PLANNING NOTE

DEPARTMENT OF NATURAL RESOURCES

A MODEL FOR IMPLEMENTATION OF A STATEWIDE FOREST RESOURCE PLAN

A Case Study in Minnesota

INTRODUCTION

Implementation and monitoring are important but often overlooked steps in the planning process. Implementation is the execution of a selected course of action which transforms conceived strategies into results. Monitoring is a systematic review of work completed and results being achieved while executing the selected course of action. This course of action, consisting of goals, objectives, priorities and strategies is set forth in the Statewide Forest Resources Plan (SFRP). To successfully implement the SFRP it should be linked to various management processes of the implementing agency's management model.

Planners play an important role in designing and implementing an effective management system to assure that the desired results contained in the SFRP are achieved. These management processes must be monitored to assure that the SFRP is used in each part of the management system.

This paper describes a method to successfully implement SFRP's, describes the basic processes of a management system, identifies the links that exist between the various processes and identifies the links between the SFRP and each process. Examples used are based on what is being done in the Minnesota Division of Forestry.

MANAGEMENT MODEL

An effective management system can serve as the agency's method to implement the SFRP. It can ensure that resources are allocated to carry out the organization's objectives and to attain the desired results described in the SFRP. The natural resources field poses a special challenge when trying to set up a management system because of uncontrollable and unpredictable circumstances. Agreement can be reached on what needs to be done, when or where. However bad weather, severe fires, pest outbreaks, changes in the economy and markets for forest products, and political and social preferences are major factors that influence the agency's workload and when things are done. Flexibility in the agency's operations is needed to accommodate these influences.

A good management system includes program planning; budgeting; operations; and reporting and analysis. Figure 1 illustrates the Division of Forestry's management system. It identifies the Division's activities within each management process and the links between the processes.

Program planning is the process of making decisions about what the organization intends to do during a designated time period. The decisions are made within the

FIGURE 1

DIVISION OF FORESTRY
MANAGEMENT MODEL

Executive Direction
Legislature

BUDGETING
Biennial Budget

"Desired Budget"   "Actual Budget"

OPERATIONS
Annual Work Plans - State, Region, Area
Annual Spending Plans - State, Region, Area
Position Descriptions
Policies and Procedures

PLANNING
State Plans   "Tracking"
Area Plans
Program Plans

REPORTING AND ANALYSIS

Time Summaries
Accomplishment Reports
Fact Sheets
Budget and Expenditure Reports
Workload Analysis

