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# IOWA FOREST RESOURCES PLAN

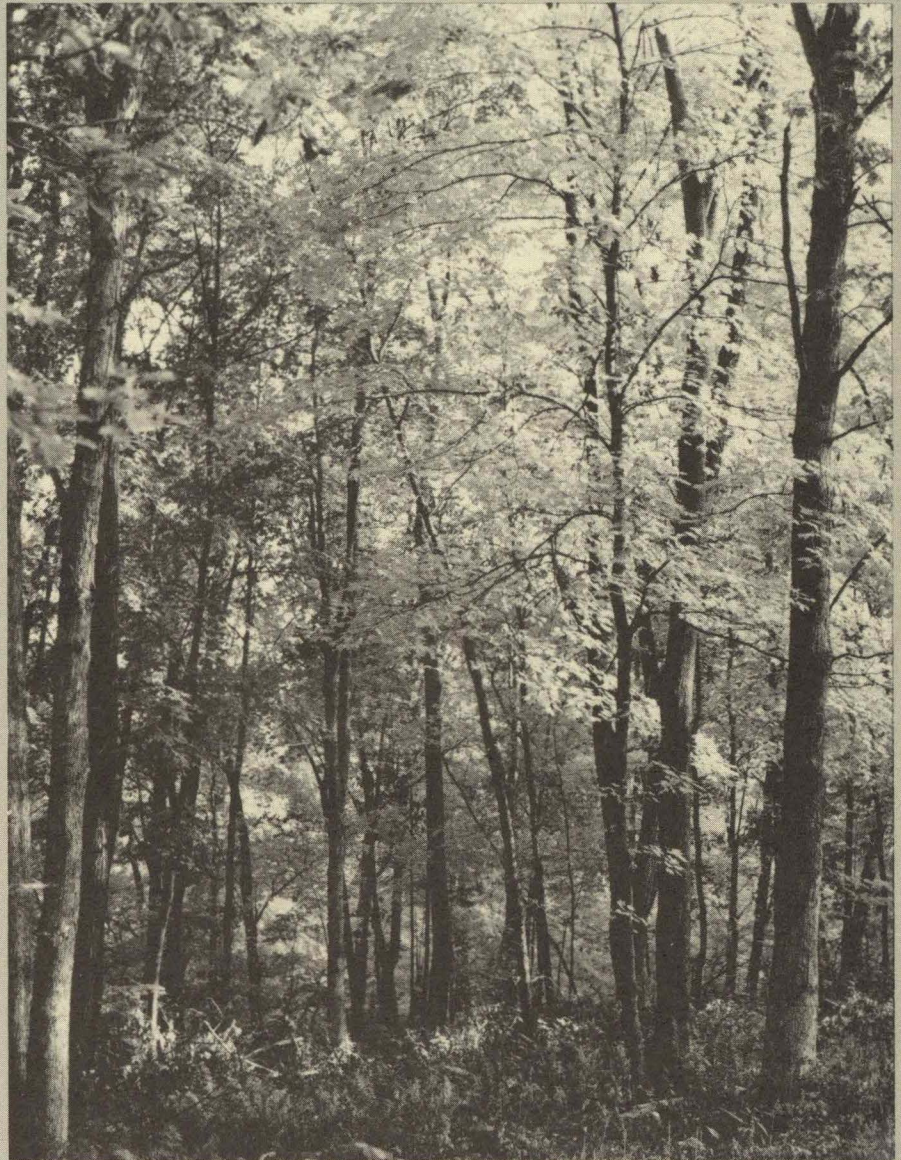
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IOWA  
CONSERVATION  
COMMISSION



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# FOREWORD

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This forest resources plan has been developed to guide Iowans in the management of the state's woodland resources. Major goals of the plan are to provide direction for forestry programs in Iowa and to achieve greater public understanding of Iowa's forest resources and programs to manage, use, and protect these resources.

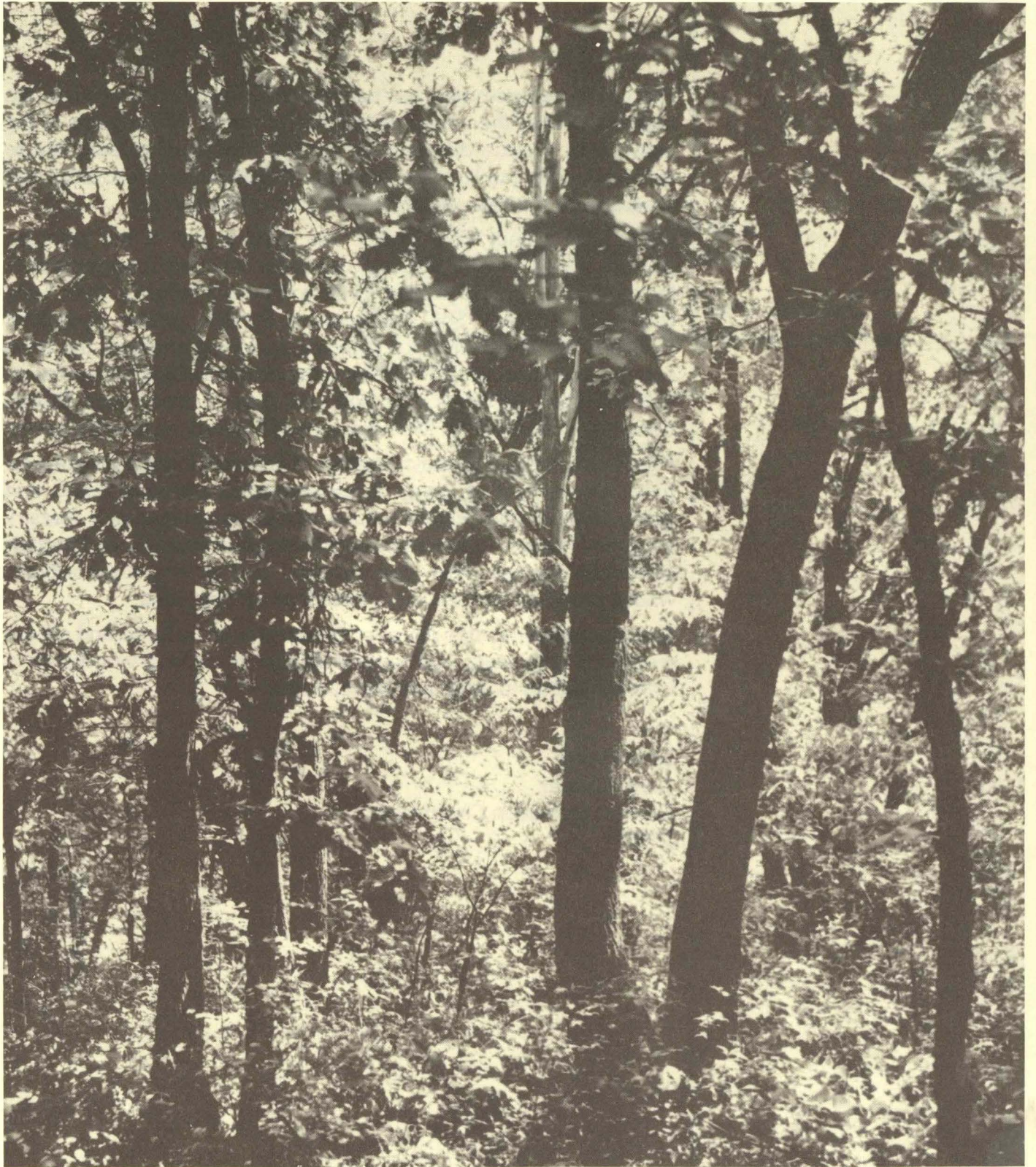
Public and agency involvement has been a part of the planning process. A state forestry advisory committee, with members representing the USDA - Forest Service, Iowa wood-using industry, Iowa State University, USDA - Soil Conservation Service, private consultant foresters, the Iowa Office for Planning and Programming, the Iowa Development Commission, the Iowa Department of Soil Conservation, and the Iowa Association of Soil and Water Conservation District Commissioners, met on two occasions to develop the forestry issues.

The plan consists of six major sections: a preferred forestry program for Iowa; assessment of Iowa's forest resources; planning issues and goals; forestry and related natural resources programs; a forestry program for Iowa—alternatives considered; and appendices. Program considerations for other governmental and private organizations, whose programs are related to forestland, are included.

The assessment section provides an overview of the forest and related resources of the state, and some insight into the role of woodlands in Iowa in relation to other natural resources.

Gene Hertel  
State Forester  
State Conservation Commission  
1985

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WATER, AIR AND WASTE  
MANAGEMENT



# PREFERRED FORESTRY PROGRAM FOR IOWA

The preferred program for Iowa forestry addresses the goals presented in the Review Draft—Iowa Forest Resources Plan, 1983. The goals were altered in exact wording, while retaining the original meaning. These changes reflect comments made by reviewers. The issues presented in the review draft are dealt with in the preferred action for the Conservation Commission and the suggested action by others. Projected accomplishments and costs are presented in this preferred program section.

A preferred program was selected after assessing the comments made on the alternatives presented in the review draft. The preferred program will require increased expenditures and additional employees, but is below the "resource demand maximum" alternative. It represents increased public effort to reverse the current trend toward less forested land in the state.

The preferred program was adopted in January, 1985 by the Conservation Commission as a desirable direction into the future. The program also presents suggested action for other agencies and groups. These suggestions are intended to be constructive approaches to statewide forest resource opportunities, not criticisms of current programs. There are impacts upon the woodlands, and their management is affected, by the policies and activities of many organizations. The preferred program attempts to bring forth the implications of all actions affecting forests in Iowa so the resource can be managed for the highest contribution to Iowa and the nation.

Reviewers' comments are summarized in the plan appendices. Revisions in the material presented were made as a result of the many constructive comments received. The plan and program will need further revision as conditions change and more information is available. A four-year interval, coordinated with the biennial state budget cycle, seems to be best for revision. It is important to recognize that the plan and program are active and that there must be continuing opportunity for updating

and revision. Issues or programs not adequately addressed in this plan can be included in subsequent plan revisions.

All measures included in the preferred program are intended to move the state toward an eventual three million acres of total forest. The measures proposed may or may not accomplish the addition of the one and a half million acres required. As measures are instituted, the impact upon the woodland can be monitored. Increases in acres of healthy forest will indicate program effectiveness and programs in place can continue. Decreases in forest will indicate needed changes in program to more strongly encourage tree planting or retention of tree cover.

## GOAL I - Develop and implement an official forestry policy for Iowa.

There are many opinions concerning the most desirable acreage of forest for Iowa. Each agency adopts a forest policy, if by default alone, in the program emphasis it adopts. Perhaps a formal policy can only be set by legislative action.

At this time there are several procedures in place which encourage forest enterprise. There are others which discourage it. Cost-sharing for tree planting and woodland improvement, low cost planting stock, free forestry service, and extension programs are encouraging. Some government programs encourage "fence row to fence row" agriculture, thus putting pressure upon landowners to convert woodland to pasture or rowcrop use and discourage forest culture.

An Iowa forest policy should include encouragement of wood-using industries. These industries provide a market for the timber crop and provide jobs in woods and mill activities.

Current forest area in Iowa is 1,561,000 acres in tracts over two acres in size. This does not include street and yard trees in cities. It does include the "greenbelt" areas meeting the minimum size standards of two acres and 120 feet in total width.

The three million acre goal suggested for adoption by the legislature is a land area equivalent to 84 percent of the land classified by the USDA Soil

## GOAL I — PREFERRED PROGRAM

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
Preferred Conservation Commission Action							
Propose laws to maximize forest contributions	X	X					
Adopt a preferred forestry program						X	
Suggested Action by Others							
● Governor and Legislature:							
Adopt an official state policy to maintain 3 million acres of forest in all ownership types						X	
Include forestry consideration in all planning						X	
Monitor the forest reservation tax law and strengthen it where necessary							X

Conservation Service in land capability classes V, VI, and VII. Class V soils have little or no erosion hazard, but have other limitations that are impractical to remove; Class VI soils have severe limitations that make them generally unsuited for cultivation; Class VII soils have very severe limitations that make them unsuited for cultivation.

The three million acres of forest, established upon these erodible or problem soils, would protect the basic soil resource and yield products and amenities for all Iowans on a continuing basis.

The USDA Forest Service conducted Iowa forest surveys in 1954 and in 1974. A twenty-year interval is too long to detect trends in acreage of forest and condition of the forest and permit timely program adjustments. A minimum interval of five years would assure information for determining the impact of policies and programs dealing with forests.

County conservation boards, by virtue of detailed knowledge of forestry within their counties, are in an excellent position to influence local land use decisions. A policy decision to encourage forest cover for its several benefits is crucial to realization of the state goal. The decision of the private landowner to adopt forest as a desirable land use is essential. County forestland goals could be adopted as 84 percent of the county's Class V, VI, and VII land.

The important issue of land conversion from forest to other uses will be addressed in adopting a policy to seek three million acres of forest. Any action taken to carry out such a policy will tend to stem the decline of woodland and, ultimately, increase the forest acreage.

The location of desirable forest referred to in issue one will be determined largely by the location of the steeper erodible soils. There are benefits of tree cover in counties where trees are few, but to develop large areas of forest in northern Iowa counties with a high percentage of pure agricultural land is not reasonable.



**GOAL II - Increased public awareness of the economic and social contribution of woodlands.**

The Conservation Commission and other agencies and groups, who provide information and advice to landowners, are in a good position to educate. There is opportunity to educate through person-to-person contact, in the classroom, and in the general media. All such opportunities are especially important in Iowa where forestry is not a major area of interest. The Iowa forest is important, if only because it is scarce, and the public and landowners need to be aware of this.

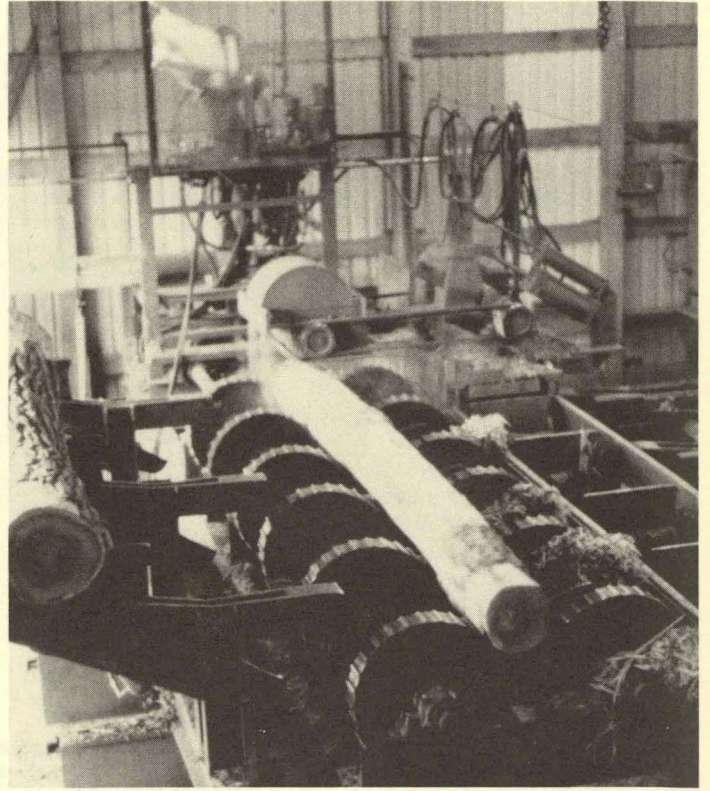
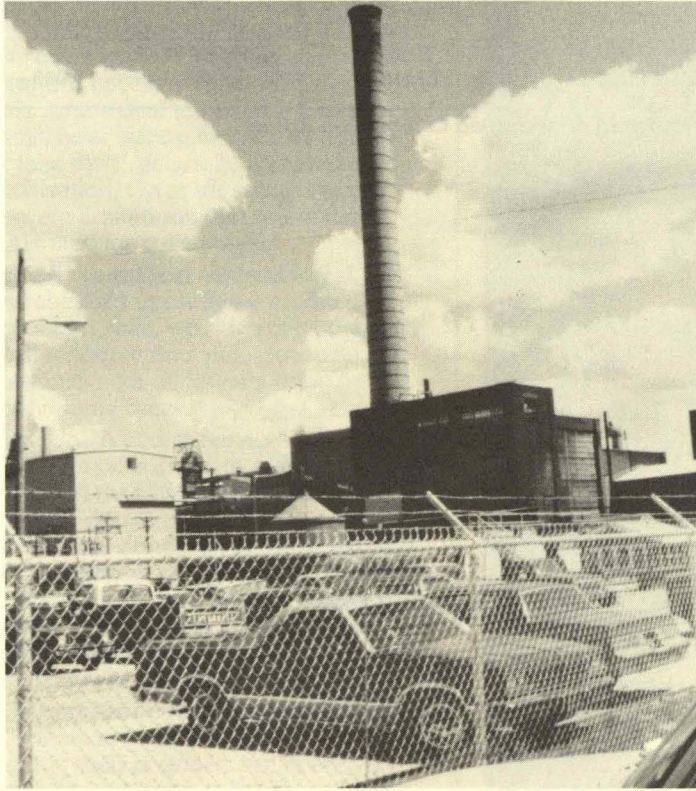
The Commission prepares a biennial report of accomplishments and will continue to do so. Forestry related activities appear in the **Iowa Conservationist** in several issues each year.

