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## MINNESOTA FOREST RESOURCES PLAN ®



## PROGRAM DIRECTION FISCAL YEARS 1991 - 1995

February 1991

# February 19 Public Review DRAFT

645 State Office Building Saint Paul, Minnesota 55155



Minnesota Department of Natural Resources Division of Forestry

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# Introduction

MINNESOTA FOREST RESOURCES PLAN



#### INTRODUCTION

The Division of Forestry is charged with the protection and multiple-use management of 4.6 million acres of state forest and other state-owned lands (Figure 1). The Division seeks to maintain and enhance forest resources for the benefit of present and future generations. In so doing, it is also responsible for preventing and controlling wildfire on 45.5 million acres, insect and disease protection on 16 million acres of forest lands, annual production of between 22 and 25 million tree seedlings from two state tree nurseries, and for assisting private forest landowners in managing their lands.

Ownership of Minnesota's commercial forest land is nearly equally divided between the public and private sectors. Farmers own 3.4 million acres or about one-quarter of the state's commercial forest land. Other private owners, including private nonforest industry corporations, hold almost 2.2 million acres of commercial forest land. More than one-third of this land is owned by individuals or corporations having at least 100 acres of commercial forest land. This indicates a potential for significant forest management and production on these lands. Forest industry owns over 770,000 acres of commercial forest land.

The state of Minnesota administers 2.7 million acres of commercial forest land, and counties and municipal agencies administer an additional 2.3 million acres. Federal agencies also administer 2.3 million acres.

#### PLANNING PURPOSE AND PROCESS

This document is an update of the program portion of the Minnesota Forest Resources Plan. It presents a recommended "program" and budget for the Division of Forestry for fiscal years 1991-1995. The program is responsive to the "Future Direction for the Division of Forestry", to an analysis of the current issues facing the Division, and to the Division's ongoing responsibilities.

The Division completed the first Minnesota Forest Resources Plan in June 1983. That plan included

an assessment of Minnesota's forest resources and a recommended program for managing the resources. The assessment part of the plan described and evaluated the past, present and prospective forest resource conditions of Minnesota. It analyzed the demands for Minnesota's forest resources and the capabilities of the resources to meet those demands. The program part of the plan contained the goals, strategies, and recommended actions to resolve the important forest management issues identified in the assessment portion of the plan.

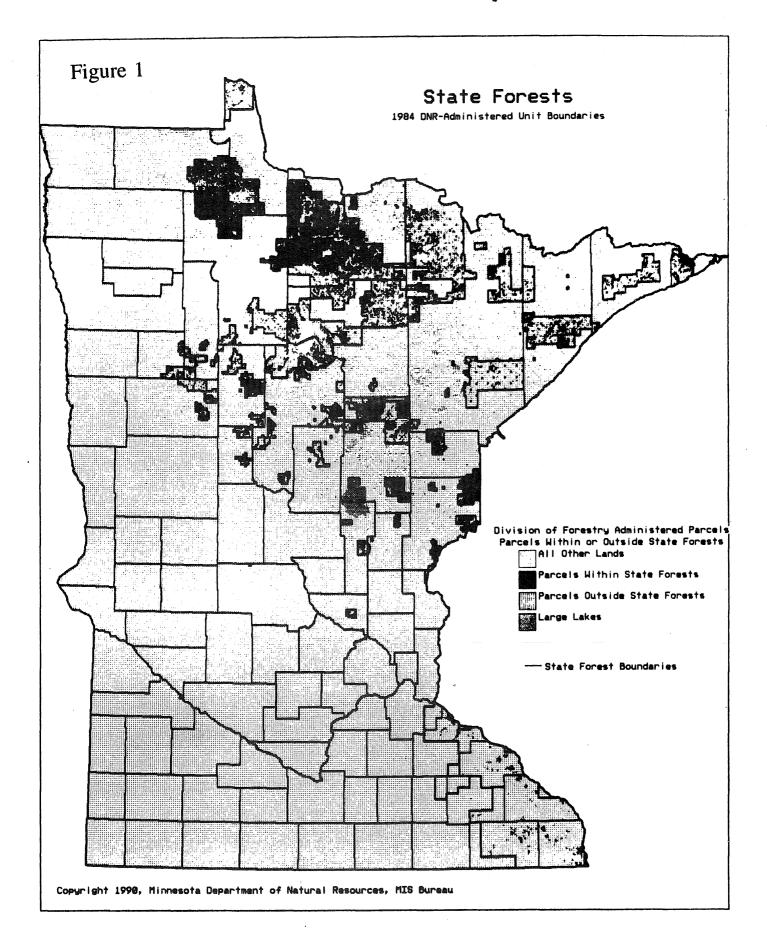
#### PLAN IMPLEMENTATION AND MONITORING

The Division is implementing its MFRP through an improved management system which links the plan to various management processes such as budgeting, work planning, accomplishment reporting and program analysis. Program supervisors will have the primary responsibility to assure that the plan is implemented by providing oversight and direction through the above mentioned processes. Field staff then will have the primary responsibility for carrying out individual tasks.

Annual work plans are the primary tool used to communicate to the Division what is expected and to guide the operations of the Division. The Division develops annual work plans at the beginning of each fiscal year to set specific targets for the year. Annual work plans are guided by the direction established in the MFRP.

Accomplishment reports are the primary tool used to determine how well the Division is meeting its goals and objectives. The Division develops an accomplishment report at the end of each fiscal year which compares actual accomplishments with the objectives established in the annual work plan.

A variety of factors, most beyond the control of the Division of Forestry, will almost certainly and significantly affect the proposed focus, direction and implementation of this plan for the years 1991-1995. External forces capable of exerting such an influence may stem from social, economic, political and technological changes. For example, recent rapid growth in Minnesota's forest products



industrial activity has substantially increased the demand for and the price of timber stumpage. This has resulted in an increased workload in the areas of timber sales, timber management, forest inventory, and utilization and marketing. Division staff time and effort will be reallocated accordingly. Similarly, the level of funding for new state and federal initiatives, such as the Reinvest in Minnesota Program, America the Beautiful or the federal Conservation Reserve Program will, in large part, determine the level of emphasis and effort directed towards these activities by the Division. Tax law changes, state or federal, could also trigger major changes in the approach to providing assistance to private forest landowners and would thereby have a major impact on the Division's workload.

Considerable flexibility will be needed in applying the proposed program and policy direction, and in targeting the ongoing activities of the organization. If unforeseen circumstances arise, program emphasis and the requisite resources may need to be shifted temporarily. The Division, through its annual work planning process, will attempt to predict external influences and accommodate them in developing its targets and allocating resources for the following year.

# Future Direction for the Division of Forestry

MINNESOTA FOREST RESOURCES PLAN



#### FUTURE DIRECTION FOR THE DIVISION OF FORESTRY

#### BASIC ASSUMPTIONS

The information contained in this document is based, in part, upon a series of basic assumptions that significantly affect the future direction of the Division of Forestry and each of its programs. These assumptions, which describe the Division's perspective on the environment in which it operates, helped shape goals, strategies, targets and future directions of the Division's programs.

For example, the Division of Forestry wishes to maintain a leadership position within both the state and national forestry communities. This goal requires a highly trained and skilled professional staff with a diversity of talents and expertise. It will also require a commitment on behalf of the Division and its employees to continued professional development, and a willingness to adapt during periods of rapid change.

The direction proposed in this document is also based on the realization that government is in the midst of an extended period of contraction. Times are tough and increasingly competitive. At a time when public demands are continually increasing, the Division will need to establish priorities for its activities. This means that the Division of Forestry must become more efficient and innovative in meeting its targets. Lower priority activities may not be accomplished.

To deal effectively with changing conditions, the Division must substantially broaden and diversify its management

strategy, providing for a diversity of public needs and land uses, while maintaining the basic integrity of the forest resource. The continued success of the organization will hinge on its ability to implement the "multiple-use, sustained yield" philosophy through integrated management with other organizations and disciplines, and balanced consideration of commodity and non-commodity production.

VISION STATEMENT

The Division of Forestry's vision is to provide quality forest resources for the people of Minnesota by meeting public needs through sound natural resource management principles. The Division will cooperate with other organizations and individuals and will promote a holistic view of forest resources and forest benefits.

#### MISSION STATEMENT

The Division of Forestry's mission is to work with public and private entities to promote the conservation, protection and enjoyment of Minnesota's forest resources through multiple-use management, wildfire and pest protection, and technical forestry assistance.

Forest resources include timber and other forest crops, recreation, fish and wildlife habitat, wilderness, rare and distinctive flora and fauna, air, water, soil, and educational, aesthetic, and historical values (Minnesota Statutes 1988, Section 89.001). A primary objective of the Division is to provide a sustained yield of the various products and renewable resources of state forests including wildlife habitat, aesthetics, and water quality from biogically diverse vegetation communities.

The Forest Resource Management Act of 1982 directs the Commissioner of Natural Resources to protect and "manage the forest resources of state forest lands under his authority according to the principles of multiple use and sustained yield." These principles shall also be promoted on other ownerships through technical assistance programs.

#### PREFERRED FUTURE

For the future, the Division of Forestry envisions a more efficient, effective organization; one closer to the public it serves, more interactive with its customers and more responsive to public needs. More stable budget and staffing levels would enable a more consistent effort over time.

The Division must market its activities and services. It is not only important that the Division's clientele understands and appreciates the Division's key role in wildfire prevention and in managing nearly 5 million acres of state forest lands, it is also important that the Division understands what its clientele wants from them.

#### **DIVISION GOALS**

- Increase the health and productivity of forest lands to achieve higher, yet balanced levels of both commodities and amenities to strengthen Minnesota's forest products and tourism economies.
- Improve the ability to protect life, property and natural resources from wildfire.
- Improve the coordination of public/private forestry programs to more effectively achieve shared goals.
- Improve the dissemination of forest resources information to better meet user needs.
- Intensify efforts to enhance aesthetics, water quality, fish and wildlife habitat, plant and communities; manage for biological diversity; and improve the quality of the state's forest resources.
- Maintain close communications with forest user groups in order to remain sensitive to the broad range of public needs and expectations.

#### STRATEGIES AND OBJECTIVES

- Encourage wood products industries that utilize available raw materials. Promote expansion and new development of secondary wood products manufacturing to increase value added production. Ensure the availability of a sustainable supply of raw materials for the wood products industry.
- Intensify efforts to manage for goods, services and other values in addition to timber (i.e., dispersed recreation, nongame wildlife).
- Increase investments in and cooperation with rural fire departments and other agencies to improve rural forest fire protection.
- Develop, refine and direct cooperative fire prevention efforts toward informing the public of the dangers of wildfire and methods to prevent them.
- Seek new opportunities to transfer technical knowledge and expertise between the Division and other organizations and individuals to

- better meet the public's needs.
- Share with other agencies and organizations the responsibility for pursuing joint opportunities and solving shared problems.
- Develop more and better resource information, information systems and information coordination mechanisms.
- Increase efforts to detect and evaluate forest losses, including symptoms, extent, distribution and location.
- Improve forest management practices to enhance forest resources and to reduce resource losses to acceptable levels.
- Provide coordination and technical assistance to other divisions, agencies, and organizations to encourage a cooperative approach to management and protection of aesthetics, fish and wildlife habitat, wilderness, rare and distinctive flora and fauna, rare and sensitive natural communities, air, water and soil.
- Interact more with local communities to help meet local forestry related needs, develop stronger local support, and increase the Division's visibility with the public.
- Incorporate a marketing philosophy within the Division to improve communications with user groups and increase the visibility and understanding of the Division's programs and activities.
- Recruit, train, select and maintain qualified forestry personnel.
- Conduct mobility assignments within the Division and reassign personnel temporarily between the Division and other divisions to provide training in other division's operations.
- Manage trust fund lands in a way that will maximize the long-term economic return consistent with sound natural resource management principals.
- Augment the efforts of the DNR, Bureau of Information and Education by dedicating more Division staff time to information and education activities.
- Promote Interdisciplinary Planning through the Regional planning process. Adopt an Ecological Classification System/Landscape Management techniques which promote biological diversity and integrated resource management.
- Supports a policy of both "no net loss of commercial forest land" as outlined in the

report of the Governor's Blue-Ribbon Commission on Forestry and Forest Products as well as all forest lands on all ownerships.

# Budget and Staffing Summary

MINNESOTA FOREST
RESOURCES PLAN



#### **BUDGET AND STAFFING SUMMARY**

This update of the program portion of the Minnesota Forest Resource Plan lays out action plans, budget and staffing needs for each Division of Forestry sub-program for the next five years (F.Y. 1991-F.Y. 1995). Goals, objectives, strategies and actions have also been articulated to propel the Division into the future in a continuing role as a leader in forest resource management in Minnesota and in the nation.

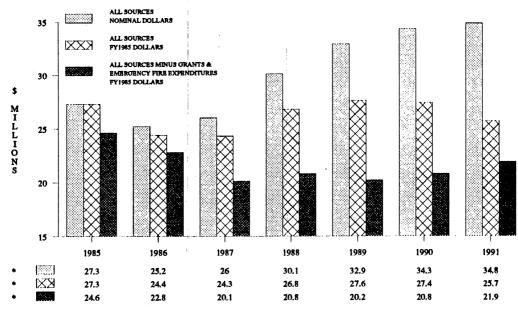
These program plans and their associated activities will, however, have little effect without adequate funding and staffing. In recent years, budget appropriations have consistently fallen below even modest budget requests. From F.Y. 1985 to F.Y. 1991, Division of Forestry expenditures from allocations from all sources have decreased over \$1.6 million in real F.Y. 1985 dollars (see figure 2). Removing pass-through grants to other government agencies and organizations, and emergency fire fund expenditures above "normal" (10 year average) expenditure levels (\$1.5 million per year) gives a truer representation of expenditures for "normal" (non-emergency) Division operations. With passthrough grants and above average emergency fire fund expenditures removed, funding for Division operations decreased 14% between F.Y. 1985 and F.Y. 1990 (in real F.Y. 1985 dollars, F.Y. 1985 -\$24.6 million, F.Y. 1990 - \$20.8 million). Even with F.Y. 1991 expenditures projected to be 14% higher than F.Y. 1990 expenditures (net of passthrough grants and above average emergency fire expenditures), the Division's budget is still \$2.7 million below F.Y. 1985 funding levels using real F.Y. 1985 dollars. Major impacts of these reductions include the closing and/or consolidation of 18 field offices, phasing out 6 county assistance foresters, maintaining numerous position vacancies, eliminating or reducing maintenance of recreational facilities and recreational trails, elimination of road construction and rehabilitation projects, and an overall reduction of field and staff activities in most program areas. Budget reductions are expected to be even more severe in the F.Y. 1992-1993 biennium.

Table 1 is a summary of the Division's budget by source of funds for fiscal years 1987-1991. These

figures are actual dollars that were appropriated and expended during that period. An understanding of these budget sources can help clarify the varying effects that changes in one funding source or another can have on different activities. Table 2 is a summary of the Division's budget needs, by program, for fiscal years 1991-1995. Table 3 is a summary of the Division's staffing needs, by program, for fiscal years 1991-1995. These figures are realistic projections of the budget and staffing needed to meet ongoing responsibilities of the Division and to address the issues identified during the planning process.