EXTERNAL INFORMATION AND DIRECTION

Legislative Mandates
Administrative Law
Governor's Executive Orders   EXTERNAL INFORMATION
Department Policy and Procedures
                                            Federal Reporting
                                            Governor's Quarterly Reports
                                            Biennial Report to Legislature
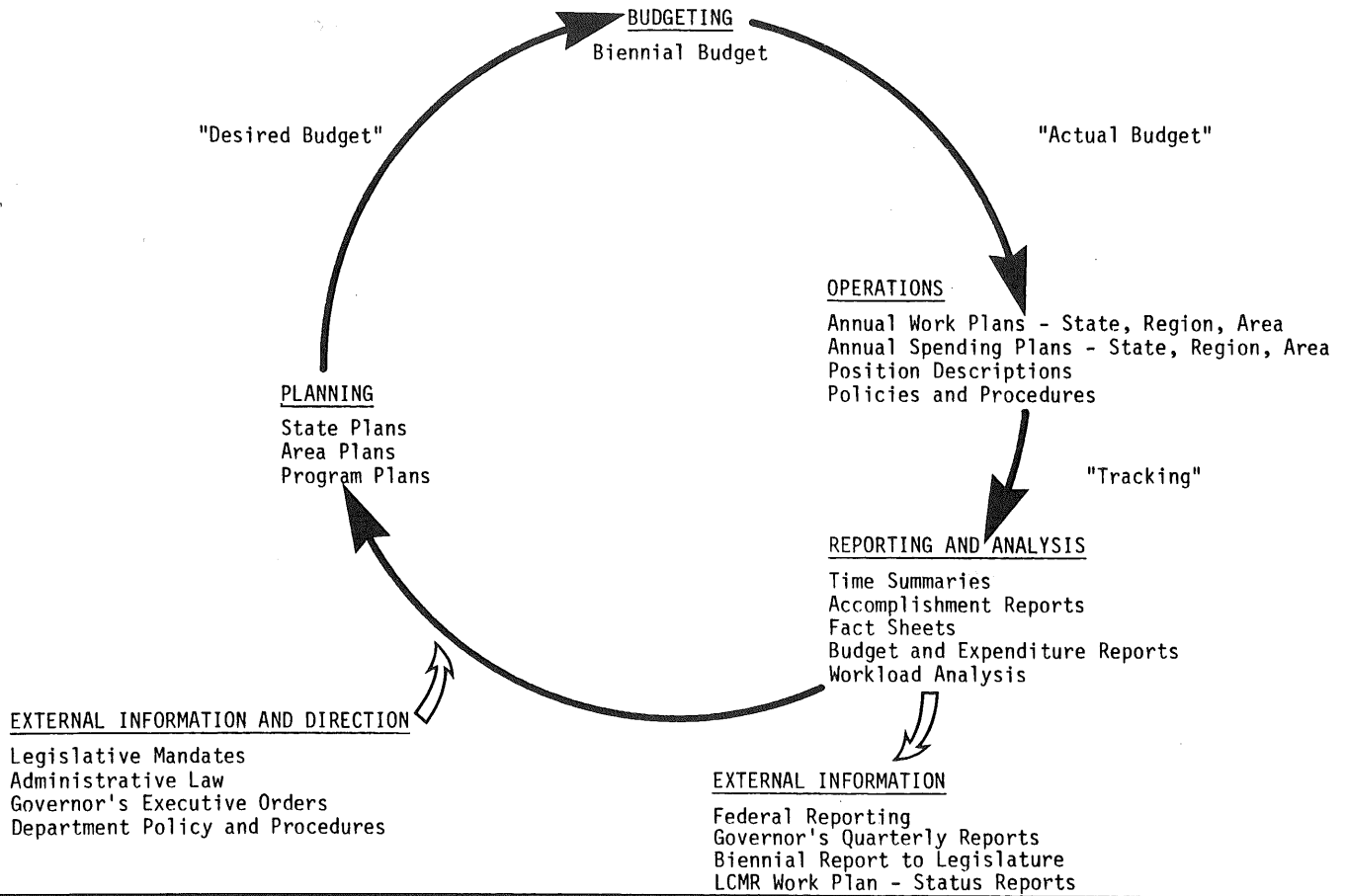   LCMR Work Plan - Status Reports