Iowa State University, Forestry Extension, in cooperation with the Conservation Commission forestry section, publishes a quarterly **Woodland Owners Newsletter**. This publication is mailed to over 12,000 Iowa woodland owners. Information which will assist landowners in woodland management, timber sales, tree planting, wildlife management, and the protection of woodland plant communities is provided. The publication has been available for two years as the only publication in the state going directly to the woodland owner group.

Employees of the Commission, county conservation boards, USDA agencies, and others have personal contacts and group contacts. These contacts offer the opportunity to make people aware of woodland values. Many times, land use choices and management choices are influenced by such contacts.

**GOAL II — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Preferred Conservation Commission Action</b>							
Improve media contact effort to raise awareness of woodland values		X		X			
Print an amended forest resources plan at least every four years							X
Prepare a biennial report of accomplishments	X	X					
Participate in forestry field days	X	X					
Increase the number of forestry articles in the CONSERVATIONIST to at least one per issue					X		
Contribute half of the Woodland Owner's Newsletter cost in cooperation with Iowa State University						X	
<b>Suggested Action by Others</b>							
•Iowa State University - Forestry Department: Expand the Woodland Owner's Newsletter mailing				X			
Include forestry information in all appropriate short courses			X				
•Iowa Department of Public Instruction: Include forestry information in curricula development	X	X					
Broaden the forestry discipline in lesson plans of "Outlook" environmental education material						X	
•Iowa Natural Heritage Foundation: Place forestry information in private sector publications			X	X			
•United States Department of Agriculture Agencies: Assure that clients are made aware of woodland crop production and nonconsumptive benefits			X				
•County Conservation Boards: Reach county residents with forest values information through published articles, school programs, radio, and TV programs			X				
Conduct field days, or assist with field days, where forestry is a topic					X		





**GOAL III - Maintain a viable wood-using industry in Iowa.**

The wood-using industry in Iowa is small in comparison with agriculture, but it does make an important contribution. Wood industry jobs, payroll and value of products produced, all rank at about five percent of all manufacturing in the state. The flow of wood is obviously very important to the landowner, to the industry that depends upon it, and to the consumer.

The Conservation Commission currently serves the industry in four ways. District foresters (12 offices in the state) fulfill a marketing function by marking standing trees for sale on private land, at the landowner's request, and getting buyer and seller together. One full-time staff forester works directly with loggers and mill operators to improve their efficiency and wood recovery. The state forester serves as an ex-officio board member of the Iowa Wood Industries Association to assist in making the industry more stable as a market for Iowa woodland crops. District foresters serve as inspectors for the American Tree Farm Program of the American Forest Institute. The state forester and a regional forester are members of the state tree farm committee. This industry sponsored program recognizes landowners who are managing their woodlands for the continuous production of timber crops.

The forestry section administers the timber buyer bonding law which has been in effect since 1981. A bond in the amount of 10 percent of the annual value of timber purchased from Iowa growers is required of all timber buyers. The minimum bond is \$500. The maximum is \$10,000. The preferred plan proposes to increase employee effort to assist industry by 1.25 full-time equivalents. This is in response to goal three. The costs and accomplishments of this increase appear in the Accomplishments and Costs Section of the preferred program.

Wood-using industries employ about 9,000 persons in both primary and secondary manufacturing plants. These industries have a payroll of

approximately \$74 million annually and make new capital expenditures of \$13 million. The value added to Iowa's economy by the manufacture

of wood and paper products was \$162 million in 1972 (3.4 percent of the state total; Spencer and Jakes, 1980).

**GOAL III — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Preferred Conservation Commission Action</b>							
Publish a quarterly newsletter for wood-using industry clients	X	X					
Conduct or sponsor one lumber grading school annually	X	X					
Provide an ex officio member to the Iowa Wood Industries Association Board of Directors	X	X					
Provide at least one member to the Iowa Tree Farm Committee and assign district foresters to serve as tree farm inspectors	X	X					
Administer the timber buyer bonding law	X	X					
Sell timber from state lands for use by the wood-using industry	X	X					
Provide industries with information to improve logging, processing, seasoning and marketing of timber and products	X	X					
Increase personnel effort by one-fourth full-time equivalent					X		
Increase personnel effort by one full-time equivalent							X
<b>Suggested Action by Others</b>							
• Iowa Development Commission: Include wood-using industries in promotion of new industries for the state and commodity expert promotion							X
• Center for Industrial Research and Service (Iowa State University) Assist wood-using industries with production studies for mill efficiency improvement							X
• United States Department of Agriculture Forest Service Conduct a forest survey at 10 year or shorter intervals							X

**GOAL IV - Maintain damage by wildfire, insects, and diseases at acceptable levels.**

Forest resource damage and loss by the agencies of wildfire, insects, and diseases is not easily predicted. The woodlands have been damaged by fire through the years, mainly by degrading of timber quality. This type of loss may not be apparent at the time a fire burns, but shows up later in value decreasing trunk rot.

The Conservation Commission, in cooperation with the USDA Forest Service, has conducted a fire prevention and control program since 1950. The objective of this effort is the reduction of resource damage by wildfire. The Commission is directed by the Code of Iowa to be concerned with forestry and the protection of the forest from damaging agencies. The Forest Service is concerned with natural resource values which may be lost.

There are several elements of the fire prevention and control program as currently conducted.

- Fire Prevention. The fire prevention objective is public education and awareness regarding wildfire. The program is symbolized by the Smokey Bear prevention campaign as sponsored by the Forest Service and the states. It seeks to reach people of all ages, pointing out the responsibility of all citizens in preventing damaging wildfires. Prevention posters, classroom material, junior forest ranger kits for children, radio, television, and print advertisements are the means used to carry the message.
- Hand Tool Distribution. The Commission has provided hand fire fighting tools to a limited number of fire departments for many years. Fire rakes, backpack pumps, and fire swatters are provided to departments to assist in wildfire protection. Replacements are the responsibility of the individual department.
- Excess Federal Property Program. The Commission began participating in the federal excess property program in 1965. Military jeeps and trucks are made

available on loan from the federal government. The expense of equipping the units for fire fighting is the responsibility of the individual

fire departments, but the basic vehicle is obtained at no cost. There are 250 fire departments now using excess vehicles in Iowa.

**GOAL IV — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Preferred Conservation Commission Action</b>							
Distribute 50,000 pieces of fire prevention literature annually	X	X					
Equip 10 fire departments with introductory hand fire tools	X	X					
Obtain 10 excess federal property units annually	X	X					
Inventory 500 excess property units annually	X	X					
Develop a wildfire plan in cooperation with Iowa State University						X	
Cooperate with the state fire marshall and Iowa State University in developing a uniform wildfire reporting system							X
Sponsor and assist in wildfire control training, especially through cooperation with the Iowa State University state fire school	X	X					
Administer the Rural Community Fire Program (federal) fund grants to rural fire departments for training and equipping as federal funds are available	X	X					
Inventory equipment acquired through the Rural Community Fire Program	X	X					
Evaluate the fire prevention and control program considering benefit to the resource compared to program costs							X
Conduct annual surveys of insect and disease conditions and compile a report	X	X					
Participate with the agencies in gypsy moth surveillance	X	X					
Provide 200 landowners with insect and disease advice	X	X					

The value of these units is approximately \$2,000,000.

- Rural Community Fire Program. The federal Rural Development Act

of 1972 authorized federal funds for training, equipping, and organizing rural fire departments. Iowa has received \$110,000

annually since that time. These funds have been allocated to the most needy fire departments for training and equipment. This program will be continued as Congress provides funds.

- Wildfire control plans have been initiated for all state areas. The plans are developed with the area manager of wildlife areas, state forests, and state parks. These plans contain a listing of available fire fighting equipment, personnel available, and the local fire department(s) responsible for fire protection. The purpose of these plans is to aid the area manager and local fire department in providing the best fire protection possible to state lands.

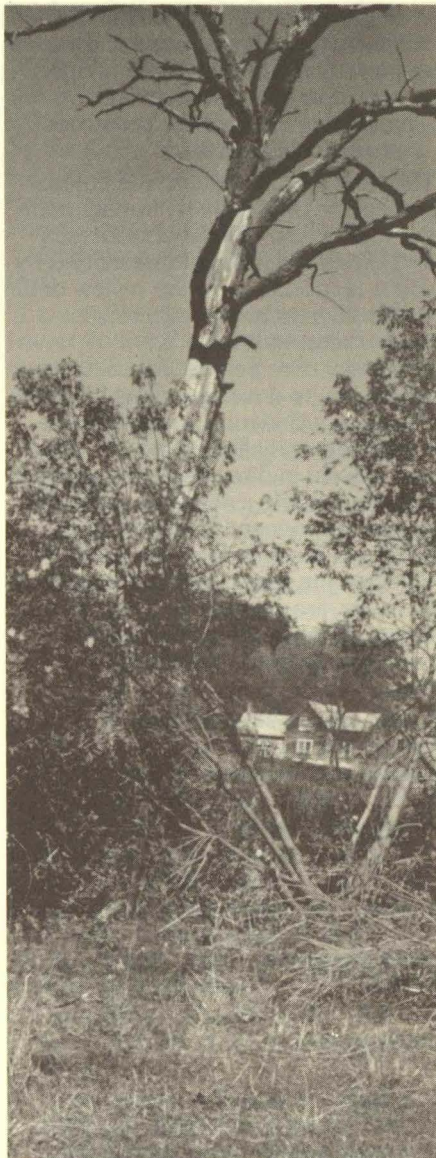
The rural fire prevention and control program has an indirect impact upon the Iowa forest. The level of forestry section effort has been questioned by some respondents to the review draft. Information is being collected, in cooperation with Iowa State University -Fire Service Education Extension, to develop a state fire plan. This plan will identify areas where wildfire control effort is most needed and will aid in directing future work. It is likely that the evaluation of the fire program proposed for Fiscal Year 1987 will result in decreasing effort. Wildfires are much less common than formerly, fire departments are more aware of wildland values at risk and the damage to timber resources is low.

Insect and disease damage is continually occurring. Catastrophic losses, such as were caused by the Dutch elm disease, are evident to everyone. Woodland losses caused by tree borers or decay organisms are also considerable, without being noticed. The gypsy moth, a leaf-eating insect which prefers oak, is causing great damage to forests in states east of Iowa. It is probable the gypsy moth will eventually become established in Iowa

The forestry section conducts an annual insect and disease survey to monitor damage. District foresters advise private and public landowners in pest management. This advise is

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Suggested Action by Others</b>							
• Iowa Department of Agriculture: Monitor potentially dangerous forest pests and eradicate new infestations when practical	X	X					
• Iowa State University - Fire Service Education: Assist the Conservation Commission in fire planning, Rural Community Fire Program federal fund allocation, and provide training for firemen in wildfire control	X	X					
• Iowa State University - Forestry, Botany, and Plant Pathology Departments: Provide continuing education in forest pests for resource professionals and provide information for public education	X	X					
• Iowa Association of Fire Service Organizations: Assist the Conservation Commission in setting guidelines for allocation of federal funds to fire departments	X	X					
• U.S. Department of Agriculture - Forest Service: Provide program assistance to the Conservation Commission to protect the national interest in Iowa resources	X	X					
Provide emergency pest management funds when required to control or manage serious pests			X				
• County Conservation Boards: Develop fire plans for county areas				X			
Assist the Iowa Department of Agriculture and Conservation Commission in monitoring forest pests, including gypsy moth	X	X					

usually in connection with woodland management, but also includes answering individual homeowner questions. The section represents the Conservation Commission on a gypsy moth "task force" of agency and university people. This group was formed to establish a coordinated approach to a potential gypsy moth infestation. The USDA - Forest Service administers funds for pest protection. The Conservation Commission receives an annual allocation from this source.



**GOAL V - Establish forest cover on appropriate erodible lands.**

Tree planting at an increasing rate will be required if the goal of 3,000,000 acres is to be reached. At the current time, forest survey data show there is a net loss of 6,900 acres of forest each year.

The State Conservation Commission has operated the state forest nursery at Ames since the early 1940's. The seedling stock sold to private landowners for erosion control, wildlife cover, and forestry purposes is intended to encourage planting which would not otherwise be done. Plants

are sold at a low price to further encourage planting.

Policies to protect the Iowa commercial nurseries from unfair competition have been in effect since the Commission has sold nursery stock. These safeguards include selling only small, bareroot plants, accepting a minimum size order to discourage use of plantings for ornamental purposes, avoiding species suitable for highly ornamental purposes and requiring purchasers to certify their intent to plant for the intended purposes of erosion control, wildfire cover or forestry.

**GOAL V — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989

**Preferred Conservation Commission Action**

Distribute 5 million seedling trees annually for erosion control, wildlife habitat, and forestry planting							X
Distribute 2 million shrubs for wildlife cover							X
Implement a tree improvement plan for Iowa					X		
Promote Arbor Day and tree planting through agency cooperative programs of state and local initiatives	X	X					

**Suggested Action by Others**

• County Conservation Boards:							
Provide tree planting machines for landowners' use				X			
Provide tree and shrub planting advice and information to perspective planters				X			
Cooperate with district foresters of the Conservation Commission in holding tree planting information days				X			

The increased production in the preferred program is possible because of the recent establishment of a new growing area near Fort Madison in southeastern Iowa. This sandy site, located on a farm owned by the Iowa Department of Corrections, will double the current production capacity. The sandy soil will produce better plants for outplanting, especially conifers, and will permit earlier digging for spring shipment and later fall lifting for storage or fall planting.

The increased nursery production from the three million in 1984 to five million in 1989 will help replace woodland loss. The increased planting will require an informational and encouragement effort on the part of Commission personnel, county conservation board personnel, and other agencies. State or federal cost-sharing to assist landowners with planting costs will increase planting. The Iowa State University Extension Service, USDA agencies, and the soil and water conservation districts are important contributors in providing encouragement and advice to landowners.

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
• Soil and Water							
Conservation Districts:							
Assist landowners in securing suitable planting stock for farmstead windbreaks	X	X	X				
Encourage tree planting on steep, erodible land	X	X					
• Private Nurseries:							
Provide suitable windbreak planting stock to private landowners, either through soil districts or directly	X	X	X				
• Iowa Department of Agriculture:							
Encourage tree planting as an agricultural crop alternative on erodible land		X	X				
• Governor:							
Appoint an Arbor Day Committee to stress the importance of planting						X	
• Iowa State University - Extension Service:							
Conduct research to establish seedling condition criteria for optimum success in field planting						X	
Provide planting information to the public	X	X					
Conduct forestry field days which include tree planting emphasis	X	X					

**GOAL VI - Accomplish the highest level of management of all woodlands and urban forest resources consistent with benefits.**

Much of the Iowa woodland is poorly managed and is growing at far below potential. Nearly 50 percent of the forestlands is grazed to some extent and one quarter of all the woodland is so heavily grazed that no young trees are present to continue the tree cover.

There is an unwritten "state policy" to encourage woodland. To carry out the "policy," there are several efforts by governmental agencies and others to assist and encourage landowners in managing their woodlands:

The Conservation Commission, through professional district foresters, offer free management service to rural owners, urban communities, and governmental agencies. This service is available in all counties. District foresters also write management plans and assist with timber sales on state wildlife areas and state parks. Service to private owners is limited to five days per a twelve-month period.

County conservation board programs vary, but their service may extend to management advice to private landowners, tree planting advice, tree planting for private landowners, conservation education, and tree management advice to urban communities.

Consultant foresters provide forest management, timber sale, and state planting service on a fee basis. There is one full-time consultant operating within the state. Most Iowa landowners do not use consultants because of their small acreages and reluctance to pay fees where income is low or delayed.

The Iowa State University Extension Forestry Service conducts forestry field days at several field locations each year. A woodland owners newsletter is sent quarterly to over 12,000 people. A series of educational bulletins are supplied to answer landowners' questions. An annual shade tree short course and special short courses for resource

professionals are also conducted.

