review, and participation: 1.) reliable data and information on wildlife and plant populations, habitat relationships, and effective management and protection techniques; 2.) trained staff to provide and interpret the information; and 3.) adequate information management technology to effectively catalogue, access and distribute data and recommendations.

An analysis of the state's wetlands conducted by the DNR in 1990 indicated that approximately 7.5 million acres remain from an estimated pre-settlement acreage of 18 million. Other estimates of the current wetland acreage in Minnesota range from 5 million to 9 million. As a result of these losses, and because of emerging national and state understanding of the crucial ecological role of wetlands, efforts were put in place in the early 1990s to improve their protection. The two most significant efforts are Governor Carlson's No-Net-Loss Executive Order 91-3 and the Wetlands Conservation Act of 1991.

PLAN TO ACHIEVE TARGETS :

Achieving population targets for game species will require a combination of direct habitat management, coordination and technical assistance with other land managers, and regulations on harvest. Populations of nongame species will also be managed through habitat protection and enhancement and protection of species through both direct and indirect methods. If current levels of management, research, and surveys are not maintained, then more efficient methods will be needed or the amount and quality of protection efforts will decline.

Although direct acquisition and management of critical sites will continue to be a primary strategy for this objective, the program will continue to increase its emphasis on influencing the land-use and land management decisions of public and private decision-makers to protect critical resources. This will require maintaining or increasing monitoring and data collection efforts, databases and information management technology, and trained staff to provide and interpret the information.

The main way to reduce wetlands impacts associated with state projects is to seek opportunities to minimize impacts during project development and to institute adequate compensatory mitigation, in keeping with WCA provisions. Under the WCA, state agencies can review local mitigation plans to verify accuracy of identified impacts, inform regulators of development options that can reduce impacts, and provide technical assistance on mitigation efforts or sites.

OTHER FACTORS AFFECTING PERFORMANCE :

Current wetland protection data reflect only state agency actions under Executive Order 91-3. Full implementation of WCA began on 1 January 1994, so data do not yet exist on wetland impacts, restorations and creation associated with this law. Quite simply, the long term solution lies in education. The more in tune future generations are with ecology and the importance of natural ecological communities, the better decisions they will make regarding their states resources.

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 2 : Manage fish populations in individual lakes and streams based on current biological data and angler use information.

Measure 1 : Number of new or updated fisheries management plans; biological (or fish population) surveys; and recreational use surveys, creel surveys, and special management studies.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
New or updated fisheries management plans						
Actual		487	452	443		
Target		481	453	441	433	415
Biological (or fish populations) surveys						
Actual		794	703	727		
Target		739	746	803	786	755
Recreational use surveys, creel surveys, specal mgmt studies						
Actual		39	30	25		
Target		34	33	26	29	26

Goal 1 : To provide sustainable wild populations of fish, wildlife, and native plants.
Objective 2 : Manage fish populations in individual lakes and streams based on current biological data and angler use information.

Measure 2 : Number of lakes and streams being evaluated with experimental regulations to improve fishing quality.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Lakes						
Actual		54	43	51		
Target			44	44	77	76
Streams						
Actual		12	12	12		
Target			11	11	12	12

DEFINITION :

The Section of Fisheries conducts fish population surveys to obtain baseline data on fish communities, evaluate management actions, and prepare and update fisheries plans for individual lakes and streams. Recreational use surveys and creel surveys are used to determine characteristics of angler catch and harvest, monitor trends in recreational use, and to determine angler success and preferences.

RATIONALE :

Fish population and angler use data is used to prepare and update fisheries management plans for individual waters. Fisheries management plans summarize the effectiveness of past management actions, establish long term goals, and spell out specific management actions needed to achieve the desired goals.

DATA SOURCE :

The statewide program for lake and stream specific experimental regulations is expanding based on constituent demand. Various experimental regulations need to be evaluated statewide for important game fish species. Once this is accomplished, successful regulations can be applied on a broader scale, and fishing quality--often measured by the average size of fish caught--can be significantly improved across the state.

PLAN TO ACHIEVE TARGETS :

The Section of Fisheries will continue to place a high priority on individual waters management including the collection of biological and angler use data, and the preparation of fisheries management plans. There will be expanded involvement with constituents and other partners in the lake and stream management. Watershed level planning will also become increasingly important in this process. A major thrust in the implementation of new experimental regulations is being supported with funding from the Minnesota Legislature as recommended by the Legislative Commission for Minnesota Resources (LCMR).

OTHER FACTORS AFFECTING PERFORMANCE :

Habitat degradation, increasing angling pressure, and advancements in fishing technology are placing an ever growing amount of stress on our fishery resources. National trends in declining license sales reflect a shift in recreational preference from angling to other activities. A declining constituency will impact budgets, which will result in program reductions.

Goal 2 : To provide sustainable recreational and commercial opportunities for users.
Objective 1 : Maintain fish and wildlife populations at levels that accommodate the needs of anglers, hunters and wildlife viewers.

Measure 1 : Number of hunters and wildlife viewers; satisfaction rating.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Licensed hunters (000s)						
Actual		575				
Target			570	570	580	585
Licensed anglers (000s)						
Actual		1531				
Target			1600	1600	1600	1600
Wildlife viewers (000s)						
Actual		2500				
Target			2500	2525	2550	2575
Satisfaction rating (fishing/hunting)						
Actual				83/91%		
Target		90%	90%	90%	90%	90%

Goal 2 : To provide sustainable recreational and commercial opportunities for users.
Objective 1 : Maintain fish and wildlife populations at levels that accommodate the needs of anglers, hunters and wildlife viewers.

Measure 2 : Number of lakes, streams, and ponds stocked where surveys indicate that additional angling opportunities were provided.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Lakes - warm water						
Actual		609	580	581		
Target		804	671	578	600	570
Lakes - cold water						
Actual		164	144	164		
Target		164	159	163	168	156
Streams - warm water						
Actual		5	12	8		
Target		20	13	8	15	8
Streams - cold water						
Actual		101	87	86		
Target		107	96	91	80	80

DEFINITION :

The number of licensed hunters and anglers is the number of individuals licensed, not total license sales or total hunters and anglers (some have license exemptions). This is an important measure for this activity because participants are the primary clientele group for most of the species the program is statutorily mandated to manage. The number of hunters also provides an indication of how well the program is managing resources because there are direct relationships between species abundance, opportunities, and participants.

The number of wildlife viewers measures participation in observing, feeding, and photographing wildlife by all segments of the state's citizenry. It is also directly related to the abundance of wildlife, its availability and visibility.

RATIONALE :

The quality of experiences associated with fish and wildlife resources is important, in addition to the quantity of such experiences, but is more difficult to measure. There is a need to measure more specifically how satisfied users are with specific species related experiences. To collect data for this measure would require public opinion polling once each biennium at an additional cost.

DATA SOURCE :

Data on number of licensed hunters and anglers is from License Bureau records of license receipts as certified for federal aid reimbursements. Data on the number of people participating in wildlife observation is from U.S. Dept. of Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of Census, 1991 National Survey of Fishing, Hunting, and Wildlife-associated Recreation, U.S. Govt. Printing Office, Washington, D.C. 1993. This data is only available at 5-year intervals.

DISCUSSION OF PAST PERFORMANCE :

The number of people participating in hunting and fishing is only partially determined by species abundance and the availability of opportunities. Demographics and societal values and trends also affect participation. These factors currently include an aging population, increased urbanization, changes in traditional family structure, and changing values towards animals and their use. Nationally, participation has been declining. This pattern has not yet been observed in Minnesota, but the growth of participation is not expected to keep pace with overall population growth. Although some of these factors are beyond the agency's control, a number of efforts have been undertaken to help recruit and retain participants and to improve public knowledge and understanding of fish and wildlife management.

There have also been increased efforts in the program to include and involve all people who use or appreciate fish and wildlife and natural communities in the activities, services, and support of the programs. These efforts will be even more important in the coming biennium and beyond.

PLAN TO ACHIEVE TARGETS :

Maintaining or increasing the number of hunters and anglers will require viable fish and wildlife populations, extensive access to opportunities, and good relations with private landowners who provide the bulk of the hunting opportunity. For those who may be interested in these opportunities innovative approaches will be required to overcome barriers posed by changes in demographics and family structure that remove young people from a close association with the land, water, and fish and wildlife. Working with perspective hunters and private landowners will require an ongoing commitment of staff and other resources.

It will be equally important to engage the majority of citizens who like to view and appreciate wildlife but who have not shown the same level of financial commitment to attaining management objectives.