FIGURE 2

MINNESOTA DIVISION OF FORESTRY PROGRAM STRUCTURE

A Select Example

(This illustration does not include all the division's
programs or activities within the represented program.)
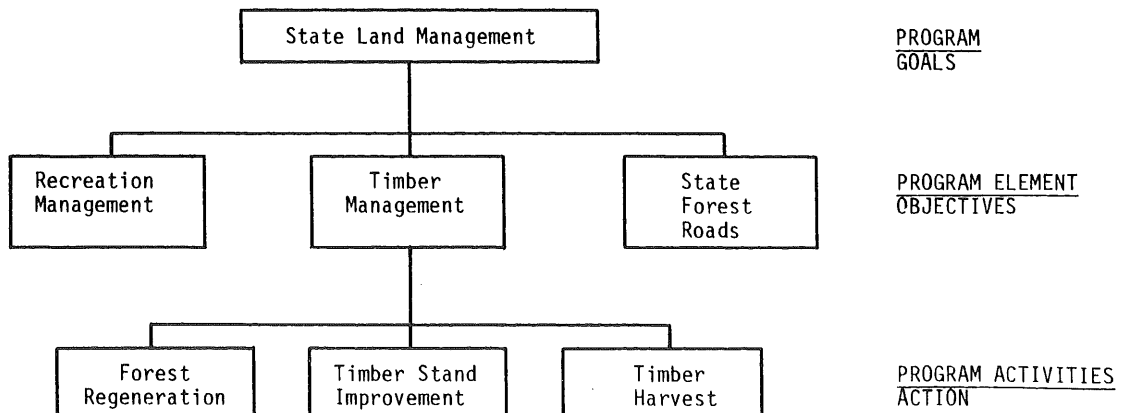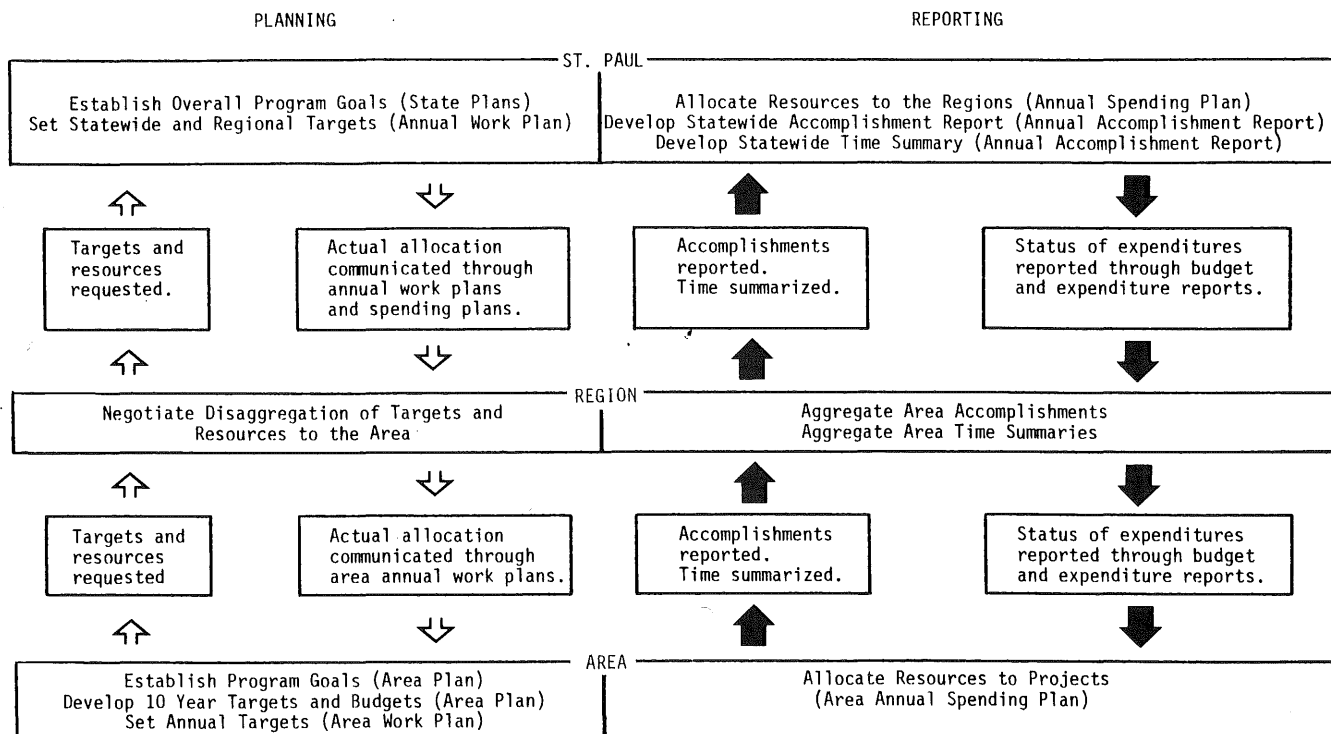
| State Land Management | | | PROGRAM GOALS |

| Recreation Management | Timber Management | State Forest Roads | PROGRAM ELEMENT OBJECTIVES |

| Forest Regeneration | Timber Stand Improvement | Timber Harvest | PROGRAM ACTIVITIES ACTION |

2

FIGURE 3

MANAGEMENT SYSTEM FLOW CHART
(Flow of the management system through the
different levels of the organization.)

