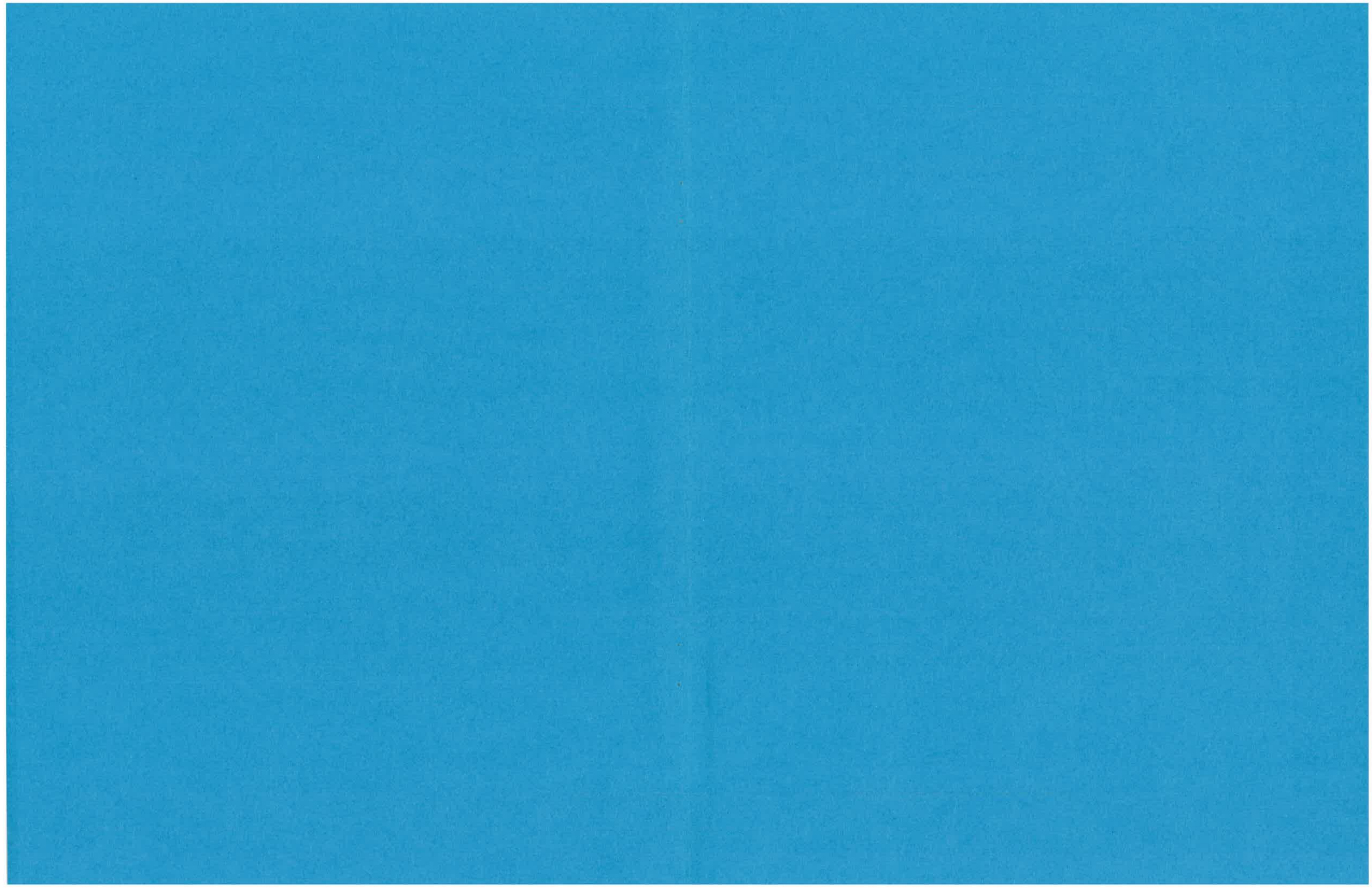


Protectors of the Forest Resources

*A history of the West Virginia
Division of Forestry
1909 - 1998*

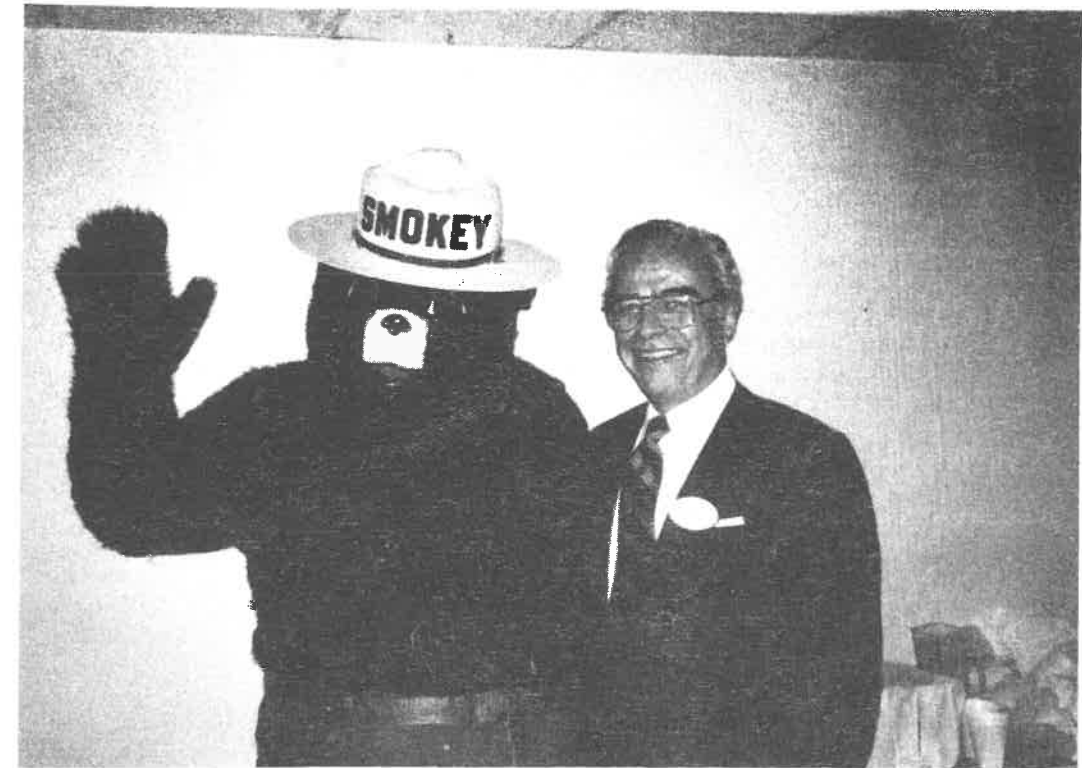


by
Kenneth L. Carvell, Ph.D.
Professor Emeritus
West Virginia University
and
William R. Maxey, Director/State Forester
West Virginia Division of Forestry





Cecil H. Underwood
Governor of West Virginia



Governor Underwood helping Smokey Bear deliver the forest fire prevention message.

**Robert A. Reintsema, Commissioner, Bureau of Commerce
William R. Maxey, Director/State Forester
Ralph P. Glover, Jr., Deputy State Forester
JoAnn P. Harris, Administrative Secretary**

**West Virginia Division of Forestry
State Capitol
1900 Kanawha Boulevard, East
Charleston, WV 25305-0180
(304) 558-2788/FAX (304) 558-0143**

technological expertise, and assistance in expanding existing plants and adding new ones.

- 3) A Forestry Communications Officer position for the DOF was funded. Dan Kincaid, with the U.S. Forest Service State & Private Forestry at Morgantown, coordinated an aggressive statewide media awareness campaign on forestry issues. His efforts led to the Division of Forestry getting approval to employ Jedd Flowers as the first ever, full-time professional communications person. Jedd was employed during July 1998 and began the important task of delivering the forest conservation message on August 1, 1998.
- 4) A \$200,000 appropriation for an aerial bomber will literally move the State's forest fire suppression and detection effort to "state-of-the-art." The DOF will now be able to contract for this specially equipped airplane for delivering a fire-retardant slurry to wildfires. This technique facilitates an early initial attack which will suppress forest fires before they overwhelm the fire fighters.
- 5) \$127,500 was appropriated for updating computers. This allows each DOF field office to be linked to its respective district office which is already linked by modem to the State Office. This improvement was in response to upgrading State technology as we move into the 21st century.

Other Milestones

In 1997, a Governor's Advisory Committee to the State Forester was appointed by Governor Underwood. This 25 member committee spearheaded the support for the 1998 budget and manning improvements and has recommended other advances.

By 1999, all DOF vehicles will be replaced every five years or at no more than 100,000 miles. As recently as 1993, several were as old as 12 years and in a very unsafe condition.

The year 1997 marked the beginning of the Woodland Owner's Association of West Virginia. This forest landowner's group is affiliated with the National Woodland Owner's Association. West Virginia was the 31st state to organize. The State association will represent the 300,000 nonindustrial, private forest owners in West Virginia in regard to sound forestry practices and on private property rights issues.

On June 6, 1998, the Division of Forestry (DOF) executed a Memorandum of Understanding (MOU) with the State's DEP Office of Mining and Reclamation. This MOU gives DOF the authority to approve all post mine land use reclamation plans opting for commercial woodlands. The Division's forest tree nursery is capable of producing as many as 10 million more seedlings to reforest surface-mined land.

- Average providing grants to 15 communities for developing marketing packets or improving infrastructure at sites suitable for developing. Approved 17 additional grants to communities, totaling \$179,211, in 1997 alone.
- Provide technical assistance to hundreds of individuals, businesses and communities.

The West Virginia Forestry Association

The West Virginia Forestry Association (WVFA) is an organization representing the forestry community that began in the early sixties under the guidance of the WVU extension forestry program. Organized under the name of the West Virginia Sawmill Operators Association, the group expanded in 1973 and incorporated as the West Virginia Forest Products Association. The name was changed to West Virginia Forests, Inc. In 1975 and retained that name until 1985 when the current name was adopted. The association encourages and promotes forest management, improved fire protection and suppression, true conservation and utilization of woodland resources in West Virginia.

Specific Objectives of the WVFA are:

- 1) Promote public understanding of the dynamic character and potential of the forest as a renewable natural resource whose growth is exceeding its use.
- 2) Promote public awareness of the forest industry; stimulate an interest in forest management; and encourage more efficient use of the forest and its products for the benefit of the West Virginia environment, economy and people.
- 3) Conduct educational programs and encourage practical research to help persons engage in forest land management or use of the resources to meet future needs.
- 4) Offer the opinions and advice of the membership as a collective voice on research and policy affecting the development of West Virginia's only renewable natural resource.

The association annually sponsors the West Virginia Timber and Wood Products Show and the A.B. Brooks Forestry Symposium. WVFA also serves as the State sponsor for the Tree Farm Program, Project Learning Tree and the Sustainable Forestry Initiative.

WVFA offers various training workshops and educational programs to accommodate the needs of the membership. Membership in the Association is open to those persons and businesses involved in Forest Management, timber production and the Manufacturing of Wood products. Dick Waybright has been the Executive Director of WVFA since March 1980.

Poised for the Future

1998 Legislative and other changes have materially strengthened the Division of Forestry. From a sound forest management standpoint, passing and signing the following legislation was very important:

- 1) Managed Timberland Tax Incentive amendments: this bill encourages all private forest owners (90% of West Virginia forest land) to place their forested properties under professional management.
- 2) Severance Tax adjustments: make out-of-state loggers and all timber buyers more accountable for paying this tax in an equitable manner. This tax will fund much of the DOF's future needs and provide tax credits to the forest industry for expansion. The forest industry relies on DOF's forest inventory, forest health monitoring, forest fire control,

District Offices

District I

Lowell C. McPherson
District Forester
Route 2, Box 1100
Fairmont, WV 26554
(304) 367-2793
FAX (304) 367-2795

District II

Philip T. Wygal
District Forester
1 Depot Street
Romney, WV 26757
(304) 822-4512
FAX (304) 822-7331

District III

David G. Lilly
District Forester
Post Office Box 38
French Creek, WV 26218
(304) 924-6266
FAX (304) 924-6142

District IV

James M. Circle
District Forester
330 Harper Park Drive
Suite J
Beckley, WV 25801
(304) 256-6775
FAX (304) 256-6770

District V

Gerald Wimer
District Forester
Post Office Box 189
Milton, WV 25541
(304) 743-6186
FAX (304) 743-0218

District VI

Gerald W. Waybright
District Forester
2309 Gihon Road
Parkersburg, WV 26101
(304) 420-4515
FAX (304) 420-4517

Multiple-use on State-owned Forests

The Division of Forestry is also charged with the multiple-use forest management of the nine State-owned forests (81,000 acres). During 1993, a conservative timber sale had been conducted. Extremist groups delayed the harvesting of this sale by suing the Division of Forestry on the grounds that the Division was not following the legislative mandate. The Kanawha County Circuit Court ruled in favor of the Division on all counts. This decision was greatly enhanced by the professional testimony of Dr. Kenneth L. Carvell, Professor Emeritus of the West Virginia University Division of Forestry. This decision was appealed but ultimately upheld in its entirety by the State Supreme Court. Although the court proceedings delayed this harvest and other timber sales for over 2 years, this decision set a very favorable precedent over any future litigation.