Production quotas for fish stocking are determined by fisheries management plans for individual lakes and streams and not the capacity of the state's fish culture facilities. Stocking is evaluated so that unsuccessful programs can be modified or dropped and successes continued. The DNR's fish culture facilities are meeting state stocking needs, but it is critical that these facilities be maintained and improved when needed.

OTHER FACTORS AFFECTING PERFORMANCE :

Public support is critical if we are to succeed in fostering a more ecological approach to fish and wildlife management. Regulations will only be successful if there is good compliance, which relies heavily on acceptance. Where past experiences have demonstrated success, fish stocking is a very powerful management tool. Indiscriminate stocking must be avoided if we are to achieve quality fish management in Minnesota. The continued loss of aquatic habitats will place additional pressure on sensitive species and reduce recreational angling opportunities. The long term solution lies in education. The more in tune future generations are with ecology and the importance of natural environments, the better decisions they will make regarding the states resources.

Goal 3 : To provide sustainable natural communities and ecosystems.
Objective 1 : Manage lake and stream ecosystems to protect and improve habitat for aquatic species.

Measure 1 : Number of lakes, or miles of stream, where habitat was improved and protected.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Aeration						
Actual		7	2	0		
Target		7	6	6	4	4
Acquisition (miles)						
Actual		4.82	1.24	3.37		
Target		10	12	12	6	6
Lake HI						
Actual		0	0	1		
Target		1	3	3	3	3
Lake rehab						
Actual		3	2	0		
Target		3	3	3	3	3
Stream HI (miles)						
Actual		25.7	12.4	6.7		
Target		25.7	15.7	12.0	6.9	12.0

Goal 3 : To provide sustainable natural communities and ecosystems.
Objective 1 : Manage lake and stream ecosystems to protect and improve habitat for aquatic species.

Measure 2 : The number of unique or at risk fish species that are being protected.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Endangered						
Actual		0	0	0		
Target			0	0	0	0
Threatened						
Actual		0	0	0		
Target			1	1	1	1
Special concern						
Actual		16	16	20		
Target			18	18	20	20
Other						
Actual		3	3	3		
Target			3	3	3	3

Goal 3 : To provide sustainable natural communities and ecosystems.
Objective 1 : Manage lake and stream ecosystems to protect and improve habitat for aquatic species.

Measure 3 : Number of Minnesota streams having biologically based protected flows.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of streams						
Actual		0	0			
Target				1	8	11

Goal 3 : To provide sustainable natural communities and ecosystems.
Objective 1 : Manage lake and stream ecosystems to protect and improve habitat for aquatic species.

Measure 4 : Lakes with adequate contour maps for management, monitoring, and fishing.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Lakes with adequate maps						
Actual		2632	2647			
Target				2678	2698	2718

Goal 3 : To provide sustainable natural communities and ecosystems.
Objective 1 : Manage lake and stream ecosystems to protect and improve habitat for aquatic species.

Measure 5 : The spread of undesirable aquatic exotic species.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Eurasian water milfoil sites						
Actual		65	67	74		
Target		60	65	65	74	74
Purple loosestrife (PL) sites						
Actual		1552	1727	1767		
Target		1502	1550	1550	1800	1850
Biological controls introduced (PL)						
Actual		8	20	66		
Target				60	100	140
Zebra mussels sites						
Actual		3	3	3		
Target		2	3	4	4	4

DEFINITION :

Habitat protection and improvement ensure that lakes and streams maintain healthy ecosystems. Aeration, lake rehabilitation, and lake and stream habitat improvement can provide fishing opportunities where none would otherwise exist, or increase fish populations so that more or better fishing can occur. Fisheries acquisition provides angler access to streams and lakes and protection of riparian zones that provide or are adjacent to critical fish habitat.

RATIONALE :

Increasingly, habitat protection and improvement is accomplished by coordination and collaboration with multiple partners in other units of government and the public. Watershed projects, local water planning, and comprehensive lake management planning are a few examples. These types of activities do not lend themselves to quantitative measures of performance, but are extremely valuable for improving fish and wildlife habitat.

Increased demand for surface water use underscores the importance of protecting our water and stream resources from extreme exploitation. Wise allocation of water must include consideration of impacts to stream biota. Streams, and the fish and wildlife habitat in them, are a product of stream flows, as are the resultant hunting, fishing and trapping. When we preserve stream flows, we contribute to the protection of the aquatic communities within the streams and the aesthetic and recreational opportunities they provide.

Our lakes are changing. Lake and watershed development is increasing, and along with it, nutrient loading, siltation and pollution. Exotic plants and animals are invading our water systems. How we manage our lakes in the face of these changes depends a lot on what we know about them. An integral understanding of lakes begins with accurate contour maps. These maps provide the basis for management decisions, water quality modeling and for building an aquatic geographic information system.

DATA SOURCE :

The Minnesota Department of Natural Resources is required by law to track the abundance and distribution of undesirable aquatic species as part of their control efforts. Detailed data is collected and published annually each January in "Ecologically Harmful Exotic Aquatic Plant and Wild Animal Species in Minnesota". The goal of the control efforts is to contain the spread of undesirable aquatic species and control existing populations using environmentally acceptable methods.

DISCUSSION OF PAST PERFORMANCE :

Minnesota's aquatic resources are continuously subjected to increasing rates of shoreline development. Threats to aquatic habitats are far greater today than they were 50 years ago. During this same period fishing pressure on Minnesota lakes and streams has more than doubled. More anglers and less habitat, coupled with advances in fishing technology and knowledge, has dramatically increased pressure on the states aquatic resources. This trend is expected to continue. Fisheries managers must continue to refine management techniques and experiment with new approaches in order to maintain quality angling opportunities.

Legislation passed by the 1993 legislature established the authority for the DNR to designate Aquatic Management Areas. This authority represents a unique opportunity to protect critical aquatic habitats. Funding availability will likely dictate the rate at which this program can expand. Restrictive fishing regulations have been used to protect special concern fish species such as lake sturgeon and paddlefish, as well as unique fisheries such as Lake Superior steel head, Red River channel catfish and muskellunge. Environmental review has been conducted since the Minnesota Environmental Policy Act was enacted in 1971. In 1989, environmental review efforts were expanded in response to a critical need to improve coordination with project proposers and government regulators.

The lake mapping program has been in place since the 1940s. Line-of-sight methods have been used to map lakes up to about 2,000 acres in size. Recently, the program has begun to produce lake maps electronically, providing a more useful modeling tool.

Annually since 1990, between 14,000 and 20,000 acres of natural landscape are converted to cover types that are unusable to fish and wildlife. Many thousands more acres of land and water are indirectly impacted by pollution, runoff and siltation from these developed sites. Water quality is in degraded throughout the state from non-point source pollution, ecologically important natural habitats like wetlands and prairies are being lost, and fish and wildlife populations are changing in response to these impacts.

Development is increasing in many parts of the state. Development activities harm natural ecosystems and reduce plant and animal abundance and diversity. By dedicating resources to reviewing plans and environmental permits before projects start, valuable environmental resources can be identified and measures to reduce impacts to them can be recommended to project proposers and regulatory decision-makers. This allows us to direct efforts towards preventing environmental damage rather than restoring previously damaged systems.

Normally, state and federal environmental assessments, environmental impact statements and permit applications are reviewed by department biologists to identify impacts to fish, wildlife, native plants and their ecosystems. Resources present on or near proposed development sites are inventoried, and potential impacts evaluated. Options for reducing environmental harm associated with important natural resources are discussed with project decision-makers, with the goal of maintaining ecosystem integrity as projects are built. The types of projects and environmental documents reviewed are summarized in annual reports to the U.S. Fish and Wildlife Service.

Minnesota, and the United States as a whole, is experiencing an increase in the number of aquatic exotic species that are invading ecosystems. This increase prompted the establishment of an Interagency Exotic Species Task Force in 1990, whose recommendations resulted in various statutes addressing exotic species. The goal of Department control efforts is to contain the spread of undesirable aquatic species present and to control existing populations using environmentally acceptable methods.

PLAN TO ACHIEVE TARGETS :

In recent years the Division has placed greater emphasis on habitat protection. Through permit reviews, participation in local water planning, county zoning, land use planning, hydropower licensing, and participation on watershed-level management initiatives the importance of basin wide management is being emphasized. Budget limitations necessitate continuous review of traditional programs and limit the expansion of new programs. Greater emphasis is being placed on public-private partnerships and on cooperative initiatives with other agencies.