PLANNING   REPORTING

──────────────────────────────────── ST. PAUL ────────────────────────────────────

Establish Overall Program Goals (State Plans)	Allocate Resources to the Regions (Annual Spending Plan)
Set Statewide and Regional Targets (Annual Work Plan)	Develop Statewide Accomplishment Report (Annual Accomplishment Report)
	Develop Statewide Time Summary (Annual Accomplishment Report)

| Targets and resources requested. | Actual allocation communicated through annual work plans and spending plans. | Accomplishments reported. Time summarized. | Status of expenditures reported through budget and expenditure reports. |

──────────────────────────────────── REGION ────────────────────────────────────

| Negotiate Disaggregation of Targets and Resources to the Area | Aggregate Area Accomplishments Aggregate Area Time Summaries |

| Targets and resources requested | Actual allocation communicated through area annual work plans. | Accomplishments reported. Time summarized. | Status of expenditures reported through budget and expenditure reports. |

──────────────────────────────────── AREA ────────────────────────────────────

| Establish Program Goals (Area Plan) Develop 10 Year Targets and Budgets (Area Plan) Set Annual Targets (Area Work Plan) | Allocate Resources to Projects (Area Annual Spending Plan) |

KEY   ( ) product of process
       * action taken

FIGURE 4

BUDGET ILLUSTRATION

TYPE OF DATA	YEAR 1 PREVIOUS YEAR	YEAR 2 CURRENT YEAR	YEAR 3 FUTURE	YEAR 4 YEARS
FIRE MANAGEMENT				
Cost Per Acre Protected (Efficiency Measures)	$.039	$.043	$.044	$.045
Average Acres Lost To Fire (Effectiveness Measures)	20.7	26.5	26.5	26.5
Fires Controlled (Work Statistics)	1,318	1,696	1,696	1,696
SOURCE OF INFORMATION:	Accomplishment Report	Annual Work Plans	SFRP	SFRP

context of the goals and strategies that were previously decided upon in the SFRP. Budgeting expresses, in monetary terms, the program for the budget cycle. Operations is the process of carrying out the program. During this phase, records are kept of the resources consumed and outputs actually achieved. Reporting and analysis compares planned outputs and inputs with actual outputs and inputs. This data is summarized, analyzed and reported to those who are responsible for programs and for improving productivity.

PROGRAM STRUCTURE

The objective of the Division of Forestry is to organize its management system on a program rather than function basis. (See Figure 2). A function is an activity which crosses program areas such as administration, equipment, maintenance, training, etc. A program includes all activities performed to accomplish a given objective.

Each management activity is structured according to the program areas identified in the SFRP. This permits spending to be matched to programs, provides program managers with budget and expenditure information which is necessary to make sound management decisions, and permits evaluation of the Division's operations on a program basis.

Robert N. Anthony and Regina E. Herzlinger in Management Control in Nonprofit Organizations, suggest the following criteria for selecting programs: "In a complex organization there may be several layers in the program structure. At the top are relatively few major programs and at the bottom are a lot of program elements; these are the smallest units in which information is collected in program terms. The program structure should correspond to the principal objectives of the organization. It should focus on the organization's outputs rather than inputs or sources of funding." The optimum number of programs in an organization is approximately ten. The rationale for this number is that top management cannot effectively weigh the relative importance of a larger number of disparate items for decision making. The Division of Forestry has six major programs and 22 program elements.

INFORMATION FLOW

Figure 3 illustrates the flow of information in the Division's management system through the different levels of the organization. The organizational structure of the Division of Forestry for planning purposes is: the St. Paul office is the central planning unit, the four regions are the decentralized planning unit and the 19 areas are the operational planning units. Objectives for the Division

are set by St. Paul Office staff in consultation with region and area staff. Money and targets to reach these goals are allocated to each region. The regions then provide direction to the area in carrying out the operations of the Division.