In 1996, the Division began a process to completely revise all nine State-owned forest management plans. To this end, a draft of the Greenbrier State Forest Management Plan was completed in 1997. A public meeting to solicit comments was held in January, 1998. The other eight forest plans are currently being completed.

Growth of West Virginia's Forest Industries

During the last decade, West Virginia's forest industry has moved from 5th to 3rd as a leading manufacturing industry. The "third forests" have matured and are now attracting major producers to West Virginia. A study of the overall economic impact to West Virginia of the forest industry was estimated at \$3.2 billion with some 30,000 jobs based on 1995 data (Greenstreet and Witt, WVU, 1997). Three large oriented-strand board (OSB) plants have been built in the last 5 years, and new and expanded sawmills are on line. A paper company considered building a large pulp and paper plant in Apple Grove. If this paper mill had been built it would have been the first located within the State borders. The "magnet" attracting this expansion is the fact that in 1949 the West Virginia saw timber inventory was only 18 billion board feet. However, the most recent inventory in 1995 pegged the saw timber volume at 76 billion board feet, a 4.2 fold increase. The average volume of saw timber was 6,500 board feet per acre, and growth exceeds removals from mortality, land-use change and harvesting by 34 percent.

Forest Products Utilization

- A 1998 Forest Industry Directory was published in cooperation with the West Virginia Development Office.
- Annually publish four issues of West Virginia Forest Products Bulletin.
- Each year the DOF publishes "Timber Prices," a bulletin which lists prices paid for standing timber by species and region of the State.
- Assist in teaching a workshop on Value Added Wood Products for local economic developers at the Robert C. Byrd Hardwood Technology Center in Princeton. Cooperate with the Randolph County W.Va. Wood Technology Center.
- The DOF works closely with WVU's Appalachian Hardwood Center funding forest regeneration and other relevant research.
- Distributed approximately 3,000 pieces of technical information.
- Provided 99 workshops for industry and community personnel each year.

winning student was presented with a certificate, and a tree was planted at Homestead Elementary to recognize the State winner.

- The December issue of *Wonderful West Virginia* magazine featured an article on fire, fire damage, and the long-term financial loss.
- The Division nominated the State "Tree Farmer of the Year" for 1997. The State winner was recognized at the A. B. Brooks Symposium and annual WVFA summer meeting.
- The Division of Forestry conducted Forestry Day in Boone County to promote forest management and fire control.
- Staffed exhibits at the Forest Festival & the Pumpkin Festival promoting forest management & fire control.

Forest Management

- The Division was successful in persuading the U.S. Forest Service to initiate a new statewide forest inventory by 1999; four years earlier than originally scheduled. This will decrease the inventory cycle from every 14 years to every 10. This achievement is very important to the future of balanced and sustained forest management.
- The Division is entering into a cooperative agreement with the DNR Wildlife Resources Section to develop a Forest Resources GIS system for the State.
- The Division of Forestry serviced over 9,400 requests for assistance and referred 265 requests to Consulting Foresters.
- Awarded over \$250,000 in 1997 contractual agreements to 80 consulting foresters to complete stewardship plans for 300 nonindustrial private forest landowners on 44,000 acres of forest land.
- The Division helped nonindustrial private landowners complete cultural forestry and environmental protection work on 12,000 acres.
- Participant and Signatory to West Virginia Watershed Framework Document.

Urban and Community Forestry

This is another Federally funded program which pays cities and towns about 75 percent of the cost of purchasing, planting and maintaining shade trees and shrubs. This gives the Division foresters the opportunity to deliver a conservation message as they do urban renewal/enhancement. Citizens from the cities and towns are made to realize the connection between planting and caring for city trees and protecting trees in the forest.

In 1997, the Urban Forestry Program awarded \$99,512 in Demonstration City grants to 31 communities and organizations across the State. Every community and many volunteer groups had an opportunity to apply for these funds. These groups have planted 920 trees and 1,002 shrubs across the State. Three have completed street tree inventories and management plans. Robert Hannah and Charlie Spencer coordinate this important work.

Heads of West Virginia's Division of Forestry (1909-1998)

Chief Forest Wardens

1909-1919	Jules A. Viquesney
1919-1919	C. W. Brandon
1920-1921	Clare W. Harding

Chief Forest Fire Warden

1921-1929	P. M. Browning
-----------	----------------

Chief Foresters

1929-1931	H. S. Newins
1931-1933	J. W. K. Holliday

State Foresters

1933-1934	Hubbard W. Shawhan
1934-1941	Dan B. Griffin
1941-1943	R. O. Bowen
1943-1945	D. B. (Pete) Bonebrake (Acting)
1945-1946	R. O. Bowen
1946-1950	Wilson B. Sayers
1950-1956	Hays E. Helmick
1956-1976	Lester McClung
1976-1980	Asher W. Kelly, Jr.
1980-1986	Byron J. Warder
*1986-1992	William H. Gillespie, Director
1986-1992	Ralph P. Glover, Jr., (Acting)
1993	Edward Murriner, Acting
1993-present	William R. Maxey

*During the period 7/1/85-6/30/92, both the position of State Forester and Director were in existence. In 1993, these positions were combined, i.e., Director/State Forester.

During this year, 2,703 logging operations were registered and 2,573 logging sites were inspected by the West Virginia Division of Forestry (DOF). DOF personnel trained 1,500 loggers in 75 workshops as part of the certified logger program as per the 1992 Logging Sediment Control Act (LSCA). Each logger is trained in the proper methods of logging to protect water quality (Best Management Practices), chain-saw and logging safety, and first aid. Every logging operation must be supervised by a certified logger.

Of the 2,573 inspections, 824 were triggered by other agency or citizen complaints. The balance, 1,749, were as a result of a 1997 DOF initiative. This initiative establishes the goal of having DOF foresters visit every logging operator at least once each year. The main purpose of this visit is to assist the loggers in doing the job right before a problem occurs.

Compliance orders were issued for less serious violations of the LSCA. These problem(s) were either corrected immediately or the operator was given from one to ten days to correct the situation. The more serious violations resulted in the issuance of 343 suspension orders, which terminate the logging operation activity until all violations are corrected. Repeat violators to the Logging Sediment Control Act will incur a license suspension or revocation. Thirty-two licenses have been suspended and two have been revoked. License suspension occurs for no less than 30 days and no more than 90 days. The Division of Forestry has prosecuted and won one civil case, and the Attorney General's office has filed three others. An additional one is currently being processed.

Timber Severance Tax

This tax partially funds the Division of Forestry and is used for tax credits for the forest industry for in-state expansion and/or new plants. It was enacted in 1993. An important milestone, it earmarked a significant portion of Division of Forestry support to come from special funds as opposed to general revenue. The 1997 revenue from this source amounted to \$3.9 million coming from a 3.22% tax on the value of timber severed and delimbed. Of this amount, \$1.2 million was used for tax credits and the balance for funding the Division. The Division of Forestry has the responsibility of cooperating with the State Tax Commissioner's Office in determining the amount of timber severed and the tax liability thereon.

Forest Stewardship

The Division also takes the lead in this important conservation initiative. This effort is funded through Federal appropriations. The additional work, in connection with the expansion of the forest industry and the privatization of the Division's Forest Stewardship plan preparation, has increased the number of consulting foresters from 14 ten years ago to more than 150 today. The Division Service Foresters assist in preparing Forest Stewardship Plans on smaller tracts. The vast majority, however, are done by professional consulting foresters through this "privatization". The Division still sets the standards, approves all plans, and maintains records. In 1997, foresters wrote over 300 Forest Stewardship Plans for nonindustrial private landowners on 46,262 acres, bringing the total Stewardship plans in West Virginia to 2,739 plans on 475,358 acres as of June 30, 1998. Assistant State Forester, Robert Whipkey, is program manager for this very successful Forest Stewardship Program.

Conservation Education

- Purchased and received a video entitled, "Forestry and Ecology," which is the 9th video of a nine-part woodlot management video series. Professor William E. Kidd, Jr., Forestry Extension Specialist at West Virginia University's Division of Forestry, envisioned the need for and spearheaded the production of these excellent videos. The Division helped fund the creation of the video. These videos have been distributed to every high school, vocational education school and public library in the State, and extensive use is being made of them.
- Conducted a statewide National Arbor Day Poster contest for all fifth graders. The

**Logging Sediment Control Act Investigation Report
West Virginia Division of Forestry
January 1, 1997 through December 31, 1997**

<u>Complaints</u>	DISTRICT I	DISTRICT II	DISTRICT III	DISTRICT IV	DISTRICT V	DISTRICT VI	TOTALS
	(Fairmont) #Valid #Complaints	(Romney) #Valid #Complaints	(French Creek) #Valid #Complaints	(Beckley) #Valid #Complaints	(Milton) #Valid #Complaints	(Parkersburg) #Valid #Complaints	(Statewide) #Valid #Complaints
Muddy Water	25	3	58	19	53	21	199
Mud on Road	11	2	21	15	23	18	90
Tops in Stream	13	1	8	4	9	7	42
No License	17	7	9	10	38	15	96
No Notification	14	5	4	0	98	11	132
No Certified Logger	4	1	1	2	13	5	26
Miscellaneous	<u>56</u>	<u>10</u>	<u>47</u>	<u>15</u>	<u>77</u>	<u>54</u>	<u>259</u>
Total Complaints Investigated	140	29	148	65	311	131	824
Compliance Orders	57	20	23	28	193	53	445
Logging Operations Suspended	33	2	58	13	60	29	271

OTHER INVESTIGATIONS*

Number of Logging Operations Visited 1,749
 Number of Logging Operations in Compliance 1,324
 Number of Logging Operations Out of Compliance 425
 (240 problems were corrected immediately; the balance were given up to 10 days to resolve or the operation was suspended.)

*These random, unannounced site inspections began as a DOF initiative in 1997. The goal is for DOF foresters to visit every logging operator at least one time each year. This is in addition to inspecting every complaint (as per the upper part of this table).

TABLE OF CONTENTS

	Page
Introduction	ii
Description of Original Forests	1
The Large Sawmill Era	2
The Warden System (1897-1921)	3
The Commission System (1921-1933)	7
The Conservation Commission (1933-1961)	10
In the Old Days. . . . Present Day. . . (In Pictures)	12
The Helmick Administration (1950-1956)	19
State Forester Lester McClung (1956-1976)	19
The Department of Natural Resources	20
The Asher Kelly Years (1976-1980)	23
The Byron J. Warder Administration (1980-1986)	24
The William H. Gillespie Administration (1985-1992)	25
William R. Maxey, State Forester (1993-present)	29

Cross first aid course. Timber licenses and logger certification must be renewed annually, with logger recertification requiring retraining every three years.

This law specifies that every complaint is to be investigated by the Division of Forestry and, in the case of a complaint made by the Water Resource Division, must be investigated on the ground, remedial action taken, and reported back to the Water Resource Division within three days. Division personnel investigate hundreds of logging jobs every year, issuing compliance orders and suspension orders or suspending licenses when the need arises, as well as providing technical assistance to loggers. The above-mentioned complaints and compliance checks have resulted in issuance of compliance orders. These orders require the person conducting the timbering operation to perform corrective measures within 10 days. In situations where problems are not corrected or where repeat violations occur, suspension orders are issued. Assistant State Forester Ed Murriner is manager of this program.

In the first five years of this Act, the DOF has received notification on more than 15,800 logging operations. There were 5,400 investigations made, either as a result of a complaint or randomly. Through December 31, 1997, 9,500 loggers have been trained and certified. The above-mentioned complaints and compliance checks have resulted in issuance of more than 1,950 compliance orders. There have been 835 suspension orders issued. It is estimated that it costs the average-size logging crew at least \$4,000 per day while under suspension. Over these five years, this has amounted to more than \$3,340,000 in lost income if the average was only one day of suspension and \$16,700,000 with a five-day average. Repeat violations result in suspension of a logger's license. Even though the Division is stringent in regulation, assisting the loggers before problems are created, through education and field visits to keep them working, is of the utmost importance.

Visits conducted by the DOF since July of 1996 indicate that 81 percent of the logging operations are in compliance with water quality aspects of the Logging Sediment Control Act. This corresponds to a recent independent study conducted in 1995-1996 and released in 1997 by Dr. Andrew Egan of West Virginia University.

The following 1997 annual report reflects the dedication, efficiency, professionalism and hard work that Division foresters and forest technicians exert in carrying out this legislative mandate:

additional forest rangers and a Fire Mobilization Coordinator were hired. When the second Governor's Conference on Forest Fire Control was held, this group keyed in on the more serious problems and prioritized solutions. Fire Mobilization Coordinator Coy Mullins directed an "all-out" effort which resulted in significant improvements. Volunteer Fire Departments were trained and equipped to fight forest fires. Particular emphasis was targeted on fire departments in southern West Virginia where more than 90 percent of the wildfires and acreage burned occur.

Heretofore, these fire departments only responded to structure fires. Excess property 4 x 4 trucks were obtained for these departments, by designated Division screeners, from U. S. military depots. One and two thousand dollar grants were passed through the Division to these fire departments. Altogether the Division entered into agreements with some 250 of the 412 VFDs. Special fire resistant clothing, tools, and power equipment were issued to these fire departments.

