

Minnesota Forestry Research Notes

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PUBLIC ORGANIZATIONS IN MINNESOTA: INFORMATION RESOURCES FOR FOREST MANAGEMENT*

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ABSTRACT

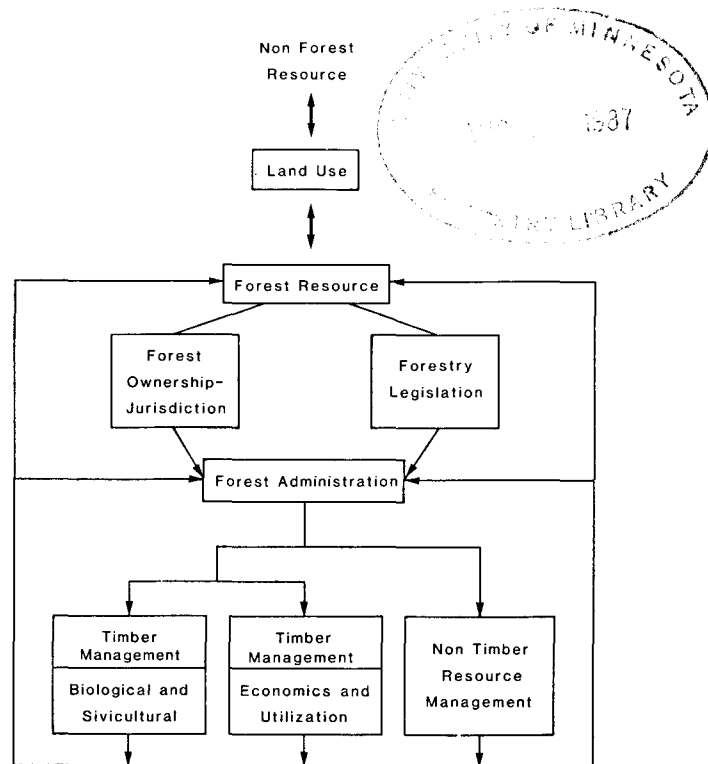
This note identifies public organizations in Minnesota that generate or collect information relevant to forest management in the state. A matrix relates 43 kinds of management information to agencies that maintain them. Designators indicating information sources and methods of storage within organizations are also provided.

Managers of Minnesota's 16.7 million acres of forest lands require a wide variety of information concerning physical, biological, socioeconomic, and administrative aspects of forest resource management. Much of this information pertains to managing the timber resource for the production of various wood products, the enhancement of water and wildlife resources, and the provision of recreational opportunities on forest lands. Other kinds of information describe the legal, political, and economic environments within which forest management is conducted in Minnesota.

A large number of public organizations produce or collect information that is used by managers within the state's public and private forestry sectors. Many agencies have missions concerned primarily with natural resources management; others focus upon the delivery of different public services. This note presents a broad overview of the public organizations responsible for the collection of information relevant to forest management in Minnesota. In linking different kinds of information to agencies that collect them, a matrix provides the framework for identifying whether a specific type of information is obtained primarily from sources within or external to a given organization. It also permits the inclusion of a designator indicating whether the majority of information on a given subject is maintained by the organization in a computerized data base or in the form of manually collected files, reports, etc.

A description of the subject matter of information for forest management in Minnesota permits identification of the "raw material" upon which managers must rely for the performance of their management tasks. An initial framework for deriving different types of forest management information is presented in Figure 1. This depicts the forest resource as the focus of management activities designed to produce timber and other forest-based goods and services.

Figure 1. Framework for Identifying Broad Classes of Forest Management Information.



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These classes of information may be viewed as "macro-categories" of information relevant to forest management in Minnesota. A more detailed picture of specific kinds of information required by managers may be obtained by subdividing each broad class into a number of more detailed categories. Such a breakdown is displayed in Table 1.

The kinds of information depicted in Table 1 are for the most part self-explanatory. However, several points merit attention with respect to the nature and detail of these categories. First, the nine broad classes of forest management information could in theory be subdivided into any number of categories, and certainly to a finer degree of detail than is represented in Table 1. The objective of these subdivisions is to remain relatively comprehensive without creating an excessive number of information categories.

With respect to forest administrative information, it is assumed that all forest management organizations maintain detailed information regarding their organizational structure, administrative channels, etc. Categories within this class include those kinds of administrative activities essential for maintaining a continuous flow of all types of forest-based goods and services, i.e., a functional system of forest roads and effective methods for fire prevention and control. Also included within this information class is the rather specialized category of information related to the administration of programs for the nonindustrial private forestry sector.

Another consideration pertains to the three categories of information depicted under the class of nontimber forest management information. Obviously many types of information exist, both biological and economic in nature, that are important for managing forest lands for nontimber goods and services. The scope of this study precluded a detailed breakdown of such information into biological and economic categories. This limitation is not intended to minimize the importance to forest managers of detailed information contributing to each of these three broad categories.

A final note concerns the information class identified in Table 1 as forest management research. Research activities may pertain to all aspects of forest management and thus may involve any of the kinds of information depicted in the table. For that reason, research information is not explicitly represented within the overall framework of Figure 1. However, assessment of the effectiveness of current and prospective research programs is essential for ascertaining their value to improved forest management in Minnesota.