- The Iowa State University forestry department conducts research, which provides information needed to refine the management advice given by professional foresters.
- The Iowa Tree Farm Program, administered by a state committee, gives public recognition to landowners who manage woodlands for continuous production of timber crops. The Iowa program is part of the national tree farm effort of the American Forest Institute. The institute is a forest industry consortium of several trade organizations. There are 275 tree farmers in Iowa with over 23,000 acres certified as tree farms.
- The USDA - Soil Conservation Service provides on-the-ground assistance to landowners. The agency's prime concern is erosion control on non-forestland, but Service personnel are called upon to give some woodland advice. District foresters of the Conservation Commission are usually contacted by SCS personnel to service woodland management requests. Service personnel make farmstead windbreak recommendations for landowners seeking federal cost-sharing.
- The USDA - Agriculture Stabilization and Conservation Service administers federal cost-share funds for tree planting and timberstand improvements on private land.
- The preferred program proposes increasing forestry service to approximately two percent of Iowa's woodland annually. It proposes a state cost-share program to encourage landowners to protect woodland from grazing by domestic livestock. Exclusion of livestock would assure retention of much forest which will otherwise be gradually lost.

**GOAL VI — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS
<b>Preferred Conservation Commission Action</b>		
Increase forestry assistance to annually provide management plans for owners as follows: 750 owners on 31,500 acres 800 owners on 34,000 acres 900 owners on 38,000 acres 1000 owners on 42,000 acres		
Increase urban forestry service to serve 75 communities annually		
Manage state forests and wildlife area woodlands for multiple benefits	X	X
Manage state parks to return timber income consistent with primary park usage	X	X
Use forest manipulation techniques to enhance plant communities preserved to represent specific types or to protect rare species of plants or animals	X	X
Provide appropriated state funding for cost-share incentive payments to land-owners to fence woodlands from grazing		
<b>Suggested Action by Others</b>		
● Governor and Legislature: Provide \$20,000 annually for cost-sharing with private landowners for fencing woodlands		
Provide annual funding to increase service to all classes of landowners as indicated in the preferred program		
● County Conservation Boards: Assist district foresters of the Conservation Commission with timber cruising, timber marking, and with tree planting meetings		X
Develop forest management plans on all appropriate county woodlands		



**GOAL VII - Provide appropriate publicly owned forest.**

The Conservation Commission presently owns approximately 136,000 acres of forestland. These holdings are in various parts of the state and are in various sized areas. Forestland occurs on areas classified by the Commission as state forests, state parks, recreation areas, wildlife areas, and preserves.

State forests contain 25,000 acres, located in three major units and in five smaller areas. Major areas are the Yellow River State Forest in Allamakee County, Shimek State Forest in Lee and Van Buren Counties, and the Stephens State Forest in Lucas, Monroe, Appanoose, and Davis Counties.

State forests are classified by the Commission as relatively large timbered areas selected for forest and outdoor recreational qualities. These state forests are managed primarily to demonstrate forest management practices and for the production of timber products. Secondary objectives are to provide recreational opportunities in hunting, camping, horseback riding, picnicking, snowmobiling, and fishing. Areas of unique plant and animal habitat which occur on state forests are protected from damage by forest users or from destructive management activities.

The fact that over half of the Iowa forest is likely to remain in private ownership makes the state forest demonstration effort an important activity. Timber harvesting and reestablishment of young growth for a continually producing forest are critical elements of management. Information gained on state forests is available to guide private owners in managing their land.

Forestland on state wildlife areas is managed primarily to provide wildlife habitat and recreational hunting. A secondary objective is sustained-yield timber harvesting. Timber harvesting is usually considered beneficial to wildlife by creating a diversity of forest species and size classes.

State park and recreation area woodlands are used almost exclusively for recreation. Limited

timber harvesting is permitted to remove hazardous trees, to control tree diseases, and to market valuable trees which will soon be lost due to damage by storm or decay.

Several hundred acres of forest are located in state preserves. Designation as a preserve gives maximum protection to archaeological, historical, geological, natural, or scenic resources. Timber harvesting and other consumptive uses are not usually permitted, except on scenic preserves.

County conservation boards own or control forestland across the state. Management objectives are adopted by each county and range from nature preserves to multiple use, timber producing forests.

Reasons for public ownership of forest include protection of erodible watersheds, providing recreational opportunity, maintaining wildlife populations, protecting rare and unique plants and animals, demonstrating land management

under forest, stabilizing local wood-using industries so private owners will have markets, providing large tracts critical to wildlife species, and protecting river corridors for public recreational use.

The State Comprehensive Outdoor Recreation Plan recommends a long-term goal of 2.2 percent of the state's area, or 760,000 acres, in public ownership for recreation resource users by the year 2000. A large part of this would be in forest because of the attractiveness of the tree cover for many recreational pursuits.

The preferred program proposes a state forest acquisition in the loess hills of western Iowa. The particular tree species, soils, topography, and climatic conditions make it impractical to directly apply the knowledge gained in eastern Iowa state forests to woodlands in the west. Funding for the acquisition could be from open spaces appropriation or any special source funds available to the department.

**GOAL VII — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Preferred Conservation Commission Action</b>							
Develop a land acquisition program and funding sources to place 760,000 acres in public ownership by the year 2000 including a state forest in western Iowa and forested land for increasing ownership of stream corridor, wildlife areas, state forests, and unique areas							X
<b>Suggested Action by Others</b>							
• County Conservation Boards: Identify forestland which will better serve public needs in public control and initiate action seeking some form of protection							X
• Iowa Natural Heritage Foundation: Cooperate with public agencies in securing public land rights from private owners	X			X			



**GOAL VIII - Conduct appropriate research in the management, protection, and utilization (harvest, manufacture, and distribution) of forests.**

The professional foresters employed by the Conservation Commission and those in private practice provide forestry advice to individual Iowa landowners. The recommendations made affect the income and future land use options of individual landowners. Advice of this importance must be based upon the best information available.

Questions arise in the course of woodland analysis for which foresters have inadequate scientific information. Little forestry research has been done to solve specific Iowa problems because of the relatively low interest compared to traditional agriculture. Foresters are forced to make recommendations based upon research done elsewhere, which is not directly applicable here.

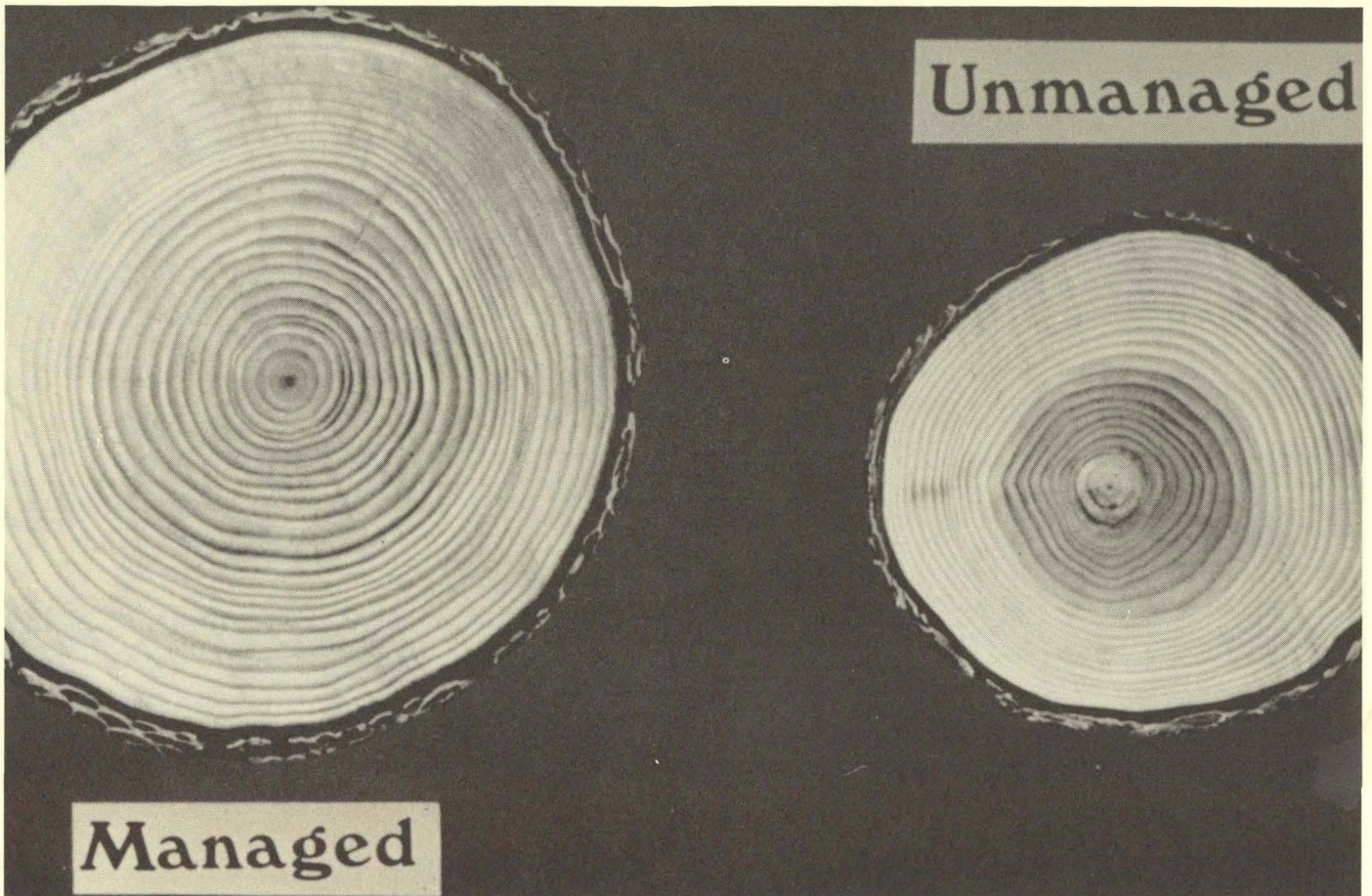
The preferred program proposes annual funding to contract for

university research to serve Iowa needs. Areas of definite weakness are: natural regeneration of oak and other species, weed control in plantations, seedling viability determination for lifting and storage guidance, fall lifting versus spring lifting comparisons of planting stock, walnut dieback

evaluation and control, soil-site requirements of high value species, multi-cropping of trees and other crops, fuelwood plantation establishment and management, economics of forest versus pasture and rowcrop culture, and efficient uses for native logs and lumber.

**GOAL VIII — PREFERRED PROGRAM**

PROGRAM OBJECTIVES	CURRENT PROGRAM	CONTIN- UOUS	WHEN FEASIBLE	TARGET YEAR			
				1986	1987	1988	1989
<b>Preferred Conservation Commission Action</b>							
Provide annual financial support for university research which will fill voids in scientific information about forest management and utilization in Iowa							X
<b>Suggested Action by Others</b>							
•Iowa State University: Respond to research needs of Iowa forestry professionals advising landowners and industrial producers	X		X				



**Accomplishments and Costs of the preferred program (Conservation Commission only).**

The majority of the forestry section's financial support comes from state appropriations with some federal funds provided by the U.S. Department of Agriculture - Forest Service. Income from nursery stock sales and from state forest timber sales is returned to the state treasury. Federal funds are appropriated for cooperative forestry to help states provide woodland protection and technical assistance to private landowners. The Fiscal Year 1984 Iowa allocation was \$119,000 or approximately five percent of the section's budget. The federal allocation in Fiscal Year 1982 was \$169,000 or nine percent of section expenditures. The reduction in federal funding is likely to continue if current proposals to target funds to states with larger ownerships are adopted.

**PROJECTED COSTS\* AND ACCOMPLISHMENTS OF THE PREFERRED PROGRAM**

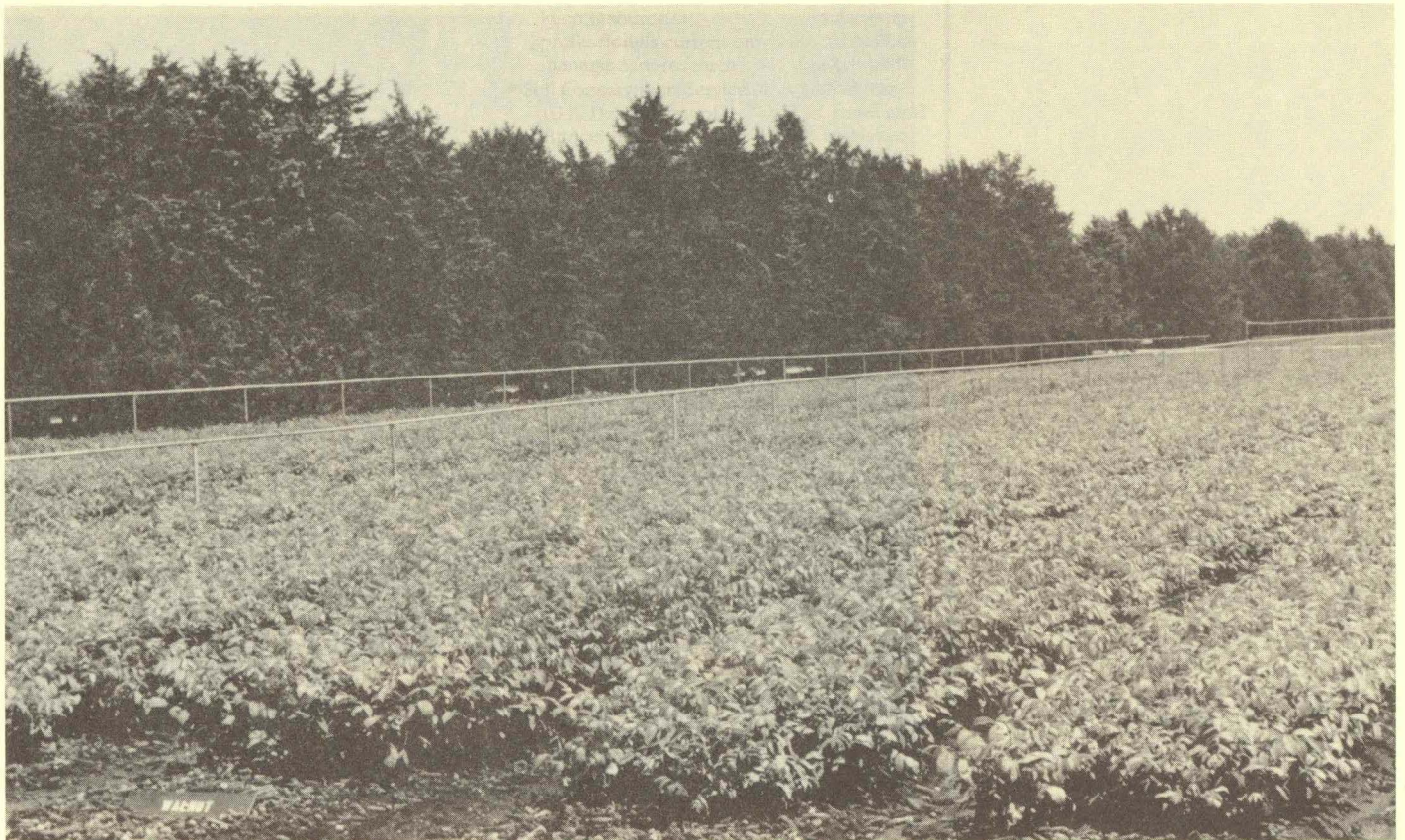
\*1985 Dollars

PROGRAM	UNIT OF MEASURE	1985		1986		1987		1988		1989	
		BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL
<b>•Rural Forestry Assistance</b>											
Budget	M\$	385		410		440		500		560	
Personnel	Person yrs.	14.6		15.6		17.0		19.0		21.0	
<b>Owners</b>											
assisted with mgmt. plans	Number		700		750		800		900		1,000
	Acres		29,000		31,500		34,000		38,000		42,000
Timber marked for sale	M.Bd.Ft.		2,900		3,110		3,400		3,800		4,200
	Acres		3,100		3,466		3,800		4,250		4,700
Timber marked for thinning	Acres		1,200		1,300		1,450		1,600		1,800
Value added to final crop by thinning	M\$		120		130		145		160		180
Tree planting assistance	Acres		3,200		3,400		3,750		4,200		4,600
Crop value added by interplanting	M\$		80		85		93		105		115
<b>•Urban Forestry</b>											
Budget	M\$	6		6		6		25		25	
Personnel	Person yrs.	0.2		0.2		0.2		1.0		1.0	
Communities assisted	Number		50		50		50		75		75
Federal funds to communities	M\$	20		20		20		20		20	
<b>•Forest Products Utilization</b>											
Budget	M\$	39		49		49		79		79	
Personnel	Person yrs.	1.0		1.3		1.3		2.3		2.3	
Industries assisted	Number		120		150		150		200		200
Improved primary utilization	M.Bd.Ft.		800		1000		1000		1500		1500
Product value increased by utilization	M\$		80		100		100		160		160
Improved harvesting assistance	M.Cu.Ft.		200		250		250		300		300
Product value increase thru improved harvest	M\$		20		25		25		35		35
<b>•Nursery Production</b>											
Budget	M\$	590		720		786		851		917	
Personnel	Person yrs.	18.0		19.0		21.0		22.0		24.0	
Trees distributed	M. trees		3,000		3,500		4,000		4,500		5,000
Shrubs distributed	M. shrubs		1,500		2,000		2,000		2,000		2,000
<b>•Rural Fire Prevention and Control</b>											
Budget	M\$	195		195		195		195		195	
Personnel	Person yrs.	5.5		5.5		5.5		5.5		5.5	