The most important catalyst for this cooperation came as a result of recruiting and training of 125 West Virginians for U. S. Forest Service aid on western fires. The majority of these fire fighters were members of southern West Virginia volunteer fire departments. They fought wildfires in Idaho and Montana and returned to form the nucleus and spark the interest in VFDs throughout this area. This has greatly increased these fire department's effectiveness in forest fire control. They have also received Federal excess property vehicles, generators, and power blowers through their cooperation with the Division. By 1998, of the 412, there were 268 VFDs cooperating in forest fire control.

Another interesting addition to the fire control program was obtaining a professional animal trainer, also a graduate forest technician, Don Kelly. He trained Redwood, the Division's new bloodhound that successfully tracked down the first forest fire arsonist in Logan County during the 1996 fire season. More than 20 "firebugs" have been apprehended through the 1998 spring fire season.

The success of the Fire Mobilization Program convinced the State administration and the Legislature to support an improvement package in the Division's budget to continue with the increased fire control personnel, and purchase and install a new statewide high-band radio system (1997). This also provides mobile radio units that keep fire fighters in constant touch while on the fire line. In 1997 four Mark III, high-volume pumps were purchased to increase the Division's efficiency in controlling and mopping up fires. These pumps also relay water uphill to inaccessible areas.

Forest fire control training was also given to all West Virginia Division of Parks maintenance personnel on the State parks in southern West Virginia. Chain-saw safety training was given to State park maintenance personnel on parks in the northern part of the State.

Managed Timberland Tax Incentive Act

The Division of Forestry was required to accept applications from interested forest land owners and then receive a certified, notarized document committing the owner to maintain and protect his forests. This also called for a professional forest management plan directing that appropriate Best Management Practices be followed during any timber harvest. The Division of Forestry is required to investigate requests by tax officials of any tract of forest land under this program to make certain there is a plan and that it is being followed. Record keeping and coordination with county assessors and State tax commissioner is a major responsibility.

West Virginia Logging Sediment and Control Act

This law, passed in 1992, is by far the greatest challenge the Division of Forestry has ever faced. It requires the Division to train and license all timber buyers and to certify all loggers. Initially some 5,000 loggers were certified and about 1,400 timber licenses issued. This law specifies two days of training in logger safety, and harvesting by using necessary Best Management Practices, plus certification in a Red

INTRODUCTION

A history of the West Virginia Division of Forestry has been needed for many years. With roots dating back into the late nineteenth century, the Division evolved and grew, as resources permitted, into the efficient and effective organization we know today.

Resource materials for this historical review have been plentiful. Annual reports of the Office of Fish and Game Warden and later the Forest, Game and Fish Warden are rare; yet copies still survive today...firsthand accounts from the earliest years. These reports also contain invaluable photographs of activities and personnel. Conservation Commission annual reports and later those of the Department of Natural Resources have also been of great help. In addition, two State Foresters left unpublished manuscripts giving accounts of their programs and of significant happenings in previous administrations. One of these was compiled by Hays E. Helmick and another by Lester McClung.

A. B. Brooks' "Forest and Wood Industries of West Virginia," published in the West Virginia Geological Economic Survey series in 1911, was a vast source of first-hand information for the early years of this century. Another important resource is the widely used text, "West Virginia, the Mountain State" by Charles H. Ambler and Festus P. Summers. These and the West Virginia Conservation magazines and their successor, Wonderful West Virginia, have provided valuable information.

I want to thank former State Forester William H. Gillespie and present State Forester William R. Maxey for writing accounts of significant happenings during their administrations. Their work has made my assignment easier. I also want to thank District Forester Philip Wygal for supplying wildfire statistics.

Throughout the process of compiling source material and writing this manuscript, I have been greatly impressed by the devotion and loyalty of these foresters and technicians to protecting and rebuilding this renewable resource and their vision of the role these forests could play in the State's economy. Today, for the first time we see their hopes becoming reality since improved forest protection and cutting methods have allowed the volume and quality of the State's timber resources to increase even beyond expectations. Today this resource supports a thriving wood-using industry and is a strong contributor to the State's economy. These goals have been attained while still protecting or enhancing the wildlife, watershed, recreation and aesthetic values of our timberlands.

As a forestry professor at West Virginia University for 35 years, I have proudly watched as our school's graduates have taken key positions with the Division of Forestry and other environmentally oriented State and Federal agencies and have made significant contributions to the forest conservation programs as they work to protect and mold forest stands that best meet the diverse needs of all citizens of the State.

Kenneth L. Carvell
Professor Emeritus
West Virginia University

July 1998

Logging Sediment Control Act

In 1992, the West Virginia Logging Sediment Control Act was passed. This landmark legislation provided for sediment control; for licensing of loggers, timber operators and contractors; for the presence of a certified logger on each logging job; for training of loggers in first aid, safety and timber-cutting procedures; for a committee to be formed to be settle regulatory disputes before appeals to Courts; and for the registration of logging jobs. This act received the National Forest Landowners Association award for being the best conservation legislation in the nation that year.

Division Effective in Attracting New Forest Industries

Other things accomplished during this period were placing the first computers in the Division and in playing a major role in attracting the Bruce Hardwood Flooring Plant at Beverly and the Columbia Forest Products veneer plant at Craigsville. Initial efforts were also made to provide help to the Trus Joist Macmillian Plant at Buckhannon, Georgia Pacific OSB plant at Mt. Hope and the Weyerhaeuser OSB plant at Heaters.

Upon the resignation of Gillespie late in 1992, Ed Murriner served as Acting Director for six months, with significant help from Robert Whipkey in forest management, Alan Miller in forest protection, Joseph Yeager in urban forestry and Ralph Glover in general administration.

WILLIAM R. MAXEY, STATE FORESTER (1993-present)

"Bill" Maxey was named State Forester July 1, 1993. His past experience in forestry education and with wood-using industries suited him well for the expanding roll of the Division of Forestry. Bill graduated with a Master's degree in Forestry from West Virginia University and served as an Associate Professor with tenure and Manager of the University's forests. For several years, he had been a forester with W. M. Ritter Lumber Co. in southern West Virginia and later became a logging superintendent with the Georgia-Pacific Corporation. Immediately before accepting the position as State Forester, he had worked for Westvaco Corporation, first as chip procurement manager and later as head of its Cooperative Forest Management Program.

His charge was to work closely with all State and federal agencies in expanding the productivity of the State's forest lands, and to increase cooperation with private wood-using industries, attract new secondary-manufacturing plants, and thus increase the benefits from these renewable resources to the economic growth of the State.

Through the 1980's, professional forestry assistance to the 268,000 private nonindustrial forest owners ranked second only to forest fire prevention and suppression in the responsibilities of the Division of Forestry. Forest fire control was the only significant mandated regulation during this decade. More recently, several major legislative changes have materially altered the service and regulatory priorities of the Division; however, forest fire control remains number one.

When Maxey became State Forester in 1993, the service foresters had the lowest salaries in the Nation. Forest technicians were also near the bottom in salary. One of his most important achievements in addressing this inequity was his successful appeal to the State Personnel Board to elevate foresters' and rangers' salaries two pay grades in 1996. In 1997, the Division obtained the necessary funds to move everyone toward the midpoint of these new pay grades and in 1998, completed this effort.

Forest Fire Mobilization and Other Programs

During a four-year period (1992-95), the Division received a Federal grant to fund a Forest Fire Mobilization Program. Under this program, headed by Assistant State Forester Alan R. Miller, Jr., five

Division of Forestry As a Free-standing Division

Governor Gaston Caperton was successful in passing a law, effective July 1, 1989, removing the Division of Forestry from the control of Agriculture and installing it as a free-standing division under the umbrella of Commerce, Labor and Environmental Resources.

In 1990, Congress, as part of the historic Forestry Title (Section XII) of the Food, Agriculture, Conservation and Trade Act, initiated new Forest Management, Stewardship Initiative and Urban Forestry Programs. It was a way to encourage nonindustrial, private forest landowners to manage their lands professionally for timber, environmental and social benefits. The programs were intended to complement and extend existing forestry assistance programs and to set national priorities for tree planting, tree maintenance and tree improvement.

Further Changes in Division Programs

The Division acted immediately to organize a statewide forest stewardship committee, an urban forestry committee and a stewardship incentive committee. The Director of Forestry chaired all three. West Virginia soon was lauded as a leader in all three programs. The Division's "Training, Reference and Procedures Manual" for SIP is still the most comprehensive of any in the Nation; its policy of hiring private consulting foresters to develop management plans for private landowners, instead of putting the dollars in Division activities, has proven to be the most efficient policy in the Nation; and its development of additional Tree Cities-USA and cooperative city tree planting plans via community challenge grants was accepted by the U. S. Forest Service as the best.

In 1989, thirty-five bills with an impact on forestry, both positive and negative, were filed in the Legislature. Several passed, of which the most important were the changes in forest fire laws that mandated safety stripping, did away with fire permits, changed the penalties for allowing fire to escape, and established new times of day for burning. Ginseng law penalties were also changed. Perhaps the proposed legislation that had the greatest effect by failing was the "painted boundary bill" which would have allowed a painted boundary to be evidence that land was posted. This was defeated by Sportsmen Groups. West Virginia is the only state in the Nation to still allow free roaming on private land for the purpose of hunting, fishing and trapping, unless the land is posted with signs, or is fenced or cultivated. This provision was first inserted in the law in 1963.

Renewed Emphasis on Key Programs

Professor William E. Kidd Jr., WVU Division of Forestry, Forestry Management Extension Specialist, conceived the idea for and coordinated the production of nine (9) forest management videos. These excellent videos are now in every school and public library in the State.

The Division of Forestry and the West Virginia Forestry Association cooperated in starting an annual Arbor Day celebration. Under this program, the forestry association and WV Tree Farm Committee purchases sugar maple trees which forestry division personnel deliver to schools in each county. Short programs are held at each school.

In 1992, the Division was successful in planting four sugar maple trees in the National Grove of State Trees at the U. S. National Arboretum in Washington, D.C.; in funding a study of temporary wooden bridges; and in locating more than 80 underground mine fires. A program to place a fire mobilization ranger in each of the ten southern counties to work towards improving forest fire control was initiated with a federal grant. A division bulletin, West Virginia in Flames, released in 1988, had pointed to the compelling need for intensive action.

PROTECTORS OF THE FOREST RESOURCE

A History of the West Virginia Division of Forestry

by
Kenneth L. Carvell, Professor Emeritus
West Virginia University, Division of Forestry
and
William R. Maxey, State Forester
West Virginia Division of Forestry

Description of Original Forests

The endless expanse of virgin forest that confronted the frontiersmen as they pushed westward into what is now West Virginia was to them both a curse and a blessing. There was far more wood than the early settlers needed ... clearing land for agriculture with their light hand tools was hard, endless work. To grow agricultural crops, forest trees were often merely girdled and the scant crops planted in the increasing sunlight as the overhead tree crowns thinned out. To dispose of this material quickly, choice hardwoods were cut-up and burned. On the other hand, the forest provided an endless bounty of wildlife for food and animal pelts, cabin logs and streams abounding with fish.

Since there were far more quality trees than the settlers could use, cuttings in the forests near the homesteads were light and selective, i.e. they only cut certain species, white oak, black walnut or cherry, those useful for their needs, and they only cut trees of certain diameters; those too small to use or too large to handle were invariably left. Cuttings, typical of those during the first century and a half after settlement, had little or no impact on the forest. In West Virginia, even two decades after statehood, there were endless stretches of unexplored virgin timber. Many stands supported more than 100,000 board feet per acre. Early accounts say that the forest cover was so dense that it could only be opened up by the large lumber barons. It is little wonder that most early settlements were at the lower elevations, along streams or near Indian or animal trails.

However, these vast expanses of forest were interrupted by various types of openings. It is speculated that as much as 10 percent of this area was not tree-covered. Some of these openings were grassy glades, areas with impeded drainage, often along creeks and runs. Here various nutritious grasses dominated, resisting invasion by tree seedlings. When traders and trappers brought back information on the exact location of large glady areas, several families would immediately leave the Shenandoah Valley frontier settlements to claim these openings--areas that did not need to be cleared. Some open areas, however, were too moist and classified as quaking bogs, with their unstable soil and rug-like cover of sphagnum, other mosses, lichens, cranberries and wet-site shrubs.

One unique feature of the central Appalachians was the upland meadow, vast expanses of nutritious grasslands that seemed to defy invasion of woody plants. Such upland areas often had scattered open-grown hawthorn trees, but were primarily grasslands, excellent pasture ready-made for the settler. These areas, it is now thought, were intentionally kept open by the Indians using periodic ground fires. At the highest elevation, there were openings covered with rhododendrons and mountain-laurel, occasionally giving way to a lone Table Mountain pine, stunted red spruce or carpet of dwarfed spruce ... not a true tree line, but a condition caused by thin soil, strong drying winds, and periodic wildfire.

However, West Virginia had yet another type of natural opening, the "old fields" or "Indian old fields". These were lands, primarily in the Eastern Panhandle, that had been used for agriculture by the Indians, but abandoned some years before the westward press of the white settler. Pioneer families found these openings, in early stages of reverting back to forest, and re-cleared them for their own agricultural and husbandry needs.