The In-Stream Flow Program focuses on collecting hydrographic and biological data on Minnesota's 39 major watersheds to establish stream flows that will protect habitats for all fish life stages and other aquatic biota. The information collected and developed by the project will serve as a basis, within the DNR, to begin the rule making process for establishing protected flows on our streams. This initiative is the first statewide program in the U.S. designed to use a fish community approach within IFIM to develop protected flows for warm water streams.

Lakes under 2,000 acres will continue to be sounded using line-of-sight methods, and computer-generated maps will be produced. Acquisition of differential global positioning system technology would enable sounding and mapping of the state's largest lakes.

The targets of no introduction of undesirable aquatic exotic species in Minnesota or of no expansion of existing populations are not attainable. Activities by the DNR and other cooperating groups can reduce the number of new introductions and minimize rates of spread within the state while control efforts are improved and implemented.

OTHER FACTORS AFFECTING PERFORMANCE :

Public support is critical if we are to succeed in fostering a more ecological approach to management. The continued loss of aquatic habitats will place additional pressure on sensitive species and reduce recreational angling opportunities. Stream data need to be collected under a range of flow conditions in order to effectively model flow/habitat relationships. Extended high or low water periods may impact data collection and consequent rule development that is dependent upon the data. Project plans, environmental documents and permit applications will be reviewed. Personal contacts with project proposers and regulators will be done to communicate more effectively environmental issues and opportunities. Larger lakes require greater sounding and mapping effort than smaller ones. Lakes are chosen to be mapped based primarily on Section of Fisheries priorities. When several moderate-to-large-sized lakes must be mapped, fewer maps will be produced.

Ultimately, long term ecosystem protection through environmental review depends on implementation of recommendations provided through this program. Our focus is to provide high quality recommendations and communicate them effectively to decision-makers, so that the need for their implementation is clearly understood. The very factors that make some exotic species undesirable, such as a high competitive advantage, few natural predators, and high rates of reproduction/spread, also make their control difficult.

Goal 4 : To have the public knowledgeable about fish, wildlife, and native plant communities.
Objective 1 : Improve quality of natural resource education programs to improve comprehension of fish and wildlife ecosystems.

Measure 1 : Number of participants, short-term comprehension of course materials, and rating of MinnAqua program. Number of Project Wild/Aquatic Wild workshops.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of participants in MinnAqua program						
Actual		25080	21214	21547		
Target		25000	30000	30000	21500	21500
Percent short-term comprehension of MinnAqua course material						
Actual		80%	82%			
Target			85%	85%	85%	85%
Percent positive rating of course by participants						
Actual		92%	95%			
Target			95%	95%	95%	95%
Number of Project Wild/Aquatic Wild workshops						
Actual		60	29			
Target				32	35	40

DEFINITION :

MinnAqua is the aquatic education program coordinated by the Section of Fisheries. This program uses hands-on activities dealing with various aquatic issues and sport fishing. The Project Wild/Aquatic Wild program is coordinated by the Section of Wildlife and is a part of a national school curriculum.

DATA SOURCE :

Measuring participant numbers gives an indication of how many individuals are being reached; however, with an increased emphasis on a quality program we are reaching somewhat fewer people because we spend more time with each person. A pre/post- test gives a general idea of the short term comprehension of topics by those going through the activities. Evaluation forms are used to determine how the program is perceived.

DISCUSSION OF PAST PERFORMANCE :

Initial MinnAqua programs dealt with marketing and advertising to potential audiences. Consequently, a lot of time was spent staffing booths, environmental days, and fairs. Now efforts are turning toward activities that result in at least 6 hours of exposure to the topics presented. This new emphasis has resulted in a drop in participants, but should also increase participant satisfaction and short term comprehension.

Project Wild concentrates on training of teachers in the public and private school systems to enable them to incorporate training in wildlife and ecology into their normal curricula . The program has been successful at training teachers but better information is needed on student participation.

PLAN TO ACHIEVE TARGETS :

The main ingredient to reaching more participants is to become more efficient in scheduling and use of staff and volunteer time. We hope to continue to improve the quality of the program by providing intense training and evaluation of over 100 staff and volunteers. We also will continue to get feedback from our cooperators and audiences on what issues and needs should be addressed.

OTHER FACTORS AFFECTING PERFORMANCE :

The MinnAqua program concentrates on reaching a variety of minority, inner-city, single-parent family, or at-risk groups. This requires that materials and teaching styles be adapted to meet their cultural and socioeconomic needs. Transportation, language, and lack of adult mentors/staff are common barriers to participation in MinnAqua.

Project Wild is dependent on the initiative of trained teachers to deliver the information in the classroom. Recent changes in Minnesota Statutes regulating environmental education as part of the curriculum has helped to encourage participation and comprehension.

Agency : NATURAL RESOURCES DEPT

Program : ENFORCEMENT--NR LAWS&RULES

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$17,159	8.09%
From Special Revenue Funds	$14,309	
General	$2,842	
From Gift Funds	$8	
Number of FTE Staff:	233	8.84%

GOALS :

- To ensure the perpetuation of Minnesota's natural resources by protecting plant and animal populations and their environment. (M.S. 84.0894; 84.09-84.152; 84.967-84.9692; 84D; 88; 97A-97C; 103E-103G; 609.68)

- To ensure the safety of the public, who utilize Minnesota's natural resources for recreational purposes, by providing regulatory services and educational opportunities. (M.S. 84.787-84.929; 85; 86B.001-86B.815; 88; 609.66)

DESCRIPTION OF SERVICES :

The mission of the Enforcement Division is to ensure the perpetuation of Minnesota's natural resources and ensure the safety of the public through sound educational opportunities and regulatory services for all citizens.

Program Purpose: The Department of Natural Resources (DNR) Enforcement Division is the primary law enforcement agency within the State of Minnesota responsible for natural resources and recreational law enforcement.

The division strives to achieve this mission by providing the following services:

1. Enforcement of regulations pertaining to Minnesota fish and wildlife resources, including threatened and endangered species, and undesirable exotic species.
2. Enforcement of snowmobile, all-terrain vehicle, off-road motorcycle, off-highway vehicle and trail-use regulations.
3. Enforcement of regulations pertaining to public safety in all areas of responsibility.
4. Enforcement of watercraft and boating regulations.
5. Enforcement of regulations pertaining to commercial fishing, minnow harvest, aquaculture, wild rice harvest, shooting preserves, game farms, fur dealers, and taxidermy.

6. Enforcement of regulations pertaining to public water resources and wetlands.
7. Assistance to other DNR disciplines by providing enforcement services in their particular areas of interest.
8. Enforcement of regulations pertaining to the use of state lands.
9. Provide educational programs for Minnesotans in the areas of Firearm Safety, Advanced Hunter Education, Snowmobile Safety, All-Terrain Vehicle Safety and Off-Highway Motorcycles.
10. Provide information to the public and interest groups as well as listening to their needs and desires about natural resources and recreational activities.

The program regulates users of Minnesota's natural resources according to the provisions of statute and rule. Expansion of recreational activities and a shift toward motorized recreational vehicles has increased mobility of the "recreating public" making protection of natural resources more difficult to accomplish. This shift has also increased the need to provide regulatory services geared toward public safety (speed and alcohol). This trend will continue as larger segments of the public become more familiar with motorized recreation through advertising and expanded use areas.

The Enforcement Division is a three-tiered organization staffed by 222.55 positions and organized as follows:

-Central Office - Responsible for all support functions including supervision, fiscal management, and planning functions. These functions are staffed by 23.85 positions, including clerical support.

-Camp Ripley - Responsible for all officer and public training functions as well as information services. These functions were formerly located in the Central Office. They were moved to the Camp Ripley location to take advantage of the more cetrally located facility and to decrease training costs. These functions are staffed by 6.5 positions including clerical support. Organizationally the Camp Ripley site is considered a Central Office location.