# Division of Forestry Expenditures FY 1985 - FY 1991



STATE FISCAL YEAR

Source: SWAS; Business Statistics 1961-80 (12/89), Survey of Current Business (12/90) - U.S. Dept. of Commerce

# TABLE 1 SUMMARY OF STATEWIDE EXPENDITURES BY FUNDING SOURCE FISCAL YEARS 1987-1991 DIVISION OF FORESTRY

Second Pland   Second	Funding Source	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991 <sup>(A)</sup>
Forest Management Fund	General Fund <sup>(B)</sup>	\$18,708,749	\$21,240,678	\$23,777,009	\$24,695,036	\$23,745,822
Nurseries	Dedicated Accounts					
LCMR	Forest Management Fund					\$ 
State Forest Road Account Other Receipts   19,610   31,355   62,859   121,907   416,156	- Nurseries	1,783,566	1,930,770	1,882,561	1,928,886	2,024,000
Other Receipts         19.610         31,355         62,859         121,007         416,156           Subtotal         2,070,955         1,962,125         2,263,257         2,328,943         3,180,474           Federal Funding           BWCAW         1,538,292         2,326,252         2,126,588         1,589,562         1,954,966           Special Forestry Cost-Share         529,377         263,802         449,195         129,197         123,582           Clher         253,402         925,141         844,933         988,678         521,000           Subtotal         2,445,669         3,129,367         2,973,177         2,739,525         2,690,000           Pass-Through Grants           County Forestry Assistance         250,000         1,375,000         1,487,000         2,75,000           County Forestry Assistance         250,000         10,589         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635	LCMR	267,779			48,044	210,276
Subtotal         2,070,955         1,962,125         2,263,257         2,328,943         3,180,474           Federal Funding BWCAW         1,538,292         2,326,252         2,126,588         1,589,562         1,954,966           Special Forestry Cost-Share         529,377         263,802         449,195         129,197         123,582           FIP/ACP/CRP         124,598         184,172         122,401         32,088         90,452           Other         253,402         925,141         844,933         988,678         521,000           Subtotal         2,445,669         3,129,367         2,973,177         2,739,525         2,690,000           Pass-Through Grants         County Forestry Assistance         250,000         1,375,000         1,487,000         2,251,000           County Forest Access Roads         102,689         275,000         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BW	State Forest Road Account			317,837	230,106	530,042
BWCAW	Other Receipts	19,610	31,355	62,859	121,907	416,156
BWCAW         1,538,292         2,326,252         2,126,588         1,589,562         1,954,966           Special Forestry Cost-Share         529,377         263,802         449,195         129,197         123,582           FIP/ACP/CRP         124,598         184,172         122,401         32,088         90,452           Other         253,402         925,141         844,933         988,678         521,000           Subtotal         2,445,669         3,129,367         2,973,177         2,739,525         2,690,000           Pass-Through Grants           County Forestry Assistance         250,000         1,375,000         1,487,000         2,251,000           County Forest Access Roads         102,689         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000           Other         24	Subtotal	2,070,955	1,962,125	2,263,257	2,328,943	3,180,474
Special Forestry Cost-Share   529,377   263,802   449,195   129,197   123,582	Federal Funding					,
PIP/ACP/CRP		1,538,292	2,326,252	2,126,588	1,589,562	1,954,966
Other Subtotal         253,402 (2,445,669)         3,129,367         2,973,177         2,739,525         26,900,000           Pass-Through Grants         County Forestry Assistance         250,000         1,375,000         1,375,000         1,487,000         2,251,000           County Forest Access Roads         102,689         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding         RIM         206,937         289,969         130,959         208,47	Special Forestry Cost-Share			449,195	129,197	123,582
Pass-Through Grants   County Forestry Assistance   250,000   1,375,000   1,375,000   1,487,000   2,251,000   275,0	FIP/ACP/CRP	124,598	184,172	122,401	32,088	90,452
Pass-Through Grants   County Forestry Assistance   250,000   1,375,000   1,375,000   1,487,000   2,251,000   County Forest Access Roads   102,689   275,000   275,000   275,000   275,000   Rural Community Fire   117,171   119,874   118,722   129,048   223,112   State Forest Fund   403,722   392,459   428,621   453,539   460,000   Con-Con Payments/Refunds   292,519   286,931   401,635   421,661   423,550   245,000   245,000   570,00	Other	253,402	925,141	844,933	988,678	521,000
County Forestry Assistance         250,000         1,375,000         1,375,000         1,487,000         2,251,000           County Forest Access Roads         102,689         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding         RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System	Subtotal	2,445,669	3,129,367	2,973,177	2,739,525	2,690,000
County Forest Access Roads         102,689         275,000         275,000         275,000           Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         4	Pass-Through Grants					
Rural Community Fire         117,171         119,874         118,722         129,048         223,112           State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,	County Forestry Assistance	250,000	1,375,000	1,375,000	1,487,000	2,251,000
State Forest Fund         403,722         392,459         428,621         453,539         460,000           Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063			102,689	275,000	275,000	275,000
Con-Con Payments/Refunds         292,519         286,931         401,635         421,661         423,550           BWCAW         570,000         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	Rural Community Fire	117,171	119,874	118,722	129,048	223,112
BWCAW         570,000         570,000         570,000         570,000         570,000           Other         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	State Forest Fund	403,722	392,459	428,621	453,539	460,000
Other Subtotal         24,500         24,500         508,164         698,431           Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System Betterment - Recreation         75,844         167,263         230,084         26,809           Betterment - Roads & Bridges         346,279         342,713         92,166         8,043         33,023           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	Con-Con Payments/Refunds	292,519	286,931	401,635	421,661	423,550
Subtotal         1,633,412         2,871,453         3,193,478         3,844,412         4,331,093           ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System Betterment - Recreation         75,844         167,263         230,084         26,809           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	BWCAW	570,000	570,000	570,000	570,000	
ANNUAL BUDGET TOTAL         \$24,858,785         \$29,203,623         \$32,206,921         \$33,607,916         \$33,947,389           General Obligation Bonding RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	Other		24,500	24,500	508,164	698,431
General Obligation Bonding           RIM         206,937         289,969         130,959         208,478         320,000           Acquired State Forest         113,105         59,058         8,232         37,429         350,000           Acquired Outdoor Rec. System         75,844         167,263         230,084         26,809           Betterment - Recreation         56,585         42,713         92,166         8,043         33,023           Betterment - Roads & Bridges         346,279         342,114         238,112         236,192         80,000           Betterment - State Forests/RJD         437,641         94,794         56,403         18,063	Subtotal	1,633,412	2,871,453	3,193,478	3,844,412	4,331,093
RIM       206,937       289,969       130,959       208,478       320,000         Acquired State Forest       113,105       59,058       8,232       37,429       350,000         Acquired Outdoor Rec. System       75,844       167,263       230,084       26,809         Betterment - Recreation       56,585       42,713       92,166       8,043       33,023         Betterment - Roads & Bridges       346,279       342,114       238,112       236,192       80,000         Betterment - State Forests/RJD       437,641       94,794       56,403       18,063	ANNUAL BUDGET TOTAL	\$24,858,785	\$29,203,623	\$32,206,921	\$33,607,916	\$33,947,389
Acquired State Forest       113,105       59,058       8,232       37,429       350,000         Acquired Outdoor Rec. System       75,844       167,263       230,084       26,809         Betterment - Recreation       56,585       42,713       92,166       8,043       33,023         Betterment - Roads & Bridges       346,279       342,114       238,112       236,192       80,000         Betterment - State Forests/RJD       437,641       94,794       56,403       18,063	General Obligation Bonding					
Acquired Outdoor Rec. System       75,844       167,263       230,084       26,809         Betterment - Recreation       56,585       42,713       92,166       8,043       33,023         Betterment - Roads & Bridges       346,279       342,114       238,112       236,192       80,000         Betterment - State Forests/RJD       437,641       94,794       56,403       18,063	RIM	206,937	289,969	130,959	208,478	320,000
Betterment - Recreation       56,585       42,713       92,166       8,043       33,023         Betterment - Roads & Bridges       346,279       342,114       238,112       236,192       80,000         Betterment - State Forests/RJD       437,641       94,794       56,403       18,063	Acquired State Forest	113,105	59,058	8,232	37,429	350,000
Betterment - Roads & Bridges       346,279       342,114       238,112       236,192       80,000         Betterment - State Forests/RJD       437,641       94,794       56,403       18,063	Acquired Outdoor Rec. System		75,844	167,263	230,084	26,809
Betterment - State Forests/RJD 437,641 94,794 56,403 18,063	Betterment - Recreation	56,585	42,713	92,166	8,043	33,023
	Betterment - Roads & Bridges	346,279	342,114	238,112	236,192	80,000
BONDING TOTAL \$ 1,160,547 \$ 904,492 \$ 693,135 \$ 720,226 \$ 827,895	Betterment - State Forests/RJD	437,641	94,794		·	
	BONDING TOTAL	\$_1,160,547	\$ 904,492	\$ 693,135	\$ 720,226	\$ 827,895
TOTAL \$26,019,332 \$30,108,115 \$32,900,056 \$34,328,142 \$34,775,284		\$26,019,332	\$30,108,115	\$32,900,056	\$34,328,142	\$34,775,284

<sup>(</sup>A) Figures for FY 1991 are amounts allocated from available annual budget sources as of January 1991, and the expected expenditures from bonding authorizations. Actual spending levels may differ. In FY86-FY90, total expenditures from annual budget sources averaged more than \$3 million less than allotted (budgeted) amounts.

<sup>(</sup>B) The following appropriation accounts were consolidated into the General Fund appropriation beginning in FY 1990: General Fund Accounts: Inventory Supplement, Statewide Inventory, Forest Campgrounds, Emergency Fire Fund, BWCAW State Match, Rural Development Act, Improved Forest Management. Dedicated Accounts: State Forest Development, Forest Management Fund (FMF) - Trust, FMF - Acquired, FMF - PFM Services, Dedicated Campground, Con-Con (State portion).

# TABLE 2 BUDGET NEEDS BY PROGRAM<sup>(A)</sup> Fiscal Years 1991 - 1995 (000's, 1991 dollars) Division of Forestry

	1991	1992	1993	1994	1995
State Forest Land Management					
Land Administration	875	725	725	725	725
State Forest Recreation	650	670	670	670	670
State Forest Roads	1,900	4,900	4,900	4,900	4,900
Timber Management	4,090	4,000	4,000	4,200	4,300
Timber Sales	2,195	2,195	2,200	2,200	2,210
Fish and Wildlife Habitat	400	400	400	405	405
SUBTOTAL	10,110	12,890	12,895	12,497	13,210
Cooperative Forest Land Management					
Private Forest Management	1,456	1,600	1,600	1,750	1,750
Urban Forestry	320	400	450	450	450
County Cooperative	132	132	132	132	132
Forest Pest Management	460	600	655	700	765
Forest Soils	160	190	190	180	175
SUBTOTAL	2,528	2,922	3,027	3,212	3,272
Nursery and Tree Improvement					
Nursery and Tree Improvement	1,900	2,400	2,500	2,500	2,500
Resource Protection					
Wildfire Protection & Management	5,375	5,400	5,400	5,400	5,400
Law Enforcement	_125	160	200	200	230
SUBTOTAL	5,500	5,560	5,600	5,600	5,630
Forest Resource Information and Planning					
Forest Resource Assessment & Analysis	1,255	1,300	1,350	1,400	1,450
Utilization and Marketing	320	340	345	350	355
Forestry Information Systems	950	950	950	1,000	1,000
Forest Resource Planning	565	600	600	530	530
Public Affairs	320	480	480	480	480
SUBTOTAL	3,410	3,670	3,725	3,760	3,815
Administrative and Technical Support					
Human Resources Development	650	700	700	700	700
Maintenance and Administration	3,450	3,450	3,450	3,450	3,450
SUBTOTAL	4,100	4,150	4,150	4,150	4,150
TOTAL <sup>(B)</sup>	27,548	31,592	31,897	31,719	32,577

<sup>(</sup>A) The program budgets in this table are the resources to be allocated throughout the organization to carry out the activities of a given program, regardless of organizational location. As contrasted with a line-item budget which is developed for an organizational unit, a program budget is built from parts of each organizational unit's budget. The program budgets were calculated using the following formula:

Budget = # fte's

x \$35,000/fte

+ project dollars

(full-time equivalents) x

x (salary & benefits)

+ (contract services)

<sup>(</sup>B) Total does not include funding for pass-through grants.

TABLE 3
STAFF NEEDS BY PROGRAM<sup>(A)</sup>
Fiscal Years 1991 - 1995
(full-time equivalents)
Division of Forestry

	1991	1992	1993	1994	1995
State Forest Land Management					4
Land Administration	7.0	7.0	7.0	7.0	7.0
State Forest Recreation	12.0	12.0	12.0	12.0	12.0
State Forest Roads	15.0	15.0	15.0	15.0	15.0
Timber Management	51.0	51.0	51.5	51.5	51.5
Timber Sales	62.7	62.7	62.9	63.0	63.1
Fish and Wildlife Habitat	4.0	4.0	4.0	4.0	4.0
SUBTOTAL	151.7	151.7	152.4	152.5	152.6
Cooperative Forest Land Management					
Private Forest Management	36.0	36.0	36.0	40.0	40.0
Urban Forestry	4.0	6.0	8.0	8.0	8.0
County Cooperative	3.0	3.0	3.0	3.0	3.0
Forest Pest Management	7.0	8.0	8.0	9.0	9.0
Forest Soils	3.3	3.3	3.3	3.3	3.3
SUBTOTAL	53.3	56.3	58.3	63.3	63.3
Nursery and Tree Improvement			i		
Nursery and Tree Improvement	53.3	33.3	33.3	33.3	33.3
Resource Protection					
Wildfire Protection & Management	77.0	77.0	77.0	77.0	77.0
Law Enforcement	3.0	4.0	5.0	5.0	6.0
SUBTOTAL	80.0	81.0	82.0	82.0	83.0
Forest Resource Information and Planning					
Forest Resource Assessment & Analysis	26.0	26.0	26.0	26.0	26.0
Forest Products Utilization & Marketing	7.5	8.0	8.0	8.0	8.0
Forestry Information Systems	13.0	13.0	13.0	13.0	13.0
Forest Resource Planning	15.0	16.0	16.0	14.0	14.0
Public Affairs	8.5	10.0	10.0	10.0	10.0
SUBTOTAL	70.0	73.0	73.0	71.0	71.0
Administrative and Technical Support					
Human Resources Development	18.6	19.7	19.7	19.7	19.7
Maintenance & Administration	91.0	88.0	87.0	86.0	85.0
SUBTOTAL	109.6	107.7	106.7	105.7	104.7
TOTAL	517.9	504.6	507.3	509.4	509.5

<sup>(</sup>A) Staff needs by program include all time throughout the organization to be allocated to carry out the activities of a given program, regardless of organizational location. One full-time equivalent is equal to 1750 hours. This figure includes overtime, work performed by student workers, seasonal and non-tenured labor, and 90% positions. Does not include leave time.

# Program Direction 1991 - 1995

MINNESOTA FOREST
RESOURCES PLAN



## State Forest Land Management Program

MINNESOTA FOREST
RESOURCES PLAN



#### LAND ADMINISTRATION

#### **ACTIVITY DESCRIPTION**

The Department of Natural Resources is a major land management agency in Minnesota. The Division of Forestry administers nearly 4.5 million acres of the roughly 5.3 million acres of DNR-administered land.

The Division's land administration activities include acquisition, exchange, sale and lease of lands. Field staff are involved in identifying and developing acquisition priorities, recommending sales, leases or exchanges, inspecting leases, and maintaining contacts with other agencies and individuals. The DNR Real Estate Management Bureau assumes responsibilities for negotiations, appraisals, record keeping and other services.

The Division's lands include a mix of large contiguous blocks and small isolated parcels. This checkerboard pattern of public land ownership is inefficient to manage for some purposes. Therefore, one objective of the Division's land administration activities is to consolidate scattered lands into larger more contiguous units for more efficient management. The Division recognizes that the optimal land ownership patterns vary by resource management objectives and that some scattered parcels have significant mineral, wildlife and other resource values and therefore should not be consolidated.

Acquisition, sale, transfer, lease and exchange of lands for forestry purposes is selective and aimed primarily at making forest management more efficient. Land acquisition is undertaken on a case-by-case basis for specific purposes such as improving management efficiency, protecting key forest resources and maintaining an adequate public forest resource base to provide for multiple-use forest values.

#### **GOAL**

Achieve the optimum pattern of forest land ownership for the management of forest resources designed to best serve the needs of Minnesota's citizens while maximizing long-term resource and economic benefits through efficient resource management, land acquisition, leasing, sale and exchange.

#### STATEWIDE DIRECTION

The Division's lands include a mix of large contiguous blocks as well as many small isolated parcels. The checkerboard pattern of public land ownership is inefficient to manage for forestry purposes. Dispersed ownership increases the costs of locating property corners, surveying property lines, providing road access, preventing trespass and for a wide range of management activities that require on-site inspection.

Consolidation of public ownership can reduce these costs. Therefore, one objective of the Division's land administration activities is to consolidate the scattered lands into larger, more contiguous units for more efficient management. However, the Division recognizes that the optimal land ownership patterns vary by resource management objectives and that some scattered parcels have significant mineral, wildlife and other resource values and therefore should not be consolidated.