However, in spite of these unique openings, the vast forest expanse (15,400,000 acres) was a wonder to behold. Moist forest slopes might have as many as sixty usable tree species, and the pioneers

soon learned which ones to cut for specific purposes. On the drier sites, there were mixtures of oaks and chestnut, and they soon recognized the value of chestnut for building logs and lumber and the food-value of the abundant mast. At an early date, many white oak were cut for cooperage. Higher up were mixtures of beech, yellow and black birch and sugar maple. Often these had a strong component of high quality black cherry.

At the highest elevations, there were red spruce forests, some 420,000 acres of these, forming stands so dense that nothing but rhododendron could survive in the understory shade. The major associate of the red spruce forests in West Virginia was Canadian hemlock. Although the hemlocks reached the largest diameters, the spruce were taller. The dense crown cover of these conifers allowed so little light to penetrate to the forest floor that it was impossible to read a book even at mid-day in the understory of such stands.

THE LARGE SAWMILL ERA

The first large lumber companies were attracted to West Virginia by the vast white pine forests in the central and southeastern parts of the State. During the early nineteenth century, most of the Nation's white pine lumber had been supplied by huge mills in northern New England and New York. By 1860, the white pine mills had moved south to northwestern Pennsylvania. Stimulated by the great demand for pine during the Civil War, Pennsylvania white pine had been so extensively cut that by 1870 Pennsylvanians were importing white pine lumber from Michigan. However, not all of the Pennsylvania white pine mills moved to the Lake States. Some, hearing stories of magnificent reserves of white pine in the Central Appalachians, moved their mills to the yet unexplored pineries of West Virginia. The first large mill to be established was that of the St. Lawrence Boom and Lumber Company at Ronceverte in Greenbrier County. Between 1885 and 1910, they cut all of the quality pine from much of Greenbrier and Pocahontas Counties. During the spring, when the water was high, their logs were driven down the Greenbrier River to vast holding booms at Ronceverte. Enough logs had to arrive in the early spring to meet the sawmill's needs for a whole year. However, white pine loggers were only interested in pine; and in these cuttings, valuable hardwoods intermingled with the pine were ignored.

Other sawmill owners, arriving in the mid-eighties, were lured here to cut the red spruce. The Babcock Boom and Lumber Co. at Davis and the West Virginia Pulp and Paper Co. mill at Davis were two such enterprises. The West Virginia Pulp and Paper Company's sawmill at Cass was also here primarily for spruce. Hemlock, so abundant in spruce stands, was occasionally cut for low-grade lumber. In many cases, however, it was felled, the bark peeled off for use at the tanneries, and the logs left in the forest to rot. The abundance of hemlock and other barks for tanning material explains the many tanneries in our mountain counties during the first half of the twentieth century.

By 1900, there were hundreds of large mills cutting the hardwood stands in West Virginia. One of the earliest was the W. M. Ritter Lumber Company. Ritter's first sawmill was on Brown's Creek in McDowell County. This company expanded its band sawmills, flooring plants, and southern pine operations and acquired approximately 1½ million acres of Appalachian hardwood timberland. By 1960, when Ritter sold out to the Georgia-Pacific Corporation, the W. M. Ritter Lumber Company had some 13 bandmills and other wood product operations ranging from West Virginia to Georgia. They had become the largest hardwood lumber company in the world. A variety of species was harvested, and the number of species that became commercially important increased annually as hardwood lumber became more scarce. They logged not only in northern hardwood forest types at the higher elevations, but also at lower elevations to harvest the luxuriant cove hardwood and mixed oak stands throughout the entire State.

Actually, by 1900, no one knew just how many large sawmill and timbering operations were present in West Virginia. By the peak lumber production years, 1908 and 1910, it is estimated that there were over 200 large circular or band saw mills in operation. Although this number declined steadily after 1910, production remained spectacularly high until the mid-twenties. One by one, as the timber resource was depleted, these operations closed and the mills and towns were abandoned.

Reinventory of West Virginia Forest Land

In 1985, the U. S. Forest Service announced it would soon start on the fourth forest inventory of West Virginia. During the planning meeting, Gillespie asked what could be done to increase the accuracy and to develop statistics meaningful at the county level instead of the regional as had been done in the previous surveys. The U. S. Forest Service representative said the only way was for the State to pay for the additional plots that would be needed. Division and industry representatives told this story repeatedly to the Legislature, resulting in a special appropriation in 1986 to purchase an additional 1,260 plots, more than a third of the total. The inventory, when published in 1988, was the first to have county-level data for the State and for the first time could be used as a tool in targeting local economic development efforts. Renewed emphasis on use of forests resulted also in four new positions which, for the first time, enabled the Division to have a Forest Utilization Specialist in each of the six districts. The Division, in explaining the inventory to the public, prepared a color-enhanced statewide bulletin and nine regional leaflets keyed to the State's Economic Development Regions.

Strategic Plan Developed for State's Forest Land

The increased attention to forestry generated by the release of the new inventory, plus a healthy forest economy in general, accelerated demands for assistance. In 1988, a new forest industry plant was constructed or a major expansion of an existing facility was made each week of the year. It was also in 1988 that more than 70 professionals devoted nearly eight months in preparing "A Strategic Plan for More Fully Developing the Forest Resource in West Virginia" for the Forest Management Review Commission. Co-chaired by Ed McCoy of Coastal Lumber, Richard Grist of Georgia-Pacific, Jack Tillinghast, Consulting Forester and Jack Burlingame of the Jackson County Development Authority, the Task Forces decided on 17 issues, 49 goals, 54 strategies and 269 specific suggestions or activities. The Task Force also decided that the objective of forestry in West Virginia should be "to manage the forests of this State in a manner compatible with producing the largest possible economic base while maintaining a quality environment for and the social well-being of the 1.9 million citizens of the State." This study was an outgrowth of a public study, using Forest Service funds, commissioned by the Division in 1984 and conducted via questionnaire by William E. Kidd, Jr., extension forester at WVU.

Expanding Demand for Forest Landowner Assistance

The Division received 11,195 requests for forest landowner assistance in 1989 alone. Of these 10,953 were handled in-house and 145 were referred to consulting foresters. Service foresters also conduct reconnaissance trips for forest management planning purposes and multiple-purpose forest management plans are developed for non-industrial forest landowners. Sawlogs and pulpwood are marked and advertised for sale for these forest owners.

Silviculture Water Quality Management Plan

The year 1989 also saw the acceptance of the West Virginia Silviculture Water Quality Management Plan developed cooperatively by the Division of Forestry and the Division of Natural Resources including formalized Best Management Practices for logging-caused sediment control. This was an outgrowth of an interagency policy guidance document signed by Gillespie and D. W. Robinson, Chief of the Division of Water Resources, in May 1987 and which superseded and extended an agreement signed in August 1985. A revised Memorandum of Understanding concerning the West Virginia Nonpoint Source Pollution Control from Forestry Activities was signed by Gillespie as Administrator of Forestry and Ed Hamrick, as Administrator of Natural Resources in October, 1989. A special study of nonpoint source sediment impact on the 50 most sediment impacted streams in West Virginia, as chosen by the U. S. Environmental Protection Agency, was released in May, 1990. Timbering had the least impact of the six categories studied. Repeat forest fires were shown to cause extreme sedimentation, a fact substantiated in a technical report entitled Severe Soil Erosion Follows Forest Fires in Southern West Virginia in a technical report released later in 1990.

New Studies and Direction

Gillespie immediately established eight committees made up of industry and other forestry professionals to analyze each aspect of forestry in the State. He had just received the reports and was still having meetings to establish goals, when the great flood of November 5, 1985 occurred. With a radio network, four-wheel drive vehicles, a lot of compassion and a good general knowledge of West Virginia, Division of Forestry personnel proved instrumental in gathering the statistics necessary for the Governor to ask the Federal Government for a declaration of disaster and later in compiling damage estimates for the Governor's disaster committee. The flood destroyed the Tree Seedling Nursery at Parsons. A political fight erupted when it was announced that a moth-balled tree nursery at Lakin would be reopened as a replacement. This decision, however, had been recommended by a study group and was not changed.

Gillespie, on being officially named Director, instituted a weekly report to the Forestry Commission, a weekly newsletter for Division employees and those in Industry who wanted to receive it, an annual detailed Division work plan that was published for public consumption, a monthly calendar of forestry events in the region and a Junior State Foresters Program on fire protection in elementary schools. These continued throughout his tenure. He also began an employee recognition award culminating in an "Employee of the Year" with the winner receiving either a shotgun or a deer rifle, a plaque from the Division and a permanent label on a wooden crosscut saw prominently displayed in the division offices. Gillespie also started the annual A. B. Brooks Forestry Symposium, in honor of the State's first forester. A special industry committee, appointed by the Forestry Commission to study the structure of forestry, suggested in early 1986 that the position of State Forester be combined with that of Forestry Director. This suggestion was accepted by the Commission.

In 1987, the West Virginia Forest Management Review Commission was codified by the Legislature. Started as a study group during the "clear-cutting" imbroglio on the Monongahela National Forest, it was more or less permanently reinstated as a legislative-industry-citizen entity to serve as a forum for the expression of public opinion regarding the operation and management of forest lands in West Virginia. The same piece of legislation established the Appalachian Hardwood Research Center at WVU to do applied forestry research. The legislation establishing these entities was initially prepared by the Division of Forestry.

Operation Manuals Updated and Expanded

During his first year, Gillespie also assigned assistants the task of preparing manuals for division activities. This resulted in the Forest Management and Forest Fire Council Manual being revised and in first editions of manuals governing, utilization and urban forestry.

Managed Timberland Property Tax Incentive Property Tax

The Property Tax Limitation and Homestead Exemption Amendment to the State Constitution in 1982 called for a reappraisal of all property in the State by March 31, 1985, with a ten-year phase-in of the new appraised values. The 1983 Legislature gave the Tax Commissioner rather specific directions, including the taxation and valuation of timberland. The Tax Commissioner assigned the job of developing a technique of valuing forest land to a consultant. The report was delivered in July of 1986. Although it was considered to be seriously flawed by the forest industry, it was deemed to be better than what had been used in the past and thus was accepted. Gillespie discussed the flaws from the standpoint of forest industry with several succeeding legislative committees, but without success in getting a change. The forest industry, however, with Division of Forestry help, succeeded in getting a Managed Timberland Tax Incentive Property Tax law enacted in 1990. It was not until 1998 that the legislation was revised to enable it to carry out the original mandate of valuing timberland for its use to grow commercial crops of trees.

In these cuttings, all merchantable trees were cut. Those trees left behind invariably died from exposure or were wind thrown. Others died from the rash of wildfires that followed these cuttings. Such heavy cuttings in old growth timber produced thick layers of slash ... branches, foliage, tops and broken and dying trees. In these endless cut-over areas, known as "slashings," this material dried out and formed a flammable layer 6-8 feet deep just waiting for a spark to start an inferno.

Although lumber company owners tried to keep wildfire out of cut-over areas, with such endless expanses of prime fuel, it was a difficult task. Sooner or later a spark would escape. Company officials realized the dangers that wildfire posed to their investment, since they had workmen, logging camps and expensive log-skidding equipment plus railroad engines, cars and tracks throughout their forest lands. To control fires, logging engines were equipped with spark arresters, hot ashes and coals were always disposed of in wet areas, and log trains were followed by fire suppression crews to put out hot spots started by engine sparks or hot brake shoes. Although these measures decreased wildfire incidence, sooner or later a fire would get into an area of slashings. In dry weather, putting out such huge wildfires was nearly impossible. Although there were many such fires, perhaps the most famous occurred in Tucker County in 1899, and was widely known as the fire that "burned a hole in the sky."

George W. Thompson of the Blackwater Lumber Company of Davis states that his company had managed to keep fire out of the woods from 1894 until 1899. In 1899, they were cutting timber along a railroad about 11 miles from the mill at Davis. In spite of constant vigilance, one dry, windy day a locomotive started a fire that by noon the next day had reached into the old 5,000-acre cuttings near Davis. This fire burned a hole in the sky. At one place, a railroad spur had been built into the green timber for half a mile and a logging camp built there. The fire followed the new railroad grade and burned the camp. The large crew at camp had to work like beavers to cut trails into the green laurel to save themselves and the horses.

People throughout the State knew when fires were burning in the mountains since the haze from the smoke and the smell of charring wood permeated the whole State. In most cases, no one knew just where the fires were, how large an area had been burned, and whether the fire was now under control. These uncontrolled wildfires and the destruction they caused to logging camps, sawmill towns and the rich forest resource triggered concern for State action and better conservation of the State's forest resources. In 1906, there was a legislative proposal relating to protecting the forest from fire in the public interest. This proposal was contained in a pamphlet entitled "The Need of Forest Protection in West Virginia and Suggestions for a Forest Law" by historian Hugh Maxwell. The bad fire season in 1908 prompted immediate action since, in that year, there were 110 forest fires which burned 1,703,850 acres, an average of 2,399 acres per fire.

A few large lumber companies had an interest in restocking their cutover lands. One of these was Geo. Craig and Sons Lumber Co. of Bartow, Pocahontas Co. In 1906, they hired forester Max Rothkugel, a German and a recent graduate of the Yale School of Forestry. Max was interested in reestablishing spruce on the company's cutover lands, and, in 1907, planted Norway spruce and European larch seeds on several hundred acres of cutover spruce lands, now along State Rt. 28, three miles east of Bartow. The site was cleared of brush prior to planting. Unfortunately, Rothkugel was dismissed due to the business panic in 1907. Although this plantation had no care for many years, the land became part of the Monongahela National Forest, and the stand received regular improvement work after 1930. Today, many of these trees are mature and form an impressive stand with many merchantable spruce and larch.