DESCRIPTION OF PROCESSES

PLANNING

The Division of Forestry has two levels of planning. The statewide forest resources plan is a strategic plan that sets long-term goals and strategies for the Division's programs. This plan is updated every four years and projects budget and staff needs for the following four years.

The Division also prepares plans for each of its 19 administrative areas. Area plans contain the long-range management direction for the area, disaggregating the statewide goals and objectives of the SFRP down to the area level and documenting opportunities to meet natural resources goals in the future. They contain guidelines for each program the Division administers in an area. Staffing levels, budget needs, program objectives and project priorities are laid out in the plan for a 10-year period. The SFRP provides the statewide policy and budget framework within which the area plans are developed.

Policy content shapes implementation by defining the context in which the process takes place, identifying the role of the participants, describing methods to be used to accomplish the objectives, and by supplying resources. Appropriate policies and procedures must be in place to carry out actions proposed in the SFRP. A commitment must be made to develop and adopt the necessary policies before the plan can be successfully implemented.

BUDGETING

An agency's objectives are funded through its budget process. In the budget phase, management determines the short-term financial and human resources needed to attain the agency's program objectives. In Minnesota, a program-type budgeting procedure has been used since 1977. The budget focuses on programs and program elements which represent the activities for which the funds are to be spent. This type of budgeting involves identifying specific objectives, designing methods to carry out approved programs, and identifying the resources and staff needed to attain the targeted objectives of a program. The purpose of a program-type budget is to assist the Governor and the Legislature in making basic policy decisions about the programs and activities they want to support by linking costs to goods and services provided.

The dominance of the budgeting process as a determining factor of implementing goals and objectives makes it imperative that the SFRP and substate plans be an integral part of the budgeting process and that the planning cycle be coordinated with the fiscal year. Objectives identified as priorities in the SFRP should be used in drafting the budget narrative.

The budget should be organized into a program structure consistent with the programs in the SFRP.

Figure 4 illustrates the type of information required in Minnesota's budget document and the parts of the management system that can supply that information.

OPERATIONS

The biennial budget establishes the actual budget level for the Division for a two-year period. This budget level determines what the Division will be able to do during that time period. The operational planning of the Division ties the long range plans to the actual budget appropriation. The Division's operations process includes annual work plans and annual spending plans at the state, region and area levels. It also includes position descriptions for all employees in the agency.

Annual Work Plans

The annual work plan is the tool that bridges planning and operations. Annual work plans are developed at the beginning of each fiscal year to set specific objectives and targets for the year, including staff and budget requirements. Targets are set statewide. Where appropriate, they are subdivided by administrative region. Annual work plans are guided by the direction established in the SFRP and are based on the actual budget appropriation and available staff time.

Presently, the Division's work plan is drafted in May, presented to the Regional Forest Supervisors at their June meeting and finalized in August after review by the regions. Area work plans are not now done but would be a useful way to communicate targets down to the level where many of the objectives are accomplished. This is particularly true for the traditional land management programs such as forest development, recreation, and timber management.

Annual Spending Plans

Spending plans serve as a financial guide linking the annual work plan to the operating budget. They translate the objectives identified in the annual work plan into the dollars needed to attain the objectives. Spending

plans are developed on a program basis with line-item expenditures identified within a program. (A line-item approach focuses on the objects of spending such as wages, fringe benefits, supplies, equipment, etc.) This directs the agency's financial resources to the appropriate programs, as identified in the annual work plan.

Position Descriptions

Responsibility for the activities described in the agency's programs are delegated to personnel through position descriptions. This ensures that someone in the organization is responsible for carrying out all program activities. Principal responsibilities identified in position descriptions need to relate to program goals and objectives of the SFRP and annual work plans. In Minnesota, position descriptions are developed for all employees in the organization.

Annual targets for each employee are established in the position description as performance standards. Performance standards are specific measurable goals that the employee intends to reach in a given period of time. They measure the quality and quantity of work to be performed and may specify the resources allotted to get the job done. The position descriptions should be reviewed annually as part of the employee appraisal process and should be updated periodically or when the SFRP is updated.