Although state land leases and land exchange can be useful tools in achieving an optimal pattern of land use and ownership, both can be administratively difficult, costly and inefficient. A number of inter-disciplinary (internal) issues and a lack of Department direction currently hinders the land exchange process. Similarly, the Division is not a leader in the area of land leasing, but rather implements the administrative procedures set forth by the DNR Real Estate Management Bureau. The roles of all major actors in the land exchange and lease processes must continue to be examined and recommendations made to expedite and simplify land transactions. In some cases, the sale of surplus lands and the acquisition of other lands, offer the promise of more rapid and cost-effective land transactions, which could speed the attainment of a more consolidated statewide land-ownership pattern.

The amount of time and budget dedicated to land administration has varied through the years, primarily due to fluctuations in the magnitude of the acquisition program. During the 1989-90 biennium the Division annually spent approximately 7.0 person years of effort and \$475,000 on land administration. No increase in staff is proposed during the 1992-93 biennium specifically for land administration purposes. The projected increase in the budget is due primarily to an expected increase in capital bonding for land acquisition. The level of future acquisition may also increase if money from the revolving land fund is appropriated.

Emphasis over the next five years will be to:

- Develop a coordinated, comprehensive land classification and adjustment program.
- Better define and communicate to the public the Division's role in land management and the associated public benefits.
- Actively pursue a Department plan that spells out land consolidation goals consistent with multiple-use management goals and public benefits.
- Prepare legislative and administrative policies to streamline land transactions wherever possible.
- Implement a "no net loss of commercial forest land" policy for the state as defined in the report of the Governor's Blue-Ribbon Commission on Forestry and Forest Products.

### MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Land Classification

 Resolve issues surrounding the management of state administered lands outside of designated management units (e.g. State Parks, State Forest, Wildlife Management Areas).

#### Land Acquisition

- Continue to purchase lands in the Richard J.
   Dorer Memorial Hardwood Forest to meet goals outlined in the 1979 Plan for Acquisition and the Lewiston Area Plan.
- Set priorities for acquisitions in other state forests as identified in Unit Plans and purchase

- them as funding is available.
- Streamline the process of acquiring forest road easements by using short form appraisals or letters of value for parcels costing under \$2,000.
- Build public support for continued acquisition of forestry lands.
- Cooperate with the DNR Real Estate
   Management Bureau in pursuing administrative
   changes needed to streamline the land appraisal
   and review process and to speed up land
   acquisition.
- Assist the Bureau of Real Estate Management determining if lands proposed for purchase are contaminated by hazardous wastes.
- Actively pursue acquisition of gifts of land and conservation easements within state forests.

#### Leases

- Request that the Attorney General's Office delegate authority to issue leases to Area Forest Supervisor's and offer training in lease administration.
- Continue to work with the DNR Commissioner's Office, Attorney General's Office and the DNR Real Estate Management Bureau to establish procedures for consistent enforcement of lease provisions and trespass.
- Continue to evaluate all existing leases to determine if they should be continued or phased out through the unit planning process.

#### Land Exchange

- Continue to identify potential DNR Division of Forestry land exchanges with other public agencies and private landowners through the unit planning process.
- Work with the DNR Commissioner's Office to develop a long-range departmental goal for land adjustment by taking a landscape view of department lands.
- Continue to redirect the Division's land exchange efforts from small, costly and inefficient exchanges to larger exchanges with other public agencies, timber companies and other large landowners.
- Continue to work with the DNR Division of Minerals to explore options that allow surface access for exchanged lands that overlie stateowned minerals, while allowing consolidation to

- maximize surface management efficiency.
- Continue to consider sale of state lands as an alternative to small exchanges with private landowners when isolated parcels are involved.
- Continue to exchange trust fund land status (while retaining current administrative status), in Department of Natural Resources non-revenue producing management units to state forest lands to consolidate blocks of trust fund lands within state forests.

#### Transfer of Administrative Control

 Transfer administrative control of lands to other divisions as identified in Unit Plans to meet resource management objectives.

#### Land Sale

- Evaluate scattered parcels for possible sale during the Unit Planning Process.
- Seek a decision from the DNR Commissioner's Office regarding a policy of allowing proceeds from the Land Sale Revolving Fund to be used by the division selling the land to acquire more suitable land.
- Seek appropriation of the funds in the Land Acquisition Account.
- Explore the possibility of eliminating the requirement to sell agricultural land in the Richard J. Dorer Memorial Hardwood State Forest.

#### State Forest Boundaries

 Seek legislation which gives the Commissioner of Natural Resources the authority to designate state forest lands by Commissioner's Order.

#### STATE FOREST RECREATION

#### **ACTIVITY DESCRIPTION**

Recreation facilities on state forest lands evolved over a period of many years. Campsites and other facilities were designed to concentrate users at established sites as a fire prevention measure. Many of these facilities were constructed by the Civilian Conservation corps (CCC's) and date back to the early part of the century. Some with little modification. Additional periods of major forest recreation development took place, most notably in 1958, 1963 and 1983.

The Division of Forestry currently administers 46 campgrounds, 44 day-use areas, 1,200 miles of trail, 142 water accesses and 17 canoe and boating route campsites. Since 1983, the program has rehabilitated 18 campgrounds, 7 day-use areas and 106 miles of trail.

Today's forest recreation management activities include planning, development and maintenance of facilities, enforcement of rules and regulations, and distribution of maps and other interpretive materials. In addition, the Division produces a comprehensive brochure on state forest recreation areas and maps for almost all of its recreational trails. The Division also works with other recreation providers within and outside the DNR to keep pace with constantly changing recreation demand.

State forest lands have considerable impact on the tourism industry and the supply of outdoor recreation opportunities. These lands and their associated waters are used for many recreational pursuits including camping, picnicking, hiking, hunting, trapping, fishing, canoeing, boating, swimming, ski touring, snowshoeing, snowmobiling, trail biking and horseback riding. Twenty-five percent of all outdoor recreational activity hours occur in townships with state forest lands.

The 1990 State Comprehensive Outdoor Recreation Plan (SCORP) predicts that demand for most recreational activities will increase significantly on state forest lands. The Division, along with others in the DNR, are searching for ways to satisfy this projected demand. The Division will continue to

evaluate its recreation efforts to determine when changes in emphasis are needed to better satisfy projected demand.

#### GOAL

Fulfill the outdoor recreation potential of Divisionadministered lands by providing developed recreational areas and opportunities for dispersed recreational activities compatible with other forest uses and consistent with user demand.

#### STATEWIDE DIRECTION

The major emphasis of the State Forest Recreation Program will be to operate and maintain existing recreational facilities. New development will continue to be a lower priority. Emphasis will also be placed on providing dispersed recreation users (users such as hunters and berry-pickers who do not need developed facilities) with maps and other information to allow them to use forest lands without the need for the Division to provide additional facilities.

If budget cuts reduce the Division recreation maintenance budget we will have to look at innovative ways to manage our recreation facilities or close some facilities. Development of an "Adopt a Campground" program, concessionaire contracts, sentence to serve crews and other volunteer efforts will also have to be looked at.

### MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

The Division will work with other units of the Department to analyze the recreation market for state forests, and to develop a management strategy that addresses the needs of the identified market. Efforts then will be targeted to areas with highest need and return to the user.

#### Information and Education

- Continue to assist the Bureau of Engineering in developing comprehensive maps showing recreation facilities and public lands.
- Continue to develop high-quality user information that identifies and promotes dispersed recreational opportunities.
- Continue to develop an information program for state forests including interpretive trails, driving tours and demonstration areas.
- Continue to distribute a comprehensive map of state forest recreation areas.
- Work to increase the Division's visibility, to build support groups for state forest management programs.

#### Management

- Integrate Aesthetic Guidelines and Best Management Practices (BMP's) into land management activities to protect recreation resources.
- Maintain cooperative relations with other public and private recreation providers.
- Initiate a working group to develop comprehensive rules and regulations for state forest lands, sub-areas, ORV's and other special uses.
- Work with conservation officers and county sheriffs to ensure that state forest rules and regulations are enforced.
- Implement the hazard tree policy.
- Evaluate the level of use at all recreation sites and adjust the capacity to fit the need.
- Work to secure adequate funds for recreation management, including rehabilitation and maintenance.
- Continue to assign Division personnel to work weekends at heavily used state forest campgrounds to insure adequate supervision and public contact.
- Continue to identify appropriate ORV/ATV use areas during the Regional Planning process.
- Cooperate with the DNR Units to develop statewide ORV/ATV rules and regulations.
- Continue to work with wildlife and fisheries managers to enhance wildlife and fisheries related recreation opportunities on state forest lands.
- Continue to evaluate opportunities for motorized and non-motorized trail uses during the Unit Planning Process to resolve existing and/or

- potential user conflicts.
- Look at the possibility of developing an "Adopt a Campground" program.
- Consider turning operation and maintenance of some forest campgrounds over to concessionaires.

#### Forest User Analysis

- Resurvey state forest campground users in 1994.
- Continue to identify opportunities to expand the forest recreation market to benefit both public and private sector providers.
- Evaluate the effectiveness of ongoing recreational marketing efforts.

#### **Promotion**

- Intensify promotion of state forest recreation through public distribution of maps, brochures, and interpretive and educational resource information.
- Increase the visibility of the Division's field staff to recreational forest users.
- Build support among non-timber forest users by developing and distributing informational and educational materials.

#### STATE FOREST ROADS

#### **ACTIVITY DESCRIPTION**

The Division of Forestry maintains 2,064 miles of road which serve the 4.5 million acres of state forest lands. These roads also serve several million acres of county, federal and private forest lands. Much of the existing forest road system was constructed by the Civilian Conservation Corps (CCC's) in the 1930's and later was improved and expanded through timber harvesting and fire protection activities. Today some 2500 loggers, and 15 major wood-based industries benefit from the availability of state forest roads. However, in a recent study of the traffic on state forest roads in Minnesota the recreational use of these roads was shown to be approximately 97% of the traffic. The study found that there are over 15 million miles of public travel annually on State Forest Roads for recreation and other purposes.

The following are the major activities of the State Forest Road Program:

- A. Inventory the forest transportation system to provide basis for other program decisions.
- B. Maintain existing transportation facilities in good condition.
- C. Reconstruct bridges and roads to bring facilities up to required standards.
- D. Plan for the construction of new access as needed to serve the protection, management and use of forest resources, using the most cost effective means available.
- E. Manage the transportation system by developing policies and procedures, and reviewing regional programs, projects, and Regional and Area Transportation Plans.

#### **GOAL**

Identify, develop, and maintain a safe, efficient forest transportation system that provides access to protect, manage and use Minnesota's forest resources.

#### STATEWIDE DIRECTION

Cooperative transportation planning on the area and division scale will be the major portion of the work under this program. The key portions of the plans will be based on a knowledge and projected use of all resources and will include coordination with other resource managers at field levels. An analysis of needs based on existing facilities, resource use, costs and available funding will be completed for each project. Road management training will be directed at specific groups and will provide the knowledge which is most useful for the people involved. Emphasis will be placed on the safety of the bridges and the maintenance of the recent investment in improvements. Substantial underfunding of this program continues to plague the transportation system. Public demand for utilization of the roads for pleasure driving, berry picking, hunting and other non-consumptive uses will continue to increase as the proportion of the population in the cities continues to expand. However, restrictions may need to be placed on road use due to funding limitations. Summer access for management and timber harvesting is also constrained by limited funding. Continued underfunding will effect the volume and value of wood the DNR is able to sell in a competitive market.

### MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Transportation Planning

- Analyze regional program needs consistent with budget allotments to best manage the statewide access network.
- Finalize the forest access inventory procedures and carry out localized road inventories prior to area transportation plan development. Develop a system to house data in a manner which is accessible by field offices.
- Develop a detailed access plan for each administrative Area during the Regional Planning Process which considers specific resource and access needs for the 10-year period. This plan will guide area and region expenditures through the period.
- · Develop management guidelines for state forest

- access corridors.
- Examine the access network to determine opportunities to cooperate or turn over roads to other agencies. Follow up with the appropriate actions in a timely manner.
- Continue to use the Forestry/Wildlife guidelines in reviewing forest road projects of both Divisions, include road specifications and location in the reviews.
- Consider multiple-use forest benefits as well as negative impacts when planning or evaluating forest road projects.
- Coordinate forest road activities with other agencies and outside interests through Area Road Committees.
- Actively participate in discussions with other agencies regarding the issues of abandonment and retention of roads and rights of way.
- Implement the Best Management Practices (BMP'S) in the planning and operation of the forest road program.
- Identification of long term gravel needs will follow the transportation planning. This may have a major impact on the Division's gravel leasing program in areas where gravel resources are limited.

#### Policy Development

- Define procedures for road abandonment, exchange with other agencies, easements, design, inventory, transportation planning.
- Create a forest road manual to consolidate existing literature.
- · Revise circular letters to meet current needs.
- Develop policy guidelines for cooperative road maintenance agreements and easement exchanges with other divisions, agencies, corporations and interest groups.
- Develop heavy equipment policy covering acquisition and use of Division equipment for forest roads consistent with other program needs.
- Work cooperatively with other divisions, agencies and groups to develop policies to address issues of road densities and access to areas where road development is needed.
- Work with other divisions to develop policies on road abandonment that consider conversion of forest roads to other uses.

- Explore the possibility of providing guaranteed access for multiple-use forest management and timber harvest.
- Develop a uniform policy on gating of roads which includes provisions for public notification and signing, coordinate this with other agencies as much as feasible.

#### **Training**

- Conduct a forest road policy, planning and design Area workshops.
- Provide information on outside training opportunities to the Division's Training Board and regional staff.
- Plan a construction and maintenance workshop for 1991. Follow with training at the Area level.
- Provide one-on-one training for region, area and district staff as needs arise and opportunities permit.
- Work with regional staff to develop heavy equipment training programs.

#### **Administrative Support**

- · Develop budgets to support program needs.
- Propose and follow legislation to provide better funding and control of forest roads.
- Integrate access information with the other resource information through the Division's Geographic Information System in a manner that is easily accessible to the area and region offices.
- Explore the need to coordinate access needs of the Department.
- Support efforts of townships and counties to increase funding for roads accessing state lands.

#### Strategies for Reduced Budgets

- Road closure or restriction of use will substantially reduce the damages which occur on state forest roads. Closing of roads during fall and spring seasons may be necessary in some locations to protect our investments. These actions will require information to the public users in advance of any changes.
- Limiting of load weight during some periods may also help reduce our road maintenance costs and extend the reconstruction schedule.
- The construction of new roads will be the lowest priority in order to retain funds for maintenance

- and necessary reconstruction. Much of the construction work will be left for the loggers to do under the direction of the Division's field staff.
- Funding will be sought from such sources as the Minnesota Vehicle Excise Tax (MVET) funds and or other conservation funding sources.
- Resurfacing is scheduled on a 15 year rotation due to the nature of the subgrade materials on most of the road system. Postponement of this activity by two years will lead to a 30 percent increase in costs and a delay of 5 years will double the cost due to increased deterioration of the roads.
- Reconstruction is projected on a 30 year basis postponement of 2 years will not substantially effect this cost but 5 years would increase the cost 20 to 30 percent. An 8 to 10 year delay will increase the costs by an estimated 60 percent.

#### TIMBER MANAGEMENT

#### **ACTIVITY DESCRIPTION**

It is the responsibility of the Division of Forestry to manage state-owned forest lands to best meet the needs of Minnesota's citizens. This requires coordinated forest resource management to attain the optimum mix of public benefits. Management must also be compatible with the purposes for which the lands are held and with all laws, regulations, and instructions of the DNR Commissioner.

The Timber Management Program includes two major functions: timber stand regeneration and regulation of harvest. The basic function of stand regeneration is to coordinate timber harvest and regeneration plans to assure that state lands are maintained in appropriate cover types to meet future multiple-use demands. Regulated timber harvests are needed to promote sustained yields of forest products. These functions involve various aspects of timber scaling, sales, timber harvest, stand regeneration and stand maintenance.

The major activities of the Timber Management Program include:

- A. Silvicultural review of selected timber sales.
- B. Regeneration of harvested, poorly stocked, and non-stocked forest lands.
- C. Timber stand improvement: release of plantations and natural crop trees, selected pruning of crop trees, and thinning.
- D. Other forest development: erosion control, boundary fencing, and oned well sealing.
- E. Silviculture and forest management training.
- F. Planning, forecasting and budgeting.