**PROJECTED COSTS\* AND ACCOMPLISHMENTS  
OF THE PREFERRED PROGRAM**

\*1985 Dollars

PROGRAM	UNIT OF MEASURE	1985		1986		1987		1988		1989	
		BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL
Prevention literature distributed	M. pieces	50		50		50		50		50	
Fire departments equipped with hand tools	Number	10		10		10		10		10	
Excess fed. property units acquired	Number	10		10		10		10		10	
Excess property units inventoried	Number	500		500		500		500		500	
• Rural Community Fire Program											
Budget	M\$	5		5		5		5		5	
Personnel	Person yrs.	0.2		0.2		0.2		0.2		0.2	
Federal funds to local fire departments	M\$	100		100		100		100		100	
Training applications funded	Number	175		175		175		175		175	



PROJECTED COSTS\* AND ACCOMPLISHMENTS  
OF THE PREFERRED PROGRAM

\*1985 Dollars

PROGRAM	UNIT OF MEASURE	1985		1986		1987		1988		1989	
		BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL
Equipment applications funded	Number		70	70		70		70			70
Equipment units inventoried	Number		200	200		200		250			250
• Insect and Disease Protection											
Budget	M\$	50		50		50		50			50
Personnel	Person yrs.	2.0		2.0		2.0		2.0			2.0
Surveys conducted	M Acres		1,500	1,500		1,500		1,500			1,500
Landowners assisted	Number		200	200		200		200			200
• State Land Management											
Budget	M\$	437		450		450		450			450
Personnel	Person yrs.	9.5		10.0		10.0		10.0			10.0
State forest timber sales	M\$		60	40		40		40			40
State forest habitat improved	Acres		200	200		200		200			200
State forest crop value added by thinning and interplanting	M\$		10	10		10		10			10
State forest recreation visitor days	M days		140	140		140		140			140
State wildlife area timber sales	M\$		30	30		30		30			30
State wildlife area habitat improved	Acres		200	200		200		200			200
State wildlife area forest growth restored on good trees	Acres		200	200		200		200			200
-by harvest	Acres		100	100		100		100			100
-by thinning	Acres		100	100		100		100			100
State parks timber sales	M\$		60	50		50		50			50
Value added in local economic activity from state sales	M\$		3,000	2,400		2,400		2,400			2,400
• Acquisition											
Budget	M\$							200			200
Purchases for state forest	Acres								500		500
• Research											
Budget	M\$	8		10		10		10			10
Projects under study	Number		1	1		1		1			1

**PROJECTED COSTS\* AND ACCOMPLISHMENTS  
OF THE PREFERRED PROGRAM**

\*1985 Dollars

PROGRAM	UNIT OF MEASURE	1985		1986		1987		1988		1989	
		BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL	BUDGET	ACMPL
• Forestry Section											
Supervision											
Budget	M\$	100		100		100		100		100	
Personnel	Number	3.0		3.0		3.0		3.0		3.0	
• Prison Labor											
Budget	M\$	35		35		35		35		35	
Personnel	Number	1.5		1.5		1.5		1.5		1.5	
Inmates employed	Number		30		30		30		30		30
• Special Fencing Cost-Share Program											
Budget	M\$			20		20		20		20	
Area protected	Acres			800		800		800		800	
• Administrative Support											
Budget	M\$	375		410		430		505		530	
• Preferred Program Total											
Budget	M\$	2,225		2,460		2,576		3,025		3,176	
Personnel	Number	55.5		58.3		61.7		66.5		70.5	
	(Forestry Only)										



# ASSESSMENT OF IOWA'S FOREST RESOURCES

## Overview of Iowa's Forestland

The most recent survey of Iowa's forests (Ostrum, 1974) indicates that 1,561,000 acres are in forest. Of this total, 1,459,000 acres are classified as commercial; 76,000 as productive but reserved from timber harvest; and 26,000 unproductive. The acreage of wind barriers and the "urban forest," the tree resource making up a city's street and yard tree population, is not known, but these trees and their management are of great importance to the urban dweller.

Commercial forestland plummeted from 2,297,000 acres in 1954 (acres adjusted to 1974 survey definitions) to 1,459,000 acres in 1974, a loss of over 40,000 acres annually (Spencer and Jakes, 1980).

Appendix II shows a county-by-county estimate of the woodland acreage of Iowa according to the most recent, 1974, forest inventory and a comparison with previous inventories and estimates (Thornton and Morgan, 1959; USDA Forest Service 1978).

## Timber Resources

John Spencer (1980) provides a useful summary of the 1974 resource survey of Iowa forests in "The Latest Look at Iowa's Forest" (Spencer, 1980):

"Much of the commercial forest area lost between 1954 and 1974 was converted to pasture or other farm use. Many timbered tracts of lowland hardwood species along rivers and streams were cleared and planted to soybeans during this period. Farmers own two-thirds of the state's forestland, and other private parties own another one-fourth. The individual circumstances of these owners and the fact that nearly three-fourths of the commercial forest they own is in parcels of 100 acres or less means that the forest is treated in widely different ways.

"Iowa's forests are almost exclusively hardwood. Oak forest types cover 56 percent of the commercial forest area; the most extensive

type—white oak-red oak-hickory—occupies 515,000 acres. The white oak and bur oak types account for another 150,000 and 149,000 acres, respectively. Softwoods only occupy 35,000 acres.

"Three-fourths of Iowa's commercial forest is poorly stocked or nonstocked with trees. All of the sapling-seedling stands fall into these two classes, suggesting that regenerating the state's forests is a problem. Heavy grazing in timberstands by domestic animals was the chief culprit in 1954 and still is today. Grazing and the associated trampling of seedlings result in fewer good quality seedlings and hence fewer larger good quality trees in the future."

"Stands less than 90 years old are fairly evenly distributed by age. However, about 209,000 acres of stands are ready, or nearly ready, for harvest now. If not harvested soon, they will suffer increasing annual losses from decay, insects, and wind until eventually the trees will have no salable value."

"The volume of wood in live trees dropped 22 percent between 1954 and 1974, from 1.3 to 1.1 billion cubic feet. This decline is primarily the result of the large loss of commercial forest area mentioned earlier. The bulk of the timber volume is in eastern Iowa. The three counties with the top volumes all border the Mississippi River—Allamakee, Clayton, and Jackson. "Volume per acre increased, however, from 587 to 723 cubic feet during the 20 years—probably because some of the commercial forest lost was of low productivity and because the remaining stands matured."

"Oak is the most abundant timber in the state, with 38 percent of the total volume. Soft maple, elm, cottonwood, and hickory also have large volumes. Hickory and white oak increased significantly in volume between surveys, but the red oaks (except northern red oak), basswood, cottonwood, and other white oaks (swamp white, bur, chinquapin, overcup, and post oaks) declined. And the volume of



highly prized black walnut fell even more, while Dutch elm disease-riddled elm trees plummeted the most of all in volume."

"Iowa's wood inventory also includes 0.3 billion cubic feet in 'cull' trees—those considered of little value because they are noncommercial species, or have poor form or internal decay. Most of these trees are unsuitable for high-value timber products and are passed over during logging operations."

"Black walnut volume from all sources amounts to 44.1 million cubic feet, made up as follows: 1) 31.8 million in 'noncull' trees on commercial forestland (down from 51.5 million in 1954); 2) 6.3 million in 'cull' trees on commercial forestland; and 3) 6.0 million from trees on nonforestland. Much of the black walnut volume is in scattered trees. On nonforestland, trees may be found singly in pastures, fields, and along fence rows."

"Net annual growth of trees in 1973 totaled 41 million cubic feet, or 28 cubic feet per acre. During the same year, 50 million cubic feet (34 cubic feet per acre) were removed (cut, killed, or relegated to other uses)."

"Only 26 percent of the 1973 timber removals was harvested for roundwood products. The largest portion, 71 percent, consisted of trees cut or killed but not used, or trees on land withdrawn from commercial forest use. The remaining 3 percent was material left in the woods as logging residue."

"A projection of Iowa's timber resource shows inventory declining from 1,055 million cubic feet in 1974 to 932 million in 2004, a 12 percent drop. Timber removals will remain greater than growth during the entire period. This estimate assumes a net loss of 6,900 acres of commercial forest per year."

"Most of Iowa's forest—nearly 70 percent—is occupied by young stands of seedlings and saplings which will not benefit greatly from cultural practices at this time.



These woodlands are too young to harvest. In addition, some of them are poorly stocked, but for various reasons, are not plantable; some are made up of species not commercially valuable; and others simply do not respond to cultural treatment. But an area of 212,000 acres would benefit from tree planting or converting from one forest type to another. Another 209,000 acres support mature timber ready for harvest. And, finally, 36,000 acres support stands overstocked with young trees growing on high quality sites where thinning would greatly improve growth."

The Iowa forest industry as of 1978, using raw material from the state's timber resource as well as from outside sources, employed 14,300 people (5.8 percent of all employees), had a payroll of \$188 million (5 percent of the state total), and added \$428 million by manufacture (4.3 percent of the state total) (Manufacturers, Annual Survey of, 1978).

#### **Implication of the Forest Decline**

Some reasons for the decline in forest

cover are presented (Thomson and Hertel, 1981) in the following discussion.

"Until the advent of truly large equipment at the end of World War II, forest acreages probably did not suffer the catastrophic decline that has been evident over the last 20 years. However, the selling off of the best trees through high grading and the years of unrestricted grazing which inevitably led to compacted soils and reduced canopy density led to the deterioration of forest quality. Wood for fuel was harvested by most forest owners but even so, the woodland was usually considered an undesirable burden of no income potential. Decades of neglect and mismanagement conspired to produce a forest that was most often classified as 'wasteland.' "

"It was little wonder that farmers and highway designers elected to locate highways through woodland instead of crop and pastureland. When cropland became both expensive and limited, it was inevitable that pastures would be



plowed and the already sparse woods thinned for pasture. As equipment became bigger still and cropland prices reached unheard-of levels, it became inevitable that forests would be cleared to the edges of ravines and to the banks of streams and the bulldozing of entire woodlots would become feasible."

"It can be assumed that some counties in Iowa will be rendered almost treeless except for farmstead plantings in rural areas and shade tree planting in towns. The necessity to increase immediate income to pay for large, expensive machinery and high-priced farm land dictates farming practices which lead to the clearing of fence rows, the narrow 'stringers' of forest along ravines and waterways, and those woodlands thought to be capable of producing pasture or cultivated crops."

"There is a trend toward urban expansion into forested areas. While a wooded lot commands a premium price and the trees are generally preserved, it is unrealistic to include these urban acreages as a part of Iowa's forest. Characteristics of naturalness, wildlife habitat, access to the public, production of timber, and protection of watershed all seem to be diminished by the quasi-urban use."

#### **Wildlife and Fish Resources**

Forests are vital to the maintenance of certain species of wildlife. Without forests, they diminish or disappear. Forests also affect the fisheries resource in several ways. For example, maintenance of the trout fishery in northeast Iowa requires shading of streams so that a lower water temperature exists. Forested watersheds yield clean water with

positive effects on the quality and quantity of fish habitat and on the enjoyment of the user.

The supply of forest-based wildlife would increase if more forested land was available. That the demands on the wildlife resource extend supply is evidenced by a restrictive season on wild turkey with the number of turkey licenses restricted.

Another indication of short supply is an increasing number of conflicts between consumptive and nonconsumptive users. By 1985, the additional need of forest wildlife-related recreation is projected to be 1,629,300 person days for both consumptive and nonconsumptive users (Iowa Comprehensive Outdoor Recreation Plan, 1978).

The extent of forest cover also affects many life forms which are rare, endangered, or threatened. Many species continue to face extirpation



from the state or are denied conditions suitable for reproducing. A long list of flora and fauna are affected by the decrease in forest area.

Two trends will affect the forest wildlife resource and to a lesser extent the fisheries resource. One is the projected requirement for additional recreation involving forest-based wildlife and the second is the continued conversion of forestland to other uses. These trends will cause reduction of forest wildlife numbers, some species may disappear, and pressure on the remaining resource will increase. Conflicts among users will also increase. Reversal of these trends requires that every acre of existing forest cover be maintained and that critical areas be reforested. Present laws dealing with protected or endangered species are effective on protection of individual specimens; however, public reaction is often unfavorable. The Iowa Conservation Commission administers laws and programs affecting fish and wildlife resources. The agency works closely with private individuals to optimize contributions to the resource by the privately held land base.

Major fish and wildlife management opportunities include: placing more emphasis on giving private landowners technical wildlife management assistance to increase habitat quantity and quality; following wildlife management recommendations for major wildlife species to a greater extent during silvicultural operations; improving protection of high quality forest areas along streams; and more public ownership of forestland.

#### **Outdoor Recreation Resources**

Forests are important to several aspects of recreation:

- a. for dispersed recreation such as hunting and gathering;
- b. for structured activities enhanced by a forest setting such as camping, picnicking, and trail-oriented activities;
- c. as a source of amenities which contribute to a broad spectrum of peripheral activities such as observing nature (bird watching) and natural settings (viewing scenery) which are in part

recreational and in part an enhancement of the human experience.

The supply and demand situation for forest-based recreation is outlined in the Iowa State Comprehensive Outdoor Recreation Plan (1978). Shortages can be viewed as problems of distribution, either of the resource or of the consumer and either in space or in time. For example, campgrounds overcrowded on summer weekends may be relatively unused at other times; however, activities such as picnicking, fishing, camping, bicycling, hunting, and nonconsumptive uses of forest-related wildlife are projected to increase (Iowa Comprehensive Outdoor Recreation Plan, 1978).

Given the projected increase in activities utilizing a forest environment and the continued conversion of forestland at a rate estimated to be 6,900 acres per year (Spencer and Jakes, 1980), even greater shortages of recreation opportunities and user conflicts are likely to occur. For example, additional needs for recreation involving forest-related wildlife is projected to be 1,629,300 person days by 1985. If forests were to decrease to one-half of present acreages, recreation quality would decrease of user interference. Strain on the wildlife resource would increase, perhaps to the point where additional restrictions would be necessary.

Administration of the recreation resource falls chiefly upon the Iowa Conservation Commission, specifically the Parks, Wildlife, Fisheries, Forestry, and Enforcement Sections and upon the county conservation boards.

#### **Environmental Resources**

Many forests are more valuable for their stabilizing effect on the environment than for any other use. These are represented by forests which protect watersheds, steep slopes, stream banks, and also by trees arranged in linear patterns such as windbreaks and shelterbelts. Use of land to support forests which modify the environment is often seen as competing with other uses to which land might be put. The cost-benefit ratio concept is useful to

determine whether or not land can be efficiently used for environmental stabilization. In many cases, however, costs are borne by the private sector whereas benefits are public. To date, the apparent perception of private landowners has obviously been that benefits of clearing forested areas exceed cost.

Demand for establishment or maintenance of forests to protect the environment often finds expression through organizations and agencies whose mission is to create public awareness of the need. Examples are agencies like the Iowa Conservation Commission and Soil Conservation Service which shape public opinion to recognize value of field shelterbelts, windbreaks, forest planting, and forest preservation for erosion control. Such agencies, while attempting to influence public opinion, are also reflecting opinions of a segment of the public concerned about environment. Demand is satisfied when a favorable cost-benefit ratio exists, making choice among alternatives obvious. For example, the effect of windbreaks on wind force and direction has been closely studied and the effect of wind on heat removal from a heated structure is well understood. It is therefore quite possible to quantify a cost-benefit ratio for establishing a windbreak.

It is more difficult to define the full range of benefits and costs associated with removal of forest cover. It is known that soil movement from properly managed forest is minimal. Research throughout the northeast has shown repeatedly that infiltration rates of forest soils far exceed normal rainfall amounts (Soper, 1977). Most hydrologists conclude that little or no overland flow occurs in forested areas because virtually all the rainfall on forestland is absorbed into the soil and reaches the stream channel by way of subsurface flow. Also, soil from which forest has been removed is vulnerable to erosion until other vegetation becomes established. Soil loss resulting from forest clearing practices is thought to be substantial, however, measurements of the loss are not known to exist. The costs to society of the loss of soil, wildlife

habitat, and other benefits have not been defined in monetary terms. The apparent cost of forest conversion is merely the cost of tree removal and subsequent erosion control costs which society often shares.

An existing trend is toward the elimination of forestland at a rate estimated to be 6,900 acres per year (Spencer and Jakes, 1980). Because much of the forest which contributed to environmental protection is located on land relatively undesirable for other uses, the rate of conversion is somewhat less than for forestland generally. Because soil loss accompanying conversion is greater, so are the consequences.

Laws authorizing incentive programs for timber improvements, tree planting, and livestock exclusion and laws providing property tax reduction have existed for many years. However, incentives do not appear to be large enough to interest a significant number of people. A recent federal income tax law permitting costs of forest establishment to be written off and providing for investment credit is available. Property tax has been eliminated on forestland under a recent Iowa law. These measures, in connection with older programs, provide additional incentives to maintain, improve, and plant forests.