-Regional Structure - The Division is organized into five Regional Offices which provide supervision, fiscal management, and other support functions. These activities are staffed as follows:
Region 1 - Bemidji, 5.9 positions including clerical support
Region 2 - Grand Rapids, 5.9 positions including clerical support
Region 3 - Brainerd, 8 positions including clerical support
Region 4 - New Ulm, 4.9 positions including clerical support
Region 6 - Metro, 5.5 positions including clerical support

-Field Structure - The field structure is comprised of areas each headed by an Area Supervisor. Field operations consist of the enforcement of laws and rules, operation of mandated education programs, and dissemination of information to the public. The field operation is staffed as follows:
- Area Supervisors - 14 positions
- Sergeants - 1 positions
- Field Officers - 147 positions

The Division places a strong emphasis on providing informational and educational services as a means to achieving voluntary compliance with laws and rules. Law enforcement actions are initiated when appropriate to the situation.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR (FFY), BIENNIUM YEARS (BY)

Type	Based	Measure	1994-95	1995-96
A	CY	Hunting license purchasers	833000	N/A
A	CY	Fishing license purchasers	1100000	N/A
A	CY	Owners of registered watercraft	739000	N/A
A	CY	Owners of registered snowmobiles	216000	N/A
A	CY	Owners of registered all-terrain vehicles (ATVs)	62000	N/A
W	CY	Students in the Firearm Safety Program (cumulative to date)	N/A	N/A
W	CY	Students in the Snowmobile Safety Program (cumulative to date)	N/A	N/A
W	CY	Students in the Advanced Hunter Education / Minnesota Bow Hunter Education Program (cumulative to date)	N/A	N/A
W	CY	Students in the ATV Safety Program (cumulative to date)	N/A	N/A

PROGRAM DRIVERS :

Many factors influence the ability of the Division to successfully achieve its goals. These include:

Strategic Plan - The Division Strategic Plan places a heavy emphasis on achieving voluntary compliance through informational and educational activities rather than traditional law enforcement. It acknowledges and supports the traditional role of resource protection as well as recognizing the need to protect the overall environment. It prioritizes public safety issues, especially in recreational activities, as a major function of the Division. The Plan provides direction for the Division into the next century.

Division Reorganization - The Division has begun to implement the recommendations of the 2001 Study which was designed to do the following:

- Improve efficiency by 15% to 20% (Doing things right).
- Improve effectiveness of the Division (Doing the right things).
- Increase employee job satisfaction.
- Increase stakeholder support for the Division.
- Examine the organizational structure of the Division.

The steps taken now and in the immediate future will allow the Division to achieve the above goals. As part of the study process the "core" work of the Division has been identified and prioritized through an extensive work planning process at all levels of the Division. In order to make the most efficient use of available funding, the Division has now extended the operational budget down to the field station level. Efficiency will be enhanced by making maximum use of the technology available through the Mobile Display Terminal (MDT} system now in place. The fundamental and cultural changes to the Enforcement Division will significantly improve the service provided to the sports persons of Minnesota and allow the Division to fully function with anticipated decreased levels of funding support in the future.

Funding Influences - The "guaranteed overtime" rider language enacted by the 1995 Legislature has seriously impacted the Division's ability to manage our overall budget. The requirement to fund approximately $1.6 million off the top coupled with increased salary and operational costs has made it necessary to hold stations vacant. Overall the Division's ability to successfully achieve its goals is negatively impacted by these necessary actions.

An additional funding influence is the high interest level on the part of special interest groups in how the Division utilizes dedicated funding. These groups express their interest in a sense of "ownership" of any dedicated funds which derive from their particular activity area. There are numerous single issue groups, all of which try to influence the Division's activities and expenditures toward their interest area. This inevitably leads to conflicts and concerns about the adequacy of the Division's activity level in one area versus another area.

Since the Division has a broad-based regulatory mandate, it is impossible to give each single issue interest group the level of service they feel they deserve.

Ecosystem Based Management - The Department has adopted an integrated resource management plan based upon ecosystems rather than smaller management units. This direction has created a need to change the manner in which regulation and law enforcement services are provided. Larger scale management has produced unique needs that require different staffing levels in certain areas and new working techniques. Traditional methods and expectations of the public will continue to need to be changed to accept broader based management and regulatory techniques. These changes may well continue to be met with resistance, making Division goals more difficult to achieve.

Societal and Technological Changes - Societal changes have significantly affected, and will continue to affect, the role of the Division. The increase in single-parent households, frequently headed by women, has decreased the number of young people who pursue hunting and fishing as primary recreational activities. This is probably due to the fact that women traditionally do not choose hunting or fishing as primary recreational activities in as large a proportion as men. Children growing up without strong hunting/fishing influences (i.e. a person to introduce them to the activity) are less likely to pursue these activities as primary sources of recreation. This trend will ultimately result in decreased numbers of people participating in hunting and fishing activities as a primary source of recreational activity with a concomitant decrease in funding derived from license sales.

Along with the decrease in interest in hunting and fishing among young people, technology has provided other types of recreational opportunities. The increase in motorized vehicle use (snowmobiles, motorcycles, ATVs, personal watercraft, etc.) have claimed increased segments of recreational time.

This has caused the Division's emphasis to shift from traditional game and fish regulation toward recreational and safety concerns. This increased number of recreational options requires that Conservation Officers function in more interest areas, increasing the need for training, improved time management, and development of new work techniques.

Goal 1 : To ensure the perpetuation of Minnesota's natural resources by protecting plant and animal populations and their environment.

Objective 1 : To reduce the violation rate to 0.38% per 100,000 licenses sold by F.Y. 2000.

Measure 1 : Percentage rate of violations per 100,000 hunting/fishing licenses sold.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Violations/100,000 licenses						
Actual		0.46%	0.44e%			
Target		0.40%	0.40%	0.40%	0.40%	0.40%

DEFINITION :

The measure is a calculated percentage of the violation rate/100,000 hunting, fishing and related licenses sold. It is derived from the total number of criminal citations and warnings per year issued by conservation officers for violations of law or rule that directly relate to regulation of hunting, fishing, trapping, etc.

RATIONALE :

The measure is relevant to the activities of the Enforcement Division in the area of resource protection because it is a direct measure of violations detected in each year per 100,000 licenses sold. Data on actual hours worked is included in the measure to demonstrate that similar levels of effort are expended from year to year making the violation rate comparable.

DATA SOURCE :

License sales data was obtained from the DNR License Bureau. Violation and effort (hours) data was obtained from the Division's computerized record keeping system, which contains records of all arrests, warnings, and hours worked by activity category. Complete data for F.Y. 1995 is not yet available but the estimates provided are based upon over 80% of the data already entered and are believed to very close to "actual".

DISCUSSION OF PAST PERFORMANCE :

Deer populations were at or near an all time high during FY 94 and 95 due to favorable winters, resulting in a commensurate increase in hunter numbers and opportunities. Small game and upland bird populations generally increased slightly with waterfowl populations up also. This period provided excellent levels of opportunity for the hunting public. Sales of angling licenses increased slightly over previous years, in part due to better spring and summer weather than in the previous two years.

The Division's performance was at approximately the same level as previous years (FY93 violation rate was 0.43%). The Division goal of lowering the violation rate to 0.40%, was not realized due to increased numbers of hunters and anglers and the necessity to prioritize work effort toward recreational activities with public safety implications.

Goal 2 : To ensure the safety of the public, who utilize Minnesota's natural resources for recreational purposes, by providing regulatory services and educational opportunities.

Objective 1 : To reduce the recreational vehicle violation rate to 0.40% per 100,000 registered recreational vehicles by F.Y. 2000.

Measure 1 : The percentage rate of violations per 100,000 snowmobiles/all-terrain vehicles registered.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Violations/100,000 registered vehicles						
Actual		1.1%	0.92e%			
Target		0.50%	0.50%	0.50%	0.50%	0.50%

DEFINITION :

The measure is a calculated percentage of the violation rate/100,000 registered machines. It is derived from the total number of criminal citations and warnings issued by conservation officers per year for violations of recreational vehicle laws and rules.

RATIONALE :

The measure is relevant to the Division's recreational vehicle activities because it is a direct measure of the rate of violations/100,000 registered machines. Data on actual hours worked is provided to show a significantly increased level of response (FY93 actual hours were 16,700) to an increasing number of registrations each year and because the level of accidents and fatalities is unacceptably high.

DATA SOURCE :

Recreational vehicle registration data was obtained from the DNR License Bureau. Violations and effort (hours) data was obtained from the Division's computerized record keeping system, which contains records of all arrests, warnings, and hours worked by activity category.

DISCUSSION OF PAST PERFORMANCE :

Aggressive advertising of recreational vehicles by manufacturers have dramatically increased sales. In addition the advertising is aimed at equating speed with fun. In the case of snowmobile usage there is a speed limit of 50 mph on public lands and waters. Snowmobile advertising consistently shows machines at speed and encourages violations of speed laws.

The winter of 1995-1996 presented the Division with an unprecedented situation when approximately 20 snowmobilers were killed in 30 days. The division response included intense work on speed and alcohol enforcement, creation of a Task Force of state and national leaders to address the problem, and increased communications to the recreational public. The results were encouraging in that the rate of fatalities decreased dramatically for the rest of the winter season. The 1995-1996 winter season resulted in a total of snowmobile fatalities.