The Forest Resource Management Act of 1982 requires the Division of Forestry to assure that reforestation activities will occur in three areas:

1) reforestation on an acreage equivalent to the acreage harvested each year, 2) regenerate previously harvested areas that have not been reforested adequately, and 3) regenerate poorly stocked forest stands to return them to a state of greater productivity.

A Wildlife/ Forestry Coordination Policy (DNR Policy #8, revised 5-3-82) and Forestry/ Wildlife Guidelines to Habitat Management (MN DNR Wildlife, 1986) guide the integration of forest and wildlife management. DNR Commissioner's Guideline No. 8 states, "As state administered lands are to be managed for compatible multiple-use benefits, unless otherwise dedicated by law, both Divisions of Forestry, and Fish and Wildlife are jointly charged with the responsibility of achieving the goal of integrating forest and wildlife management, while recognizing other multiple-use purposes."

Program efforts over the next five years will be aimed at addressing the following issues:

- A. There is an increasing demand for pulp wood and other commercial wood products from all of Minnesota's commercial forest land.
- B. There is an increasing demand for forest resources such as aesthetics, recreation, game, non-game wildlife, and watershed protection.
- C. There is increasing public concern for the issues of old growth, old forest, biodiversity, forest fragmentation, endangered species, nonnative species, water quality.
- D. The federal funding source (BWCAW Act) that has provided 50% 60% of the program operating budget over the last ten years ends in 1990.
- E. Oak is a decreasing component of the hardwood forest.
- F. The public is not generally aware of the extent and effectiveness of forest management in Minnesota.

#### **GOAL**

Efficiently apply sound silvicultural practices to regenerate and improve productivity of state-owned forest lands while providing a sustained-yield of forest resources for Minnesota citizens.

#### STATEWIDE DIRECTION

The potential of increasing timber harvests on state land with the subsequent increase in reforestation needs, increasing public awareness and input into the management process, an increasing demand for non-wood product forest benefits and the potential of decreasing program budgets offer a challenge to forest managers. The program direction for the next five years will include:

- 1. Potential of increasing annual total reforestation acreage.
- 2. Increasing application of natural regeneration, seeding and other lower cost reforestation practices.
- An acceptance of more within stand diversity and an increased emphasis on mixed wood management and biodiversity.
- 4. Increasing emphasis on protecting and regenerating non-wood product forest benefits.
- Increasing emphasis on dense hardwood (particularly oak) regeneration and improvement.
- 6. Increasing efforts to inform forest users and the public of the benefits, effectiveness and extent of forest management in Minnesota.

## MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Forest Regeneration

- Implement timber sale and reforestation practices that promote more economic regeneration of harvested stands to the most suitable species.
- Cooperate with the University of Minnesota and other agencies in research to: 1) to develop summer harvesting systems which minimize deterioration of site quality and regeneration potential, 2) to improve oak regeneration systems, 3) to develop more cost effective artificial regeneration systems, 4) to improve white pine regeneration, and 5) improve cedar regeneration.
- Develop silvicultural systems that result in acceptable stand establishment and vegetation management while reducing physical and visual impacts on the environment.

- Concentrate on improving the cost effectiveness of artificial regeneration systems.
- Inform foresters, other resource managers and public forest users about the multiple benefits of the Division's forest management program.
- Promote oak and other hardwood species regeneration on medium to good hardwood sites.
- Intensify aspen management through clone development, hybrid aspen silviculture, bigtooth aspen regeneration.
- Improve the forest development information system so that development records can be used to develop management information.
- Best Management Practices (BMP's) to protect water quality will be incorporated into every applicable management activity.
- Develop silvicultural systems that address old growth, old forest, biological diversity and forest fragmentation, as guidelines are developed.

#### **Technology Transfer**

- Improve technology transfer within the Division through the use of <u>Roots</u> articles, field trips, management practice demonstration areas, area workshops, and distribution of information from the staff level to the field.
- Actively take part in technical workshops sponsored by other agencies and organizations both in- and out-of-state.
- Hold multi-regional or statewide silvicultural forest development workshops to facilitate information and idea transfer.
- Actively take part in and promote interagency field research focusing on regeneration problems.
- Provide continuing education opportunities relating to forest regeneration/ management problems (e.g., white cedar, oak, summer harvesting aspen) by encouraging personnel to pursue advanced college degrees focusing on specific management problems in their graduate study.

#### **Timber Stand Improvement**

- Work to improve methods of determining the need for plantation release.
- Continue work on determination of minimum acceptable stocking levels for commercial softwood species.
- · Accept more within stand diversity in lieu of

- unnecessarily intensive plantation release programs.
- Continue to develop herbicide application systems as a management tool which meet management objectives and satisfy department policies and guidelines.over the next five years.

#### TIMBER SALES

#### **ACTIVITY DESCRIPTION**

The Division of Forestry is responsible for managing the forest resources of state-owned forest lands under the authority of the Commissioner of the Department of Natural Resources as defined in Minnesota Statutes Chapter 90. The Division of Forestry Timber Sales Manual and the Timber Scaling Manual document the policy for regulating how state timber sales are administered.

Timber harvest is an important tool available for forest management. To carry out this management function the Division is authorized to sell timber from public lands. Timber sales activities include:

- A. Appraisal, sale and supervision of the harvest of timber on state lands, including special fuelwood harvesting for personal use.
- B. Timber scaling to account for all wood harvested from state land.
- C. Conducting timber sale field inspections for compliance of permit regulations.
- D. Maintain and improve the timber sale data processing system.
- E. Conduct timber sale meetings and joint planning and training sessions with other timber sellers.
- F. Development of timber sale manuals and procedures for the administration of state timber sales.

The Division uses public auction and informal permit sales to sell timber. The auction sale was originally designed for large logging operations. It enabled companies to have large operations with logging camps and many timber cutters. Mechanization has drastically changed the large operations. The logging camps are gone and few logging operations now employ more than half a dozen loggers. Most of the harvesting conducted on auction permits is now done by independent operators working independently or under contract with a forest products company.

The original auction sale law provided for a maximum appraised value of fifteen thousand dollars per tract offered. Only one auction sale,

with any number of individual tracts, was allowed per county each year. Quite often, 50 to 100 tracts would be offered at a sale and companies would purchase their needs for one or more years. Individual permits were for a four-year period and could be extended up to six more years. Today, the regular auction has a maximum appraised value per tract of twenty thousand dollars and a permit duration of three years with two one-year extensions allowed. Recent law changes now allow any number of sales to be held in a county and more than one sale may be held on the same day.

Intermediate auctions, geared for independent loggers with small cash flow, offer permits with a maximum appraised value of seven thousand dollars for a duration of one year with two possible one-year extensions. Individuals can hold up to four permits at any one time.

The informal timber permit was enacted in 1925 primarily to enable farmers and other settlers to obtain timber for their own needs and to provide them with an additional source of income. The law limited the value of a permit to fifty dollars and allowed only one permit at a time to an individual. Cutting was limited to dead or down timber.

The informal permit has undergone many changes. Today the informal permit allows the cutting of green timber, increases the monetary limit to \$3,000, and increases the number of permits which can be held at any one time to two. The duration of the permit is for one year with a one-year extension. The Division also sells fuelwood permits for personal use with a permit length of up to one year.

In the past five years, 3,465,000 cords of timber have been sold from state lands and 3,192,000 cords have been harvested, which met goals but did not exceed recommended levels of sustained management.

GOAL

Administer the sale of timber stumpage from state-

owned lands as a means to manage state owned timber.

#### STATEWIDE DIRECTION

The Timber Sales program will reexamine the Division's overall strategy for offering timber for sale statewide. It will recognizing current economic trends, varying market demand and the diverse biological and resource conditions found in different regions of the state. Integrated timber harvest goals will be developed for geographic locations in coordination with county, federal, and private landowners. This will be done by better integrating the Division's timber sale and timber management planning efforts, and by taking into consideration the full array of land management activities (i.e., recreation, wildlife, roads, natural and environmentally sensitive areas) when setting up sales. Timber sales practices will be integrated with wildlife habitat needs through application of the Department's Forestry/Wildlife policy and guidelines.

Increased costs of administering timber sales are attributable to using timber sales to achieve multiple-use management goals. Administrative efficiency has improved, because Division field foresters have become more efficient in selling timber while incorporating non-timber values which are a legitimate benefit of timber sales. A major emphasis of the program over the next five years will be to implement new and/or revised timber sale procedures to continue to improve administrative efficiency and to make the state's timber sales more competitive.

### MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Policy and Legislation

 Conduct a thorough evaluation of the current timber sales operations in an effort to make the program more cost effective and better able to meet market demand. This would include overhead costs, policies and procedures, size of the program, market share, legal and revenue issues. In addition, timber appraisal and scaling methods should be evaluated as to how best to accomplish these tasks.

- Update the timber sales manual to incorporate recommended changes from the program review and from legislative action.
- Broaden and accelerate efforts to identify unique, natural and environmentally sensitive areas, to increase the awareness to visual resource impacts and develop guidelines to lessen the impact of increased timber harvest of state forest lands.
- Establish a timber sales information systems user group to help redesign and modernize the computer programs used in the sale of timber.
- Formalize policies and standards for timber sales.
- Monitor and administer timber sale laws and policies to maintain a flexible timber harvesting program.

#### Marketing

- Aggressively advertise timber sales after they are put up for sale.
- Meet with industry representatives, other agencies and interested clientele to better coordinate state timber sales to meet their needs, including timing, size, species location and access.
- Involve Utilization and Marketing Program staff more in developing the annual timber sales work plan.
- Reduce sale and cutting regulations -- list only those regulations that are absolutely necessary.
   Post-sale treatment may have to be charged to site preparation costs and paid for accordingly.
- Study and propose legislation that will improve the marketability of state timber.
- Consider guaranteed access as a means to increase marketability.
- Attempt to sell at least 75% of timber by auction.
   Informal sales will account for no more than 25% of the volume sold.

#### **Operations**

- Implement Best Management Practices (BMP's) on every forest management activity.
- Implement new or revised timber sale procedures as necessary to improve administrative efficiency such as a computerized cost accounting system, revise timber appraisal standards, reduce sale and cutting restrictions, update or eliminate price guide factors, and increase sales.
- · Reduce workload needing the Attorney General's

review or approval.

- Continue to include wildlife, old growth, visual impact, silvicultural needs, and other resource values when planning and implementing timber harvests.
- Coordinate with County and Federal governments in the sale of timber stumpage and in the development of transportation systems.
- Concentrate the implementation of harvest plans (TMPIS prescriptions) by selling stands in proximity to each other in such a manner as to minimize access development and maintenance, travel and time spent on management activities.
- Automate consumer scaling through electronic reporting.

#### FISH AND WILDLIFE HABITAT MANAGEMENT

#### **ACTIVITY DESCRIPTION**

Forests and associated waters on Division administered lands provide habitat for a variety of fish, wildlife and native plant species. Manipulation of plant communities is a key to managing for wildlife as well as timber products. Successful management for these purposes depends upon achieving the desired combination and distribution of vegetation communities.

In an effort to improve integration of DNR management practices, a Wildlife/ Forestry Coordination Policy (DNR Policy #8, revised 5-3-82) and Forestry/ Wildlife Guidelines to Habitat Management (MN DNR Wildlife, 1986) were developed. DNR Policy No. 8 states, "As state administered lands are to be managed for compatible multiple-use benefits, unless otherwise dedicated by law, both Divisions of Forestry, and Fish and Wildlife are jointly charged with the responsibility of achieving the goal of integrating forest and wildlife management, while recognizing other multiple-use purposes."

In response to the DNR policy directive, the Division has modified forestry practices (e.g. timber harvest, reforestation, timber stand improvement.) on lands under its jurisdiction to assure that fish and wildlife habitat is maintained or improved. Other activities the Division conducts that contribute to enhanced fish and wildlife management are: constructing openings, roads and trails; controlling wildfire; managing shrub and grass habitat; conducting prescribed burns; coordinating the Division's land administrative activities to enhance opportunities for the production of fish, wildlife and native plant species; participating in fish and wildlife improvement activities by providing personnel or other forms of support; and providing training or planning assistance to and coordination with the DNR Division of Fish and Wildlife.

The major link between forestry activities and fish habitat is the impact that specific management activities have on water quality. This link was made in 1972 through the passage of the Federal Water Pollution Control Act which established

water quality goals. The major objective of that legislation was to restore and maintain the chemical, physical and biological integrity of the nation's waters. In 1980, the Governor of Minnesota signed the Minnesota Water Quality Plan called for in the Federal Act. Subsequently, Division of Forestry cooperated with the Minnesota forestry community in the writing of a comprehensive set of forestry best management practices to protect water quality. These best management practices will be incorporated into all Division field management activates.

#### **GOAL**

Provide forest habitats conducive to managing and protecting a variety of fish, wildlife and native plant resources compatible with forestry and fish and wildlife management objectives, site capabilities and adjacent land uses.

#### STATEWIDE DIRECTION

Specific fish and wildlife management objectives may vary geographically and will be targeted at producing or protecting specific fish, wildlife and native plant communities associated with particular forest habitats. These objectives will be designated in the Division's Regional Plans,

The long-term protection of the biological diversity found on state forest lands requires the early identification and protection of rare, endangered, or unique plant and animal species habitats and sites. In response to this need, the Division is increasing its cooperative efforts with the Division of Fish and Wildlife to identify these sites. Similarly the Division is increasing its efforts to establish Scientific and Natural Areas or Natural Heritage Registry sites to assure their long term protection. The Division is also committed to retaining a diversity of forest community types in the forest land base in recognition of the varied habitat requirements of all plant and animal species found on this land base. As rare plant communities or important geologic features are identified, the

Division will take steps to protect them.

The Division's Best Management Practices (BMPs) for water protection are designed to minimize impacts on water resources. These management practices are itemized in the BMP Handbook and include directions on road design standards, timber harvesting, site preparation, pesticide application, etc. BMPs will be incorporated into all applicable field management projects.

## MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### **Policy**

- Continue to implement Forestry/Wildlife Coordination Policy and Guidelines in all areas of the state.
- Implement the old growth guidelines as developed by the interdisciplinary task force when approved by the commissioner which defines old growth, establishes site selection criteria and defines the amount and distribution of old growth to be retained and protected.

#### **Planning**

- Designate, in the Division's Region Plans, wildlife, fish and plant communities to be managed on a geographic basis. Coordinate this with the Division of Fish and Wildlife's planning efforts and with local resource management efforts.
- Conduct joint planning sessions using the Timber Management Planning Information System (TMPIS) during region planning to reduce the need for additional reviews.
- Review the Division's realignment plan in conjunction with the DNR, Division of Fish and Wildlife planning efforts to identify opportunities where each division could share common data bases, administrative boundaries, and office facilities.
- Encourage joint forestry and wildlife research and planning efforts to explore ways to improve wildlife habitat while minimizing timber depredation problems.
- Coordinate Forestry, and Fisheries and Wildlife planning at all levels to assure compatible

programs and activities.

- Incorporate natural heritage database into the forestry Cooperative Stand Assessment data base.
- Cooperate with the Division of Fish and Wildlife in managing upland and lowland grass and brush ecosystems of various sizes for sharptail grouse, woodcock, moose, deer and other game and nongame species.
- Support cooperative research efforts to examine the effects of even-aged, short rotation, single species timber stands on wildlife.
- Cooperate with other DNR disciplines and agencies in developing an ecological land classification and mapping system.

#### **Training**

- Train Division personnel in fish and wildlife habitat management practices and in managing woody shrubs.
- Cross train personnel between DNR Divisions of Forestry, and Fish and Wildlife by sending Forestry personnel to Division of Fish and Wildlife training programs and Wildlife personnel to Division of Forestry training programs.
- Plan prescribed burns for wildlife habitat through joint meetings with wildlife managers. Provide training on the Department's Prescribed Burn Policy - Operational Order #47.
- Provide information to wildlife managers and foresters on dealing with wildlife depredation on timber regeneration.
- · Endangered Species training.