THE WARDEN SYSTEM (1897-1921)

A Fish Commission was created by the Legislature in 1877 to be composed of three "discreet and proper" persons appointed by the governor for four-year terms and authorized to establish hatching houses and pools, construct fish ladders, removed obstructions to the passage of fish, and stock streams with food fish. The commissioners served without pay, funding was limited and there was no method for enforcing

their authority. Thus, they exercised only supervisory control, and the destruction of habitat for mammals, fish and birds continued.

To improve this situation, the 1897 Legislature created the position of Game and Fish Warden with a salary of \$1,200, provided that collections from fines equaled that amount. A single warden, however, found it impossible to cover the whole State. His compensation was thus reduced to \$1,000 per year and he was permitted to appoint deputy wardens who received the fines imposed in prosecutions. Violations continued, however, on an increasing scale. The enormous destruction by forest fires in 1908 was largely responsible for the West Virginia Reform Law of 1909. This Law authorized the governor to appoint a Forest, Game and Fish Warden for a four-year term at a salary of \$1,800 to be paid quarterly. He was given an expense account of not more than \$500. He was required to hire two chief deputies, at salaries of \$900 each. County deputies were appointed with no salary, but received one-half of fines imposed for violations.

All hunters and fishermen, except on their own land, were required to have a license, 75 cents for residents and 15 dollars for nonresidents. This Reform Law made dynamiting fish a felony, designated game animals and fish, prescribed open seasons and bag limits, forbade chasing deer with dogs and made it illegal to kill a doe at any time. Hunting and fishing on Sunday was banned. To help in fire suppression, wardens and deputies could require private individuals to fight fires. Those convicted of setting forest fires were subject to fines and imprisonment. Industrial owners came under these provisions, as well, and most cooperated in this regard.

In 1908, Governor William Dawson appointed a Conservation Commission consisting of Hugh Maxwell, James Stewart and Neil Robinson. This action was the result of the Conference of Governors of the United States which met at the White House, May 13-15, 1908, and was chaired by President Theodore Roosevelt. The President's main theme was that we must conserve our natural resources ... this is the most weighty problem facing the people of the United States.

Among the suggestions from this Conference on conservation of natural resources was a recommendation for states to cooperate with one another and with similar commissions of the Federal government to ascertain the present condition of our natural resources and to promote conservation. To support forest policies that assure the husbanding and renewal of our diminishing timber supply, prevention of soil erosion, protection of headwaters and maintenance of the purity and navigability of our streams, and that laws for protecting privately owned forests be enacted.

It is interesting to note that West Virginia University offered its first forestry training in 1908 with the appointment of Professor A. W. Nolan to the College of Agriculture staff. Several degrees in agriculture with a major in forestry were granted at this time. Alonzo B. Brooks, later first State Forester for West Virginia, was one of those to receive a forestry degree. Although forestry courses were popular among the students, they were discontinued when Professor Nolan left the University in 1910.

The West Virginia Reform Law of 1909 made the Office of Fish and Game Warden responsible for forest protection and authorized the governor to appoint a Forest, Game and Fish Warden to a four-year term. Jules A. Viquesney from Belington was named the first warden and was subsequently named warden for two more successive terms. No funds except those for paying the warden were made available for the new service. In 1909, the Legislature did appropriate \$5,000 for a comprehensive study of the State's forest land and wood-using industries, and asked A. B. Brooks to conduct this survey and prepare a publishable report. This comprehensive volume appeared in book form in 1911 published by the West Virginia Geological Survey under the title "Forestry and Wood Industries of West Virginia."

A. B. Brooks of French Creek later wrote and illustrated a volume on West Virginia Trees, which has been reprinted several times. He was the first State Game Protector under the West Virginia Conservation Commission. After service there, he joined the staff of the newly created Oglebay Park, in Wheeling, became its first Park Naturalist, and organized the extensive nature program for which the Park

Due to finances, work was curtailed for a few years at the yellow-poplar and black locust genetic areas.

At this time, experimental blight-resistant American chestnut seedlings were ready for distribution. Of these seedlings, 1,573 were planted in-state, and 1,683 were planted out-of-state.

Move to Transfer the Division to the Department of Agriculture

In 1983, the Legislature established a subcommittee to study the merits of transferring the Division of Forestry from the Department of Natural Resources to the Department of Agriculture. The reason for introducing a bill into the Legislature was the feeling by wood-using industries and other forest-oriented groups that the potential of the Division of Forestry was not being realized because major emphasis and funding within Department of Natural Resources was being allocated to other divisions, not to forestry. Division of Forestry personnel felt that inadequate funding had hampered their programs since 1963 when their percentage of hunting and fishing license fee money was diverted to other Divisions.

West Virginia Forests, Inc., an association embracing all aspects of timber production and manufacturing in the State, voted to actively support this transfer. State Agriculture Commissioner Gus Douglass commented that "he had watched the Division of Forestry fall further behind due to low priority in the conservation pecking order." However, State Forester Jack Warder and District Forester Carl Lucas of Beckley said that they and many other foresters of the Division of Forestry had weighed advantages and disadvantages and decided they were better off in the Department of Natural Resources.

The State Legislature interim subcommittee tabled the bill for transfer, but the Subcommittee of the Legislative Interim Committee on Government Operations and Organizations passed a separate bill to continue studying the move. Representatives of the Department of Natural Resources with Director Ronald R. Potesta and Department of Agriculture with Commissioner Gus R. Douglass appeared before this subcommittee to review their agencies' interest in, and support for, forestry.

The 1985 West Virginia Legislature passed Senate Bill 196, which included as part of its provisions the transfer of the Division of Forestry from the Department of Natural Resources to the Department of Agriculture. The effective date was July 1, 1985. At the first of May, the Division of Forestry moved into a new administration headquarters located northwest of Charleston on Rt. 21, a part of the Guthrie Agricultural Complex. Many offices and rooms in this new building were paneled in native hardwoods donated by forest industries of the State. On July 1, 1990, the Division of Forestry was placed under the Department of Commerce as a "stand-alone" agency.

THE WILLIAM H. GILLESPIE ADMINISTRATION (1985-1992)

In July 1985, at the first meeting of the new West Virginia Forestry Commission, Bill Gillespie was named Acting Forestry Director, and, in September 1986, was named the Director. Ralph Glover served as "acting" State Forester from 1986 through 1992. Bill, a graduate of the West Virginia University School of Forestry, had a diverse career. In addition to being educated in general forest management, he had several years of graduate work in forest disease control, botany, and geology- paleobotany. As a graduate assistant, he had taught dendrology and systematic botany to forestry students and later joined the faculty of the Department of Geology and Geography on a part-time basis teaching Paleobotany. He had authored several dozen scholarly articles in forestry, botany and geology, given papers at national and international meetings, and served as President of the West Virginia Academy of Science and as Chairman of the Visiting Committee of Glenville State College Forestry Technology Program.

He was also known as a Forest Biologist, Director of Plant Pest Control, Administrative Assistant and ultimately Deputy Commissioner of Agriculture for the West Virginia Department of Agriculture. Gillespie had been a registered professional forester since 1963.

Cooperative Forest Management Gains

In 1977, assistance to landowners increased with the addition of four foresters employed under the CETA Program. This increase, plus hiring of forestry students for summer work, allowed the forest management programs assisting private landowners to proceed more rapidly.

THE BYRON J. WARDER ADMINISTRATION (1980-1986)

Cooperative Forest Management Program Curtailed

During this period, assistance to forest landowners was curtailed through budget constraints, and the elimination of those foresters employed under the CETA program. It was also necessary to discontinue hiring forestry students during the summer as aides to service foresters. The Cooperative Forest Management Program which had been the flagship of the Division for decades was suddenly confronted with more requests for service than they could fulfill. In spite of these reductions in personnel, the forest management program made a great effort to provide outstanding service during these lean years.

Rural Community Fire Protection Program

The Rural Community Fire Protection Program (RCFP) enabled the Division to continue to assist rural volunteer fire departments with their training. In 1981, 115 fire departments received funds through this program.

Ginseng Program

In 1983, the Division was given responsibility for administering the ginseng program which involved meeting criteria set forth by the Federal government. Under this Act, those persons wishing to sell ginseng outside the state of West Virginia had to be registered with the Division of Forestry.

At the end of the first season (August 15 - November 30), there were 130 dealers or buyers registered under this Act. A summary of pounds (dried roots) dug in West Virginia and total pounds exported from the State had to be reported annually to the U. S. Department of the Interior. In 1984-85, 39,207 pounds of ginseng were dug within the State, and 36,835 pounds certified for export.

Timber Sales on State Forest Land

During this period, there were several timber sales on State-owned forest lands. Those forests with sales during the early eighties were Camp Creek, Coopers Rock, Kumbrabow, Calvin Price and Cabwaylingo. These sales were all made to remove overmature timber. The Division's policy was to encourage timber sales when needed so that State-owned forests could be used as demonstration areas of sound forestry practices. All timber sale revenues were dedicated to forest fire prevention and control statewide.

The Voluntary Compliance Committee was active during this period making loggers and forest land owners aware of the provisions of this plan. Service foresters and water inspectors from the Division of Water Resources made periodic inspections and worked closely with logging operators. Division personnel taught and demonstrated methods by which the amount of soil erosion can be reduced and kept out of streams. This was done through logging workshops, public meetings and one-on-one contacts.

Seed Orchard Programs

Work at the Ohio Valley Experiment Station's white pine seed orchard was limited during this period, but each year a few more grafts were made on white pine stock using scions from superior pines.

is famous. Further evidence of growing public concern in protecting the forest resources and of forest management possibilities are seen in the organization of the West Virginia Forestry Association in 1908. On January 24, 1908, forty-five people representing 23 counties attended the organizational meeting in Morgantown. Dr. Nolan was elected secretary.

Forest Protection and Management Strengthened--Weeks Act

In 1911, Congress passed the Weeks Act which was signed by President Taft on March 1, 1911. This Act authorized the Federal Government to purchase those forest lands needed to protect the flow of navigable streams. Thus, this law formed the basis for establishing National Forests in eastern United States. Equally important, Federal-State cooperation in fire control was authorized. West Virginia was one of the first of the southern states to qualify by passing enabling legislation for establishing national forest reserves.

Public support for an act allowing the Federal Government to buy up forest land to protect the watersheds of certain rivers had increased since the turn of the century. The Pittsburgh Chamber of Commerce was a great supporter of this legislation hoping that protecting headwaters of both the Allegheny and Monongahela rivers would eliminate the succession of disastrous spring floods. Although not specified in the Weeks Act, it was generally understood that the first purchase unit established would be in the mountains of West Virginia and the second in the White Mountains of New Hampshire to help control disastrous floods on the Merrimack River.

In 1913, the State Legislature appropriated \$5,000 for forest protection and a contract was signed by the Federal Government on October 16, 1913 whereby a similar amount was made available. This was actually the beginning of the extension of Federal aid for forest protection in West Virginia.

In 1915, the State Legislature enacted legislation enabling the State to meet the requirements for federal cooperation in fire control, as outlined in the Weeks Act. The State could appoint fire wardens in each county, and had authority to work on lands of another in fire suppression. Pay was \$2 per day for wardens. Fire crew workers were paid at the rate of \$1.50 per day. This was charged against the county. Brush burners had to notify adjoining land owners of their intention to burn. It became a violation to abandon fires. Incendiarism became a felony, with a one- to two-year sentence in the State penitentiary. Since logging railroads were responsible for igniting most of the fires in cut-over areas, mill owners were required to remove all inflammable material from the right-of-way, use spark arresters on engines and prevent escape of fire when cleaning out ash pans. Fire damages could be recovered from guilty parties, and they were forced to reimburse the county for suppression costs.

Forest Fire Protective Associations

In March, 1914, George B. Thompson of Davis went to Elkins to meet with E. S. Bryant of the U. S. Forest Service. Other managers of large sawmills from central West Virginia were present including Merritt Wilson, Sr., Wildell Lumber Co. and Bert Roberts, Cherry River Boom and Lumber Co. At this meeting, the Central West Virginia Fire Protective Association was formed, an organization that greatly strengthened the support, resources and finances available for fire suppression. Merritt Wilson was the first President and George Thompson, Vice-president.

Similarly, on April 29, 1916, forest land owners from southern West Virginia held a meeting at the office of the Carbon Fuel Company in Charleston. H. V. Viquesney, representing J. A. Viquesney, E. S. Bryant of the U. S. Forest Service and Senator E. C. Colcord were present, as well as presidents or representatives of many of the large land-owning companies from the southern part of the State. These men organized the Southern West Virginia Forest Fire Protective Association. They agreed to contribute annually a set fee, not to exceed 1 cent per acre, to be used for fire suppression work. They urged the State to erect fire towers and establish fire patrol routes throughout their area.

An Eastern Forest Fire Protective Association was organized in 1921. Its membership had a combined area of 40,000 acres, largely in small forest land ownerships. This Association operated until 1926 when it was discontinued. The Southern and Central associations merged in 1948 to become the West Virginia Forest Fire Protective Association with, in 1950, 210 active members representing 2,033,000 acres.