The Division was unable to achieve its goal of reducing violations due to the need to prioritize work in response to the unprecedented increase in fatalities. As a result additional time was spent on this activity, and with a "zero tolerance" policy on alcohol and speed violations, a significantly higher number of violations were detected.

Under the accident conditions which existed during the winter of 1995-96 the objective for this activity cannot be realized. The original objective has been retained at this time to determine if the conditions experienced during winter 1995-96 were an anomaly or represent a new "norm" for this activity.

PLAN TO ACHIEVE TARGETS :

The Division organizational study has identified key work activities to be prioritized and work activities which can be de-emphasized to increase work hours in priority areas. Recreational vehicle enforcement will be prioritized, especially violations of speed and alcohol laws which contribute directly to accidents and fatalities. Hours from de-emphasized work activities will be redirected to this purpose.

The Division is considering a challenge to recent court decisions which have eliminated the ability to conduct sobriety road checks for motor vehicles. While the decision didn't specifically restrict such operations for snowmobiles, the issues were similar enough to warrant cessation of road checks pending further study. Additional review, and the 1995-96 winter experience with increased fatalities, has created discussion about the possibility of a challenge to the court decision.

Goal 2 : To ensure the safety of the public, who utilize Minnesota's natural resources for recreational purposes, by providing regulatory services and educational opportunities.

Objective 2 : To reduce the boating violation rate to 0.15% per 100,000 registered watercraft by F.Y. 2000.

Measure 1 : The percentage rate of violations per 100,000 registered watercraft.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Violations/100,000 boats registered						
Actual		0.27%	0.28e%			
Target		0.18%	0.18%	0.20%	0.20%	0.20%

DEFINITION :

The measure is a calculated percentage of the violation rate per 100,000 registered watercraft. It is derived from the total number of criminal citations and warnings issued by conservation officers per year for violations of watercraft and boating laws and rules.

RATIONALE :

The measure is relevant to the Division's watercraft and boating regulatory activities because it is a direct measure of the rate of violations/100,000 registered watercraft. Data on actual hours worked is provided to show a consistent level of effort for F.Y. 1994 - F.Y. 1995.

DATA SOURCE :

Registration data was obtained from the DNR License Bureau. Violation and effort (hours) data was obtained from the Division's computerized record keeping system which contains records of all arrests, warnings, and hours worked by activity category.

DISCUSSION OF PAST PERFORMANCE :

A return to more normal weather patterns, from cool spring and summer weather during 1993 and 1994, showed increased boating numbers with a commensurate increase in enforcement activity. With a continued emphasis on speed and alcohol enforcement the objective for this activity remains realistic.

PLAN TO ACHIEVE TARGETS :

The Enforcement Division has prioritized boating enforcement activities, especially alcohol enforcement, for many years. The division will continue to prioritize boating enforcement in the future by utilizing work hours previously expended upon lower priority activities.

The increase in personal watercraft (water scooter) registrations and substantially higher accident rate for these watercraft has caused a shift in emphasis to increased enforcement activity levels on this type of watercraft.

Goal 2 : To ensure the safety of the public, who utilize Minnesota's natural resources for recreational purposes, by providing regulatory services and educational opportunities.

Objective 3 : To maintain the hunting accident rate at or below 0.005% per 100,000 licenses sold.

Measure 1 : The percentage rate of all reported hunting accidents per 100,000 hunting licenses sold.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Accidents/100,000 licenses						
Actual		0.003%	0.004%			
Target		0.005%	0.005%	0.005%	0.005%	0.005%

DEFINITION :

The measure is a calculated percentage of all reported hunting accidents per 100,000 hunting licenses sold. It is derived from hunting accident reports required by law to be submitted to the commissioner being divided by the total number of hunting licenses sold expressed as a percentage.

RATIONALE :

The measure is relevant to evaluating the effectiveness of DNR Hunter Safety and Education Programs for several reasons:
- over the period measured the hunting framework (i.e. seasons, methods, and regulations) have been relatively constant.
- the number of hunting licenses sold has remained relatively consistent.
- the significantly large cumulative number of students certified to date in Firearm Safety, Advanced Hunter Education, and Bow Hunting Education.

Given stable regulations, seasons, methods, and license sales the decrease in the accident rate must be associated with the long history of safety education in Minnesota. While no data is available on what percentage of certified students have died, moved out of state, or no longer hunt, it is logical to assume that a significant percentage (over 50%) of license buyers in Minnesota have had some form of safety education. Cumulative students certified reflect all students certified in Firearm Safety since 1956, Advanced Hunter Education since 1976, and Minnesota Bowhunter Education since 1989.

DATA SOURCE :

License sales date was obtained from the DNR License Bureau. Students certified data and accident report data was obtained from the records of the Enforcement Division's Safety Training Unit.

DISCUSSION OF PAST PERFORMANCE :

No data exists to determine the number of students certified that continue to live in Minnesota and hunt. This data would greatly enhance the Division's ability to equate the decrease in the hunting accident rate/100,000 licenses sold to the effects of Hunter Safety Education Program. Absent that data the Measure becomes an effectiveness measure by the elimination of other factors which could effect hunting accidents.

PLAN TO ACHIEVE TARGETS :

The Enforcement Division Strategic Plan has identified education as a major component of achieving voluntary compliance with laws and rules. Educational activities will be stressed in addition to traditional law enforcement services to create a better educated and informed hunting public. This awareness will equip the hunting public to be safer both while in the field and when storing firearms in the home.

Legislation enacted by the 1996 Legislature requiring that at least one article of blaze orange clothing be worn by small game hunters will increase hunter visibility and should lower hunting accident levels. Additionally the division has established a school outreach program called Adopt-A -School which allows conservation officers to provide in-school education about natural resources including hunting safety. This program, coupled with the youth Hunter Safety and Advanced Hunter Education programs, will continue to deliver the safety and ethics message that make Minnesota such a safe state in which to hunt.

Agency : NATURAL RESOURCES DEPT

Program : OPERATIONS SUPPORT

EXPENDITURES AND STAFFING :

	($ in Thousands)	Percent of Department
Total Expenditure	$45,733	21.57%
From Federal Funds	$1,121	
From Special Revenue Funds	$28,618	
From Agency Funds	$2,492	
General	$12,903	
From Gift Funds	$599	
Number of FTE Staff:	434	16.49%

GOALS :

- To employ management strategies and technologies that facilitate the most effective and efficient use of information and resources in support of natural resources management. (No Statutes Cited)

- To provide accessible, useful, and responsive DNR information, products, and services to the department's internal and external customers. (M.S. 16A.124; 16B.19; 363; Americans with Disabilities Act)

- To ensure that the DNR meets all statutory mandates for administrative management of department operations. (M.S. 3; 13; 15; 15A; 16A; 43A; 83A-110A; 116P; 179; M.L. 1993, Ch. 172.)

DESCRIPTION OF SERVICES :

The Operations Support Program provides professional management and administrative support services to program operations in the central office and regional offices. These include specialized expertise in financial management, human resources management, employee safety and health, procurement, facilities management, fleet management, engineering and surveying, real estate management, information and education, management information systems, volunteer management, license services, and planning and policy development.

The program accomplishes this purpose by:

Overall management of the DNR, formulation and establishment of priorities and policies for implementation of natural resource management, and integration of department operations into a cohesive management direction.

Providing leadership and direction in developing ecosystem-based resource management concepts and plans so that individual discipline efforts support a common goal and integrated decisions are made.

Providing liaison services for DNR programs to other governmental units and the agricultural community.

Establishment of internal financial management policies and procedures; coordination of the biennial budget, capital budget, and annual spending plan; budget control; revenue and general accounting functions; internal audits and coordination of legislative and federal audits; and provision of financial information.

Procurement, distribution, and issuance of fish and wildlife licenses, administration of wildlife hunting lotteries, various recreation vehicle registrations and cross-country ski passes, and watercraft titling.

Development, administration, and maintenance of the DNR computer center, data entry services, geographic information system, telecommunications, library services, and worldwide web development.

Development of DNR's strategic planning process and facilitation of regional and local natural resource planning efforts; conducting management and organizational analysis, including collecting and evaluating customer survey data; and administration of interdisciplinary environmental review and policy development.

Communication to the public about natural resources through accessible information services and news, special events, and publications.

Human resource management, employee development, labor relations, affirmative action, volunteer recruitment, training, and placement.

Coordination of the maintenance, repair, and rehabilitation of DNR buildings; management of the department's procurement warehouse and sign shop, employee safety and health, and property management programs; and administration of fleet and emergency support programs.