#### Management

- Develop brochures, slide shows and other media to inform the public of the Division of Forestry's role in enhancing fish and wildlife habitat.
- Actively pursue support for the Division's fish and wildlife enhancement activities from forest user groups through talks at club meetings and articles in outdoor publications.
- Set up wildlife habitat improvement demonstration areas. Solicit volunteer support to complete these projects.
- Participate in establishing Scientific and Natural Areas and Natural Heritage registry sites where rare resources and plant communities worthy of protection have been identified.

- Continue field efforts to improve habitat management to enhance opportunities for the production of fish, wildlife and native plant species.
- Resolve conflicts regarding wildlife depredation of timber regeneration and agricultural crops.
- Inform forest users of the Division's efforts to enhance fish, wildlife and native plant management.

## Cooperative Forest Management Program

MINNESOTA FOREST RESOURCES PLAN



#### PRIVATE FOREST MANAGEMENT (PFM)

#### **ACTIVITY DESCRIPTION**

Approximately 5.6 million acres (41 percent) of all of Minnesota's commercial forest land is in private ownership. These acres are owned by nearly 130,000 individuals with widely varied land management interests and objectives. 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. Therefore, it is important that the Division provide the technical assistance needed to ensure the continued management and productivity of these lands.

Typical PFM activities include: 1) Promoting forest management on non-industrial private forest (NIPF) lands through personal contacts with landowners and the use of the media; 2) Providing landowner education opportunities by conducting and sponsoring workshops, adult education classes, tree planting clinics, and forestry field days; 3) Developing multiple-use management plans for individual landowners; 4) Providing technical assistance for specific recommended practices such as tree planting and timber stand improvement; and 5) Providing utilization and marketing assistance

#### **GOAL**

Improve and increase the multiple-use forest resource management of non-industrial private forest lands in a way that is cost-effective to the Division, consistent with Departmental policies and complementary of other governmental and private efforts.

#### STATEWIDE DIRECTION

associated with timber harvesting.

An increased awareness of the environment is expected to bring extra attention and funds to the PFM program. Much of this will be directed through the Federal Stewardship Initiative. This program requires comprehensive planning and implementation to achieve a variety of natural

resource products which optimize the potential of the land. Single products and/or species must be considered in context of the overall ecosystem. A 30 percent increase in management plan activity is expected because of the Stewardship Initiative. Close inter-agency cooperation will be necessary to achieve this initiative. This inter-agency cooperation will be a hallmark of the program.

It must be noted that while plan preparation is necessary and useful, it is not the end goal of the PFM program. Implementing the recommendations of the plans in on-the-ground accomplishments is the mission of the program.

The Federal Conservation Reserve Program (CRP) may be modified to promote tree planting. If so, the level of planting may continue at 20,000 acres per year. The Stewardship Initiative will also increase tree planting.

Another potential large program affecting the PFM program is the "America the Beautiful" program. The impact on the Division is unpredictable until more about the program is known. Most of this work will be tailored to community forestry.

The Division will also continue to assist in private timber sales and will continue to encourage increased participation by consultants that emphasize a full range of forest resource benefits.

- Expand public knowledge and awareness of forestry and its importance to Minnesota.
- Increase professional resource manager's knowledge and commitment to managing from the perspective of the ecosystem thereby providing an optimum variety of products for society without impairing long-term ecosystem productivity and diversity.
- Target assistance to landowners who demonstrate commitment to managing their lands. The level of plan detail must reflect the resource potential and the landowner's needs. Recognize

- differences between regions and adjust type of service provided to best suit needs.
- Actively promote the use of DNR disciplines that reflect other forest values, consulting, industrial and other private foresters in managing private forestlands.
- Promote holistic management on private lands by involving other DNR disciplines that reflect other DNR values and interests.
- Minimize the conversion of non-industrial private forest (NIPF) lands to non-forest uses.
- Coordinate the PFM services so that they complement those provided by other DNR divisions, industry, consulting foresters and forestry vendors.
- Utilizing increased environmental awareness, form stronger alliances with those who share an interest in NIPF forests and/or overall environmental concerns.
- Promote changes in the current property tax system to encourage increased management of NIPF lands.
- Expand the system requiring NIPF landowners to pay for services for which they receive significant benefit (i.e., timber sales).
- Integrate NIPF management planning into the development of Regional Forest Management Plans and other local planning efforts.
- Identify and promote the use of private consultants for special temporary projects which focus on specific products or objectives.
- Include other governmental agency personnel and private consulting and industrial foresters in PFM-related training sessions.
- Promote the use of Best Management Practices (BMP's) on private lands to ensure water quality is maintained.

#### TARGETS FOR F.Y. 1991-1995

- Form a closer alliance between the Division and various statewide PFM-related forest user groups.
- Provide information and support as needed to promote the Stewardship Initiative.
- Rewrite the present PFM service and PFM timber sales policies, to combine them into a single, comprehensive PFM program policy. Include revisions in the fees charged for PFM services.

- Provide information and support necessary to pass legislation regarding changes in forest property taxation.
- Streamline the paperwork needed to operate an effective PFM program.
- Develop an improved "Stewardship" format for landowner management plans to replace current format for comprehensive plans and brief plans which cover more than one activity.
- Establish management guidelines regarding the involvement of the DNR Division of Fish and Wildlife in the preparation of forest management plans and other aspects of the PFM program.
- Continue adoption of local agreements between Soil and Water Conservation Districts (SWCD) and Area Forestry offices. Where significant local matching funds are available, use SWCDs to increase effectiveness of the PFM program.
- Participate in the implementation of a computerized tracking system for PFM cooperators and their forest resources.
- Establish closer working relationships with Resource Conservation and Development (RC&D) Committees through the joint funding of an RC&D forester position and through cooperative projects.
- Streamline paperwork while improving the interdisciplinary framework needed to operate the PFM program and provide tools needed to efficiently provide PFM service in the field.
- Support increased commitment of cooperating disciplines and agencies necessary for the success of an increased PFM program.

#### **URBAN AND COMMUNITY FORESTRY**

#### **ACTIVITY DESCRIPTION**

The Division of Forestry has a long history of providing urban and community forestry assistance to Minnesota communities. In the late-1970's, a formal Urban Forestry Program was established in the Division including the federal Dutch Elm Disease Demonstration Program. At this time, the Dutch elm disease was a relatively new and serious threat and it served as the nucleus around which various local and state programs were formed. Among them were the Shade Tree Program administered by the Department of Agriculture and the Urban Forestry Program administered by the DNR, Division of Forestry.

Cuts in state and federal funding for these programs were experienced in the early-1980's due to budgetary limitations. The Division's Urban Forestry Program was regarded as a necessary component of the Division's operations and, therefore, was retained (at a reduced level) despite substantial budget reductions. Throughout the 1980's, the Division continued to provide technical forestry assistance, primarily insect and disease related assistance, to urban residents and their communities. In 1989, the Division published and distributed a "Community Forestry Resource Directory" containing a comprehensive listing of urban and community forestry practitioners by location, various sources of advice and assistance, and a current bibliography of reference materials. Also, the Division continued to extensively promote Arbor Day throughout Minnesota, recognizing the importance that this day has in building public awareness and appreciation for trees and forests.

#### **GOAL**

Maintain a proactive and comprehensive approach in urban and community forestry assisting
Minnesota communities with the management of their urban vegetation through cooperation with other governmental agencies, volunteer organizations, and private citizens, so that the environmental, psychological, social and economic well-being of these communities is enhanced.

#### STATEWIDE DIRECTION

The Division has established an Accelerated Community Forestry Assistance Program as part of a statewide multi-agency effort to improve the management of Minnesota's urban and community forests. The four main objectives of this program pertain to training, technical assistance, public awareness and coordination.

The first objective is to provide the training necessary to improve the understanding, management and protection of community forests. This training will be provided to foresters, municipalities, community leaders, contractors, developers and others involved in making decisions which affect their community forests.

The second objective is to expand and improve the technical assistance provided to local communities and individuals. Local DNR Foresters will be trained to provide much of this assistance including tree inventories, management planning, ordinance development, local program budgeting, and tree planting and maintenance techniques. These Foresters will also advise communities on wood waste utilization and disposal, and make recommendations to local land-use planning and zoning committees regarding community forestry matters.

The third objective is to increase the public's awareness of the economic value, ecological and social benefits, and needs of community forests. This is to be accomplished by expanding existing programs such as Arbor Day celebrations, increasing the number of TREE CITY USA participants, and identifying needs for informational and educational materials and supporting their development.

The fourth objective is to increase interagency coordination to improve program efficiency and responsiveness to the needs of the resource. Specifically, one action to accomplish this objective will include conducting a statewide survey of communities to better assess their needs and how

they might be met.

In development are cost-share programs to assist communities in various urban forestry activities including conducting inventories, developing management plans, establishing municipal tree nurseries; and, planting trees for energy conservation which includes funding support from local power companies. Also being developed is an informational brochure on construction damage to trees which is intended to inform a wide audience about these problems.

Planning for the future of the Division's urban and community forestry efforts will continue in cooperation with key actors and agencies involved in urban and community forestry activities statewide. Efforts will be made to identify the appropriate role and responsibilities of the Division in relation to other public and private sector providers of urban and community forestry services.

## MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

- Implement Cost-Share Programs for (a)
   Community Forestry Assistance Program, and,
   (b) Energy Conservation Tree Planting.
- Implement MINNESOTA RELEAF program coordinated with American Forestry Association.
- Determine and implement state's role in the "America the Beautiful" Program.
- Develop programs/publications to increase public awareness of urban and community forestry including articles for publication in various magazines, newsletters, etc.
- Promote TREE CITY USA program through community contacts; establish goal of 100 communities by 1995.
- Organize and sponsor a statewide Urban and Community Forestry Conference.
- Identify Division internal training/education needs related to urban and community forestry (e.g., develop urban and community forestry handbook).
- Provide forestry personnel with the training and information needed to directly assist communities.
- Cooperate in sponsoring Arbor Day/Arbor Month events with other agencies, organizations

and units of local government.

- Work with other agencies in developing information and educational materials for distribution to public (emphasis on construction damage to trees).
- Continue distribution of Community Forestry Resource Directory (update as necessary).
- Assist local communities in developing tree inventories, management plans, ordinances, planting plans and forestry program budgets.
- Advise communities on tree maintenance, tree planting and wood waste utilization or disposal methods.
- Coordinate urban and community forestry activities with public and private sector interests.
- Promote urban and community forestry input into local land use planning and zoning activities.
- Cooperate with other agencies and organizations to provide the necessary training for local housing and right-of-way developers to minimize damage to the urban forest environment.
- Promote the use of Best Management Practices (BMP's) in urban areas to ensure water quality is maintained.

#### **COOPERATIVE COUNTY FOREST MANAGEMENT**

#### **ACTIVITY DESCRIPTION**

The Cooperative County Forest Management (CCFM) program, formerly the County Assistance Program, was established in the 1940's under the Iron Range Resources and Rehabilitation Board to assist northern counties in managing large parcels of tax-forfeited land. In 1978 CCFM was transferred by Executive Order to the DNR. Its primary function was to assist county land departments with managing and administering approximately 2.8 million acres of tax-forfeited forest lands.

Until 1985, 10 county assistance foresters provided direct assistance to eight counties active in the program (Aitkin, Becker, Beltrami, Clearwater, Crow Wing, Itasca, Lake and St. Louis) under a cost-sharing matching agreement. Direct assistance has been discontinued in favor of a cooperative approach to assisting counties. No full-time staff remain active in the program.

Region, area and district forestry personnel currently provide requested assistance on land transactions, administrative issues, forest inventory, ownership mapping, and aerial photo interpretation. Financial support is also made available to carry out reforestation, timber development and forest road projects. Division efforts concentrate on channeling financial support and/or technical services through ongoing Division programs rather than through direct staff support.

#### **GOAL**

Support and assist efforts to intensify the multipleuse, sustained-yield management of county taxforfeited forest lands.

#### STATEWIDE DIRECTION

The restructured Cooperative County Forest Management program will pursue the complementary integration of county and state staff, programs, resources and goals to maintain and improve the quality of Minnesota's forest resources. The historical role of the Division in providing forest fire protection, seed and seedling production, insect and disease control and forest inventory for county programs will be maintained. Identification of new interactions or means of assisting counties in managing forest lands will be pursued.

Where statutory responsibilities allow flexibility, the regulatory role of the Division in relation to county programs will be de-emphasized in favor of an advisory role. However, in counties without established Land Departments the division carries responsibility for assistance in directing forest management activities on tax-forfeited lands. The oversight for statutory responsibilities has been decentralized to allow greater interaction between state and county field staffs. Routine projects and problems will be dealt with locally by the Division's Area Forest Supervisors. Specialized assistance will be provided upon request.

- Administer state and federal grants earmarked for county resource management and development.
- Conduct joint state/county training exercises and personnel development workshops.
- Make available adequate forest tree seedlings for county reforestation projects.
- Cooperate with counties in effectively using and maintaining forest inventory information.
- Assist counties in using the Division's Timber Management Planning and Information System (TMPIS).
- Conduct joint state/county meetings (i.e., stumpage price review) to regularly exchange expertise and information.
- Carry out cooperative projects (i.e., prescribed burns, road development) and engage in cooperative project planning at the local level.
- Encourage active involvement of County Land Departments in the Division's ongoing MFRP and Regional planning processes.
- Support the development of a more stable funding source for tax-forfeited land management.

- Clarify and revise, as necessary, laws governing the relationships between the Division and County Land Departments.
- Provide direct assistance to counties without an organized Land Department.
- Conduct temporary personnel assignments to accomplish special projects or training.
- Develop cooperative agreements with individual counties as necessary to meet joint needs.
- Execute statutory responsibilities for the review of tax-forfeited land sales.
- Assist in determining Tree Growth and Auxiliary tax rates.
- Encourage joint state-county goal-setting and problem-solving sessions.

#### FOREST PEST MANAGEMENT

#### **ACTIVITY DESCRIPTION**

Insects, diseases and weed competition are the major causes of growth loss and mortality in Minnesota forests. The activities of pests such as the spruce and jack pine budworms, white pine blister rust, hypoxylon canker of aspen, dwarf mistletoe, oak wilt, bronze birch borer and wood decayers result in the loss of about one-half of the annual forest growth in the state. Weed competition in forest plantations restricts the establishment of forest stands following harvest, hampering forest management intensification efforts.

The Division of Forestry is charged by state law with controlling forest pests on public, municipal and private lands within Minnesota. The Division provides forest protection assistance to nursery managers, Christmas tree growers, non-industrial and industrial landowners, urban, municipal, county and state forest managers. Previously, the program concentrated primarily on state-administered forest lands. Emphasis is needed in nursery, tree improvement, urban, private and county forest pest management but is restricted by staffing capabilities. Pest management techniques must be practical, economical and efficient. To insure this, the Division must focus its efforts in pest management to the regeneration or restructuring of stands that reduce the potential loss to pests.

#### **GOAL**

Provide efficient forest resource protection from insects, diseases and competing vegetation to reduce productivity constraints and losses.

#### STATEWIDE DIRECTION

The Forest Pest program will concentrate on assisting the Division's regeneration programs from seed to plantation. The combined activities of pest survey, risk rating of stands, developing management guidelines and training will be used to provide public and private foresters with the tools to implement integrated pest management programs. This will include active involvement in the design

and implementation of suppression projects (e.g. oak wilt control). Continued staffing limitations will require a greater reliance upon field foresters for basic survey and monitoring information. Hazard tree management in recreational sites will be a major issue in the future. Implementing a department hazard tree policy will require significant field staff involvement and resources. Pest management activities must be directed toward the most productive forest lands. Urban pest issues will be a continuing source of demand for assistance. The threat of gypsy moth introduction and establishment in Minnesota will significantly increase during this planning period and require an active interagency educational program to address public awareness and participation in addressing the problem.

Pest control practices on DNR-administered lands will employ integrated pest management techniques and priority will be given to non-chemical management alternatives. Commitment to the implementation of the Forest Herbicide Mediation goals will be maintained. The Division needs to continue evaluating its use of herbicides, develop better application systems and assess on-site effectiveness in relation to its management goals.