West Virginia Wildlife League

Interest in conservation of natural resources and in protecting the forest resource re-surfaced in 1920. At this time, the West Virginia Wildlife League was formed, with an active chapter in nearly every county seat. Howard S. Cleaves was Secretary and Editor of their magazine, West Virginia Wildlife. During the twenties, the League had an ever-expanding membership with monthly chapter meetings and strong support of the populace. The League's monthly magazine, widely distributed, had interesting educational articles about the State's outdoor resources, progress made in stocking fish and game and protecting forests. The League was particularly anxious to have the crude spar-tree, crow's-nest type of fire tower replaced by safe, modern, steel structures and each magazine had information and pictures about new metal towers that had been erected. The League had a goal of publishing the best state conservation magazine in the Nation, and no doubt accomplished this goal. The articles were informative and gave the members information about conserving, preserving and restoring damaged resources. With the League's backing, the office of Forest, Wildlife and Fish Warden and, later, the Conservation Commission, had a strong ally in accomplishing their many goals. The League flourished throughout the twenties, but slowly lost momentum and membership during the Great Depression, and became inactive in the mid-thirties.

Progress in Controlling Wildfire

With the increased budget and favorable legislation for detecting and controlling wildfires, significant actions were taken as soon as Federal control matching-money became available. The old crow's-nest type lookout towers were gradually replaced by 2-story wooden structures, shaped like a truncate pyramid, some 20 feet tall. These had living facilities to accommodate the watchman during fire season and equipment to determine exact fire locations. The following guidelines were used in selecting tower sites:

- 1) Each station must be built at some point which would command a view of a large acreage of forested land.
- 2) The territory covered must be well provided with telephone service.
- 3) Large timberland owners should show a friendly, and, if possible, cooperative spirit toward the work.
- 4) Stations must be built as far apart as permissible for efficient service.

Since it was inevitable that certain areas could not be covered by surveillance from fire towers, a network of patrol routes was also established. In fire season, patrolmen were employed to make daily trips over these routes. It was their duty to keep a constant watch for fires and, when needed, to immediately get in touch with a deputy warden so he could dispatch fire crews to extinguish the fire.

Patrol routes varied in length depending on the means by which they were to be patrolled. Where terrain was very rough and steep, it was necessary for the patrolman to traverse his route on foot. In more level country a horse was used. In the 1916 Biennial Report of the Forest, Game & Fish Warden it mentions that one fire patrol route was run from an automobile.

Distinguished West Virginian by Governor Arch Moore, and his accomplishments were recognized by The Forest Farmers' Association, West Virginia Forests, Inc., U. S. Forest Service and the Wildlife Federation. Les McClung's resignation marked the close of a long and productive era.

THE ASHER KELLY YEARS (1976-1980)

Asher W. Kelly, Jr, Assistant State Forester in charge of Fire Control was immediately named State Forester. Asher had been a loyal and effective member of the Division since graduating from West Virginia University, and had been in charge of the fire control program for several years.

During his administration, use of State-owned forest land by recreationists increased rapidly as did demands for expanded facilities. This required the Division to make some difficult decisions. In 1977, a major change occurred when all recreational facilities on State forests were transferred to the Division of State Parks and Recreation for administration purposes.

During the late seventies, the Forest Products Utilization Program became increasingly important. The number of foresters increased to four. These Forest Products Utilization foresters worked primarily with sawmills' owners and contractors to improve milling and harvesting programs. A major goal of this program was to reduce wood waste in timber harvesting and primary manufacturing. Industrial acceptance of their technical help continued to grow. As part of this program, short courses in lumber grading were offered on an annual basis.

Changes in Fire Detection Methods

The use of fixed-wing aircraft in fire patrols during spring and fall fire season continued to increase. During this period, however, 36 towers were still manned. These were primarily towers in areas with a history of high fire occurrence.

The Rural Community Fire Prevention Act enabled Division of Forestry personnel to assist in organizing, training and equipping volunteer fire departments. Division personnel were enthusiastic supporters of volunteer fire departments, since their crews were frequently the first to arrive at a wildfire due to the proximity of these fire departments to rural forest land.

Expanded Tree Improvement Programs

The Division's tree improvement program, which dates back to 1963, made major strides during the late seventies. Working in conjunction with Dr. Frank Cech, Forest Geneticist at West Virginia University, and with help from U. S. Forest Service geneticists, a seed orchard for superior tulip poplar was established on land owned by Kaiser Aluminum Corporation, known as the Kaiser Aluminum Seed Production Area. In addition, a black locust seed orchard was established on the Chief Cornstalk Public Hunting Area. Due to grafting of older scion wood from superior trees, 30 bushels of superior seed per year were harvested from the tulip poplar area by 1980.

Plan for Nonpoint Pollution

In 1979, the Division was given the challenge to develop a Water Quality Management Plan for the control of nonpoint pollution in silvicultural activities involving logging.

The Voluntary Compliance Committee was active in starting to develop and publish Best Management Practices known to help in logging operations by reducing siltation of nearby streams. The Environmental Protection Agency conditionally approved the Division's plan and authorized a two-year period for logging operators to test this Best Management Practices plan. Service foresters from the Division and inspectors from the Division of Water Resources made these pollution control inspections.

In-service Training Programs

Early in his term as State Forester, Lester McClung recognized the need of annual training sessions to keep service foresters, and all other Division personnel, abreast of rapid advances in methods and technology. Annual training sessions were organized starting in the mid-sixties. Such programs were particularly important with new findings on forest insects, diseases, methods of inventorying timber, safe and effective herbicide use and for training foresters to deal with complex environmental issues. In addition, each year there were training meetings for fire wardens. These were held at many points throughout the State. The goal was to keep wardens and crews abreast of new developments in fire suppression and of the Division's total program.

Management Plans for State-owned Forests

In the late sixties, an effort was made to have more intensive management of State-owned forests. These forests were divided into compartments and stands, and an inventory made of the species and volumes. Inventory work was completed in 1970. Based on the multiple-use concept, each State forest had a detailed forest management plan constructed, designating which areas would be managed primarily for timber, and which areas would be relegated to other uses. These plans were prepared for the 9 State forests, with a total of 80,000 acres. Sleepy Creek State Forest had been reclassified as a Public Fishing and Hunting Area in the fifties, and was no longer under control of the Division.

Aircraft in Fire Prevention and Suppression

In 1970, State-owned aircraft were used for the first time in wildfire detection, in a move to phase out some of the State's network of fire towers. By 1973, each District Forester was contracting with local flying services to hire planes during the fall and spring fire seasons for fire patrol and mapping. Planes were first used in those areas where fire occurrence was relatively low. In areas of high fire incidence, fire towers and patrols were continued to be gradually phased out in the eighties.

During this period, helicopters were also tested for fire spotting activities and for spraying water on fires from above. Although such aircraft were effective, high cost made them economically impractical for routine fire control activities.

West Virginia Forestry Practices

In 1972, a pocket-sized booklet was prepared defining the best forest management practices to use in various forest types and conditions. This manual, "West Virginia Forest Practices," was to be the guide of all foresters in the State in shaping their cutting practices and protecting environmental values. By this time, most forest-land owners were using improved cutting practices on their lands, but a few still resorted to methods that invoked great public criticism and brought discredit to the wood-using industries. Compliance with the suggested forest practices was strictly voluntary, but this guide book is given great credit for improving land-management practices in the State.

The Close of the McClung Era

When Les McClung retired in November 1976, after 35 years of service to the Division, he could look back on a long period of Division expansion and increased responsibilities. Les, a native of Greenbrier County, had first worked on the Panther State Forest as forest custodian. He was later District Forester (1942) for the Tygart District at Elkins. In 1953, he was promoted to Assistant State Forester in charge of fire control and moved to Charleston, arriving just in time to experience one of the worst fire seasons in the State's history. He was named State Forester in 1956.

Les was particularly proud to have established the tree nursery at Lakin, now the only such nursery in the State. The Division's staff grew from 65 to 143 during his tenure. On retirement, he was named a

Other Forest Related Activities of the Teens

When chestnut blight began to spread rapidly southwestward from the New York area, there was great concern in the Central Appalachians since the chestnut tree made up a significant and valuable segment of the hardwood forest. Chestnut occurred on moist, average and dry sites, but formed the largest percent of the stand on the drier areas. Even on dry sites, it was often an impressive tree. Chestnut wood was decay resistant, and thus had many special uses. In addition, the large annual nut crop was gathered and sold at the railroad siding, an essential supplemental income for many rural communities. Little was known about the blight, and there was no known method of control. In desperation, the West Virginia Geological Survey established a protective buffer zone in the eastern Panhandle. There was a large force of workers, armed with axes and saws, to remove all chestnut trees from this strip. The project continued for several months before it became obvious that the blight had already spread to the southwest side of this control zone.

During the teens, Morris Shawkey, Superintendent of the West Virginia Department of Free Schools authorized that an Arbor and Bird Manual be prepared annually. These booklets with colored plates contained information, stories, poems, plus lesson plans suitable for both urban and rural schools. Every public school teacher received a copy of this booklet each year. There was also a correspondence course of 20 lessons on nature study offered for interested teachers.

In 1918, the Warden was in charge of a survey to determine the supply and location of black walnut timber, since the Federal government foresaw a great need for this wood in the manufacture of rifle stocks during World War I.

During the teens, a large number of prevent-forest-fire signs were printed in cooperation with the U. S. Forest Service. A display of these is included in the 1916 Bicentennial Report of the Forest, Fish & Game Warden.

On November 10, 1919, C. W. Brandon succeeded J. A. Viquesney as Chief of the Office of Forest, Game and Fish Warden. Soon afterwards, Clare W. Harding replaced Brandon. During this period, funds were insufficient to keep field crews working through the fire season.

THE COMMISSION SYSTEM (1921-1933)

The Act of 1921

To improve the warden system, the 1921 Legislature placed the administration of the forest, game and fish laws in a three member board named the "Game and Fish Commission of West Virginia." This commission was authorized to appoint a chief game protector at a salary not to exceed \$3,000 exclusive of expenses. The commission was to maintain an office in Charleston and to hold regular meetings in January, April, July and October.

At that time, State residents did not need a license to hunt and fish on their own property, but they had to conform to the laws and regulations applied to others as far as open and closed seasons and bag limits were concerned. Resident license fees were \$1.00 per year, and nonresident, \$15.00. Money collected was administered by the Game and Fish Fund, which could be used at the discretion of the Commission. The Commission had authority to establish game, fish and bird refuges; rehabilitate and stock certain designated streams; determine what lands were suited for State parks and game preserves; offer bounties for the destruction of animals and birds of prey; and protect forests from destruction by wildfire. The Act of 1921 made the killing of elk illegal, and set the timing of open seasons for deer, wild turkey, quail, ruffed grouse, frogs, rabbits, squirrels, skunks, and game fish. All persons and industries were forbidden to pollute or obstruct streams.

The 1921 commissioners appointed A. B. Brooks as game protector. For years, he had been a leader in the conservation movement and particularly in programs dealing with forests and wildlife. With an annual income from licenses of \$81,000, soon to be augmented with Federal monies under the Clarke-McNary Act, plus grants from private land owners, and the backing of the West Virginia Wildlife League, the Commission's conservation programs were making steady progress. During the twenties, P. M. Browning served as Chief Forest Fire Warden.

First State Park and Forest

The Commission decided that 10 percent of all fishing and hunting license monies and income from fines would be set aside in a special land-buying fund. These funds would be used to purchase areas for State forests and parks, for future generations. Thus, in the early twenties, a list of desirable sites for these publicly owned lands was made. Seneca State Forest was the first acquisition, made in early 1924. This 10,847-acre tract located near Dunmore in Pocahontas County was acquired from A. D. Neill. Through succeeding years, adjacent tracts have been bought, raising the present area to 11,846 acres. In January 1925, the Commission acquired Watoga, a second Pocahontas area. This 4,500-acre tract of cut-over forest land was originally designated a State forest, but in 1934, was changed to a State park. These two tracts were the nucleus of the impressive array of State parks and forests that we have today.

Progress in Fire Prevention

During the twenties, with strong support from the West Virginia Wildlife League, the Commission began to replace the network of wooden lookout towers with modern steel structures. The first six metal towers were bought in 1922; some of these were 30- to 45-feet tall. The first metal tower was erected on Backbone Mountain in Tucker County.

In 1925, the State Legislature enacted a law making it compulsory for all land owners to protect their forest lands, and requiring owners to pay one cent per acre annually for this protection. Members of the three fire protective associations were exempt from this tax, since they paid a similar assessment to their association. The effect of this law was to immediately raise the acreage in the Central and Southern associations.

The Clarke-McNary Act

Perhaps the most outstanding act influencing forest land and forest protection in this period was The Clarke-McNary Act of June 7, 1924. This bill authorized that appropriations be made by the Secretary of Agriculture to cooperate in forest fire control with states meeting prescribed standards; in growing and distributing nursery planting stock to farmers; and in promoting efficient management of farm woodlots and shelter-belts. This law also authorized the purchase of land anywhere on watersheds of navigable streams for timber production as well as stream flow protection. The Secretary of Agriculture was to report to Congress such unreserved public timberlands as, in his judgment, should be added to the national forests.