Other institutions are at work to encourage destruction of forest cover. Cost-sharing programs can be used to improve land after it has been deforested, such as for reseeding or for installation of terraces, neither of which would have been needed had the land remained forested. These programs shift to society part of the cost of bringing new cropland and pasture into production to the detriment of the forest resource. Land clearing is also treated by the Internal Revenue Service as a conservation expense which can be written off, whereas tree planting, until the passage of P.L. 96-451, effective January 1, 1981, could not be. Government-secured loans are available for land improvement, including tree removal. These can be used to deforest land for subsequent conversion to cropland or pasture or if

not used directly, can free other funds for the same purpose. Forest clearing often has public consequences of increased flooding, greater stream siltation, and loss of productivity through increased erosion.

The trees in Iowa's cities and towns—yard, street, park, and greenbelt—make up the urban forest resource. This resource is considered as forest since it consists of a plant community which requires some form of broad management for maintenance in a healthy and useful condition. Management of this resource usually falls to the municipality on public lands and to the individual homeowner on private property. Opportunities exist to improve the urban forest for greater contribution to the quality of the citizens. These opportunities include improved street tree planning and species selection, planting encouragement, better protection from pests, informed care and, in park and greenbelt areas, improved woodland practices.

Dedicated forested lands are those having restrictions placed on their use which result in their being withdrawn from timber production and perhaps from certain recreation uses. Examples are dedicated state preserves, county preserves, and city greenbelts. State parks are not considered here as dedicated lands because, to a limited extent, they are used for timber production and are subject to intense recreational activity. Very little private land can be considered protected as an ownership change may result in a shift in use.

The demand to restrict use of forestland arises when people perceive loss of an irreplaceable resource, such as endangered plant or animal species or plant communities with unique values. The resource is supplied to meet this demand when some agency is successful in placing it in a restricted status. Sometimes forested lands which have some restriction on their use are accepted as gifts by a public agency.

Opportunities for the protection of endangered or threatened plants and animals, and for the protection of

unique woodland communities are lost when a land-use decision results in woodland clearing.

Acreages of dedicated forestlands are and probably will remain small. Their impact on the forest resource acreage is not significant, although the value of their forest products when harvested would support much of the maintenance and management cost if the important resource can be protected. These lands do provide opportunities for studying natural forest dynamics, maintain genetic reservoirs of key plants and animals, and help nurture public appreciation of forestland.

Various agencies are in the process of inventorying areas supporting unique archaeological, geological, biological, or historical features. It can be anticipated that as these areas are identified, some will be placed in public ownership. Voluntary protection by private individuals will be necessary to protect others.

Iowa has adequate laws which allow for acquisition and administration of unique areas, although funding is at a rather low level. Several government and nongovernment agencies are involved, including the Iowa Conservation Commission, the Iowa Natural Heritage Foundation, the State Preserves Advisory Board, and The Nature Conservancy.

# PLANNING ISSUES AND GOALS

Eleven planning issues were identified as especially important by the State Forestry Planning Committee in 1977. The issues as placed in priority order by the committee (and incorporating public responses), the first being the highest priority, are as follows:

1. There is a need to identify the acreage, location, and quality of woodlands needed to satisfy the public and private demands upon the resource.

2. Land conversion from forest to other uses must be curtailed on inappropriate sites to preserve forest as a viable contributor to Iowa's environment and economy.

3. Greater awareness of the contribution of woodland is needed to prevent continued and substantial loss of the resource.

4. Improved woodland management is needed on all types and ownerships.

5. There is a need to provide urban communities in Iowa with assistance in the management of their tree resources.

6. Tree planting is needed on approximately 600,000 acres in Iowa for watershed protection, vegetating abandoned mine sites, and to improve existing woodlands.

7. Increased market and utilization options for the forest crop are needed.

8. Protection of woodlands from insects and diseases is needed to reduce losses.

9. Protection from wildfire is needed to minimize resource losses.

10. The Iowa forest products industry needs improved utilization and processing to increase wood product recovery.

11. There is a need to minimize adverse impact of government regulations on the forest resource.

Forestry goals for Iowa were proposed by the state forestry planning committee in concert with the issues. These goals are:

1. Develop and implement an official forestry policy for Iowa.

2. Increase public awareness of the economic and social contribution of woodlands.

3. Maintain a viable wood-using industry in Iowa.

4. Maintain damage by wildfire,

insects and diseases at acceptable levels.

5. Establish forest cover on appropriate erodible sites.

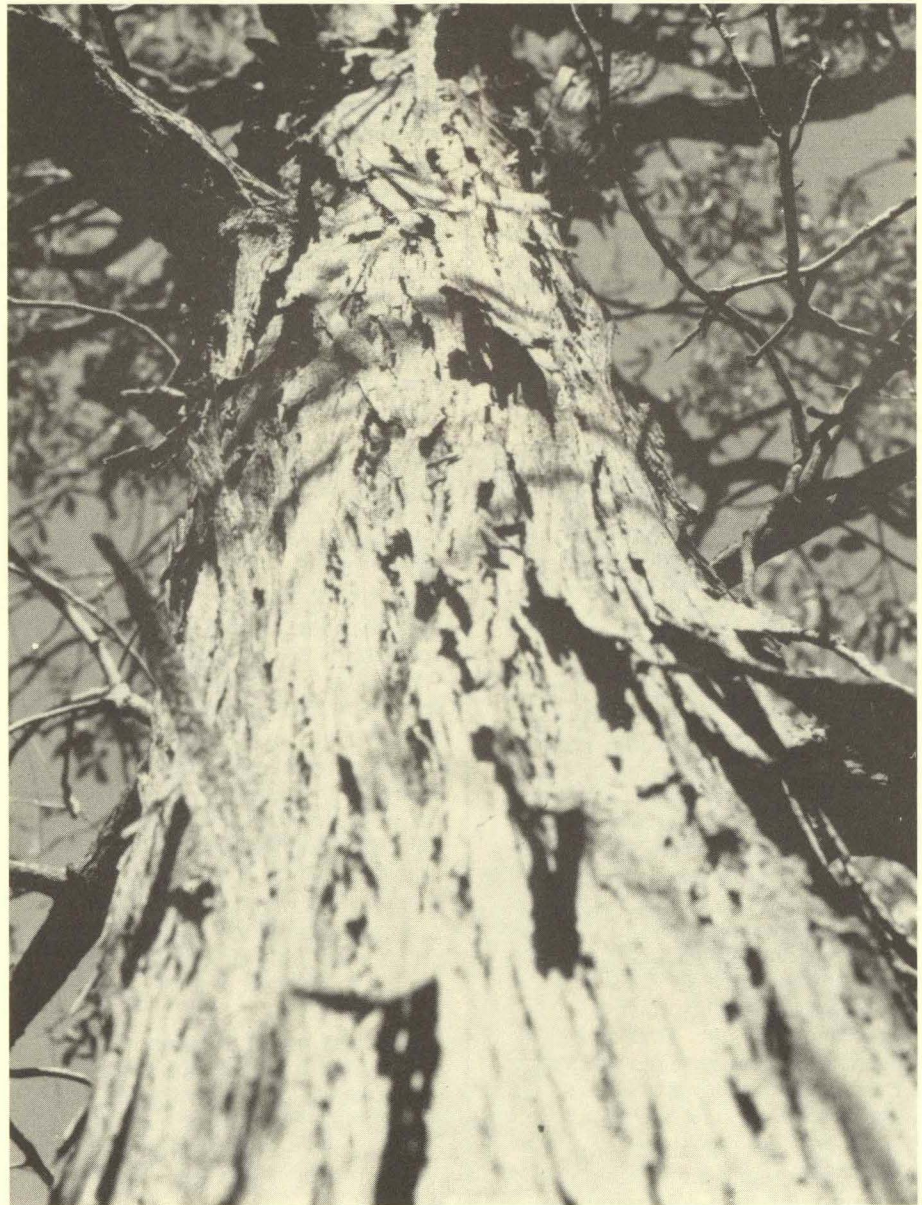
6. Accomplish the highest level of management of all woodlands and urban forest resources consistent with benefits.

7. Provide for public ownership of woodlands to serve public needs including benchmark examples of Iowa's natural forest types.

8. Conduct appropriate research in

the management, protection, and utilization (harvest, manufacture, and distribution) of forests.

All the foregoing issues and goals are considered important. In addition, there may well be other issues which cause concern. Current programs relating to each of the issues are listed in the next section, Forestry and Related Natural Resource Programs. Each issue and goal is addressed in the section, A Forestry Program for Iowa.



# FORESTRY AND RELATED NATURAL RESOURCE PROGRAMS

Many agencies and organizations conduct activities which have an impact upon the woodlands and forestry programs of the state. Each influences the contribution that the forest will make.

**State Conservation Commission** members, the director, and administrators affect the Iowa woodland through their program and budget support for forestry programs of the agency.

Commission policy is to manage state lands on a multiple-use basis unless their special circumstances dictate more restrictive use. Timber harvesting is incorporated into the management plans for state forests, wildlife areas, and larger recreation areas. Timber removal from state parks is done to salvage valuable trees declining in vigor, to remove trees dangerous to the public, to minimize woodland damage caused by insects and diseases, to create diversity in vegetative cover for wildlife habitat improvement or to enhance the recreational enjoyment of the park. Timber removal is not practiced on state preserve areas except to protect the natural features being preserved.

The Forestry Section of the Conservation Commission provides professional forestry counseling to private and public landowners, manages 25,000 acres of state forestland, assists in timber management on state lands of the Wildlife and Parks Sections of the Commission, operates a state nursery to provide low cost trees to encourage planting, obtains federal excess vehicles for rural fire departments, provides fire tools to fire departments, processes grant money for training and equipping rural firemen, advises landowners in forest pest management, administers the timber buyer bonding law, assists wood-using industries in improving processing skills, and recommends needed legislation and new programs important to the future of Iowa's forest resources.

The Wildlife and Parks Sections manages a great deal of public forestland and thus determine the

contribution which will be made from these lands.

The Enforcement Section assists the Forestry Section in the administration of the timber buyers bonding law.

**State Preserves Advisory Board** is charged with identifying, dedicating, and maintaining lands for the State Preserves System. Many of these preserves contain forest resources.

**Iowa Development Commission** programs encourage the development of new wood-using industries and give management advice to existing firms.

**County Preservation, Land-Use Commissions, Boards of Supervisors, and County Zoning Boards** influence woodland retention or establishment.

**County conservation boards** manage public forestlands and determine the benefits which will be derived from these areas. The counties have planted millions of trees and shrubs on private and public land, and conducted conservation education programs.

**Iowa Department of Water, Air, and Waste Management** regulations and procedures affect the management of woodlands on all ownerships, although seldom directly. **County assessors** influence landowners' forestland use decisions by their administration of real estate tax assessment laws.

**Iowa Department of Corrections** cooperates with the Conservation Commission in providing inmates with meaningful conservation work on state lands.

**Iowa Department of Public Instruction** curricula development in natural resource fields influence the attitude of young people toward woodland use.

**Iowa Department of Agriculture** programs in nursery and forest pest regulations and horticulture influence the land-use choices of both rural and urban residents.

**Iowa Department of Transportation** plantings on or near highway rights-of-way enhance the environment, provide wildlife habitat, and help create an awareness among Iowans of the importance of trees and woodlands.

**Iowa State University** research and extension programs in forestry have a very important role in landowner decisionmaking with regard to woodland. A woodland owner's newsletter is sent to 11,000 timber owners. Forest industry is also served by forestry research and extension programs. Fire Service Education supports woodland protection in efforts to train firemen in the prevention and suppression of woodland wildfires. The Center for Industrial Research and Service serves the wood-using industry with management advice.

**Other universities and colleges**, through teaching and research in fields allied to forestry, influence student attitudes toward forest resource use.

City governing bodies exercise control over a large portion of the urban forest. The planting, replacement, and care of street, park, and greenbelt trees is determined by the ordinances and financing relating to the tree resource.

**Soil and water conservation districts** influence the treatment of forestland in setting soil conservation policy at the local level. Emphasizing forestry practices will influence many landowners' attitudes toward the resource. Districts are active in creating awareness of the need for windbreaks and forest planting.

**Iowa Department of Soil Conservation** administration of soil conservation regulations and policies which relate to the forest resource can encourage woodland management. Administration of state cost-share funds is particularly important.

**Resource Conservation and Development (RC&D)** projects, sponsored by the USDASoil Conservation Service, depend largely upon the efforts of local citizens. Most RC&D areas have a forestry committee that promotes forestry measures, such as tree planting.

**United States Department of Agriculture** agencies have several programs which directly affect the woodland resources. The Soil Conservation Service provides technical assistance, under policy

direction from local soil and water district commissioners, to landowners in technical conservation matters. This service includes windbreak and shelterbelt planning and preliminary advice in woodland management. The attitude of the SCS employee, and the agency policies under which he works, have considerable influence upon the land-use decisions of landowners.

The Agricultural Stabilization and Conservation Service, locally and at the state level, administers cost-sharing funds for the installation of forestry practices on private land. The acceptance of forestry measures as qualifying expenditures of federal cost-share funds is very important in encouraging tree planting and improvement work in woodlands. Some programs which the agency is called upon to administer can have a negative impact on forest by encouraging row crop or pasture production on land which is cleared of woodland.

The Farmers Home Administration affects landowner decisions about forestland through policies relating to forestry loans and loans for agricultural purposes. Landowner decisions to retain woodland or convert woodland to other crops may be strongly affected by such loan policies.

The Forest Service has an important impact upon the woodlands of Iowa. Appropriations made to the Forest Service for work on state and private lands are allocated to the Forestry Section (State Conservation Commission) to deliver services to landowners. Iowa's allotment of federal funds is subject to the federal government's position toward redeeming the national responsibility for protecting and influencing management of the forest resource on private lands. The recent tendency to put more of the burden upon the states for forestry programs reduces the total government capacity to encourage improved woodland management and protection. Further, the Forest Service Experiment Station is responsible for coordinating research funding through McIntire-Stennis appropriations granted to the

forestry department of Iowa State University.

**Private organizations** offer encouragement to landowners to maintain and manage woodlands.

The Iowa Tree Farm Committee, sponsored by the American Forest Institute, conducts an Iowa tree farm program. The purpose is to encourage private landowners to grow a wood crop.

The Iowa Wood Industries Association is active in promoting retention and management of woodlands for a continuous raw material source for the mills.

Iowa landowners, who control the land upon which woodlands grow or could be established, will finally determine the future of Iowa forests. Their land-use decisions, influenced though they may be by external influences, are critical.

Consultant foresters, who provide professional forestry service for a fee, are instrumental in getting better forest management on the land.

The Izaak Walton League, Iowa

Wildlife Federation, Iowa Natural Heritage Foundation, the Sierra Club, The Nature Conservancy, and other organizations interested in the woodland resource influence the management to some degree by Legislative and other actions.

The Iowa Nurserymen's Association members produce planting stock and have an influence in tree establishment in urban areas and for rural windbreak plantings.

The Iowa Banker's Association members are in a position to influence land-use decisions to enhance the forest resources.

The Iowa Farm Bureau, Grange, National Farmers Organization, and Farmer's Union influence woodland attitudes of landowners.

There are a great many groups and individuals represented in this list. It is necessary in developing a forestry program for Iowa that the influence of each be considered. With cooperation, a meaningful improvement in the contribution of Iowa's woodlands is possible.



# A FORESTRY PROGRAM FOR IOWA—ALTERNATIVES CONSIDERED

## Forestry Section, State Conservation Commission

Three program level alternatives are presented in Appendix I. The first is based upon the assumption that Forestry Section budgets, including both state and federal funds, would remain at their fiscal year 1983 level. The second alternative assumes a 25 percent reduction in total funding. The third alternative is based upon meeting all the demand for services and goods from the Forestry Section and sufficient state and federal dollars to meet these demands. Rural forestry assistance demand projections are based upon a work load analysis conducted by the Forestry Section in cooperation with the U.S. Forest Service personnel. All expenses are based upon 1983 dollars with no adjustment for inflation.

A basic assumption in developing the alternatives was that the issue priorities established by the state forestry planning committee generally reflect the issues of concern to the public. Activities are addressed in each alternative by fiscal year 1983 programs of the Forestry Section, so the alternatives presented merely change emphasis within the existing array of program elements.

There is opportunity at any time to change the emphasis and to delete, or add, programs or program elements. The alternatives presented offer a basis for comment, for suggesting changes in activities and for expressing a preference for program level.