- Participate in a national forest health monitoring system to assess long term changes in forest health.
- Initiate and support an urban oak wilt control program based at the municipal level.
- Support the implementation of new regional standards for pest impact assessment within the National Forest Inventory and Assessment System (FIA) permanent plots. Provide training and written support materials to state and federal crews.
- Develop and provide technical guidance to the implementation of a hazard tree management policy and program on state recreational lands.
- Restructure pest survey guidelines to produce information compatible to GIS systems. Develop and promote management techniques which

- reduce the need for broadcast chemical application.
- Develop a long range management plan for gypsy moth.
- Develop a quantitative (field-oriented) system for determining the need for herbicide use.
- Analyze and develop effective control programs for Minnesota pests. Integrate forest pest management techniques into forest nursery production and forest management practices.
- Evaluate the effectiveness of prescribed pest management techniques and control strategies.
- Maintain cooperative relationships with public and private agencies to ensure an open exchange of pest management information.
- Cooperate with the U.S. Forest Service in surveillance monitoring and evaluation of regional (multi-state) and national forest pest problems.
- Cooperate with the Minnesota Department of Agriculture to monitor and control the introduction or expansion of the gypsy moth within Minnesota.
- Conduct surveys and investigations to determine the presence and monitor the levels of infestations of forest pests and evaluate the damage or potential for damage they cause.
- Develop pest management guidelines and control strategies for each major timber type in Minnesota; integrate these guidelines into management practices through the unit planning process.
- Maintain up-to-date expertise in forest pathology, entomology, silviculture, vegetation management and the use of pesticides through continuing education opportunities.
- Provide training for public, industry, private and urban forest managers in pest management techniques and their integration into forest management practices.
- Provide technical review of forest development proposals using pesticides to insure their safe, effective and economical use.
- Promote the use of Best Management Practices (BMP's) during pest control activities to ensure water quality is maintained.

#### FOREST SOILS

#### **ACTIVITY DESCRIPTION**

The productive capacity of forests is mainly defined by the physical and chemical characteristics of the soil. Soil and landform relationships directly influence the capacity of the land to provide for an optimum mix of such public benefits as timber, wildlife habitat, and high quality water resources.

The Division is charged by the Forest Resource Management Act of 1982 with managing the state's forest land according to principles of multiple-use and sustained-yield. Yield of timber products (type, quantity and quality) varies across the state depending on the productive capacity of the land. This capacity is determined by climate, landform, and soils but is modified by insects, diseases, and past disturbances. Improving the Division's understanding of the relationships between climate, landform, soils and forest community dynamics is the major benefit from the forest soils program efforts. Understanding these relationships is essential for evaluating resource management options, concentrating intensive timber management on the most productive forest land, and minimizing negative impacts on land and water.

Funding for the forest soils program was provided by the LCMR during the 1982-1983 biennium. The Forest Resource Management Act of 1982 reinforced legislative support for this program by instructing the Commissioner of Natural Resources to include three forest soil and hydrology specialist positions in the 1984-1985 Department budget. The Division currently has one full-time soils specialist in each of Regions I, II and III, and a soil scientist as program manager in St. Paul.

The forest soils program provides forest soil interpretations to land managers to assist in the statewide forest management programs.

The major activities of the forest soils program include:

A. Conducting site specific field examinations to identify and interpret the impact that different landforms and associated soils have

- on forest productivity and management activities.
- B. Providing technical evaluations and assessments on environmental issues related to forest management.
- C. Integrating soil management principles into silvicultural practices.
- D. Providing recommendations for road construction and reconstruction projects.
- E. Providing training in the use of soil surveys, forest management supplements to the county soil surveys, and field identification of site characteristics (soils, vegetation, landforms).
- F. Providing assistance in regional planning efforts.
- G. Assisting other divisions and agencies in collecting soil baseline and interpretive data.
- H. Assisting Department wide efforts to develop an ecological classification system of public forest lands.
- Locating gravel deposits and aggregate resources for road construction and maintenance.

#### **GOAL**

Enhance forest resource management and maintain site productivity through the application of technical landform, soil and vegetation information.

#### STATEWIDE DIRECTION

The forest soils program will be administered to obtain the dual objectives of integrated resource management and protection of the soil and water resources. Major emphasis will be on evaluating sites based on landform/soil/vegetation relationships; then applying this information to field forestry site management decisions. Increased public demands for environmental protection will influence how resource management activities are carried out.

Specific site evaluations, identification of productive landforms and soils, use of soil surveys, training and information transfer to field foresters will be used to facilitate land use decision making in the regional planning process. These activities will aid in evaluating the suitability of forest land for other proposed uses. Development and use of soil surveys and forest management supplements to the county soil surveys will be enhanced by continued participation in the Minnesota Cooperative Soil Survey.

- Provide site-specific evaluation and analysis prior to initiating management activities.
- Integrate soil/landform concepts into forest management practices from the planning phase to harvesting and regeneration.
- Participate in educational efforts to facilitate implementation of BMPs by all disciplines and Division's that operate on DNR forested lands.
- Assist public and private forest managers to focus resource management efforts and target investments to the most productive sites.
- Assist regional planning by developing management goals and direction based on land capability.
- Develop forest management supplements to the county soil surveys.
- Provide training for forest managers to assess site characteristics to aid in making management decisions.
- Standardize and automate soil/landform /vegetation data collection methods and reporting procedures.
- Develop and test a hierarchial ecological classification system based on climate, landform, soils and vegetation.
- Provide review and evaluations of documents and reports produced as part of the generic environmental impact statement on expanded timber harvesting.
- Maintain activities with the Minnesota
   Cooperative Soil Survey to enhance the quality,
   accuracy and utility of soils information as
   related to forest management.
- Provide analysis of gravel resources and long term need.

## Nursery and Tree Improvement Program

MINNESOTA FOREST RESOURCES PLAN



#### NURSERY AND TREE IMPROVEMENT

#### **ACTIVITY DESCRIPTION**

The Division is one of the largest producers of forest tree and shrub seedlings in the Northeastern United States. Since the Division provides the bulk of the planting stock used on lands in Minnesota, it is responsible for distributing the best possible planting materials to insure the effectiveness of planting programs. This requires an aggressive genetic tree improvement program. Genetic improvement of forest trees is a widely accepted, economical, and effective tool for increasing the survival of seedlings, and the productivity and quality of plantings.

The Forest Resource Management Act also requires submission of a Nursery and Tree Improvement Plan to the State Legislature describing the benefits and costs of making the Nursery and Tree Improvement Program self-supporting. This plan was completed and submitted to the Legislature in early 1983. The nurseries became self-supporting in F.Y. 1985.

The primary functions of the Nursery and Tree Improvement Program are divided into three major categories: nursery operations, tree improvement, and marketing.

#### A. Nursery Operations

Nursery Operations are a combination of seed procurement, seedling production, and seedling distribution. Seed procurement is based on the anticipated regeneration needs of state, county, and private forest lands. These same needs also determine the levels of seedling production. Seedlings are then sold to over 4000 customers statewide.

Nursery operations also coordinates grower contracts and distribution of containerized seedlings for use on state forest lands.

#### B. Tree Improvement

Tree improvement combines silviculture with tree breeding to increase forest productivity. It can be

as basic as avoiding dysgenic selection (high grading). By favoring the better quality trees in a stand, foresters can maintain, and often improve the genetic quality of the stand. At the intermediate level, tree improvement is seed source control. Almost without exception, seeds collected from a local source will survive and grow better than non-local sources. At a higher level, tree improvement involves plus tree selection, cloning, establishment of seed orchards, progeny testing, selective breeding, and production of superior clones.

#### C. Marketing

Seedlings are sold on availability. The cost of seedlings is determined by availability and the cost of nursery operations and tree improvement activities. Periodic statewide news releases are made to inform land owners and planters of seedling availability. Future needs of the Division, County and private sector are evaluated to determine nursery production goals.

#### **GOAL**

Economically produce forest regeneration material of the highest genetic and biological quality in the quantity needed for environmental programs.

#### STATEWIDE DIRECTION

Program activities during the next five years will focus on the following:

- A. Seeding and cultural changes necessary to meet demands of state and federal environmental programs. This includes determining needs, ordering seedlings, and distributing seedlings.
- B. Acquire and develop a tract of land to serve as a centralized, production-oriented seed orchard complex.
- C. Expand distribution of nursery information.

#### MAJOR STRATEGIES AND OBJECTIVES

#### FOR F.Y. 1991-1995

#### **Primary Objectives**

- Implement a contract for lifting and packaging seedlings.
- Explore and implement methods to improve the logistics of seeding distribution.
- Meet the increasing demands for seedlings created by special environmental programs such as: Reinvest in Minnesota, and America the Reautiful
- Implement the revised Tree Improvement Plan for the Minnesota DNR.
- Improve coordination of the Tree Improvement Program with other Division programs.
- Continue participation in and support for state and regional cooperative tree improvement programs.
- Promote environmental programs and sound resource management.

#### **Nursery Operations Objectives**

- A. Improvements in nursery operations
  - Explore and implement improved nursery techniques (seed source control from extraction through planting, lifting methods, and storage systems).
  - · Expand seed collection networks.
  - Link field survivability results to stock quality (reports to Nursery).
  - Improve containerized stock contracts.
  - Improve nursery/field coordination concerning containerized stock needs and timing.
  - Make lifting operations weather independent.

#### B. Improve cultural management

- Make adjustments in cultural practices for specific species.
- Increase production periods for specific species.
- Change cultural practices for increased hardwood production for state and federal environmental programs.
- C. Increase coordination with and education of user groups

- Educate the consumer on proper stock handling, care, and storage.
- Encourage notification of stock quality upon receipt.
- Coordinate production and distribution of Arbor Day material with the Division Public Affairs Specialist and other involved program supervisors.
- Encourage increased production by private nurseries.

#### Tree Improvement Objectives

- A. Implement revised Tree Improvement Plan for the Minnesota DNR
  - · Adjust species priorities as needed.
  - Intensify management of tree improvement projects.
  - Develop central seed orchard production facility.
  - Create and staff tree improvement technician position.
  - Provide program funding through surcharge on seedlings sold by Nursery Program.
- B. Coordinate tree improvement program activities with other Division programs
  - Identify roles and responsibilities in the management of tree improvement projects.
  - Coordinate tree improvement program activities with nursery operations.
  - Represent tree improvement program at Division workshops and meetings.
- C. Continue participation and support for cooperative tree improvement
  - Minnesota Tree Improvement Cooperative
  - North Central Fine Hardwoods Tree Improvement Cooperative
  - University of Minnesota/Institute of Paper Science and Technology Aspen/Larch Genetic Improvement Cooperative

#### Marketing Objectives

A. Expand marketing activities

- Expand distribution of nursery and tree improvement information via news media (newspaper, radio, billboards).
- Accommodate public agencies, such as the Division of Fish and Wildlife, with specialized tree orders.
- Identify guidelines for custom ordering procedures.
- Develop alternative seedling ordering procedures.
- Explore legislative and legal opportunities for expanding sales.

## B. Increase the accuracy of regeneration material needs forecasting

- Increase coordination of forecasting with Private Forest Management Program, Timber Management Program, county forestry, and other user groups.
- Work with county land departments to develop long-term contracts.
- Promote use of long-term contracts.
- Implement contract alterations as written in the 1983 Nursery and Tree Improvement Program Plan.

#### C. Review cost recovery methods

Establish a Division budget for Arbor Day activities.

## Resource Protection Program

MINNESOTA FOREST RESOURCES PLAN



#### WILDFIRE PROTECTION AND MANAGEMENT

#### **ACTIVITY DESCRIPTION**

By state statute, the Division is charged with preventing and suppression of wildfire on public and private lands in Minnesota. This responsibility encompasses some 45.5 million acres of land. In addition the Division is responsible for managing the use of prescribed fire by the DNR. Wildfire protection functions can be divided into three major categories: prevention, presuppression, and suppression.

- A. Prevention activities are designed to reduce the likelihood of fire occurrence and to minimize the potential damage resulting from fires that might occur. Activities include such things as public education, regulation of open burning, vegetation ("fuels") modification, and law enforcement as a deterrent.
- B. Presuppression activities provide for and prepare suppression forces for the eventuality of fires and provide for early detection of fires. Activities include training firefighters. and support personnel, developing and maintaining inter- and intra-state agreements for sharing personnel and equipment, maintaining and operating an interagency coordination center, developing fire action plans and dispatching plans, monitoring ambient weather conditions and associated fire danger, maintaining equipment in a state of readiness, maintaining a combined DNR/US Forest Service, Region 9 fire cache at the Northern Service Center and maintenance of communication systems, and contracting for the use of private equipment. Fire detection is carried out through a network of lookout towers, aerial detection flights, and a variety of citizen and agency reports.
- C. Suppression activities are directed at effective initial attack action that strives to extinguish wildfires in the shortest time possible, considering the values at risk, and extended suppression action on fires escaping initial attack. This is done through a

balanced application of suppression forces, including trained firefighters, support personnel, aerial and ground equipment.

Fire management includes the safe, effective use of controlled fire for a specific purpose. Controlled or prescribed fire is a management tool used for site preparation, forest regeneration, forest pest management, maintain certain natural community types to improve habitat for specific plant and associated wildlife species and to manage high hazard fuel types. In addition, prescribed fires can provide valuable training for suppression personnel.

#### **GOAL**

Provide wildfire protection to the level necessary to avoid loss of life and, considering values at risk, minimize the potential for loss of property and natural resources on public and private land. Improve the Department's ability to use controlled fire as a safe and effective vegetative management technique.

#### STATEWIDE DIRECTION

Wildfire prevention efforts will be accelerated. The public will be informed of the dangers of uncontrolled wildland fires and techniques that they can employ to prevent fires and minimize losses. This will be accomplished through cooperative efforts with fire departments and other agencies. The Division will actively support and participate in the national mobility of fire suppression resources. Presuppression planning and training will be emphasized with Division personnel and cooperators. Equipment capabilities will be strengthened to meet the growing challenges of the wildland/urban interface fire situation.

MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

Prevention

- The majority of the wildfires that are suppressed by fire departments are not reported. Methods to improve the reporting of these fires will be developed so the total scope of the fire problem can be identified.
- Intensify efforts to inform the public of the dangers of wildfire, methods to minimize losses and means to prevent fires.
- Identify and involve other agencies and organizations such as fire departments, i insurance carriers, zoning administrators, and private corporations in prevention efforts.
- Stress the enforcement of statutes designed to prevent wildfires as a deterrent and return suppression expenditures to the state.
- Provide additional training and information to the state's 2,000 plus Township Fire Wardens and encourage active participation in prevention efforts.
- Review and, if necessary, revise methods and regulations used to prevent railroad caused fires.
   This includes statutes, railroad fire patrols and railroad fire prevention methods.
- Integrate fire prevention goals in agriculture, forest and wildlife habitat programs.
- Identify property development in high fire hazard areas (rural/urban interface) and, in cooperation with local fire departments and others, emphasize prevention and hazard reduction to minimize danger to life and property.

#### Presuppression

- Strengthen cooperative wildfire protection systems by increasing investments in and cooperation with rural fire departments and other agencies.
- Establish and participate in the operation of the Minnesota Interagency Incident Command Coordination Center which will coordinate the suppression efforts of all Minnesota Incident Command System (MNICS) members.
- Strive to cooperate in the development and operation of a "full service" wildland fire management center for the purpose of increasing efficiency and sharing fire expertise among MNICS members.
- Increase training and strengthen relationships with fire departments to improve the protection of life and property in the expanding rural/urban

- interface.
- Develop regional plans to improve and streamline 911 emergency response contacts.
- Improve the general condition and capabilities of Department fire fighting and communications equipment so the rural/urban interface fire problem can be coped with. Establish standards for Division fire equipment.
- Actively support and participate in the national mobility of fire suppression resources.
- Develop and implement actions to solve the wildfire situation that has developed through cropland reduction and wildlife habitat programs in areas of the state that were largely immune to wildfire and now have problems beyond local fire department capabilities.
- Refine wildfire training direction by developing organization training responsibility levels, establish standards for trainers, determine specialist positions needs, channel individual employee training desires to organizational needs.
- Improve Division personnel's understanding of fire weather systems and the associated impacts of fire suppression preparedness levels. Train field staff to operate the BEHAVE computer program for predicting fire behavior.
- Modernize fire weather instruments and methods of collecting fire weather observations.
- Improve the fire weather forecasting system to allow better preparation for wildfire situations.
- Develop methods to integrate fire planning into regional planning, providing updates of local plans as needed using automated data processing and goegraphic information systems.
- Use fire planning information to establish baseline information for region and area presuppression budgets which would be based on historic fire data and anticipated staffing guides.
- Develop and implement plans to adjust permanent employee work schedules for the purpose of minimizing overtime.
- Develop guidelines for the expenditure of funds from the fire account.
- Using fire danger rating indices guidelines to establish area preparedness levels.
- Increase statewide fire staff to the numbers needed to develop statewide presuppression standards and cope with suppression coordination.
- Develop position descriptions, establish classifications, and secure funds to establish seasonal fire suppression positions which are now

hired and funded through emergency authorities.