Providing professional real estate management services for issuance of land leases, utility licenses, and road and flowage easements; facilitating acquisition of land; selling surplus DNR real estate; reviewing and auditing Permanent School Fund land; maintaining the DNR land management information system; and calculating and certifying payment in lieu of taxes and other ditch assessments.

Providing professional engineering, architecture, land surveying, landscape architecture, and recreational mapping products and services to natural resource managers and the public.

The organizational units included in the Operations Support Program include the Commissioner's Office; the Bureaus of Management Information Services, Real Estate Management, Field Services, Engineering, Licenses, Financial Management, Information and Education, and Planning (including Volunteer Programs); and Regional Administration.

BACKGROUND INFORMATION :

MEASURE TYPES: ACTIVITIES (A), EFFICIENCY (E), OUTPUT (O), OUTCOMES (OC), OTHER DATA (OD), UNIT COSTS (UC), WORKLOAD (W)

DATA BASED ON: CALENDAR YEAR (CY), FISCAL YEAR (FY), FEDERAL FISCAL YEAR

Type	Based	Measure	1994-95	1995-96
A	FY	Number of design, architectural, survey and mapping projects	600	660
A	FY	Dollar amount of construction projects bid each year (millions)	$14.0	$8.0
A	FY	Number of recreational unit maps worked on	400	400
A	FY	Number of properties acquired each year	125	92
A	FY	Number of properties sold/ transferred/ gifted each year	56	49
A	FY	Number of environmental review projects completed	284	362
A	CY	Number of phone inquiries to DNR Information Center answered	140000	135000
A	CY	Number of media advisories, news releases	1058	836
A	FY	Number of position classifications which DNR (not DOER) determines	215	215
A	FY	Number of exams for positions handled by DNR rather than DOER	25	19
A	FY	Number of volunteer hours contributed	300000	315000
A	FY	Number of License Bureau sales transactions	47620	48341
A	FY	Number of garage sales and auctions of surplused items to public	16	22
A	FY	Number of workers' compensation claims processed	310	263

PROGRAM DRIVERS :

Support for Ecosystem-Based Management: As the Department of Natural Resources shifts focus to more locally-based collaborative management with stakeholders and greater consideration of the state's resources as being part of interconnected ecosystems, operations support units are reorganizing or redirecting their internal and external services to support this focus. This is particularly evident in the Management Information Systems Activity, and the Regional Operations Support Activity but also impacts every service from fleet and facility management, to planning, to human resources training efforts.

Management Through Teamwork: Considerable effort has been made to develop and empower teams throughout the department to address natural resource and organizational management issues. This is particularly evident in the Regional Operations Support Activity. Although this extends the amount of time required for decision-making, it is expected that the quality and implementation of decisions will be enhanced through broadened input, improved acceptability, and improved information systems.

Customer Service: This program serves both internal and external customers and relates to those customers through service and "control" functions mandated by law, statute, or statewide policies. With the goal of better service, and with increasingly fewer financial and human resources, many of the units are participating in restructuring and realignment of duties and functions to facilitate better communication, cooperation, and integration of work. In addition, these programs are improving communications by providing customers with clearer descriptions of their own services, improving written policy and procedures for managers and other employees, providing training, and expanding planning and decision-making processes to include stakeholders and other interested parties. Relations with external customers are being improved by developing and

maintaining liaisons with other agencies, expanding accessibility of department information and services, and continuing partnerships with stakeholders and other government units to address natural resources issues.

Cost Efficiency and Effectiveness/Investment in Technology: The continuing reduction of financial resources for support services is straining our ability to maintain the department's infrastructure and service level through more cost-effective and efficient means. Processes are being streamlined, services are being consolidated, duplication of services is being eliminated, and services are being contracted out in an attempt to reduce the cost of providing support services. A major issue for this program is the conflict between need to reduce costs and need to make initial investments in technology for long-term efficiency and effectiveness gains. The implementation of the new Statewide Systems Project for replacing existing personnel, financial, and procurement computer systems and processes is an example. Another is computer-aided design stations and automated field stations which improve productivity by increasing the accuracy and timeliness of engineering functions and significantly reduce the person hours needed per project. Automated inventory, record project management, and billing systems assure that financial, equipment, supplies, and human resources and costs of those resources are allocated or attributed to each DNR program. Also, computer networks and telecommunications technology improves the frequency, quality, and timeliness of departmental communications, so that necessary coordination and input take place for all department decision-making and planning. Development of department-wide natural resources databases--most importantly, the geographic information system database--not only helps us improve the basis for decision-making, but makes that information more accessible and timely for DNR customers. All of these technology improvements require an initial investment that pays back in increased productivity and effectiveness over longer periods of time than that reflected in a budget period. The continuing management challenge for Operations Support is balancing cost efficiency and effectiveness with customer services while carrying out activities, some of which are legally mandated.

Goal 1 : To employ management strategies and technologies that facilitate the most effective and efficient use of information and resources in support of natural resources management.

Objective 1 : To maintain the ratio of support services costs at or below 15%.

Measure 1 : Percent of total DNR costs that are support services costs.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Percent costs						
Actual	12.93%	11.87%	11.81%	11.6%		
Target					12.11%	12.11%

DEFINITION :

Programmatic costs are those incurred in the direct management of the natural resources of the state. They include the activities performed by the DNR's divisions: Waters; Minerals; Forestry; Parks and Recreation; Trails and Waterways; Fish and Wildlife; and Enforcement. Support costs include those incurred to provide common services required by all programs to enable them to accomplish their mission. In general, support costs include the services performed by the activities of this budget program. Some support units provide direct programmatic services. Where support units provide these direct services, those costs are treated as programmatic for this measure. The folllowing operations support programs, projects, and units are considered programmatic for this measure: License Bureau; Legislative Commission on Minnesota Resources projects located in operations support units; and the Boat and Water Safety Program located in the Information and Education Bureau. In addition, several revolving fund accounts are excluded from support costs. The costs of these services are reflected in the expenditures of the units purchasing the services.

RATIONALE :

In recent years as financial resources have become more restricted, the department operations support units have taken several measures to reduce or manage costs. This measure provides a useful monitoring tool for measuring the aggregate impact of those actions. In addition, support costs are of interest to the legislature, as a report of such costs was mandated by Laws of 1993, Chapter 172, Section 5, Subdivision 9.

DATA SOURCE :

The statewide accounting system provides the raw data for the analysis. The analyzed data to date is taken from the Department of Natural Resources' Support Service Cost Report for Fiscal Years 1990-94, February17, 1994, and follow-up data.

DISCUSSION OF PAST PERFORMANCE :

For the past biennia, the units in the operations support program have made an aggresive effort to reduce costs by re-engineering processes, streamlining their organization, reducing duplicative services, and consolidating services. As a result, support costs have remained stable in nominal dollars and declined as a percentage of total costs, while program dollars have increased. Meanwhile, the demand for support services has increased. In addition, statewide policy or legislative initiatives beyond the department's control may contribute to changing the cost of support services. For example, if other departments, such as the Department of Employee Relations or the Department of Administration, want to delegate some of their duties to other state agencies, this expands DNR's responsibilities, and costs related to these duties will increase for DNR. Also, new state or federal legal mandates, such as the implementation of the Americans With Disabilities Act, may increase support service costs. There is a limit to how long the maintenance of the current funding level can continue without harming service levels. Thus, our objective is higher than the ratio current funding provides.

PLAN TO ACHIEVE TARGETS :

Recent Game and Fish Fund reductions resulted in reduced budgets for support services and program budgets alike. Several units have reorganized and changed reporting relationships to attempt to respond effectively at reduced funding levels.

The DNR is continuing to pursue delegations from the Department of Administration, the Department of Finance, and the Attorney General's Office, which will expand contract responsibilities within DNR. Also, the implementation of new statewide accounting, human resource, and purchasing systems requires continued investment in training, equipment and supplies, with significant fiscal impact in the Operations Support Program.

Goal 1 : To employ management strategies and technologies that facilitate the most effective and efficient use of information and resources in support of natural resources management.

Objective 2 : To extend to all staff (field stations and central office) access and support services to the department computer network.

Measure 1 : Number of active users on department network.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of users						
Actual	250	450	600	2000		
Target					2300	2300

DEFINITION :

"Active Users" refers to departmental staff, all geographic locations, that actively have access and used the department computer network within the last six months. This includes dial-in and local workstations/nodes.

RATIONALE :

Implementation of an ecosystem approach to natural resources management requires easy and uninterrupted access and exchange of information and data between organizational units and between geographically dispersed sites. The networks provide the technology to that level of information/data sharing. The more people who access and share the information before and during the decision-making process, the greater the knowledge and success of ecosystem management.