There have been several program commitments made during past Forestry Section operations which require maintenance. These items make abrupt changes difficult. Among the obligations are: administration of the timber buyer bonding law; inventory control of excess federal property and Rural Community Fire Program equipment; code responsibility for resource protection and for forestry; legislative intent to provide nursery stock to encourage planting; and prison labor cooperative programs with the Iowa Department of Corrections. Forestry Section program funding is subject to change



in the budgeting process at both the state and federal levels. In fiscal year 1982, federal allotments to Iowa made up 31 percent of the total program expenditures in Rural Forestry Assistance, Urban Forestry, Rural Fire Prevention and Control, and Insect and Disease Control.

The Forestry Section program must remain flexible to accommodate

budget fluctuations while serving as a focal point to guide such changes. To a high degree, a "preferred program" will ultimately be established by administrative and legislative action through the budgeting process. Appendix I serves to identify increases or decreases in program accomplishments as a consequence of budget actions.

## Recommendations to Other Conservation Commission Sections

### Wildlife Section

Continue assistance to the Forestry Section in wildlife management on state forests.

Allocate resources for woodland improvement, planting, and harvesting.

Consider funding wildlife shrub production costs if the Forestry Section budget will not support the desired planting needs.

Continue to utilize Forestry Section personnel in woodland management on wildlife areas.

### State Parks Section

Allocate resources to accomplish forest management work so the forest resource on state parks will be improved.

Continue to utilize forestry personnel in woodland management on state parks and recreation areas. Logging in state parks should be restricted and thoughtfully supervised to protect the entire woodland community.

Assistance to the Forestry Section personnel in recreation planning and management on state forest areas.

### Information and Education Section

Create public awareness of forest resource importance in all media and educate landowners in forestland management.

### Planning Section

Provide assistance to the Forestry Section in updating and improving the Iowa Forest Resources Plan.

## Recommendations to Other Agencies and Organizations

### Forestry Extension—Iowa State University

Continue to publish the woodland owners' newsletter and distribute it to interested citizens.

Continue assistance to the Forestry Section staff and other forestry professionals in cooperative training and continuing education. Continue printing and distribution of forestry information bulletins directed especially to Iowa landowners.

Continue forestry field days or other means to create and maintain a public awareness of the role of forestland in the state's economic and cultural systems.

### Forestry Department—Iowa State University

Conduct research which will assist Iowa woodland owners in applying the most productive management and provide information for primary and secondary wood product manufacturers and consumers.

### Fire Service Education—Iowa State University

Incorporate wildfire training technique into training programs to enable local fire personnel to understand and know how to control wildfire and continue to advise the Forestry Section in conducting the Rural Community Fire Program and in fire reporting and planning.

### The USDA Forest Service

Continue to provide funds and technical service to the state in carrying out the federal responsibility practical for the states to conduct such activities.

### County Conservation Boards

Develop a forest resources policy and program for all woodlands in the county. The policy should define the role the board intends to play with reference to management of county forestland, other public land, and private land. Each county board should adopt a specific forestry program, after thorough consideration of the following:

- Forest management consideration in master plans.
- Ways in which landowners and the public can be made more aware of the benefits of woodlands.
- Ways in which the board can cooperate with state and federal agencies in extending assistance to private lands.
- Ways to promote trees as a crop.
- Conducting a countywide inventory of woodlands to help attract wood-using industry and

to aid in land-use responsibilities of the county.

- Assistance to the county assessor in administering the fruit tree and forest reservation law.
- Establishment of forest management demonstration areas on county lands to provide examples for county woodland owners.
- Integrated management of county areas to include zones of forest management, wildlife management, preserve management, recreation, and other appropriate uses.
- Ways in which the board can assist cities with urban forestry resource management.

### Iowa Urban Foresters Association

Continue efforts to provide a forum for improving the urban forestry resources in Iowa. Advise universities and the Forestry Section, Iowa Conservation Commission, in regard to urban forestry programs.

### Iowa Department of Corrections

Continue to support the Conservation Commission in nursery stock production and area management.

### The U.S. Soil Conservation Service

Continue protecting the Iowa forest soil resources by discouraging destructive grazing of woodlands, discouraging the clearing of woodlands on land that is marginal for row crop production, and encouraging tree planting on marginal, erodible land.

Continue to coordinate the Resource Conservation Act and Resources Planning Act provisions. Continue to call upon Forestry Section professionals to assist with the woodland recommendations in conservation planning.

### The Agricultural Stabilization and Conservation Service

Continue financing forestry cost-share practices under the Forestry Incentives Program and the Agricultural Conservation Program.

Eliminate cost-sharing practices which assist landowners in removal of established forest.

**The Farmers Home Administration**  
Include woodland management alternatives in farm management considerations, using professional forestry counsel.

**Be aware of the impact of lending policies upon the forest resource.**

#### **The Iowa Wood Industries Association**

Continue to support the Iowa Tree Farm Program.

Continue to work for a state policy which will encourage woodland establishment or retention on all suitable land.

The Association and members should support programs which improve woodland management.

#### **The State Tree Farm Committee**

Continue sponsorship of the state Tree Farmer of the Year award.

Establish an aggressive educational program in all parts of the state.

Continue the certified tree farmer program to encourage the timber management of private woodlands.

#### **Iowa Society of American Foresters**

Continue to monitor the professional conduct of members so that Iowa landowners receive qualified service.

Prepare informed professional positions on issues which will have an effect upon Iowa woodlands and make them available to the public and to decisionmakers.

#### **Iowa Soil and Water Conservation Districts**

Continue to recommend Forestry Section personnel for providing forestry advice to woodland owners in all districts. Implement the forestry provisions of the Iowa Five-Year Soil Conservation Plan.

#### **The Department of Soil Conservation**

In program policy and procedures, continue to protect the Iowa forest soil resources by discouraging grazing of woodlands, discouraging the clearing of woodlands on land that is marginal for row crop

production, and encouraging tree planting on marginal, erodible land.

#### **Iowa Department of Transportation**

Continue emphasis on roadside planting where feasible. Investigate further establishment of living snow fence plantings.

#### **The State Department of Public Instruction**

Consult with forestry resource professionals in developing teaching materials, professionals in the Conservation Commission, the forestry department at Iowa State University, the Iowa Society of American Foresters, the Iowa Tree Farm Committee, and individuals in Iowa who could provide technical and philosophical review to improve the "Outlook" environmental education material. Be aware of the impact of lending policies upon the forest resource.

#### **The Iowa Legislature and Governor**

Take action to bring about the establishment of woodlands so the state will maintain three million acres in rural forest. Such action could include a combination of the following:

- Continue the forest reservation property tax exemption for landowners who maintain rural woodlands under good management.
- Provide a property tax credit for landowners who plant or maintain woodland on the most erosive lands as a means of preventing erosion and stream siltation.
- Strengthen the state's forestry program by one or more of the following:
  - Encourage the appointment of one Conservation Commissioner who has a forestry or wood-using industry background.
  - Create a forestry advisory board to advise the Conservation Commission.
  - Create a forestry division within the Conservation Commission to replace the present section level unit.
  - Authorize secretarial and technical assistance for Conservation Commission foresters through the soil and water conservation districts.





- Increase Conservation Commission funding to triple the number of landowners currently given management assistance and to increase other services.
- Provide cost-sharing funds to assist landowners with fencing to protect woodland from domestic livestock damage.
- Be prepared to provide authority and funding to reduce potentially catastrophic losses due to pest attack. The gypsy moth, moving toward Iowa from eastern states, is one such pest.
- Provide authority and funding for designating and acquiring forest areas which are critical to the survival of rare species.



# APPENDICIES

## APPENDIX I

### FORESTRY SECTION PROGRAM ALTERNATIVES<sup>o</sup> STATE CONSERVATION COMMISSION IOWA

Program	Unit of Measure	Fiscal Year 1983 Program Level			Reduced Program (75% of FY 1983 Level)			Resource Demand Maximum (funds not limited)		
		Person Years	Budget	Accomplishment	Person Years	Budget	Accomplishment	Person Years	Budget	Accomplishment
<b>Rural Forestry Assistance</b>		14.6	383,455	—	12.6	283,000	—	34.0	800,000	—
Owners Assisted with Management Plans	Number			700			600			2,100
	Acres			29,500			25,500			88,500
Timber Marked for Sale	Bd. Ft.			2,891,000			2,500,000			8,700,000
	Acres			3,100			2,700			9,300
Timber Thinning	Acres			1,200			1,000			3,600
Value Added to Final Crop	Dollars			120,000			100,000			360,000
Tree Planting	Acres			3,200			1,800			9,600
Crop Value Added by Interplanting	Dollars			80,000			45,000			280,000
<b>Forest Products Utilization</b>		1.0	38,868	—	1.0	38,000	—	3.0	80,000	—
Industries Assisted	Number			120			100			240
Improved Utilization (Primary)	Cu. Ft.			800,000			700,000			2,400,000
Value Increased by Improved Utilization	Dollars			80,000			70,000			240,000
Improved Harvesting Assistance	Cu. Ft.			200,000			175,000			400,000
Value Increase From Harvest Assistance	Dollars			20,000			18,000			40,000
<b>Urban Forestry</b>		.2	6,116	—	.1	3,000	—	1.0	25,000	—
Communities Assisted	Number			50			10			75
<b>Insect and Disease Protection</b>		2.0	51,401	—	.5	13,000	—	3.0	100,000	—
Surveys Conducted	Acres			1,500,000			100,000			1,500,000
Owners Assisted	Number			200			100			300
<b>Rural Fire prevention and Control</b>		8.0	195,163	—	3.0	75,000	—	8.0	200,000	—
Literature Distributed	Pieces			50,000			25,000			50,000
Fire Departments Hand-Equipped	Number			10			0			30
Excess Property Units Obtained	Number			10			0			10
Excess Property Units Inventories	Number			500			100			500
<b>Rural Community Fire Program</b>		.2	5,410	—	.2	5,000	—	1.0	25,000	—
Training Apps. Funded	Number			175			175***			250***
Equipment Apps. Funded	Number			70			30***			140***
Equipment Units Physically Inventoried	Number			200			70			1,000
<b>Nursery Production</b>		18.0	566,274	—	14.0	424,000	—	24.0	700,000	—
Trees Distributed (60% Hardwoods)	Number			1,770,000			1,500,000			8,000,000
Shrubs Distributed	Number			1,500,000			500,000			2,000,000
<b>State Land Management</b>		9.5	437,057	—	7.4	308,000	—	8.0**	350,000**	—
State Forests										
Timber Sales	Dollars			35,000			35,000			35,000
Habitat Improved	Acres			200			200			200
Crop Value Added by Thinning & Interplanting	Dollars			10,000			5,000			10,000
Recreation Visitor Days	Number			140,000			140,000			140,000
Wildlife Areas										
Timber Sales	Dollars			30,000			15,000			30,000
Habitat Improved	Acres			200			100			200
Woodland Growth Restored on Desirable Trees										
By Harvesting	Acres			200			100			200
By Thinning	Acres			100			50			100
State Parks										
Tree Sales	Dollars			50,000			25,000			50,000
<b>Forestry Section Supervision</b>		2.0	77,337	—	2.0	77,000	—	2.0	77,000	—
<b>Prison Labor</b>		1.5	35,000	—	1.5	35,000	—	2.0	35,000	—
Inmates Employed	Number			30			30			40
<b>TOTALS</b>		57.0	1,796,081	—	42.3	1,258,000	—	87.0	2,392,000	—

<sup>o</sup>Campground management expense to Parks Section.

\*\*Accomplishments will not be possible if no federal funds are available to cost-share with local units.

<sup>o</sup>Costs and person years are approximate to show relationships only. 1983 dollar basis.

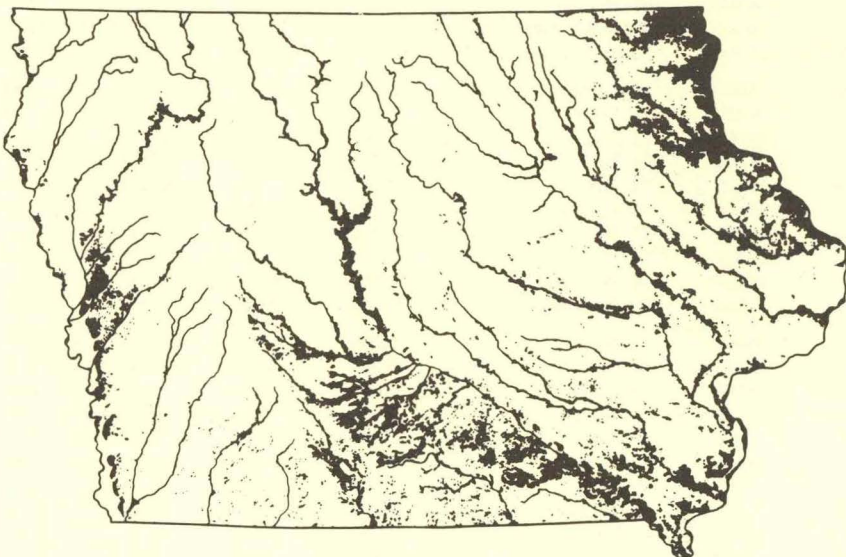
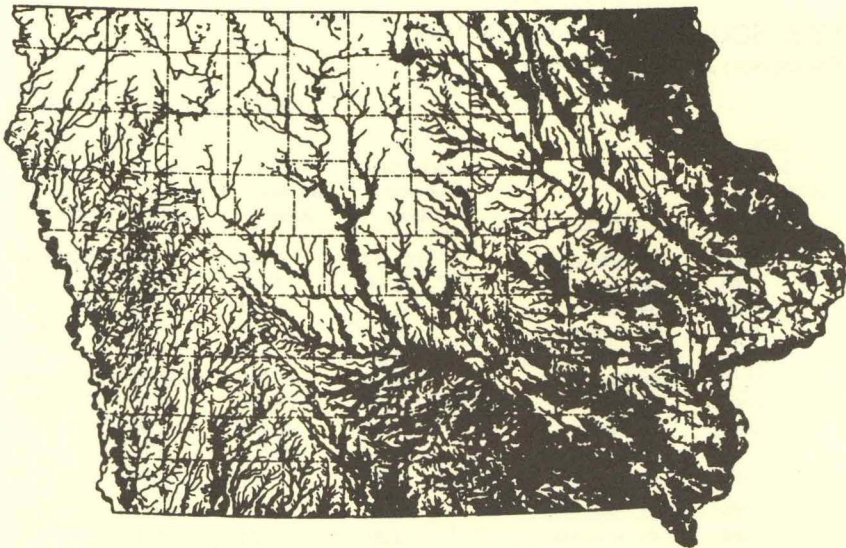
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APPENDIX II

FOREST ACREAGE ESTIMATES IN IOWA FOR FOUR PERIODS (1832 to 1974)

THE FOREST RESOURCES OF IOWA IN 1980  
(Thompson and Hertel 1981)