- Increase the Regional Manager's role in coordination of Area fire management activities.
- Increase cooperation between districts, areas and regions in fire protection activities.
- Support establishing a full time fire cache manager, a fire cache repair person and an electronics technician in the Bureau of Field Services so that the existing fire cache and communication system can continue to be maintained in a quality manner.
- Train equipment operators in maintaining fire equipment as part of their training program.

#### Suppression

- Develop regional and area command organizations to provide for adequate staffing and decision making during emergency situations.
- Improve the mobility of personnel and equipment between areas and regions for prepositioning and suppression of fires.
- Using the joint U.S. Forest Service/Division economic analysis, explore joint suppression capabilities and develop dispatching procedures that provide an efficient mix of resources.
   Evaluate such actions for the purpose of reducing protection imbalances with the U.S.
   Forest Service.
- Strengthen training in basic fire suppression methods and equipment application using tools such as the fire simulator and equipment.
- Strength the interagency use of aircraft in fire suppression by developing local interagency standards and where necessary incorporate national standards. Apply such applications to the protection imbalance.

#### Fire Management (prescribed fire)

- Expand efforts to train other DNR personnel to conduct prescribed burns.
- Emphasize the need for all prescribed burning to follow the policies and procedures established in the Department's prescribed fire operational order.
- Develop a method of post burn evaluations for the purpose of refinement of prescriptions.
- Encourage the use of prescribed fire on private lands through efforts such as the Private Forest

- anagement Program to encourage wildlife habitat development and hazard reduction.
- Increase cooperation and communications between and within DNR disciplines in fire management activities.
- Increase use of prescribed burning as a training tool (i.e., hazard reduction burns).
- Enhance efforts to inform the public of the benefits of prescribed burning and the differences between controlled fires and wildfires.
- Seek funding for an expanded prescribed burning program.
- Develop prescribed fire prescriptions for vegetation management that addresses all factors and impacts of the prescribed burn.
- Promote the use of Best Management Practices (BMP's) on prescribed burns to ensure water quality is maintained.
- Review prescribed burn policies and procedures through a interdisciplinary Department committee.

#### LAW ENFORCEMENT

#### **ACTIVITY DESCRIPTION**

The Division of Forestry is responsible for enforcing statutes related to the prevention of wildfires. This authority was granted after many people lost their lives to wildlifes around 1900. The 1990 legislature reaffirmed the potential for loss of life and property by amending Minnesota's arson laws to include wildfires. As of August, 1990 it is a felony to set a wildland fire with the intent of allowing it to burn out of control. Other statutes charge the Division with the collection of fire suppression costs and damages when a statutory violation results in a wildfire.

Over the years, the Division has been given responsibility for enforcing laws relating to state timber trespass, state land timber sales, state tree nurseries, cutting and transporting Christmas trees, regulating woodlot management and school forests, land management and recreation. Today, the major areas of Division involvement in law enforcement include: 1) wildfire investigation and related law enforcement; 2) state land timber trespass investigation and enforcement; 3) timber sale regulations; and 4) Division of Forestry recreational area rules and regulations.

#### **GOAL**

Provide compliance with state statutes to prevent wildfires, to protect the public's interest in state land and its assets and to ensure that the public can safely enjoy the Division's recreational facilities.

#### STATEWIDE DIRECTION

The enforcement of statutes, for which the Division is responsible, will continue to be a cooperative effort with the Division of Enforcement. The program will be guided by standards established in the Department's law enforcement policies and the Division's Law Enforcement Manual.

The Division of Enforcement will place special emphasis on the enforcement of wildfire statutes

during periods of fire danger. In addition,
Conservation Officers will stress public cooperation
with statutes during other times of the year.
Conservation Officers will continue to provide
assistance with the enforcement of rules and
regulations on Division of forestry recreational
units. The Division of Enforcement's role in the
enforcement of statutes relating to timber and other
property under Division of forestry administration
will be defined.

As part of a continuing emphasis of fire prevention, enforcement of statutes relating to wildfire will be accelerated. This will require additional training and the cultivation of relationships with County Attorneys and court systems.

- Continue to strengthen cooperative efforts with the Division of Enforcement.
- Increase enforcement of statutes relating to wildfire and collection of fire fighting costs for the purpose of fire prevention.
- Seek methods to acquire the necessary equipment for forest officers to carry out their responsibilities.
- Comply with training standards established in the Department's law enforcement policy.
- Develop a method of public reporting of wildfire statute violations similar to the Turn-in-Poachers (TIP) concept. This may include development of an arson hotline, or it may be included as part of the TIP program.
- Review and update the Department's air quality agreement with the Pollution Control Agency.
- Increase training and experience base of the Arson Team members.
- Provide increased refresher training for Level II Officers.
- Redefine the relationships between wildfire prevention statutes and the Pollution Control Agency's rules and regulations for open burning with the objective of meeting public needs in both areas and to minimize public confusion.

• Strengthen the investigation and prosecution of state land theft and trespass on state land.

# Forest Resource Information and Planning Program

MINNESOTA FOREST
RESOURCES PLAN



#### FOREST RESOURCE ASSESSMENT AND ANALYSIS

#### **ACTIVITY DESCRIPTION**

Forest Resource Assessment and Analysis (FRAA), formerly called Forest Inventory, has been responsible for collecting and processing forest resource information since 1976. The program has and will continue to change in response to diverse user needs, improved technology, budget fluctuations, personnel shifts and continuing demands on the resource.

The resource assessment and analysis group faces five clear challenges:

- To support a field commitment to the inventory process.
- To inform the public as to what resource assessment is and what it can and does do for Minnesota.
- To expand and change survey efforts to capture new (non-traditional) data, capitalize on new environmental initiatives and incorporate developing technologies.
- To streamline the process of getting inventory data to users in a cost-efficient manner.
- To cooperate in producing an accessible and user-friendly inventory analysis program.

The program currently includes the Resource Assessment, Remote Sensing and Biometrics activities in the Division of Forestry. Programs continue to change to meet the demands of budget restrictions and client needs. In the area of field survey, the State's commitment for contracting of Forest Inventory and Analysis (FIA, formerly Phase 1) fieldwork was completed in June of 1990. Analysis and reporting on this new file will continue into 1994. Updating of the Cooperative Stand Assessment (CSA, formerly Phase 2) file will now be done with Division staff; as contract dollars were shifted to cover field salaries. Update projects will now be scheduled through the regions. Program staff will develop the template, process and tools to make the Areas self-sustaining on CSA management updates. Quality control will remain a program priority. The Remote Sensing program will provide new photography and image processing

on a five to ten year cycle to prompt formal comprehensive covertype redrawing outside the activities of management updates (eg. natural change, model verification and special projects). Geographic Information Systems technology will then provide updated boundary maps designating stands needing remeasurement. Field survey will then be initiated using programmable data recorders whose files can be directly off-loaded to the Area computer.

#### Resource Assessment (RA)

RA is the portion of the FRAA program that deals with the design and field implementation of the FIA, CSA, and special inventory projects. The staff cooperates in the design and implementation of resource inventories on private, county and military ownerships. It provides survey information for the development of old growth tables, fixed radius growth plots and site index evaluations.

The objective of the RA unit is to provide an accurate assessment of present conditions and changes in the natural resource data base by:

- A. maintaining FIA permanent plots and data base,
- B. maintaining and updating the CSA,
- C. conducting special projects (in cooperation with other public agencies).

#### Remote Sensing (RS)

Remote sensing is the technique of data gathering without being in direct contact with the observed objects. Remote sensing techniques include the use of both photographic and non-photographic sensors. Remote sensing activities are designed to produce photographic and other interpretable imagery to use as a tool in resource management. The objectives are to: educate resource managers on the capabilities of remote sensing products, interpret these products and promote their increasing use in Division management activities.

New initiatives in image processing will tighten the tie between RS and GIS by front-ending vector updates and identifying areas of natural change that need ground checks.

#### **Biometrics**

The Division Biometrician provides analyses for industrial expansion, inventory data summaries, survey design reviews, computer graphics, growth projections and special reports. He maintains a close working relationship with the Intertechnologies Group (formerly IMB - Information Management Bureau, Department of Administration) and department and university biometricians and research analysts. As the new FIA data comes on line, analysis and summary requests will increase.

Routines will be developed and implemented to grow forward Phase 2 stands and identify the need and timing for field revisits to these projected stands.

#### GOAL

Integrate all inventory activities into a comprehensive assessment program that provides accurate information in response to changing user needs and expanded applications.

#### STATEWIDE DIRECTION

With the completion of State FIA field work in 1990, program emphasis shifted to analysis of the file and information transfer to interested publics. CSA updates will continue as a line organization function with program oversight and enforcement. Integrated survey efforts will expand through the Camp Ripley Land Condition Trend Analysis Project, Cooperation with the Natural Heritage and County Biological Survey projects, joint LCMR projects and DNR ecological classification systems development.

The resource analysis group also seeks to expand and modify survey efforts to capture new (nontraditional) data, and to incorporate developing technologies. Remote sensing image processing front ended to a Geographic Information Systems (GIS) are examples of technologies that provide for collecting, synthesizing and analyzing diverse, sitespecific data. Such methods promise to improve land management capabilities by making data more readily accessible in a timely and useful format.

Front end the inventory update process by using image processing to update covertype boundaries and identify areas needing field checks. Automate field data collection by using data recorders with direct down-load to area personal computers. Provide menu driven update and analysis packages for area use.

## MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Resource Assessment

- A. Establish the Minnesota "Continuous Inventory" program that includes ongoing and cyclic updates of the FIA (Phase 1) and CSA (Phase II) data base in conjunction with expanded remote sensing capabilities and the development of a Division geographic information system.
  - Seek and maintain adequate funding levels.
  - Request funding from other agencies that benefit from the inventory information.
  - Maintain the FIA on a 10-year cycle.
  - Process CSA alterations and updates on a timely basis.
  - Establish priorities for the conversion of hand drawn maps.
  - Reassess 10 percent of each area's land base annually (CSA).
  - Where possible, use available funds to accomplish fieldwork.
- B. Maintain a qualified field survey crew in Grand Rapids to set standards, write contracts, direct and quality check field survey efforts.
  - Set standards for CSA and FIA field survey.
  - Establish quality control checks for all field survey including alterations.
  - Develop the FIA and CSA into comprehensive multiple-use inventories.

C. Provide continuing education for the Division's Inventory Specialist in the areas of field survey, remote sensing, biometrics and geographic information systems.

#### **Biometrics**

- A. Expand biometric analysis and improve the utility of the continuous forest inventory data for multiple-use forest development in the state.
  - Establish joint appointments or work assignments with the Division's Forest Information Systems staff.
  - Strengthen ties with the North Central Forest Experiment Station and the University of Minnesota through joint projects.
  - Lead the development of GIS modeling efforts in the Division while cooperating with FIS staff.
  - Lead the analysis and reporting of the new FIA file.

#### Remote Sensing

- A. Continue to expand and develop the remote sensing program:
  - · Continue the university intern contract.
  - Continue interaction with the University of Minnesota Remote Sensing Lab and North Central Forest Experiment Station.
  - Continue interaction with line organization on projects and training.
  - Provide for a timely update of high altitude photography, 35mm and 9x9 photography.
  - Test and implement the findings of the NASA grant project on covertype updates from satellite data.
  - Implement image processing in the Division.
  - Test airborne video technologies for covertype updates.

#### FOREST PRODUCTS UTILIZATION AND MARKETING (FPU&M)

#### **ACTIVITY DESCRIPTION**

Funding and technical assistance from the U.S. Forest Service provided the initial impetus for developing Minnesota's FPU&M program. The Division has participated in the program since its inception in 1966. The program was administered by a single staff forester until 1976. In 1976 the staff was increased to three and later to five. Since 1980 the FPU&M program has been staffed by seven foresters located in four regions and St. Paul. The seven- member FPU&M program staff work cooperatively with the other agencies and organizations involved in developing Minnesota's wood resources.FPU&M program activity falls within five broad categories; Division of Forestry initiatives, public awareness, forest products marketing, forest products economic development and wood energy development.

- A. <u>Division of Forestry Initiatives</u> The FPU&M program influences the Division's area, region and statewide planning and operations by providing an overall marketing perspective through reports, meetings and workshops. FPU&M staff also serve an active role as liaison between the Division and wood based industry.
- B. <u>Public Awareness</u> The FPU&M staff has raised the awareness of various publics on the need for forest management and the positive impacts of Minnesota's forest products industry through presentations, fact sheets, articles, tours and workshops.
  - Major clients include other state agencies, statewide news media, legislators, private organizations and civic groups.
- C. Forest Products Marketing Forest products marketing is aimed at bringing the needs of wood products producers and consumers together. FPU&M staff, in cooperation with the MN Extension Service, publish a bimonthly marketing newsletter (2600 circulation), a forest products price report, and a periodic roundwood market outlook. More than a hundred individual marketing requests are assisted annually. A

- comprehensive wood products marketing directory is published every three to five years. This marketing initiative has resulted in over one million dollars per year of increased business in the forest products industry.
- D. Forest Products Economic Development Economic development activities have been extremely successful in the past; approximately \$3 billion in capital improvements will be invested in the state by wood industries between 1979 and 1995.
  Rather than continued expansion of the use of Minnesota's resources, development emphasis will shift towards analyzing new forest inventory data to monitor resource availability, promoting secondary or value-added industry, business management and improved processing and logger efficiency.
- E. Wood Energy Development Once a means for promoting greater use of under-utilized species, wood energy activities now emphasize use of excess mill residue. Stockpiled sawdust and bark present potential environmental problems, while commercial combustion of mill residues can reduce air pollution produced by coal burning facilities. Since 1980, the number of commercial wood energy users has grown from less than 25 to over 200.

#### **GOAL**

Direct the proper use of Minnesota's wood resources; increase the economic benefits derived from the production of forest products within the state; increase the wood-using efficiency of Minnesota's forest products industry; and provide forest resource and forest product information to the forest products community and the general public.

#### STATEWIDE DIRECTION

Division initiatives will include continued FPU&M

input into Statewide and Region Plans. Emphasis will be on awareness opportunities for foresters regarding visual management on timber harvests, timber sale design to provide better operating efficiency for loggers, and hardwood management direction.

Timber related issues have recently received a great deal of public interest. As the level of timber harvesting increases throughout the state, the visibility of harvested areas will also increase, as will the need for public understanding of basic forest science and Minnesota's wood industry. Public awareness, therefore, will be a priority in the next decade.

Marketing, bringing the needs of wood products producers and consumers together, is an area of expertise lacking in many smaller wood products companies. FPU&M staff will continue to provide marketing assistance to industries as well as explore new markets for Minnesota wood products. One additional full-time staff position for secondary marketing and processing assistance will be sought to handle the increased workload in the Metro Region.

FPU&M staff have been working cooperatively with other agencies to assure orderly and proper growth of new and expanding wood-using industries in Minnesota. As optimum utilization of Minnesota's tree species approaches, careful analysis of new forest resource data will determine availability and aid in direction of proper use. Economic development activities will emphasize value-added industry rather than primary industries. FPU&M staff will assess new wood processing technologies to better advise producers. Business and silviculture education for the logging community will be a priority.

Interest in wood energy has been low in recent years, but could increase substantially should another fossil fuel shortage arise. Emphasis will be placed on use of wood residue as an industrial fuel and minimizing conflicts between commercial and energy use of the wood resource.

- Improve Division of Forestry responsiveness by acting as a liaison between the Division and other clientele.
- Increase public relations benefits to Division of Forestry and DNR from FPU&M activities.
- Promote the economic and environmental importance of Minnesota's wood resources and forest products industry.
- Identify and promote market opportunities for Minnesota forest products.
- Increase the flow of market information within the forest products industry.
- Identify and promote value-added industries that can utilize a Minnesota resource.
- Provide wood products manufacturers with technical and processing assistance.
- Assess the availability of wood for energy and promote the use of wood residue for energy in commercial and industrial applications.