Thus, in 1925, Thomas W. Skuce was employed by West Virginia University as Extension Forester with the Extension Department. Over the next few years, Skuce worked with programs for the 4-H Clubs, spoke regularly around the State on good forestry practices and fire prevention, and published many forestry related articles in newspapers and the West Virginia Wild Life magazine.

In 1926, A. B. Brooks resigned as game protector. There was always an element of discontent among hunters and fishermen because the State's conservation money, mainly from the sale of hunting and fishing licenses and fines, was being spent largely on fire prevention and forest fire suppression. Mr. Brooks felt that there would be no hunting and fishing if forests were not protected, and, in these views, he had many strong supporters. On the other hand, this constant controversy largely contributed to his decision to leave Charleston in 1926 to become Chief Naturalist for the newly-opened Oglebay Park at Wheeling.

Conservation Program of the Agricultural Stabilization Conservation Service. Through this program, forest stand improvement projects were encouraged and subsidized by Federal cost-sharing.

Since private forest land had deteriorated over the years from leaving inferior species and defective trees, reducing the productivity of these stands, the TSI program, including weeding, thinning, planting and fencing, was extremely popular, particularly among small private woodland owners.

Service foresters were kept busy approving proposed forest improvement operations for matching monies, in marking timber and approving these operations for payment after the work had been satisfactorily completed. In 1961 alone, 30,000 acres of West Virginia forest land received some type of improvement work through this conservation program.

Demands for service foresters' time became greater than they could handle; thus, during the summer the Division of Forestry hired forestry students to act as temporary assistants for service foresters in approving forest tracts for matching funds, marking TSI projects and making recommendations that completed areas be approved for payments.

Governor's Conferences on Wood Utilization

The first Governor's Wood Utilization Conference was held in Charleston on Nov. 30-Dec. 2, 1961, organized by Governor W. Wallace Barron. This Conference had great appeal, and more than 300 people attended. There were nationally renowned speakers, exhibits and displays. A major theme of the conference was to encourage wood-processing industry to become established within the State, thus keeping prime hardwood lumber here for remanufacture into furniture and other wood products. A Second Conference on Wood Utilization was held in Charleston, November 1-3, 1962, and a third, Nov. 7-8, 1963. Looking back, these conferences defined, identified and publicized a serious economic loss to the State. These sessions were the initial step in gradually improving this situation over the next three decades.

Oak Wilt Program

In the fifties, when oak wilt disease was first found within West Virginia, there was much concern since oaks constitute the major species group in our forests. For over a decade, the Legislature made annual appropriations to locate trees dying from oak wilt, and to treat these trees so the disease would not spread to neighboring oaks. Much of this work was carried out by forest pathologist Dr. R. Philip True and his students at West Virginia University. The State Division of Forestry cooperated in many aspects of this work.

Isolated dead oaks were difficult to detect except from low altitude flights. Aerial observers were used to spot and mark these trees. Ground crews would immediately use this information to locate and treat these diseased trees so that spores could not mature and spread to surrounding oaks. This program proved very satisfactory, but was discontinued in 1970 as no longer necessary.

National Youth Corps

This Federal program was a product of the Economic Opportunities Act of 1964. In 1965-1966, in cooperation with the U. S. Department of Agriculture, the Department of Natural Resources was assigned 544 young men and women to work on their lands during the 12-week summer period. Many of these persons were assigned to Division of Forestry projects on State Forests to do landscaping, survey work, small construction projects, trail improvement and development and general maintenance work. This program and a similar State-sponsored one, the GSYF (Governors Summer Youth Program), continued for many years.

Forest." The same laws, rules and regulations that applied to the State-controlled area also applied on the University's portion. Each year there would be a meeting of University and the State Division of Forestry personnel to correlate activities and discuss plans and problems. Through this cooperative agreement with the University, the State Division of Forestry was able to fulfill the Legislature's mandate to perform research on the best management, silvicultural and harvesting methods for the State's forests.

The West Virginia University Division of Forestry pays a thousand dollar rent annually for the use of the land and certain buildings for a headquarters and shop area. As part of this agreement it was stipulated that student fire crews would be available to fight fire both on the Coopers Rock State Forest and adjacent private lands when needed.

THE DEPARTMENT OF NATURAL RESOURCES

Great changes took place in 1961 when the State Legislature created the Department of Natural Resources. This session also enacted a retirement plan for all State employees. Thus, with Workmen's Compensation, Social Security and a viable retirement plan, the Division became competitive with other states on fringe benefits. In spite of this change in name, the forest laws remained much the same except that forest landowners were released from any direct financial obligations for forest fire protection, and all private land was put under the protection of the Division of Forestry of the Department of Natural Resources. As a result of this change the West Virginia Forest Fire Protective Association, so effective for half a century, became inactive since their services were no longer needed. It was at this time that the title "county forester" was changed to "service forester," a term more descriptive of their community role.

During this period, the responsibilities of the service forester expanded greatly. They were encouraged to have a strong outreach in their area, presenting talks on the benefits of good forest management practices, forest fire prevention and the various services offered by the Division of Forestry. Forestry personnel also became key people in the annual West Virginia Conservation Camp started in 1921 at Camp Caesar in Webster County. Along with other Division personnel from the Department of Natural Resources, Forestry presented educational programs, field trips and demonstrations at 4-H camps as well as displays at county and State fairs.

Forest management personnel participated in forest insect pest and disease control programs on a cooperative basis with the State's Department of Agriculture and the U. S. Forest Service. In this newly-initiated program, service foresters and other foresters working on State lands checked designated areas for forest pests.

Soil Bank Program

In the late fifties when Soil Bank monies became available from the U. S. Department of Agriculture, it gave added responsibilities to service foresters. Since one of the options of this program was to plant reserve lands with trees, the demand for tree seedlings increased dramatically. Service foresters gave advice on planting operations and on species selection, and provided substantial help with obtaining seedlings and finally certified that this work had been performed correctly.

With this great stimulus to plant trees on Soil Bank lands, the demand for tree seedlings from the Parson's Tree Nursery and the Clements Tree Nursery increased. In 1958, there were 5,474,480 seedlings produced by these two nurseries, and approximately 5,500 acres planted. By 1968, there were 13,347 acres planted. After this date, the annual acreage planted slowly declined.

Timber Stand Improvement

Another phase of this agriculture program was the timber stand improvement work or TSI that was subsidized by Federal Funds during the sixties. This work was operated through the Agricultural

New "Game, Fish and Forestry Commission" (1929-1933)

In 1929, the Legislature changed the name of the Game and Fish Commission to the Game, Fish and Forestry Commission and stated that there should be a Chief Forester, duly qualified with professional forestry training, a graduate of an accredited college or university. This person must also have had some practical experience in managing forestry field organizations. Thus, on July 1, 1929, Harold S. Newins, a Pennsylvania State graduate, took over this new position. He quickly found a valuable ally in Extension Forester Thomas Skuce, who had been dealing with forest and wildfire problems in the State for several years, and who had urged the Commission to look for an experienced, professional forester to wrestle with the vexing wildfire problems.

The Commission put together a traveling educational program to preach the gospel of fire prevention and conservation. This consisted of a Model-A Ford truck equipped with a power plant mounted behind the driver's seat. The truck had a portable screen, lantern slides, motion pictures, and projectors. There were also living accommodations, including a refrigerator and tent. Emory N. "Pop" Wriston and helper used this portable home and movie theater for three years, traveling to all corners of the State. They would often set up on the court house lawn or some other central point. They would present educational programs to groups of all ages on forest protection, conservation and forest fire prevention. At that time, motion pictures were new, and he always attracted a large audience when word got out there were free movies. Wriston recalls once showing a film on fire prevention in Mingo County when the woods were ablaze on three sides of his outdoor "theater." In the three years that he worked for the State, he gave 512 programs in 38 counties.

Perhaps to familiarize Newins with the State's forest types, conditions and problems, on August 5, 68 conservation-minded persons joined a 25-car caravan for a two-day tour of the Monongahela National Forest with Forest Supervisor C. L. Perkins in charge. This tour included the high elevation forests of Tucker County and ended in Germany Valley on the edge of the Spruce Mountains with a view of Spruce Knob, the highest point in the State.

In 1928, a result of Clarke-McNary Act funding, the first state tree nursery was established on the Seneca State Forest. This nursery was used until the site at Lesage was acquired in 1931. The Lesage site consisted of 20 acres of the best Ohio River bottomland, and was initially known as the "Conley Tree Nursery" after the governor at that time. After 1935, the name was changed to the West Virginia State Forest Nursery, and it was gradually expanded to a capacity of 2 million trees.

West Virginia Commercial Forestry Congress

In 1929 the West Virginia General Forestry Committee cooperated with the Chamber of Commerce in organizing a West Virginia Commercial Forestry Conference, which met at the Hotel Ruffner in Charleston. The purpose was to arouse public interest; extend state and federal cooperation; educate forest owners; and demonstrate the ability of private enterprise to handle its own responsibilities. Included on the Conference Committee were leaders of industry, private and public agencies

On September 1, 1931, Chief Forester H. S. Newins resigned to join the forestry faculty at Michigan State College. J. W. K. Holliday, a Pennsylvania State graduate who was already working for the Commission was promptly named the new Chief Forester, serving until 1933.

In 1926, a residence was built on the Seneca State Forest. This was the first of many such facilities for forest or park managers.

H. N. Wheeler, chief lecturer from the U. S. Forest Service, spent four weeks in West Virginia making up to four lectures a day on forestry and wildfire prevention. These programs were illustrated with lantern slides.

THE CONSERVATION COMMISSION (1933-1961)

When Governor Guy Kump took office in 1933, conservation programs took a major step forward. Guy Kump was a conservationist at heart and had a special interest in all matters related to the outdoors. He immediately took a significant step by creating the Conservation Commission, which replaced the old Game, Fish and Forestry Commission. This new Commission operated under a five-man advisory board and was administered by an Executive Director of Conservation. The work of the Commission was handled through six divisions: forestry, law enforcement, game management, fish management, State parks and education. The director was to appoint the heads of these divisions and fix salaries. The State Forester (by law) was to be a graduate of a reputable forestry school, with experience in directing land management organizations.

The State Forester in 1933-1934 was Major Hubbard W. Shawhan. For a year, he served the dual role of Chief Executive Officer for the Commission and State Forester. When he became Director of the Conservation Commission in 1934, D. B. Griffin took his place as State Forester and held this post until 1941.

The Civilian Conservation Corps

When the Great Depression started in October 1929, few realized the great impacts the resulting unemployment would have on conservation programs and environmental improvement throughout the whole country. The Civilian Conservation Corps was a child of the Great Depression years. When the depression started, economic conditions gradually deteriorated. Millions lost their jobs, others were put on part-time employment. Wage-earners had to be very resourceful to provide food and shelter for their dependents. One serious consequence was that young men were forced to drop out of high school for economic reasons. Furthermore, even high school graduates could not find employment of any kind. With the economy in shambles and the spotlight on the Federal government to supply a solution, many Federal recovery programs were initiated. One of these was the Civilian Conservation Corps—a federally-sponsored work corps utilizing young men to improve the environment and develop needed public recreation facilities. This proposal was presented to Congress by President Franklin D. Roosevelt in 1933.

The CCC was established by the Emergency Conservation Act of March 31, 1933. This authorized the President to "employ unemployed citizens on works of public nature to relieve the acute condition of widespread distress and unemployment now existing in the United States, and to provide the restoration of the country's depleted natural resources and the advancement of an orderly program of useful public works."

An important part of the program was the developmental work done on national forests and parks. However, states that owned land suitable for parks or forests could apply for a CCC company to aid in the development of recreation and protection facilities. Even though the work was being done on state-owned lands, corpsmen were paid by the Federal government, and needed equipment and supplies were purchased from the Federal treasury. State governments immediately applied for CCC camps to obtain these much-needed benefits for their states. West Virginia, under the leadership of Governor Kump, borrowed \$100,000 at the peak of the depression to purchase additional forest lands suitable for State parks and forests.

There were 67 CCC camp sites in West Virginia, although these were not all active at any one time. All camps were run by the Army. The U. S. Forest Service operated the work program for 22 camps, including two camps occupied only during the summer months. The Division of Forestry of the Conservation Commission had 26 camps, including 10 camps on State forest land. The Division of State Parks had 8 camps, including one on an area which later became a municipal park. Other camps sites were operated by the U. S. Soil Conservation Service or the Corps of Engineers.

The Forestry Division of the Conservation Commission, in cooperation with the U. S. Forest Service, managed the work projects for camps on both private and State-owned forest land. The majority

In addition, there was a Forest Fire Fighters Service in the Office of Civilian Defense to organize, and the Division lent all possible assistance to this program. The Army Maneuver Areas, mainly on the Monongahela National Forest, but also on some private lands, presented additional fire problems and taxed the Division's efforts even further.

The statewide network of 55 fire towers was still inadequate. Some additional lookout towers were built during the war using black locust wood, since steel was impossible to secure at that time. Nursery stock production reached a low ebb during the war. However, by 1944, the number of farm forestry projects had increased to seven.