County	Forest Area in Acres				County	Forest Area in Acres			
	1832-1859 Surveyor's Notes	1875 Andreas Atlas	1954 Iowa Survey U.S.F.S.	1974 Iowa Survey U.S.F.S.		1832-1859 Surveyor's Notes	1875 Andreas Atlas	1954 Iowa Survey U.S.F.S.	1974 Iowa Survey U.S.F.S.
1. Adair	32,768	8,529	12,000	6,200	51. Jefferson	143,250	69,429	37,000	17,800
2. Adams	36,147	10,392	16,000	7,600	52. Johnson	108,545	47,925	41,000	25,200
3. Allamakee	376,220	61,107	132,000	101,800	53. Jones	136,705	48,007	42,000	28,300
4. Appanoose	133,760	63,340	56,000	30,500	54. Keokuk	116,531	42,688	35,000	16,000
5. Audubon	13,516	4,132	4,000	1,300	55. Kossuth	3,840	2,319	8,000	2,500
6. Benton	64,204	23,558	20,000	15,300	56. Lee	179,100	60,596	81,000	50,700
7. Black Hawk	49,280	19,875	17,000	12,900	57. Linn	153,600	64,078	46,000	32,300
8. Boone	62,080	22,067	30,000	22,400	58. Louisa	101,065	48,111	41,000	22,200
9. Bremer	47,360	24,899	15,000	12,600	59. Lucas	64,640	27,206	51,000	31,700
10. Buchanan	64,307	33,553	17,000	11,200	60. Lyon	1,000	230	4,000	1,700
11. Buena Vista	1,200	799	5,000	2,400	61. Madison	72,800	23,687	50,000	26,000
12. Butler	39,680	12,228	15,000	9,300	62. Mahaska	111,360	44,124	31,000	15,500
13. Calhoun	3,000	765	2,000	600	63. Marion	131,060	57,586	52,000	26,700
14. Carroll	10,320	2,680	5,000	1,000	64. Marshall	32,320	16,771	14,000	8,500
15. Cass	30,720	4,442	9,000	2,700	65. Mills	50,790	29,584	25,000	12,700
16. Cedar	76,000	22,706	23,000	15,600	66. Mitchell	66,355	10,084	10,000	5,000
17. Cerro Gordo	21,760	5,872	4,000	900	67. Monona	49,130	8,972	48,000	25,100
18. Cherokee	5,720	1,377	11,000	4,700	68. Monroe	86,400	49,213	71,000	34,400
19. Chickasaw	85,500	22,125	16,000	8,100	69. Montgomery	36,864	11,656	10,000	4,700
20. Clarke	55,560	24,251	39,000	22,500	70. Muscatine	90,820	31,285	50,000	19,200
21. Clay	3,300	1,368	8,000	3,900	71. O'Brien	1,500	—	4,000	1,300
22. Clayton	366,340	117,213	120,000	84,400	72. Osceola	640	—	2,000	100
23. Clinton	80,896	30,710	30,000	24,000	73. Page	51,200	25,188	12,000	7,300
24. Crawford	10,810	5,010	14,000	4,600	74. Palo Alto	5,600	1,646	6,000	1,500
25. Dallas	64,640	23,855	36,000	19,200	75. Plymouth	3,640	365	12,000	5,200
26. Davis	200,640	99,625	51,000	26,800	76. Pocahontas	2,200	951	1,000	800
27. Decatur	126,000	45,620	57,000	29,200	77. Polk	67,200	34,218	32,000	17,300
28. Delaware	111,615	44,163	27,000	19,400	78. Pottawattasmie	51,814	20,681	27,000	13,900
29. Des Moines	125,340	65,991	40,000	26,000	79. Poweshiek	33,600	18,379	17,000	7,600
30. Dickinson	1,980	1,845	4,000	600	80. Ringgold	50,030	21,387	27,000	15,200
31. Dubuque	201,825	81,185	56,000	38,200	81. Sac	2,200	2,916	6,000	1,700
32. Emmet	4,000	1,976	4,000	2,700	82. Scott	43,000	14,835	15,000	10,800
33. Fayette	126,770	47,875	38,000	28,000	83. Shelby	16,690	6,184	5,000	1,800
34. Floyd	62,800	20,238	9,000	7,700	84. Sioux	700	—	3,000	1,000
35. Franklin	16,000	7,621	4,000	3,300	85. Story	37,440	9,468	13,000	5,500
36. Fremont	57,139	23,368	31,000	14,000	86. Tama	79,680	20,283	30,000	19,800
37. Greene	25,440	10,708	12,000	6,400	87. Taylor	57,036	22,873	21,000	10,300
38. Grundy	640	2,718	1,000	700	88. Union	28,800	11,330	22,000	15,400
39. Guthrie	44,032	15,128	38,000	25,500	89. Van Buren	201,730	85,189	64,000	38,200
40. Hamilton	19,520	10,376	9,000	6,200	90. Wapello	145,280	51,734	49,000	23,300
41. Hancock	8,900	2,173	3,000	900	91. Warren	82,640	47,719	44,000	24,200
42. Hardin	43,520	20,530	14,000	9,500	92. Washington	94,412	41,762	37,000	18,700
43. Harrison	64,380	29,930	44,000	30,500	93. Wayne	56,440	27,509	27,000	15,900
44. Henry	114,995	57,191	36,000	23,000	94. Webster	46,080	8,967	26,000	17,900
45. Howard	51,920	13,142	11,000	6,500	95. Winnebago	5,120	2,190	3,000	300
46. Humboldt	4,800	2,476	6,000	2,500	96. Winneschick	152,780	44,360	56,000	39,800
47. Ida	640	591	2,000	500	97. Woodbury	19,860	6,005	25,000	14,500
48. Iowa	90,315	29,081	30,000	18,200	98. Worth	9,220	6,475	5,000	1,600
49. Jackson	282,420	80,285	82,000	57,600	99. Wright	8,640	3,793	6,000	2,600
50. Jasper	68,800	83,146	31,000	12,000	TOTALS	6,680,962	2,524,793	2,620,000	1,561,300



A COMPAIRSON OF IOWA'S FOREST COVER BETWEEN THE TIME THE STATE WAS SURVEYED , AS PRESENTED IN IOWA STATE PLAN-  
NING BOARD (1935); AND 1976 , AS MODIFIED BY PECK, J.H.  
(1976) FROM LAND-USE IN IOWA, MISCELLANEOUS MAP SERIES 5,  
IOWA GEOLOGICAL SURVEY (1976).

### APPENDIX III

#### SUMMARY OF REVIEW COMMENTS

The plan was improved by the inclusion of many constructive comments on the **Review Draft, Iowa Forest Resources Plan, 1983**. Comments and suggestions are grouped here under several categories.

#### Public Forest Resource Policy

It is important to have a policy.

A standing committee of agency and organizational representatives should be formed to regularly review the plan and progress toward achievement of goals established.

More daring leadership is needed to stop hillside clearing which brings more land into production of surplus grain crops.

More financial incentives are needed to induce landowner decision to keep forest.

State land timber sales could, in time, provide some profit and payment in lieu of taxes to the counties.

Government programs to control the acreage of crop trees and forest is reasonable and consistent with dairy and grain policies.

If agricultural exports are encouraged and prices are strong, conversion of forestland will be intensified.

#### Laws Relating to Forestland

County conservation boards should have authority and a program to plant roadsides and to reforest county acquisitions.

Legislation should be considered to require new planting to replace any tree removal assisted by state, federal, or local governments.

Stronger legislation proposals should be offered for legislative consideration.

Incentive payments should be continued and enhanced where appropriate. However, no government cost-sharing should be available to landowners abusing woodlands.

Elevating the Commission's Forestry Section to division level is questionable. Changes in organization would have little effect on resource management.

State licensing of arborists is needed.

### **Forestry Research**

Initiative and funding are needed to assess herbicide drift damage to the forest.

Iowa State University should study landowner attitudes toward the use of land with the goal of targeting education to change attitudes.

Computer models are needed to show the economics of forestry under various woodland situations.

An assessment of the environmental and societal costs of clearing is needed.

A study of projected raw material needs of the Iowa wood-using industry is needed.

### **Fish and Wildlife Management**

Resource management in Iowa is dominated by wildlife concerns at both the Iowa Conservation Commission and county conservation board levels.

### **Wood as Fuel**

Information should be provided on the value of windbreaks for reduction of home heating costs.

Encouragement of energy plantations might prove successful, but air quality impacts of burning wood must be determined.

### **Forestry Information and Education**

Educational programs should be developed to counter the heavy grazing of woodlands.

County conservation boards need education on the importance of forestry, including shade and ornamental trees in urban areas.

Iowans do not perceive forests as important to Iowa. Trees are not recognized as a crop.

The State Conservation Commission's information and education efforts place too little emphasis on the value of forest resources.

The Iowa State University bachelor's degree should require more planning and program development. The extension program should sell forestry in Iowa.

County conservation boards should be involved in educating landowners on the value of managing woodlands.

Forest management computer models are needed to compare

timber yield with other crops.

Landowners need factual information on cost-sharing, and seedling stock availability.

The **Woodland Owners Newsletter** (Iowa State University Extension Forestry) is an excellent tool.

The International Association of Arboriculture should be used in the Iowa educational effort.

More demonstration efforts with interpretive signs and self-guided tours are needed.

Repetitive education is essential to gain public appreciation of forest values.

Wildlife habitat, clean air, recreation, preservation, water quality, and erosion control should all be used to sell forestry.

Training of urban forestry personnel in city forestry departments is needed.

An urban street tree testing station is needed to compare used and unused species.

Available federal funds should be used to train city forestry personnel, to promote urban forestry and tree care.

A state urban forestry specialist should be made available to train and assist city personnel.

A statewide recognition for exceptional city tree care would help promote good practices.

A promotional effort is needed for the state big tree program. State fair exhibits, a museum of Iowa forestry, and an urban forestry library would each help promote the wise use of trees.

### **Timber Inventory**

The attitude of the Forest Service survey toward cull trees shows a lack of appreciation of wildlife values.

A complete county inventory of forest resources could help attract wood-using industry to the vicinity.

The interval between statewide inventories is too long. At least every ten years would better indicate trends.

### **Private Land Timber Management**

County conservation boards should not be involved in timber management on private lands. Some

counties may accept this role, but it is not central to their mission.

Landowners will usually minimize personal expense and maximize personal benefits. Successful programs must recognize this fact.

There is a need for a forest technician to assist district foresters of the Conservation Commission.

A strong Iowa forestry program lies ultimately in working with the private landowners.

Harvesting timber is not the only option. A lot of sites will not produce a sawlog crop, but should be retained in forest cover for other benefits.

Increased service to landowners and in urban forestry programs is very important.

### **Timber Utilization and Marketing**

Financial incentives should be available to wood-using industries to encourage a market for tree crops.

It is likely that Iowa is not growing enough wood to supply the existing industry. More frequent surveys or a special study should be encouraged.

### **Forestland Conversion**

The means and methods to curtail land conversion should be detailed in the plan.

A visionary approach is needed to solving the woodland loss. Traditional approaches will not solve the problem.

Influential people in the public and private sector applaud forest conversion. Government policies actually encourage clearing of woodland.

If national or state policy is successful in stabilizing commodity prices at a profitable level, Iowa forest resources will disappear in a few decades.

Education will not stop the woodland loss without strong government control by quotas, price supporting, and regulation.

Declining forest is especially critical for native species requiring large undisturbed tracts for survival. Bobcat, red shouldered hawk, and various warblers are jeopardized if tracts of at least 1,000 acres are not preserved.

### **Recreational Use**

The state and counties should not label public areas as parks, forests,

wildlife areas, or recreation areas. It is better to apply integrated management to all areas designating zones of use within. Thus the public could find recreation, preservation of natural features, timber management, and wildlife management in portions of the same area.

Forest recreation could be profitable for private woodland owners if state regulations on recreational vehicles were better tailored to fit rural forest conditions, thus encouraging retention of forest.

#### **Natural Areas**

Laws and funds should be available to designate and protect areas critical to the protection of rare species.

Benchmark examples of Iowa's natural forest types should be maintained for study, maintaining genetic reservoirs of key plants and animals, and to help nurture public appreciation of forestlands.

Forests in the paleozoic plateau in northeastern Iowa are especially important since many rare species occur there and forests are the most diverse and extensive.

#### **State Nursery Program**

Authority and funding should be expanded for the state to offer planting stock to counties for roadside planting.

Legislation should be considered to permit the Conservation Commission to provide windbreak trees.

The number of species offered should be increased for greater diversity and disease resistance.

The eight million trees and two million shrubs in the resource demand maximum is probably too large.

#### **Forest Management on Public Lands**

All state agencies should be "textbook" examples of good resource management. The Iowa Code should be amended, if necessary, to be certain that any state-owned lands with forest resources are properly managed and preserved as woodland.

Iowa State University research farms should utilize woodlots and windbreaks as demonstrations.

Logging in state parks should be restricted and thoughtfully supervised to preserve the entire woodland community.

The Conservation Commission and county conservation boards are managing their woodland poorly. Too often, management is equated with preservation.

All master plans for public areas should address forest management. Integrated management should be the goal on public lands where possible. Area use options should be kept flexible by avoiding such designations as parks, wildlife areas, forest or recreation areas, in favor of zones of use within the public property.

Each county needs an assessment of timber resources, and a program which will contribute toward total management and expansion of the timber resource. Coordination with state and federal programs is essential.

Management objectives need to be defined for all public areas under jurisdiction of the State Conservation Commission. Such plans should look at forest recreation, forest resources, timber production and marketing, energy plantations, windbreaks and soil erosion, and wildlife habitat.

Critical areas for rare species should be identified on forestlands and management adjusted accordingly.

Field studies evaluating fire to maintain oak savannas are needed.

Intensified planning and timberstand improvement are needed to adequately manage all land under Conservation Commission control.

#### **Urban Forestry**

Perhaps more emphasis should be placed on the value of preserving urban forests through replanting and maintaining of greenbelts and open spaces through sound land-use planning.

A state urban forestry position should be established to assist cities and promote quality care of urban trees and greenbelts.

#### **Protection from Wildfire**

Transferring excess property and the rural community fire program to

another agency should be considered. Forestry Section personnel would thus have more time available for more direct forest management work. There is question of the need for Forestry Section involvement in fire protection.

#### **Wind Barriers — Farmsteads, Roadside, and Field**

A special legislative study of greenbelt programs should be sought to identify ways of increasing acres protected by greenbelts.

Maintenance and reestablishment of farmstead windbreaks should be encouraged.

There are innumerable opportunities to use "living snow fences" on highway rights-of-way. Such plantings would enhance the state's environment and do much to create needed awareness among Iowans with regard to preserving our remaining forest resources.

Research farms of Iowa State University should utilize windbreaks as demonstrations.

#### **Public Acquisition of Forestland**

There is a need for an upgraded schedule of forestland acquisition by public agencies. Funding of public acquisition must be addressed.

## RESPONDENTS TO THE DRAFT PLAN

Comments and suggestions were offered by the following groups and individuals.

Iowa Department of Soil Conservation  
Iowa Department of Water, Air and Waste Management  
Iowa State Preserves Advisory Board  
Iowa Urban Foresters  
Iowa State Association of Assessors  
League of Iowa Municipalities  
Iowa Society of American Foresters  
Iowa State University - Forestry Department  
Wildlife Society - Iowa Chapter  
Sierra Club - Iowa Chapter  
Iowa Natural Heritage Foundation  
Iowa Association of County Conservation Boards  
The Nature Conservancy

USDA - Forest Service (Northeast Area)

- Soil Conservation Service (Iowa)
- Agricultural Stabilization and Conservation Service (Iowa)

Forestry Section Personnel, State Conservation Commission  
Don Brazelton, Iowa Association of County Conservation Boards  
Robert Pinneke, Executive Officer, Story County Conservation Board  
George Hamilton, Executive Officer, Linn County Conservation Board  
Mark Versch, Executive Officer, Pottawattamie County Conservation Board  
Clint Fraley, Executive Officer, Clay County Conservation Board  
Steve Pitt, Executive Officer, Palo Alto County Conservation Board  
Rick Walter, Forester, Story County Conservation Board  
Larry Wilson, Director, State Conservation Commission  
John Stokes, Chief, Lands and Waters Division, State Conservation Commission

William Ritter, Regional Forester, State Conservation Commission  
James Bulman, Regional Forester, State Conservation Commission  
William Farris, Assistant State Forester, State Conservation Commission  
John McSweeney, Area Forester, State Conservation Commission  
Gary Beyer, District Forester, State Conservation Commission  
Rick McGeough, Superintendent, Law Enforcement, State Conservation Commission  
John Beamer, Superintendent, Land Management, State Conservation Commission  
Robert Barratt, Superintendent of Wildlife, State Conservation Commission  
Robert Howe, Iowa Natural Areas Inventory  
Wayne Schennum, Iowa Natural Areas Inventory  
Several other individuals offered less formal, but helpful, comments.

## PUBLIC OPINION SURVEYS

Two methods were used to assess public opinion concerning forestry issues. A Public Comment Questionnaire was used in 1979 meetings of soil and water district commissioners and soil conservation agency personnel. Also, an opinion survey was taken at the Conservation Commission's forestry exhibit in the agricultural building at the 1982 Iowa state fair.

The questionnaire results are not completely accurate measures of overall public opinion. They do, however, indicate some common opinions of Iowans.

The nearly 460 respondents to the 1979 questionnaire were generally familiar with rural lands use and conservation programs. The 45 percent who indicated city residence were more informed about agriculture, conservation, and land use than the public at large. Values not usually measured in dollars were the most important personal benefits expressed by respondents. Conversely, wood products were not rated highly as personal benefits.

The Forest Resources Plan goals of forest policy, public awareness, tree planting, and improved management were considered important by the respondents. Goals pertaining to marketing, protection, and public ownership of forestland were not strongly supported.

The state fair questionnaire respondents expressed strong concern for the Iowa woodland decline. Strong support was expressed for public acquisition of woodland and public assistance to private landowners.

## STATE FAIR SURVEY PUBLIC COMMENT QUESTIONNAIRE

Land use and resource management decisions of individual landowners are usually based on economics. In recent decades, such land use decisions have resulted in woodland acreage reductions in Iowa. **It is a fact that woodland acreage in Iowa has declined about one percent each year in recent decades.**

Beyond this statement of fact, there are many opinions and interpretations as to benefits of woodland and the management costs needed to realize those benefits. There are also numerous opinions on **what** (if anything) should be done in response to the continuing woodland loss in Iowa and **how** it should be done.

We'd like to know **your** opinions!

Please take a few minutes to complete the following:

County of Your Residence \_\_\_\_\_

Sex M 379 F 88

Age: 28 Less than 20                      101 41-50  
77 20-30                                      102 51-60  
85 31-40                                      82 Over 60

Your Occupation Class (check one):

<u>203</u> Farmer	<u>67</u> Housewife
<u>5</u> Craftsman	<u>12</u> Clerk, Secretary
<u>1</u> Laborer	<u>7</u> Sales
<u>138</u> Professional, Technical	<u>38</u> Manager, Official, Executive
<u>32</u> Student	<u>0</u> Armed Forces
<u>27</u> Other (specify) _____	

Do you own rural land in Iowa? 282 Yes 176 No

Location of your Residence (check one):

<u>50</u> City over 50,000 population
<u>104</u> City between 2,500 and 50,000 population
<u>55</u> City under 2,500 population
<u>238</u> Farm

Which **five** choices below represent important personal benefits to you from trees and woodlands in Iowa?