#### FORESTRY INFORMATION SYSTEMS

#### **ACTIVITY DESCRIPTION**

In 1982, with funding provided by the Legislative Commission on Minnesota Resources (LCMR), the Division completed its first plan to guide the development of a management information system (MIS). In 1989, a new Forestry Information System (FIS) plan was completed which took account of the progress made in implementing the earlier plan and the changes in hardware and software technologies. This plan, entitled the Forestry Information Systems Blueprint, addresses equipment, computer applications, Division data needs and MIS staff and support questions. The Division's mission served as the main criterion driving the development of the forestry information system (Blueprint) plan, and will guide the implementation and operation of the Division's information systems. The Blueprint places special emphasis on data as a key component of the Division's information systems, a component that links and integrates Forestry with other division's.

The major activities of the Forestry Information System program are: integrated system design, systems development and maintenance, systems training and information, and hardware and software acquisition and support services. These activities are detailed below:

- A. Integrated System Design The Blueprint calls for the integration of the Division's management information and geographic information systems staffs and projects. Since the integrating factor is the Division's shared data, the development of a standard database design, or global data architecture, is required. This design will address the needs of all the programs carried out in the Division, and will provide a framework for all systems development work in the division. This data architecture will be maintained and modified as new needs are identified and management needs change.
- B. Systems Development and Maintenance -The completion of the global data architecture will allow the development of

new information systems in support of the Division's programs and business functions. Program managers will assume major responsibility for the development of new systems in order to obtain management commitment to their systems. Both program-specific systems (e.g. timber sales) and administrative support systems (e.g. word processing, electronic mail) will be provided. Where possible, existing systems or shared resource approaches to systems development will be utilized (e.g. DNR-standard systems).

C. Systems Training and Information - User training and ongoing support are key to the successful development and operation of computer systems. The FIS unit assesses training needs, evaluates training opportunities and recommends computer training for Division personnel. Training can beoffered by FIS personnel or by sources outside the Division. A Forestry computer newsletter will communicate system news and training opportunities to the Division.

As part of the implementation of the Blueprint, a FIS liaison network will be established, headed by a User Support Liaison in St. Paul. Each area and region will be represented in this user network.

D. Hardware and Software Acquisition and Support Services - Assessing equipment and commercial software needs, installing and maintaining equipment for statewide systems are essential support functions provided by the FIS program. FIS also offers technical assistance to Division personnel in equipment and software evaluation and operation.

FIS provides assistance to Forestry computer users in diagnosing and servicing malfunctions, installing equipment and software, and providing other needed support services.

GOAL

To coordinate, develop, and maintain the Division's information systems.

#### STATEWIDE DIRECTION

The Blueprint lays out the future FIS activities for the Division, focusing on the development of the data resource and the need to integrate systems activities. Increased cooperation between Forestry and other DNR units with common interests in the data will be seen. Information system applications have been identified for development, and development of new applications will begin after a global data design has been completed. Geographic information systems planning at the Department and State level will likely result in increased cooperation with Divisions, Bureaus and agencies outside the Division of Forestry.

## MAJOR STRATEGIES AND OBJECTIVES FOR F.Y. 1991-1995

#### Integrated Systems Design

- Develop a global data architecture which addresses all Division programs.
- Integrate geographic and non-geographic systems through a comprehensive design process.
- Eliminate duplication and redundancy in data collection, storage and maintenance while improving accuracy.

#### Systems Development

- Develop and maintain effective information systems.
- Involve program managers in the design and development of their information systems.
- Address administrative as well as resource management needs of the Division.

#### Systems Training and Information

- · Establish a FIS user network.
- Evaluate training needs and schedule needed training classes.
- Improve communication throughout the Division by publishing a computer user newsletter.

#### **Equipment Acquisition and Support Services**

- Coordinate Division hardware and software acquisitions and upgrades.
- Coordinate Division equipment acquisitions with DNR and other cooperators.
- Provide advise and assistance to computer users.

#### FOREST RESOURCE PLANNING

#### **ACTIVITY DESCRIPTION**

The Forest Resource Planning Program provides essential planning services that allow the Division of Forestry to accomplish its mission. Minnesota Statutes Section 89.011 directs the DNR to prepare and maintain a Statewide Forest Resource Management Plan consisting of an Assessment and Program. Minnesota Statutes Section 89.012 authorizes development of Regional Forest Resource Management Plans to set forth specific goals and objectives for the management, protection, development, and production of forest resources. The Forest Resource Planning Program provides environmental review services for the Division as required by DNR Operational Order 40. The planning program's role in policy development is outlined in Circular Letter 1500-5.

Major planning program responsibilities include:

- Develop and update the Minnesota Forest Resources Plan (MFRP).
- Coordinate development of Regional Forest Resource Management Plans .
- Facilitate the Division's annual work planning and accomplishment reporting efforts.
- Provide environmental review and policy development services.
- Coordinate the Division's plans with those of the Department, other DNR Divisions, and other agencies.
- Special project assignments.

Forest Resource Planning Program accomplishments over the past five years include:

- MFRP Program for 1987 1991.
- Area Forest Resource Management Plans for Moose Lake, Park Rapids, Orr, Lewiston, Cambridge, and Baudette.
- Development of a Regional Planning Guide and initiation of the planning process in Regions 1 & 2.
- Annual Work Plans and Annual Accomplishment Reports.
- Updating of cooperative agreement and Circular Letter indices.
- · Planning staff mobility assignments for

Metro Region planning and supervision, development of the Forestry Information Systems Blueprint, and the Generic Environmental Impact Statement on Timber Harvesting.

The number of full time equivalents spent on planning activities in the Division has fluctuated between 10.5 and 12.6 over the past five years. The most significant trend related to planning program staffing has been the changing proportion of time spent on planning by St. Paul and field personnel. In fiscal year 1985, St. Paul staff accounted for 81 percent of the time spent on planning. By fiscal year 1989, St. Paul staff constituted only 47 percent of FTEs spent on planning. This trend toward increasing field involvement in planning activities reflects increasing emphasis on area and regional planning and the decrease in the size of the St. Paul planning staff.

#### **GOAL**

Provide strategic and land management planning services for the Division of Forestry.

#### PROGRAM DIRECTION

In fiscal year 1991 the priority for statewide planning will be to complete the 1991 - 1995 MFRP Program update. In 1992 and 1993 the Lake States Assessment and MFRP Assessment will be prepared. There will probably be significant changes in the annual work planning and accomplishment reporting procedures as a result of the current project to improve the Division's management control systems. In 1994 and 1995 there will be a major revision of the MFRP Program to respond to the findings of the Assessment.

The current effort to decentralize unit planning will continue. Regional Planners will be assigned to Region 3 and Region 5-6. Regional Foresters will assume responsibility for regional plan development and implementation. St. Paul staff will play a

coordination role to maintain consistency between regions. The desire to further integrate natural resource management activities and to maintain biodiversity are likely to have a major impact on how DNR land management plans are developed. Land management planning will increasingly use Geographic Information Systems (GIS) technology.

Environmental review and policy development will require increasing attention as the Division's operations come under more intense public scrutiny. Management policies and guidelines will have to be thoroughly reviewed and rigorously applied.

- Maintain the MFRP Assessment and Program so that they are up-to-date and provide clear direction for Minnesota forestry programs.
- Prepare Regional Forest Resource Management Plans that are consistent with the MFRP and that provide clear program and land management direction. Add Regional Planners in Region 3 and Region 5-6. Shift St. Paul staff role in regional planning to one of coordination and monitoring.
- Expand efforts toward developing a landscape based integrated resource management initiative.
- Train staff in the use of GIS technology in land management planning.
- Improve the Division's management control systems. Modify the annual work planning and accomplishment reporting processes. Develop more effective budgeting and expenditure monitoring procedures.
- Develop and revise Division of Forestry policies and manuals in cooperation with program staff and managers.
- Provide general planning services and support for the Division of Forestry. Provide meeting planning, facilitation, and mapping services.
   Provide staff support for the Director in his role as a member of the Lake States Forestry Alliance. Represent the Division on departmental committees.
- Coordinate Division review of internal and external plans, policies, and administrative

- documents. Facilitate Department and public review of Division documents.
- Develop resource based (as opposed to program based) monitoring criteria to assess the need for plan revision.
- Conduct a thorough review of the Forest Resource Planning Program including an analysis of the services provided, staff organization, and possible reclassification of positions.

#### **PUBLIC AFFAIRS**

#### **ACTIVITY DESCRIPTION**

The Division of Forestry's Public Affairs efforts are intended to inform and advise various publics and clientele of the Division's programs and services. Information efforts supplement those of the DNR's Bureau of Information and Education, and serve to cultivate public appreciation for natural resource management, protection, and development. An effective public affairs program can also provide a feedback mechanism for DNR Forestry to collect input from key clientele, cooperators, and the public.

#### GOAL

Achieve increased public awareness and understanding of the Division; its programs, products, and services.

#### STATEWIDE DIRECTION

Over the next five years, additional public affairs staff will be sought to supplement time currently dedicated to the program. Dollars for an expanded program to develop more informational material such as brochures, tabloids, posters, and teacher curricula will also be sought. Strong efforts will be made to help people understand timber harvesting and how their "consumer attitudes" directly influence forest management activities. More of the Division's staff will be drawn into information and education efforts to handle the publics's increasing environmental concerns.

- Focus more staff time on information and education activities.
- Identify regional contact that has public affairs program responsibility
- Strengthen public affairs skills and abilities of Division personnel.
- Allocate financial resources to high priority

- opportunities.
- Establish and maintain media contacts.
- Develop marketing strategies for the Division and incorporate into employee's daily activities.
- Organize a task force that identifies issues and strategies concerning timber harvesting and develop materials that inform department personnel and the public about these issues and strategies.
- Promote the interagency coordinating committee composed of public affairs specialists representing the state's forestry community.
- Include public affairs elements in all ongoing management planning and decision-making.
- Sponsor the Project Learning Tree (PLT)
   program in cooperation with the Department of
   Education and organize statewide PLT
   workshops.
- Determine annually the direction the Division should take to promote its programs, target the audiences it wishes to reach, and assess what types of printed materials it needs (recreation maps, brochures, teacher curricula, etc.).
- Plan/participate in special events like the Minnesota Forestry Fair to help people understand more about forests and the environment.
- Participate annually with the Department of Agriculture and an advisory committee in organizing the state's Arbor Day/Arbor Month program.
- Draft necessary policy directives for clear definition of Division information and education roles and responsibilities.
- Promote forestry facilities and services.
- Cooperate with the DNR Bureau of Information and Education and with region information and education personnel.
- Conduct periodic forest user surveys to assess public needs and expectations.

## Administrative and Technical Support Program

MINNESOTA FOREST RESOURCES PLAN



#### **HUMAN RESOURCES DEVELOPMENT**

#### **ACTIVITY DESCRIPTION**

Managing the human resources of the Division is just as important and as challenging as managing natural resources. The state's human resources management function is conducted within a framework of laws, rules, bargaining unit agreements and generally accepted practices. The Division's Human Resources Development program is regulated by Department of Employee Relations Administrative Procedures 21 A-E, Department Operational Order #13, Department Personnel Memorandum #30, and Statutory Reference 43A.21. Within DNR it is complicated further by the complexity of the Department and the dynamic nature of its activities. In addition, pressures from the "outside" affect the DNR system, such as an aging workforce, baby boom bulge, early retirement options, and so on.

The Division is taking positive steps to adapt to a changing workforce and changing clientele needs/demands through its Human Resources Development Program. By doing so it can establish a climate that enables its employees to be successful. The major elements of the program include recruitment, selection, orientation, training, education and development of all Division personnel.

Through this program the Division seeks to appoint the best available candidates to vacant positions within the guidelines established by statute, policy, and procedure (including Affirmative Action). The program also provides personnel with in-service training to improve knowledge, skills and abilities needed to function effectively in their current position. Education opportunities are also made available to enable personnel to effectively deal with an ever-changing environment. Career development assistance is provided to all employees where it is determined to benefit both the individual employee and the State.

#### **GOAL**

Obtain the best possible productivity from the

Division's human resources by implementing human resource planning strategies designed to put the right numbers and kinds of people in the right places, at the right time, doing the things that result in the Division accomplishing its goals and objectives.

#### STATEWIDE DIRECTION

The Division needs to continue to develop and refine its in-service training and continuing education, and development efforts. The strategy includes strengthening in-house course offerings, and taking advantage of course offerings of other academic and continuing education organizations. We will meet the needs of people to accomplish their present tasks, and to prepare them for future needs. Emphasis will be on increased supervisory training and on implementing methods of keeping current employees satisfied and motivated within their present jobs, and on improving the quality of training.

- Use effective human resources planning strategies to improve overall productivity of the Division's workforce.
- Develop and strengthen technical skills, management and supervisory skills. Use
   4 percent of Division time and budget resources to accomplish this.
- Recruit capable personnel for the Division; adopt a proactive approach.
- Continue Trainee Program
- Maintain the student intern program.
- Actively pursue the Department's affirmative action goals.
- Complete a classification study of all Division technical positions.
- Continue implementation of the Division's Annual Individual Training Plan Development Program. Use training NEEDED information to schedule Division training.
- Include participation of all working classes in

- the Division Human Resources Development Program.
- Orient and evaluate Entry Level Professional Foresters using 6-12 month field mobility assignments.
- Incorporate human resource planning into the routine daily planning functions of Division Management.
- Implement a Management Training Program in the Division of Forestry.
- Use training, education, and development opportunities outside of state government to complement and diversify the program.
- Use all training, education and development methods (i.e., audio tapes, video tapes, books, periodicals, public and custom design seminars, and local and community colleges) to strengthen and diversify the program and improve cost efficiency.
- Develop and implement Division-wide policy encouraging personnel to use self-help training opportunities.
- Use training, education, and development opportunities outside of the areas of traditional professional forestry training to fill the gaps left by traditional academic forestry training.
- Use mobility assignments throughout the Division and Department to strengthen and diversify Division employees knowledge, abilities, skills and experience base.
- Recognize individual accomplishments in the areas of training, education and development.
- Promote cooperative training and continuing education efforts with all natural resource management agencies.
- Recognize employee's accomplishments through an active Rewards and Recognition Program.

#### MAINTENANCE AND ADMINISTRATION

#### **ACTIVITY DESCRIPTION**

Maintenance and Administration covers the overhead costs that cannot be easily allocated to the Division's other programs. The major activities included in the program are building and equipment maintenance, and fiscal and personnel services.

The Division maintains some 297 buildings and 852 motorized vehicles and heavy equipment.

The time and expenses of administering worker's compensation and unemployment claims are accounted for through this program, as are capital improvement expenditures. Efforts are underway to improve replacement and maintenance schedules for equipment and facilities, consistent with the development of Division programs and responsibilities.

Major objectives include the need to administer union contracts fairly across work units, assure consistency and timeliness in fiscal matters, and to develop budgets and spending plans, including a long-range capital improvement budget. Equipment and buildings must be well maintained, and the safety of every employee must be ensured.

The maintenance and administration unit is also charged with developing new legislative initiatives and monitoring the ongoing legislative process. The Division's Legislative Committee conducts periodic meetings, assembles and distributes legislative fact sheets, and staffs a rotating legislative liaison officer position during legislative sessions to serve as a key contact and source of information.

#### **GOAL**

Administer fiscal and personal matters to achieve the goals of the Division's programs and to assure compliance with State policies and procedures; to maintain property and equipment to ensure employee safety; and to present a pleasing appearance to Division stations.

- Improve personnel and fiscal support services provided to program staff and supervisors.
- Assess capital improvement needs and develop long-range capital improvement budgets.
- Seek economical alternatives to building maintenance and repair while maintaining the safety of the buildings.
- Provide liaison to the Commissioner's Office, Field Services, and Regional Administration on the distribution of equipment and equipment dollars.
- Continue to implement the Division's office consolidation plan resulting in reduced administrative costs and increased efficiency in area operations.
- Pay all bills within 30 days as required by law
- Promote decentralization of the bill paying process to the region level.
- Administer the cost coding program in a manner consistent with the department wide system while maintaining the integrity of the Division's labor and cost distribution records.
- Assure that the Division operates within Statewide policy and procedures as required by the Department of Finance and the Department of Administration.