Tying work plans, accomplishment reports and position descriptions to performance evaluations creates a formal process not only to evaluate an employee but to evaluate the agency's progress in meeting its objectives. It also increases accountability and assures greater success in implementing the overall goals of the SFRP.

REPORTING AND ANALYSIS

The last process of the management system is concerned with reporting and analysis. This process is necessary not only for control purposes but to determine how well the program goals and objectives are being met. Information collected can be used to evaluate the effectiveness and efficiency of the Division's operations and for external reporting.

Two essential elements of a reporting system are:

1. information about how the organization is operating, and

2. standards against which to compare this information to judge how well the organization is operating.

Performance measures should be developed so that the data collected can be used by managers to identify problem areas. Identifying the problem areas requires comparing operations information to standards or benchmarks. Possible sources of such standards are an agency's goals, objectives, or targets; the organization's own historical performance record; and performance of similar organizations.

Reporting should take place regularly during the year and at year end. Management should compare actual results to planned results, actual revenues and expenditures to estimated amounts, and overall operating accomplishments to the SFRP. Operating decisions will be enhanced with adequate reporting and will help the organization move towards its long-range plan.

Adequate reporting will provide feedback to employees so they know how well they are performing and how they fit in the overall organization. It will also provide management with up-to-date information which could be used to:

- determine whether the established targets are being met

- whether the priorities are being followed

- whether or not resources need to be reallocated to meet the Division's objectives

- whether training or reassignment of staff is needed to help the organization adjust to changing needs.

The Division's internal reporting and analysis process consists of accomplishment reports, fact sheets, time summaries, budget and expenditure reports, and employee performance evaluation. In addition, the following reports are prepared to provide external constituents with required information: federal accomplishment reports, Governor's quarterly accomplishment reports, Legislative Commission on Minnesota Resources' work plan progress reports, and the Department of Natural Resource's Biennial Report to the Legislature.

Expenditure Reports

An accounting structure by program area coupled with regular status reports provides managers with budget information which readily identifies expenditures of a particular program. These reports enable managers to make sound management decisions and insure that spending is within budget limits and consistent with budgeted purposes. The information can also be used along with accomplishment and time data to determine the effectiveness and efficiency of individual programs.

The accounting structure should be organized according to the programs in the SFRP with line-item expenditures recorded within each program account. Reports can be developed on either a program basis, a line-item basis or a combination of the two. Reports should show actual revenues and expenses compared with budgeted revenues and expenditures. Financial reports should be reviewed regularly to insure that spending is within budget limits and consistent with the budgeted purposes.

Time Summaries

Time summaries are a tool used to monitor progress in meeting program goals. They are also an effective tool in personnel management to monitor the time individuals spend on activities compared to the time allocated in their position descriptions. The direction provided in the position descriptions is the link between the specified objectives of the operational plans and how they will be carried out. Therefore, a summary of personnel time, in addition to accomplishment reports, indicates progress in implementing a plan.

Time summaries reflect the program areas in the SFRP. If time is to be tracked at a lower level than the program area the activities included should be consistent with the major categories of objectives listed in the SFRP. Care should be given to designing the time summary to meet the management needs at all levels of the organization. States should investigate the feasibility of developing an automated cost accounting system to report time.

Minnesota recently replaced its monthly time summary system with a cost accounting system using the statewide accounting system to report its time. Time, by activity, is reported and coded on the biweekly payroll form. Expenditures are also being coded to programs using the same codes. Monthly reports show how much time is spent on each program or activity and how much each is costing the Division. Time by program area along with accomplishment data can be used to assess relative efficiency in carrying out objectives from year-to-year. The computer-generated reports can sort the time and expenditure data by program, activity, work unit, class of employee, etc.

Accomplishment Reports

Accomplishment reporting should be done periodically throughout the year and at year end. Reports should include accomplishments for the objectives of the annual work plan, information needed for management purposes and information needed to meet external reporting requirements. Time summaries show

The three key ingredients necessary for successful implementation of a SFRP are: awareness, commitment, and action plans.