<u>164</u> Shade
<u>85</u> Fuelwood
<u>137</u> Countryside scenery
<u>124</u> Livestock and farmstead protection
<u>49</u> Fall leaf color
<u>24</u> Birdwatching
<u>8</u> Employment in logging or milling
<u>94</u> Picnicking or camping locations
<u>165</u> Soil protection
<u>66</u> Lumber
<u>59</u> Livestock pasture
<u>10</u> Paper boxes, bags and cartons
<u>48</u> Hiking, trail-riding, skiing
<u>24</u> Mushroom or berry harvest
<u>81</u> Enjoyment or study of a natural area
<u>117</u> Clean stream and lake water
<u>30</u> Street beauty
<u>61</u> Hunting
<u>7</u> Other (specify) _____

Consider the following "issues" and indicate your impression of the importance of each. Also, indicate your level of agreement with the "common perception(s)" of these issues. Be free to add comments that better describe your feelings.

**Issue 1.** We need to decide upon the amount and location of woodlands required to meet the public needs. ("1" is very important; "5" is low in importance.)

How Important? 1 129 2 68 3 46 4 9 5 7

One Common Perception of the Issue: Our land use policies do not encourage woodland where it would obviously be a good use. (Check one box.)

<u>82</u> 1. Agree strongly.
<u>200</u> 2. Agree.
<u>48</u> 3. No opinion.
<u>12</u> 4. Disagree.
<u>0</u> 5. Disagree strongly.

**Issue 2.** The public must be made aware of the importance of woodland to our way of life. ("1" is high; "5" is low.)

How Important? 1 65 2 61 3 29 4 3 5 3

A Common Perception of the Issue: More awareness and knowledge of woodland value leads to more public involvement in legislation and policy development, thereby affecting land use.

<u>66</u> 1. Agree strongly.
<u>171</u> 2. Agree.
<u>30</u> 3. No opinion.
<u>8</u> 4. Disagree.
<u>0</u> 5. Disagree strongly.

**Issue 3.** We need better management on all types of woodlands and ownerships in Iowa.

How Important? 1 121 2 71 3 34 4 5 5 4

A Common Perception of the Issue: Lack of timber markets and low dollar returns to landowners discourage good woodland management.

<u>55</u> 1. Agree strongly.
<u>119</u> 2. Agree.
<u>71</u> 3. No opinion.
<u>15</u> 4. Disagree.
<u>4</u> 5. Disagree strongly.

Another Common Perception of this Issue: Landowners do not have enough woodland managing knowledge to make the best use of their woodland acres.

<u>71</u> 1. Agree strongly.
<u>146</u> 2. Agree.
<u>29</u> 3. No opinion.
<u>18</u> 4. Disagree.
<u>1</u> 5. Disagree strongly.

**Issue 4.** Land use change from woodland to other uses must be discouraged because woodlands are important to Iowa's environment and economy.

How Important? 1 119 2 79 3 27 4 7 5 2

A Common Perception of the Issue: Steep watershed lands are not adequately protected from soil loss if woodland cover is removed.

<u>130</u> 1. Agree strongly.
<u>92</u> 2. Agree.
<u>21</u> 3. No opinion.
<u>13</u> 4. Disagree.
<u>2</u> 5. Disagree strongly.

Another Common Perception of the Issue: All citizens of Iowa benefit from the presence of woodland.

<u>113</u> 1. Agree strongly.
<u>126</u> 2. Agree.
<u>12</u> 3. No opinion.
<u>10</u> 4. Disagree.
<u>0</u> 5. Disagree strongly.

Another Perception of the Issue: Woodlands are important to the state in providing jobs and useful wood products.

<u>28</u> 1. Agree strongly.
<u>109</u> 2. Agree.
<u>117</u> 3. No opinion.
<u>41</u> 4. Disagree.
<u>0</u> 5. Disagree strongly.

**Issue 5.** Cities and towns in Iowa need state or federal help to better manage their street, park and greenbelt trees.

How Important? 1 37 2 83 3 73 4 30 5 28

A Common Perception of the Issue: Most towns are not able to use trees to their best advantage because foresters or arborists are not available to them.

<u>13</u> 1. Agree strongly.
<u>75</u> 2. Agree.
<u>80</u> 3. No opinion.
<u>90</u> 4. Disagree.
<u>13</u> 5. Disagree strongly.

A Suggested Solution to the Issue: The state should hire foresters to give advice to town governments in tree planting and care.

<u>18</u> 1. Agree strongly.
<u>108</u> 2. Agree.
<u>54</u> 3. No opinion.
<u>67</u> 4. Disagree.
<u>13</u> 5. Disagree strongly.

Another Possible Solution to the Issue: The federal or state government



should pay part of the cost for towns to plant and care for trees on town property for public enjoyment.

- 22 1. Agree strongly.
- 73 2. Agree.
- 42 3. No opinion.
- 91 4. Disagree.
- 34 5. Disagree strongly.

**Issue 6.** Tree planting is needed on much Iowa land for watershed protection.

How Important? 1 109 2 93 3 40 4 8 5 4

A Common Perception of the Issue: Much open land needs tree cover to stop soil erosion.

- 147 1. Agree strongly.
- 115 2. Agree.
- 25 3. No opinion.
- 51 4. Disagree.
- 0 5. Disagree strongly.

Another Common Perception of the Issue: Many Iowa woodlands do not have enough trees per acre and have the wrong kinds of trees to produce the most useful products for society.

- 41 1. Agree strongly.
- 121 2. Agree.
- 70 3. No opinion.
- 21 4. Disagree.
- 2 5. Disagree strongly.

**Issue 7.** Landowners must have a market for timber crops.

How Important? 1 62 2 86 3 55 4 32 5 17

One Common Perception of the Issue: Landowners don't have enough places to sell timber crops, especially low quality trees.

- 35 1. Agree strongly.
- 114 2. Agree.
- 75 3. No opinion.
- 27 4. Disagree.
- 3 5. Disagree strongly.

**Issue 8.** The Iowa woodlands need protection from insects and disease to continue being useful.

How Important? 1 69 2 102 3 54 4 15 5 8

One Common Perception of the Issue: State agency (state, county, university) watchfulness and assistance to landowners is necessary to keep woodland and town trees healthy.

- 46 1. Agree strongly.
- 140 2. Agree.
- 33 3. No opinion.
- 24 4. Disagree.
- 1 5. Disagree strongly.

**Issue 9.** The Iowa woodlands need protection from wildfire to continue being useful.

How Important? 1 53 2 65 3 68 4 32 5 38

One Common Perception of the Issue: Landowners, the public and firemen are not usually aware of property losses in woodland fires. Firemen need special training and equipment to better protect woodlands.

- 27 1. Agree strongly.
- 87 2. Agree.
- 97 3. No opinion.
- 36 4. Disagree.
- 7 5. Disagree strongly.

**Issue 10.** The Iowa sawmill and wood processing industry needs better logging and manufacturing skills to get more from the trees harvested.

How Important? 1 45 2 89 3 91 4 19 5 8

One Common Perception of the Issue: State agencies and universities should offer help to industry so harvested trees yield more products for use in Iowa and the United States.

- 47 1. Agree strongly.
- 87 2. Agree.
- 71 3. No opinion.
- 19 4. Disagree.
- 3 5. Disagree strongly.

**Issue 11.** There is a need to better coordinate government programs, regulations and taxes so woodland is encouraged.

How Important? 1 107 2 96 3 36 4 7 5 7

One Common Perception of the Issue: Legislation and regulations pertaining to water quality, pesticide use, income tax, real estate tax,

inheritance tax, safety and agricultural production all affect owner's land use decisions and may discourage woodland as a choice.

- 92 1. Agree strongly.
- 116 2. Agree.
- 37 3. No opinion.
- 13 4. Disagree.
- 1 5. Disagree strongly.

Consider and indicate your response to the following:

1. It is generally believed there are several public benefits associated with woodlands (for example; erosion control, reduced water pollution and water treatment costs, scenic diversity and enjoyment, improved climate, wildlife habitat, etc.)

Do you share this belief?

243 Yes 6 No 9 Not sure

2. Various proposals have been made for the public to help pay the cost of keeping timber on private lands for public benefit. Check one box in each of the following which best indicates your level of support. ("1" is strong support; "5" is no support)

a. Reduced property taxes on woodland.

1 131 2 82 3 99 4 3 5 12

b. More state employed foresters to work with landowners.

1 37 2 84 3 87 4 33 5 14

c. Increased printed information provided for landowners to help themselves (extension pamphlets, management guides, marketing guides, etc.)

1 78 2 105 3 60 4 11 5 7

d. Using tax money to pay part of landowners' tree planting costs.

1 59 2 79 3 62 4 29 5 28

e. Public purchase of land outright or purchase of easements to be sure woodland is not destroyed.

1 73 2 66 3 51 4 33 5 30

Which choice below best describes your general attitude toward woodlands in Iowa in the future?

Would like to see: 1 208 More  
2 48 Same  
3 2 Less

Thank you for your time and assistance. Please return completed forms by September 1, 1979 to State Forester, State Conservation Commission, Wallace State Office Building, Des Moines, Iowa 50319.

#### WHAT'S YOUR OPINION

1490 TOTAL RESPONDENTS

In 1850, Iowa had 6-1/2 million acres of woodlands. By 1954, land conversion to row crops and pasture had reduced the figure to 2-1/2 million acres. In 1974, only 1-1/2 million forest acres remained. U.S. Forest Service projections suggest a continued loss of from 12 to 27 percent by the year 2004. What should be done? (Check all of the answers you feel might be acceptable.)

1. Do nothing:
  - 161 the free market system should determine forest acreage.
  - 29 row crops, pasture, homesites, and developments are all more important than woodlands.
  - 19 trying to save woodlands is too expensive.
2. Regulate the use of land:
  - 512 by zoning
  - 533 by legislation (mandate).
  - 557 by taxation (higher taxes for improper land use).
3. Public acquisition of woodlands:
  - 709 by purchase.
  - 621 by easement (payment for proper use).
  - 181 by condemnation purchase.
4. Public assistance and incentives:
  - 784 to provide tax reductions on steep, erosive lands.
  - 591 to provide free assistance to individual landowners.
  - 1141 by providing low cost trees for replanting.
  - 886 providing educational opportunities for landowners.

Write your additional comments here: \_\_\_\_\_

Place your questionnaire in the box provided, or fold, staple and place it in the mail.

## APPENDIX IV

### GLOSSARY OF TERMS

**Activity.** A specific action taken to carry out a strategy.

**Alternative.** The different means by which objectives or goals can be attained.

**Annual Program.** A complete list of objectives to be accomplished by an agency or agencies during a one-year planning period.

**Forest Resources.** A group of resources associated with forested lands which include aesthetics, fish and wildlife, forage, outdoor recreation opportunities, timber, and water.

**Goal.**

- a. A concise statement of an organization's central strategy in addressing a problem expressed in terms of a desired state or process that operating programs are designed to achieve. A goal is normally expressed as a broad, general statement, is usually not quantifiable, and is timeless in that it usually has no specific date by which it is to be completed. Often it would not be expected that a "goal" could ever be completely achieved. The "goal" is the principal statement from which objectives must be developed.
- b. Characteristically, "goals" are enduring statements of purpose, often not attainable in the short term, and frequently incapable of expression in quantifiable terms.

**Hardwood.** Trees having broad leaves, in contrast to softwoods (conifers).

**Issue.** Any concern, conflict, or unfulfilled opportunity considered to be important by any segment of the public, including agency personnel.

**Issue Assessment.** A complete description of all the factors causing an issue to exist along with an analysis of the cause and effect relationships of these factors. It also includes an analysis of past and present trends and assumptions about the future as well as an analysis of past and present efforts to deal with the issue.

**Issue Objective.** An objective statement of what should be accomplished within a five-year, or longer, period toward meeting an established long-range goal for resolving an issue.

**Mission.** A major continuing problem or concern that programs are designed to address. Missions represent the basic reasons for existence of an organization in a governmental agency and characterize an organization's role in solving problems.

**Objective.**

- a. A clear and specific statement of planned results to be achieved within a stated time period. The results indicated in the statement of objectives are those which are designed to achieve the desired state or process represented by the goal. An objective is measurable and implies precise time phased steps to be taken and resources to be used which, together, represent the basis for defining and controlling the work to be done.

An objective must include four essential elements. 1) It must state the desired outcome — i.e., what is to be accomplished. 2) It must indicate the time period within which the expected outcome is to be achieved. 3) It must include measurement factors, such as quantity, quality, or cost, so that the fact that the objective has been accomplished can be verified. 4) It must indicate who is responsible for achieving the indicated results. Desirable, but not absolutely essential, elements of objectives are a description of how it will be achieved and an indication of who will determine whether the result has been achieved.

- b. The specific, attainable ends toward which concentrated effort is directed.

When achieved, objectives represent significant and measurable progress toward the attainment of a broader, longer range "goal."

Characteristically, objectives are subordinate to "goals," are narrower and shorter range in nature, have a reasonable probability of attainment within specified time periods and resources, and are attained through measurable and quantifiable achievements. Expected results are defined in terms of milestones accomplished, services produced, or some other objective measure, even though the specific contribution toward achieving the building block objective may not be measurable.

**Plan.** Statements in words and graphics of the findings, conclusions, proposals, and recommendations of the planning process. When adopted, "plans" become public policies and programs.

"Plans" are working instruments—guidelines for administration, but not end products. As such, plans are never completed. Plans are subject to change as policies change due to unfolding events, such as changing standards of life style, environmental factors, and advancing technology.

**Program.** A coordinated organization endeavor which is defined in terms of the various activities required to produce specified final outputs and end results.

A major agency endeavor, mission oriented, which fulfills statutory or executive requirements, and which is defined in terms of the principal actions required to achieve a significant end objective.

**RPA.** The Forest and Rangeland Renewable Resources Planning Act of 1975.

**Softwood.** A tree with cones and leaves of needle shape or "scale-like." A conifer.

**Strategy.**

- a. A consideration of alternative means to reach an objective.
- b. A carefully thought-out plan or method for achieving a goal or objective.

## APPENDIX V

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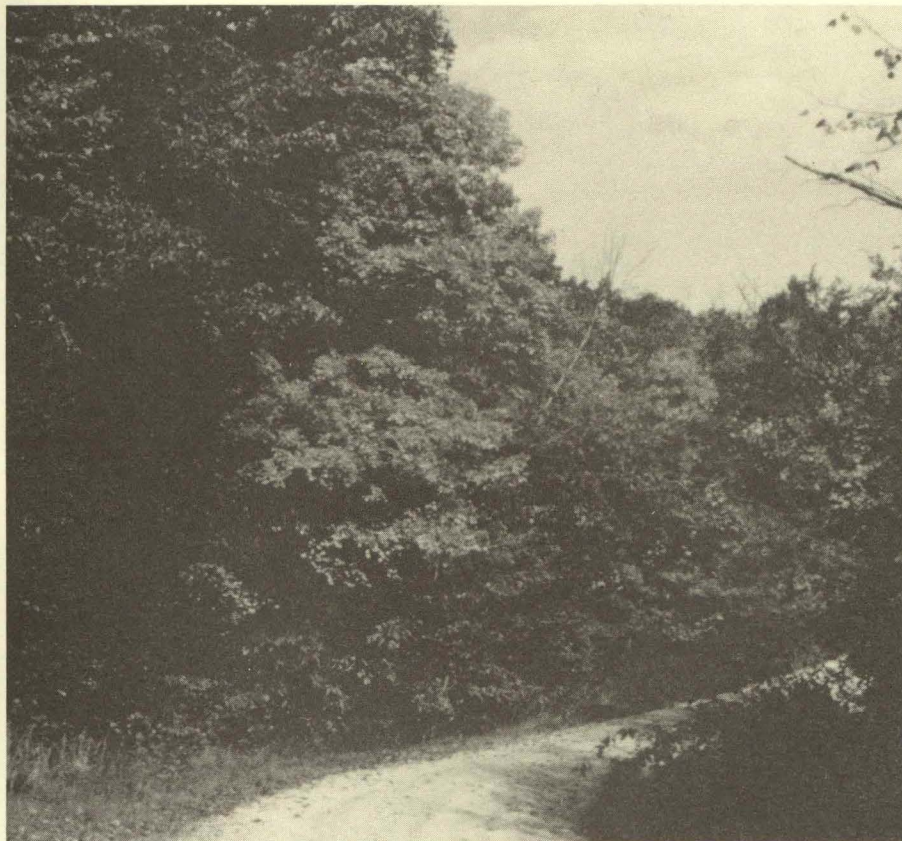
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