The West Virginia Forest Products Association

This Association was incorporated in 1937. It filled a definite need, since many forest landowners with small acreages were unable to hire their own forester. The Association was a cooperative patterned after similar cooperatives in Europe. Members could use the time and services of the Association's forester at a reasonable fee. This association not only made forest management plans and marked timber sales, but gave assistance in marketing standing timber. This Association grew and flourished until 1954, when it managed 60,000 acres of membership lands. At that time, consulting forestry services suddenly became available, and the Association decided it had accomplished its purpose and voted to disband.

THE HELMICK ADMINISTRATION (1950-1956)

Hays E. Helmick became State Forester in 1950 and served in this capacity until 1956. During Helmick's first year, a very significant Federal act gave an entirely new direction to the Division of Forestry. This was the Cooperative Forest Management Act, which authorized an annual appropriation of \$2.5 million to enable the Secretary of Agriculture to cooperate with state foresters in providing technical services to private forest landowners and to processors of primary forest products. The Cooperative Farm Forestry Act of 1937 was repealed effective June 30, 1951.

Little did they realize the significance of this act at that time. It brought the Norris-Doxey foresters under the control of the Division as a nucleus for the expanding county forester or service forester program that we know today. From the time of its passage, it has been responsible for an increasing staff of foresters working with small forest land owners to improve forest productivity and forestry practices throughout the State.

STATE FORESTER LESTER MCCLUNG (1956-1976)

Lester McClung became State Forester in 1956. He had been Assistant State Forester in charge of Fire Control. During his 20-year term as State Forester all programs expanded and the effectiveness of the Division increased greatly.

When the Soil Bank Program of the late fifties got under way, the demand for tree seedlings soared, and the Parsons Forest Tree Nursery was inadequate. A search for a new nursery site located a 125-acre bottomland area at Lakin in Mason County, which was purchased in November 1961. This nursery, named the Clements Tree Nursery after Charles E. Clements, a Federal employee who had been a pioneer in tree nursery technology and methods, had a capacity of 20 million seedlings. The lower elevation of this nursery site enabled them to lift and ship nursery stock earlier in the spring, a problem with the Parsons' nursery site in Tucker County.

The West Virginia University Forest

In 1959 the Conservation Commission and the Board of Governors of West Virginia University entered into a contractual agreement allowing the forestry school to use 7,532 acres of the Coopers Rock State Forest for a teaching, research and demonstration unit to be known as the "West Virginia University

to enable the Secretary of Agriculture, in cooperation with land-grant colleges and universities and state forestry agencies, to achieve these goals. No state matching money was required.

The first appropriation for this act was in 1940. Although administration of this act was originally given to the Soil Conservation Service in cooperation with the U. S. Forest Service and Extension Service, in 1945, administration was given to the U. S. Forest Service alone. However, as far as practicable, the actual field work was handled by the state departments of forestry and the state extension service.

The West Virginia Conservation Commission benefited from these funds, and employed foresters to work primarily with farmers to help develop and improve their woodlots. These foresters were often referred to as Norris-Doxey foresters, to separate them from other foresters based on the emphasis of their clientele. In 1950, this Act was replaced by the Cooperative Forest Management Act, which will be discussed later.

West Virginia Conservation Magazine

On July 1, 1941 the first issue of West Virginia Conservation appeared. This 24-page publication was the forerunner of present day Wonderful West Virginia magazine. Actually, the first issue, in 1941, was an expansion of a Conservation Commission Newsletter that appeared in mimeographed form in 1936. The Commission saw the value in having a regular publication which explained their conservation programs and progress, informed the public of up-coming activities, and discussed present and future policies and legislation. Over the years, this publication has been very effective in keeping West Virginia sportsmen and conservationist, as well as legislators, well informed of the direction and effectiveness of the Commission's conservation programs and what changes are being contemplated.

Administrative Changes and the War

The Conservation Commission originally consisted of five commissioners. In 1943, this number was changed to seven, one from each congressional district. Between 1933 and the late forties, the number of employees increased to more than 200 which included foresters, engineers, biologists, protectors, superintendents, managers, deputies, clerical workers and custodians. The law enforcement and forestry divisions were placed under the merit system in 1945, and, in 1948, the merit system was extended to all other Commission employees.

World War II brought some difficult adjustments and personnel changes. During this period, manpower shortages were not unique to the Conservation Commission alone, but felt in all areas of State Government. State Forester Robert Bowen stayed in his position until 1944, then took leave for military service. Thomas Skuce, Assistant State Forester, left in 1942, and his position was filled by D. B. (Pete) Bonebrake. Wilson Sayre served as Acting State Forester until Robert Bowen returned in 1945, when Sayre was named Assistant State Forester. When Bob Bowen stepped down unexpectedly in 1947 to take a farm forestry position, Sayre became State Forester and served in this capacity until 1950 when he accepted a position with the American Forest Products Industries. During the war years, more than 30 forestry employees served in the Armed Forces; and it was often impossible to find qualified people to fill vacancies even on a temporary basis. In these years, some fire towers were not manned even at the height of the fire season.

Impact of War Effort on Manpower and Supplies

To offset the loss of the Civilian Conservation Corps in fire control, and the large number of Commission employees in military service, the fire control organization had to be strengthened. During 1942-43, fifteen salaried Emergency Fire Wardens were employed to assist the six District Foresters. More than 2,000 local Forest Protectors, now known as Forest Fire Wardens, were recruited on a voluntary basis to take over suppression activities in their communities.

of work projects consisted of trail and road construction, erecting fire towers, bridge construction, preventing and fighting forest fires, telephone line construction, ranger station construction, recreation area facilities, and fire hazard reduction. Where needed, they also did boundary surveys, forest stand improvement work, lake and dam construction, stream improvement, landscaping, tree planting, and game surveys, game protection and vermin control. Those camps which worked on State forest developments include Camp Seneca, Camp Watoga (Watoga, then a State forest), Camp Randolph (Kumbrabow), Camp Bowers (Kumbrabow), Camp White Sulphur (Greenbrier), Camp Anthony Wayne (Cabwaylingo), Camp Twelvepole (Cabwaylingo), Camp Rhododendron (Coopers Rock), Camp Kanawha, and Camp Carver (Panther).

Camps that worked on privately-owned lands were also important to the Division of Forestry since they were engaged in developing roads and trails and in fire hazard reduction. Well trained CCC crews were available to fight wildfire, and were an important source of emergency man-power in bad fire seasons. As the thirties passed, the number of camps in West Virginia decreased rapidly, and by 1941, there were only three camps remaining. These closed by July 1, 1942. The few remaining corpsmen either joined the military or went home to work, since employment prospects were much improved by that time.

When the CCC program was being phased out, representatives from the Conservation Commission and the U. S. Forest Service mapped out a local forest protection system whereby citizens interested in controlling fire were carefully selected and supplied with the necessary fire-fighting tools. This was the beginning of the local forest protector system still in use today.

White Pine Blister Rust Control

This introduced disease kills white pine and was first reported from West Virginia in the early thirties. This State had 351,000 acres of white pine, with a value sufficient to warrant blister rust control activities in 11 counties. The rust quickly spread to all white pine areas. CCC crews were initially used in blister rust control. Trained field crews systematically searched through the understories in and around white pine stands to locate and eradicate gooseberry and currant bushes, since these shrubs are the alternate host, and essential for the spread of this disease. Blister rust control work was carried out periodically in high-hazard areas until the mid-sixties under the supervision of Delbert L. Gillispie, Field Supervisor with the Blister Rust Control Bureau of the U.S. Department of Agriculture.

Forest Management Curriculum at West Virginia University

In July 1935, Dr. W. C. Percival, at that time on the staff of the Monongahela National Forest, joined the College of Agriculture faculty in Morgantown to start the first two years of what was hoped would become a four-year professional forestry school. That fall 18 freshmen entered the program, and four additional faculty were hired during the next year to present needed courses for classroom and field training. The first graduating class received their B.S.F. degrees in May, 1939. Enrollment continued to grow until World War II when all University classes were depleted by the demand for young men in the Armed Forces. This school received full accreditation from the Society of American Foresters in 1947. With a particular emphasis on hardwoods and hardwood management, it has supplied many of the key personnel for the State's Division of Forestry and related programs.

Cooperative Farm Forestry Act (Norris-Doxey Act)

A third Federal act which had great impact on forestry and forest protection in West Virginia was the Norris-Doxey Act, as it was more usually called in this State. Passed on May 18, 1937, the purpose was to aid agriculture, increase farm-forest income, conserve water resources and increase employment to advance the general welfare and living conditions on farms through reforestation in the various states and territories. To further these objectives, Congress authorized an annual appropriation of \$2,500,000

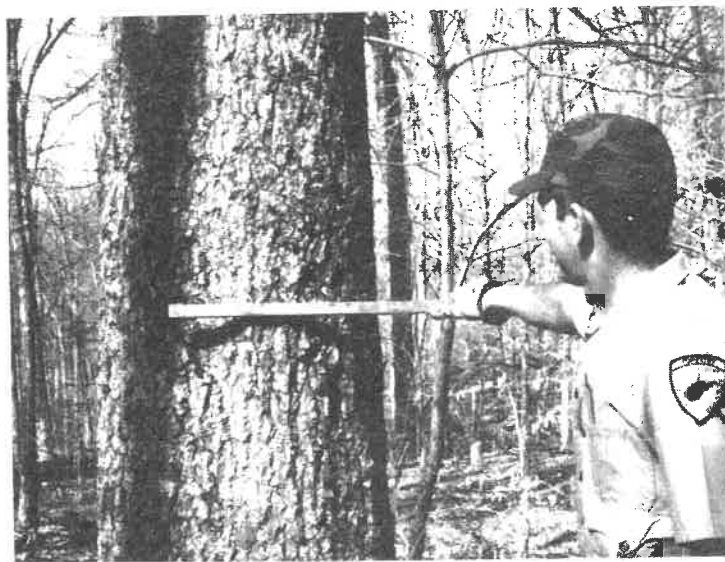
(Continued on Page 18)

In the Old Days. . .



Remains of a forest after careless logging (1915).

Present Day. . .



Service Forester Jim Mitchell in a well-managed forest.

In the Old Days. . .



Civilian Conservation Corps (CCC) camp (1940s).

Present Day. . .



Service Forester Ray Arnold distributes tree seedlings as part of the forest conservation program (1980s).

In the Old Days. . .



Fighting forest fires in the early 1900s.

Present Day. . .



Fighting wildfire from the air (1998).

In the Old Days. . .



Horses skidding logs in the 1940s.

Present Day. . .



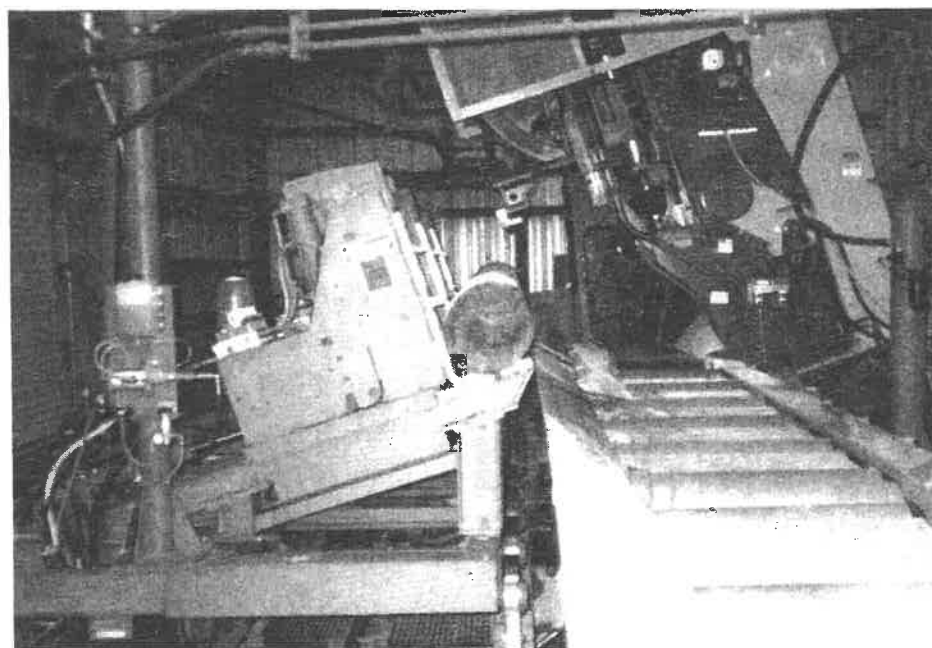
Present-day machine logging.

In the Old Days. . .



Circle sawmill (1920s).

Present Day. . .



Modern bandmill.

In the Old Days. . .

**A TREE WILL MAKE A
MILLION MATCHES**

**A Match may Waste a
Million Trees**

Be Careful With Fire



**Matches Don't Think
Neither do Cigarettes**

**DON'T TRUST THEM NOT TO
START FIRES**

Put Them Out



**PRESERVE THE
BEAUTY OF THESE
MOUNTAINS AND
FORESTS**

**Help to Prevent
Forest Fires**



**Going Hunting or
Fishing?**

**THEN YOU ARE INTERESTED
IN KEEPING THE FOREST
GREEN.**

**PRACTICE FIRE PRE-
VENTION.**



Forest fire prevention (1915).

Present Day. . .



Smokey Bear and Redwood prevent fires today.