Awareness: An awareness must be created among the implementing agencies (at all levels of the organization) of what the goals of the SFRP are. Activities must be initiated that educate, stimulate, excite and create an interest in the plan by those people responsible for implementation. These types of activities should be the focus of efforts to incorporate the SFRP into ongoing functions of the implementing agency. Incentives for the implementing organizations must be considered. No organization will willingly participate unless it is in its best interest to do so.

Commitment: The attitude of the agency head toward the SFRP is the single most important factor in its implementation. Top management must want to use the SFRP to guide the agency's daily operations and to integrate it into the agency's decision-making process. Eventually acceptance that the SFRP can contribute to the operations of the organization must spread to all levels of the organization.

Action Plans: Strategies or action plans are needed to translate a commitment into reality. In addition, sufficient resources such as staff time and dollars must be allocated to carry out the objectives identified in the SFRP for it to be implemented successfully. Realistic time frames must be set for implementing the plan. The time frames must not be overly aggressive so that the products and process are of poor quality and ineffective, but must not be too slow to lose momentum and the interest of those most affected.

An effective implementation plan should contain the following:

a. Clear, concise statement of goals and objectives. These should be stated in operational terms and should be easy to measure.

b. An action plan that identifies when and how each objective will be carried out.

c. Assignment of responsibility for each objective or activity and identification of coordination needs.

d. Specified budget and staffing needs. Sufficient resources to carry out the plan must be allocated for successful implementation.

e. Policies and procedures to carry out the objectives. Existing policies and procedures should be reviewed to determine if they are sufficient to carry out the plan. If not, new ones need to be adopted.

f. A plan for monitoring the action plan to determine how well the program goals and objectives are being met and to aid managers in determining where problems exist in order to address problems quickly and to shift resources as needed.

the amount of time spent on a particular activity; they alone do not indicate whether the objectives have been met.

A quarterly reporting system should be established with a year-end report produced at the close of each fiscal year. This system should be on computer and be designed so that information can be entered at the level that the work is done. The person doing a task should only record his accomplishment once. Users of the data should then be responsible for aggregating and compiling the data to meet their needs. This enables program managers and supervisors to have accomplishment data on a regular timely basis and in a form that is flexible to meet their varying needs.

The Division's annual accomplishment report is drafted in April, at the close of the third quarter, to be used in work planning for the next fiscal year. The draft report includes final figures for the first three quarters of the year end projections for the fourth quarter. The report is finalized in August after the close of the fiscal year. A final year-end report is developed which compares actual accomplishments with objectives established in the annual work plan for that year. This allows the Division to measure its progress in carrying out its work plan.

Progress-to-date on long-range plans (5 or 10 year moving average, trend line, etc.) should be included in an accomplishment reporting system. This would allow an agency to assess its progress in obtaining the long-range goals and objectives established in the SFRP. Ten-year targets set in the long-range plans should be viewed as guidelines for program direction under ideal conditions. If unforeseen circumstances arise program emphasis may shift temporarily but targets can be made up in future years.

Therefore, the effectiveness of a given program measured in terms of how well it is meeting its accomplishments must consider more than one year at a time and must take into account any unforeseen circumstances which caused resources temporarily to be diverted away from their intended use. A 10-year timeframe to evaluate progress and analyze program effectiveness provides the flexibility to adjust targets forward and

backward to accommodate uncontrollable circumstances.

CONCLUSION

Minnesota is implementing its SFRP through an improved management system. Improvements will be made to individual processes and will be made by formalizing the links between the processes and between the SFRP and various processes. This improved system will assure that the SFRP gets implemented and will help the Division make more prudent and rational decisions about resource allocations.

Tying the SFRP to the management system will make implementation and decision making processes more orderly by translating broad program goals and objectives into specific work targets and standards; developing more appropriate programs and strategies to meet the Division's needs; evaluating activities and programs; measuring progress of the agency; and revealing problems to be resolved.