Access to the networks is critical because it provides a multitude of applications for department operations, including the Statewide Systems Project (accounting, procurement, human resources), Geographic Information Systems (natural resources management), and the Technology and Administrative System.

DATA SOURCE :

The number of active users is read directly from the network enrollment list on the system.

DISCUSSION OF PAST PERFORMANCE :

The requirements for compliance with the Statewide Systems Project has caused deadlines to be advanced. The department has dedicated much attention administratively and fiscally to reach targets quickly.

PLAN TO ACHIEVE TARGETS :

The strategy outlined in the DNR Statewide Computer Network Plan will be followed. The department is finished with the implementation.

Goal 1 : To employ management strategies and technologies that facilitate the most effective and efficient use of information and resources in support of natural resources management.

Objective 3 : To increase ecosystem-based partnership efforts by each DNR region.

Measure 1 : Number of ecosystem-based partnerships.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Number of partnerships						
Actual		3	6	30		
Target					35	40

DEFINITION :

Ecosystem-based management efforts represent partnerships that include other agencies, organizations, and the public in the management of ecological systems (including large landscapes and watersheds) with the objective of sustaining the use of resources, local economies, and communities into the future.

RATIONALE :

The DNR recognizes that management needs to be undertaken with the broad cooperation of entities that benefit from the management effort and that an ecosystem or whole systems approach is needed to ensure that sustainable management is effective over the long run. Several examples of this approach include:

Development of a long-range management plan for the Lac Qui Parle area in southwestern Minnesota. This long-range plan was created to improve fish and wildlife habitat, provide recreational opportunities, improve water quality, and reduce soil erosion within the Lac Qui Parle ecosystem. It is a good effort to incorporate environmental, social, and economic views into resource management planning. The plan was developed through a series of round table discussions focusing on many diverse issues and involving citizens and stakeholders throughout the area.

Development of the Savanna Portage State Park Management Plan. A citizens advisory committee worked with an interdisciplinary team of DNR resource managers to set guidelines for the management of natural, cultural, historical, and recreational resources in and around this 15,000-acre park. The plan recognizes the fact that park management reaches well beyond park boundaries. The historic and cultural features related to the fur trade area are of statewide significance, the old-growth forests in the park are regional important, the park contributes to the local tourism-based economy, and interpretive programs complement local environmental education efforts.

DATA SOURCE :

The data source is simply a count of ecosystem efforts with DNR as a major participant. This objective may not be used in future performance reports (1998 or 1999) as DNR now is beginning to use ecosystem-based management as its standard management approach and is further focusing on greater community involvement and coordination at DNR's area level.

DISCUSSION OF PAST PERFORMANCE :

This management approach is proving to be very successful. In DNR's 1994 Performance Report, the estimate for ecosystem-based partnerships in 1996 was 6. Our review of 1996 documents well over 30 of these types of efforts. The public's acceptance of this management approach is quite positive; ecosystem-based management also appears to be an effective strategy to sustain our natural resources.

PLAN TO ACHIEVE TARGETS :

At this time, DNR plans to focus refinement of its ecosystem-based management efforts on greater involvement and coordination with communities and management/participation by area level DNR staff. Regional Administration is in the process of coordinating division activities to set up interdisciplinary area level teams to further develop and refine ecosystem-based management partnerships. As this is implemented, DNR will need to define new objectives and performance measures for this management activity.

OTHER FACTORS AFFECTING PERFORMANCE :

Cooperation and funding support from other agencies and support from the public are uncertainties that can influence the number and progress of existing and future ecosystem initiatives.

Goal 2 : To provide accessible, useful, and responsive DNR information, products, and services to the department's internal and external customers.

Objective 1 : Establish fully operational Geographic Information System (GIS) Centers in each DNR regional office.

Measure 1 : Number of operating GIS centers established.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
GIS centers						
Actual	0	0	0	2		
Target					2	4

DEFINITION :

A fully operational GIS regional center is one that has all hardware and software in place, is accessible over the DNR network, and is staffed by a Regional GIS Coordinator.

RATIONALE :

The Regional GIS Centers will be the critical link between DNR field personnel and departmental GIS databases. The DNR "Directions for Natural Resources" document has identified GIS as an important tool for describing and predicting how resources interact within ecosystems and how they respond to human uses. GIS is seen as an essential tool for the field resource manager.

DATA SOURCE :

The DNR GIS Strategic Planning Subcommittee will monitor the development of each GIS Center and make periodic reports to the GIS Committee and the DNR Information Management Team. Costs to monitor will be minimal.

DISCUSSION OF PAST PERFORMANCE :

GIS Centers were funded for DNR Regions IV and V for the 1996-97 biennium. There are several other ad hoc GIS Centers in place. The ad hoc centers have been funded on a limited basis by donations from regional operations budgets. This funding has primarily been for special projects rather than for day-to-day operations and support. Examples of projects and deliverables to date include 1) area-based timber management, 2) field implementation of deer management information system, 3) DNR office consolidation and boundary adjustments, 4) storm damage assessment, 5) ditch benefits reassessment project, 6) forest inventory management, 7) parks facilities management, and (8) ecosystem zone identification and assessment.

PLAN TO ACHIEVE TARGETS :

The DNR has established a target of implementing multi-discipline based resource management practices. The ability the DNR has to move forward with this new resource management practice will be greatly enhanced by the establishment of these Regional GIS Centers and the deployment of GIS tools and data to the field staff.

Goal 2 : To provide accessible, useful, and responsive DNR information, products, and services to the department's internal and external customers.

Objective 2 : The overall condition of DNR facilities will be measurably improved.

Measure 1 : Facility factor values for suitability, performance, and condition.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Suitability						
Actual		1.553	1.5	1.45		
Target					1.5	1.55
Performance						
Actual		1.671	1.5	1.45		
Target					1.5	1.55
Condition						
Actual		1.602	1.5	1.45		
Target					1.5	1.55

DEFINITION :

In the spring of 1994 a full facility audit was completed for each building on DNR's inventory. The audit measures each of the three factors: suitability, performance, and condition. Each factor may have a value of between 1 for "good" and 4 for "substandard."

1. Suitability: This factor measures the relative appropriateness of the structure and its components for the way in which it is being used.

2. Performance: This is a measure of how each component of a structure performs it function.

3. Condition: This is a measure of the deterioration of structure and its components.

Seven components are evaluated on each structure: electrical, envelope, interior, mechanical, roof, site, and suitability. Within each of the components, anywhere from ten to thirty different elements are evaluated for condition, performance, and the estimated cost of repair when repairs are indicated. In addition, estimates are made of the life remaining in any of the elements.

These measures give us a positive fix on the overall qualitative condition of DNR's facilities. The audit finished in the spring of 1994 provides a bench mark against which progress can be measured. If we garner the necessary financial support for facilities, we should see that support translated directly into improvements in suitability, performance, and condition. There should also be a measurable decrease in the amount of money owed to care for the facilities in that much of the costs now estimated to be needed to repair the existing facilities are due to deferred maintenance.

Field Services is responsible for managing facilities and the broad horizon of issues that are a part of providing serviceable facilities for all of DNR's functions.

RATIONALE :

This is an important measure of performance for both the program and the agency. Many of the issues involved in providing adequate working facilities and public facilities are affected by the condition of facilities. Indicators of facility condition can contribute to a larger evaluation of DNR's ability to manage the state's diverse natural resources.

DATA SOURCE :

Field Services' facility management database. The database captures several larger pieces of information in regard to DNR's facilities: quantitative measures of what's on the ground, qualitative assessments of conditions, and estimated costs to correct deficient conditions.

DISCUSSION OF PAST PERFORMANCE :

Past performance has been a function of stretching too scarce a resource over too large a task. The picture of temporarily fixing a problem or foregoing necessary repairs to fit emergency work into a budget which barely fits is the best that can be offered.

PLAN TO ACHIEVE TARGETS :

Improvement in the values for condition, performance, and suitability will occur in fiscal years 1995, 1996, and 1997, if increases in the resources available to do work on the DNR's facilities are made available and if those resources are effectively managed within the department. Movement of values for these areas toward 1.0 indicates improvement. Movement away from 1.0 is an indicator of deterioration.

There is a funding proposal before the department to be evaluated against other departmental concerns. If the proposal moves forward and is appropriated at some level, those funds will be brought directly to bear on condition, performance, and suitability issues.

We will, in addition, solicit the legislature for capital budget funding to address the deferred renewal.