Table 1. Information Classes and Categories for Minnesota Forest Management

FOREST RESOURCE INFORMATION	
1.	Forest land cover/forest types
2.	Forest land cover/aerial photographs
3.	Forest soils/geomorphic regions
4.	Forest mineral deposits: Nature/location
5.	Forest waterways/watersheds
6.	Forest inventory systems
LAND USE INFORMATION	
7.	Current land use
8.	Land use projections
9.	Regional development
FOREST OWNERSHIP AND JURISDICTIONAL INFORMATION	
10.	Forest ownership/jurisdiction: Location/acreages
11.	Statutory land class
12.	Forest mineral ownership
13.	Forest land acquisition/disposal
LEGAL INFORMATION	
14.	Forest management legislation: Enabling
15.	Forest management legislation: Regulatory
16.	Forest land taxes
FOREST ADMINISTRATIVE INFORMATION	
17.	Forest fire protection and control
18.	Forest road systems
19.	Nonindustrial private forestry assistance
TIMBER MANAGEMENT INFORMATION: BIOLOGICAL AND SILVICULTURAL	
20.	Timber growth projections
21.	Timber harvests: Past/projected
22.	Timber harvesting permits
23.	Reforestation
24.	Nursery operations
25.	Intermediate silvicultural activities
26.	Forest insect and disease control
27.	Forest herbicides and pesticides
TIMBER MANAGEMENT INFORMATION: ECONOMICS AND UTILIZATION	
28.	Timber-pulpwood: Supply/demand
29.	Timber sales
30.	Stumpage prices
31.	Forest products prices
32.	Fuelwood: Supply/demand
33.	Wood residues: Supply/utilization
34.	Imports/exports: Wood products (state level)
35.	Wood processors: Primary/secondary
36.	Independent loggers
37.	Forest sector labor/employment
38.	Logging/wood processing technology
NONTIMBER FOREST MANAGEMENT INFORMATION	
39.	Forest wildlife: Habitat/populations
40.	Forest recreation: Facilities/users
41.	Forest soil and water conservation
FOREST MANAGEMENT RESEARCH INFORMATION	
42.	Program content
43.	Funding and grants

Table 2 lists public organizations that produce or collect information relevant to Minnesota forest management.

The relationship of various kinds of forest management information to the organizations that collect or use such information may be represented in the form of a matrix. Each matrix cell describes whether a particular organization maintains a certain type of forest management information. Should this occur, two sets of designators indicate: (a) whether the primary source of the information is internal or external to the given organization; and (b) whether the information is maintained primarily in computerized form or in that of manual files, records, or reports. Figure 2 depicts designators and their representation within an individual matrix cell. Such a format allows for the addition of other designators describing information characteristics such as level of aggregation, reporting interval, etc., should they apply and become available.

The information-agency matrix is intended to provide an overall perspective of the nature and sources of information for forest management in Minnesota. A detailed description of specific information categories, and evaluations of the adequacy of such information by managers at various levels within forestry organizations in the state, may be found in a separate publication.*

*Information for Timber Management & Planning: An Assessment of Availability and Adequacy in Minnesota" by Bernard J. Lewis and Paul V. Ellefson. 1983. Station Bulletin 547, Agricultural Experiment Station, Univ. of Minnesota, St. Paul.

Figure 2. Information Characteristics and Designators Within Information-Agency Matrix.

Information Characteristic	Designator
Source	G -- Majority of information is <u>generated</u> within organization S -- Majority of information is obtained from <u>secondary</u> (i.e. extraorganizational) sources
Storage	C -- Majority of organization's information is <u>computerized</u> M -- Majority of organization's information <u>manually</u> maintained in files, records, etc.

G-S / C-M

Individual Matrix Cell

Table 2. Public Organizations with Information Resources for Minnesota Forest Management

LAND MANAGEMENT ORGANIZATIONS

- A. Federal Executive Agencies
 - A1. USDA Forest Service
 - 1. National Forest System
 - 2. State & Private Forestry (Northeast Area)
 - 3. North Central Forest Experiment Station
 - 4. Renewable Resources Evaluation Unit
 - A2. U.S. Department of the Interior
 - 5. Bureau of Indian Affairs
 - 6. Bureau of Land Management
 - 7. National Park Service
 - 8. U.S. Fish & Wildlife Service
- B. State Executive Agencies
 - B1. Minnesota Department of Natural Resources
 - 9. Division of Forestry
 - 10. Division of Fish & Wildlife
 - 11. Division of Parks & Recreation
 - 12. Division of Minerals
 - 13. Division of Waters
 - 14. Bureau of Lands
 - 15. Office of Planning
 - 16. Legal Bureau
- C. County Governmental Agencies
 - 17. County Land Departments

NON-LAND MANAGEMENT ORGANIZATIONS

- D. Federal Executive Agencies
 - 18. USDA Agr. Stabilization & Conservation Serv.
 - 19. USDA Soil Conservation Service
 - 20. USDA Agricultural Research Service
 - 21. USDI Geological Survey
 - 22. U.S. Army Corps of Engineers
 - 23. Environmental Protection Agency
- E. State Executive Agencies and Organizations
 - E1. Department of Energy, Planning & Development*
 - 24. Office of Physical Resource Planning
 - 25. Land Management Information Center
 - 26. Energy Division
 - 27. Community Development Division
 - 28. Office of Local Government
 - E2. Other State Departments, Agencies, Boards
 - 29. Department of Agriculture
 - 30. Department of Transportation (2 offices)
 - 32. Department of Economic Security
 - 33. Department of Revenue
 - 34. Pollution Control Agency
 - 35. Environmental Quality Board
 - 36. Soil & Water Conservation Board
 - 37. Other State Boards (4)
- F.41. Regional Development Commissions
- G. University of Minnesota
 - 42. College of Forestry
 - 43. Other University Departments
 - 44. Agricultural Experiment Station
 - 45. Agricultural Extension Service
 - 46. University F.I.R.E. Center
 - 47. Center for Urban & Regional Affairs
 - 48. Minnesota Geological Survey

*DEPD reorganized to State Planning Agency, Dept. of Energy (other functions transferred) 7/1/83).