OTHER FACTORS AFFECTING PERFORMANCE :

Distinct and timely improvement in suitability, performance, and condition depends on funding the department at a level which addresses facility issues. Legislative support for a fairly radical increase in facility operating budget is required.

Goal 2 : To provide accessible, useful, and responsive DNR information, products, and services to the department's internal and external customers.

Objective 3 : The number of boating deaths will plateau.

Measure 1 : Deaths per 100,000 registered boats.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Boating deaths						
Actual	2.47	2.57	2.67	3.0		
Target					3.0	3.0

DEFINITION :

The number of boating deaths each calendar year divided by the number of registered craft in hundreds of thousands.

RATIONALE :

The use of this measure is a standard used for the past 25 years by the U.S. Coast Guard to measure the success of the boating safety programs in the country. This figure has dropped from over 28.7 in 1971 to 7 in 1995. It takes into account the number of boats in a state and the number of resulting deaths.

DATA SOURCE :

Boating deaths are taken from the official accident reports completed by county sheriffs and transmitted to the Coast Guard. Registration figures are compiled on December 31 each year by the department from the computer records in the License Bureau and also transmitted to the Coast Guard.

DISCUSSION OF PAST PERFORMANCE :

With the low number of deaths from boating accidents, several accidents with multiple victims can raise the fatality rate in a particular year. Weather and economy also pay a significant part in boat usage as well.

PLAN TO ACHIEVE TARGETS :

The department will continue to influence the reduction of fatalities through its educational efforts (boating courses, brochures, TV and radio public service announcements, news actualities, etc.) and enforcement of boating laws (by the Division of Enforcement and through a grant program to county sheriffs).

Goal 3 : To ensure that the DNR meets all statutory mandates for administrative management of department operations.

Objective 1 : Maintain or increase total revenues collected by department activities.

Measure 1 : Dollar value of revenues in thousands.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Revenues (all funds)						
Actual	$108196.8	$117486.0	$120024.1	$122231.4		
Target					$125468.0	$130977.0

DEFINITION :

This measurement is of the amount of revenues generated by DNR activities in a given fiscal year.

RATIONALE :

This measurement is relevant in that a substantial proportion of DNR programs are funded by dedicated receipts. Without a sustained flow of revenues, those programs cannot be maintained. Complex processes of license and permit issuance, receipt collection and depositing, and management reporting are preformed by a large number of DNR program and administrative staff in order to generate the revenues reported. To a great extent, this is a measure of both public satisfaction with DNR regarding management (reflected in customer willingness to pay) and of the effectiveness of administrative activity.

DATA SOURCE :

The data source is statewide accounting (SWA) and Minnesota Accounting and Procurement System (MAPS) reports, including the estimated/actual receipts report.

DISCUSSION OF PAST PERFORMANCE :

Past performance has generally seen a steady rise in overall receipts, both in total and in individual funds and receipt classes.

PLAN TO ACHIEVE TARGETS :

Ongoing monitoring of receipt collections and accounts receivable and regular management reporting allow adjustments in procedures, rates, or expenditures as necessary to maintain fund or account solvency. Increases to fee levels will be proposed where financial conditions warrant which will generate additional revenues. Fund statements and new program initiatives will drive this process. Also, the development of an advanced revenue/receivables/forecasting system will greatly enhance the capabilities to track, monitor, process, and forecast revenues.

OTHER FACTORS AFFECTING PERFORMANCE :

There are factors beyond our control that would affect this measurement that must be kept in mind. The weather can affect the purchasing of fishing licenses for example. Market conditions can afect the sales of timber, minerals, etc. Many fees are set in statute and are not readily adjustable.

Goal 3 : To ensure that the DNR meets all statutory mandates for administrative management of department operations.

Objective 2 : To maintain an average cost per acquisition of property at or below that of the private sector or other public sectors.

Measure 1 : Average cost per acquisition of property.

	F.Y.1993	F.Y.1994	F.Y.1995	F.Y.1996	F.Y.1997	F.Y.1998
Average cost/acquisition						
Actual	$4492	$3386	$3738	$3708		
Target					$4080	$4000

DEFINITION :

Cost or dollars spent on each property for the professional services of appraisal, appraisal review, and negotiation. Cost is analyzed for all programs and averaged over entire acquisition program to determine cost to acquire per property. Time/cost coding per property used as data source. This database is maintained by the Real Estate Management Bureau. Monitoring of acquisition costs will be done quarterly and will be compared with data from the private and federal sectors.

DISCUSSION OF PAST PERFORMANCE :

Reduced average cost per acquisition completed from F.Y. 1993 to F.Y. 1994 is largely due to refinement of the method for calculating average cost. Previous estimates of average cost included non-acquisition costs. Rise in costs from F.Y. 1994 to F.Y. 1995 resulted from personnel changes due to attrition and reassignments. Costs are expected to rise modestly before reorganization - currently being implemented - begins to reduce costs by F.Y. 1999.

PLAN TO ACHIEVE TARGETS :

Along with continuing efforts to improve the procedures used, i.e., use of title insurance process instead of full title opinions by Attorney General's Office, shifting use of staff appraisers and fee appraisers according to documented costs will be utilized.

OTHER FACTORS AFFECTING PERFORMANCE :

1. Private fee appraisal costs.
2. Unique complexities of each transaction.
3. Difficulties in accurately qualifying "willing sellers."
4. Unforeseen staffing fluctuations or reductions.
5. Unusually large or complex properties artificially increasing averages.
6. Legislatively mandated projects which may require procedures that vary significantly from the normal process.

APPENDIX

AGENCY : PERFORMANCE REPORT PROCESS & CHANGES FROM 1994 REPORT

PERFORMANCE REPORT PROCESS

The Department of Natural Resources established an internal team of Performance Report Coordinators to develop the 1996 report. A description of these groups and their responsibilities is outlined in the Agency Information Section of the report.

External clients and stakeholders were indirectly involved in the report preparation. Through each programs' planning process, clients and stakeholders participate in developing priority goals and objectives for individual programs. Report Coordinators drew upon this information in developing the 1996 performance report.

CHANGES FROM 1994 REPORT

Water Resources Management:

1994 Performance Measure: Millions of acres of protected wetlands remaining (page 02-7, 1994 Report)--not reported in 1996.

1996 Performance Measure: Percentage of complaint responses within the designated time window--not reported in 1994; new measure in 1996.

1994 Performance Measure: Number of structures subject to flooding (page 02-11, 1994 Report)--revised as 1996 Performance Measure: Number of urban structures subject to flooding.

1994 Performance Measure: Number of communities contacted each year to provide assistance (page 02-12, 1994 Report)--revised as 1996 Performance Measure: Cumulative number of communities contacted for monitoring and to provide assistance.

1994 Performance Measure: Cumulative number of communities working toward reduction of substandard sewage systems in shoreland areas (page 02-13, 1994 Report)--revised as 1996 Performance Measure: Cumulative number of communities actively addressing development issues in shoreland areas.

1994 Performance Measure: Number of communities evaluated each year (page 02-13, 1994 Report)--not reported in 1996.

Forest Management:

1994 Performance Measure: Thousands of cords of wood harvested from DNR administered lands

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annually (page 03-8, 1994 Report)--revised as 1996 Performance Measure: Thousands of acres of timber sold from DNR administered lands annually.

1994 Performance Measure: Thousand acres of designated ERF on state lands (page 03-10, 1994 Report)--revised as 1996 Performance Measure: Percentage of DNR administered timberlands designated for ERF management.

Trails and Waterways Management:

1994 Performance Measure: Estimated number of state trail users (on a 12-month basis) (page 05-5, 1994 Report)--data not collected for 1996.

1994 Performance Measure: Percentage of state trail users satisfied with trail facilities (page 05-6, 1994 Report)--data not collected for 1996.

1994 Performance Measure: Estimated annual use of DNR public water access facilities (page 05-9, 1994 Report)--data not collected for 1996.

1994 Performance Measure: Percentage of access users satisfied with all public access and fishing piers facilities (page 05-9, 1994 Report)--data not collected for 1996.

Fish & Wildlife Management:

1994 Performance Measure: Number of environmental review projects and permits reviewed per year (page 06-4, 1994 Report)--not reported in 1996.

1996 Performance Measure: Environmental assessment acres reviewed for potential effects to habitat--new measure for 1996; not reported in 1994.

1996 Performance Measure: Number of new or updated fisheries management plans; biological (or fish population) surveys; and recreational use surveys, creel surveys, and special management studies--new measure for 1996; not reported in 1994.

Operations Support:

1994 Performance Measure: percentage of bills paid within 30 days of receipt (page 08-8, 1994 Report)--not reported in 1996.