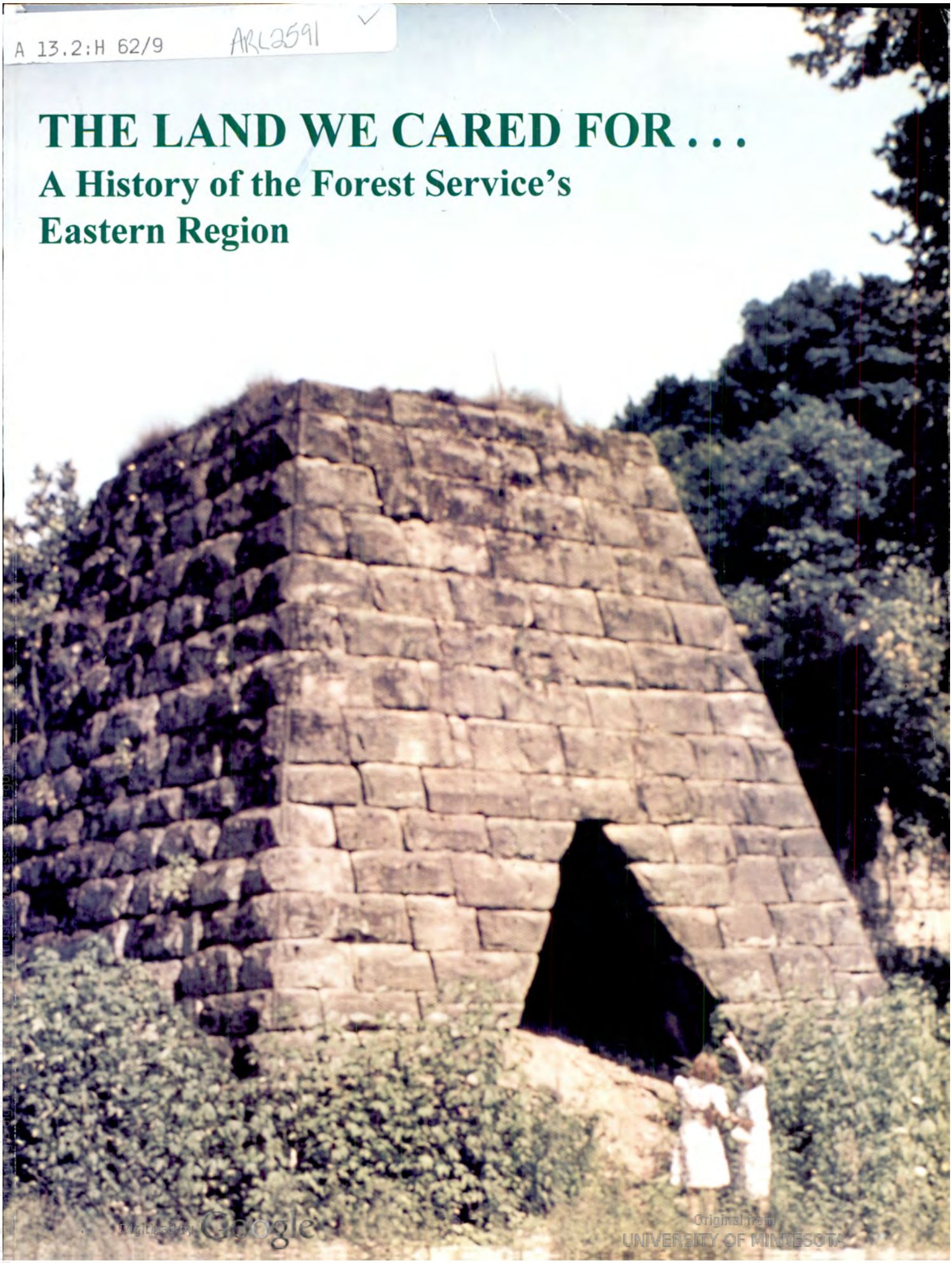
THE LAND WE CARED FOR . . .

A History of the Forest Service's Eastern Region



THE LAND WE CARED FOR...

A History of the Forest Service's Eastern Region

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AMERICAN RESOURCES GROUP, LTD.
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NOTE TO READERS

This work has been written under a 1985 contract between the USDA Forest Service and American Resources Group, Ltd., of Carbondale, Illinois. The authors had the cooperation of the Forest Service and the National Archives and Records Administration. Editorial suggestions were made by the Forest Service and Jay H. Cravens of George Banzhaf and Company.

The Eastern Region of the Forest Service as it exists today was formed in 1965, when Regions 7 and 9 were combined as Region 9. Before the combination, both Regions had histories which went back many years. Region 7, the original Eastern Region was established in 1914. It covered the northeastern states east of the Appalachian Mountains and, for a time, several southern states. The original Region 9, the Lake States Region, was formed in 1928. It was enlarged in 1930 and renamed the North Central Region in 1933. It encompassed the states of the Great Lakes, the Ohio Valley and the upper Mississippi Valley.

In this study Regions 7 and 9 are treated separately before 1965. At the same time we will endeavor to deal with the work of the Forest Service in the Region as a unified effort which began soon after the turn of the 20th century.

1985

PREFACE

When asked why a history of the Eastern Region needed to be written, Regional Forester Larry Henson answered simply, "Because it is important to know where we have been, and because where we have been has a lot to do with what we are today." Henson, who was Deputy Chief of the Forest Service in 1985, also wanted the history of the Region to show how it has changed over the years and how its historic role in "re-establishing" forests has differed from the primary task of conservation done by the Forest Service in the West.

The National Forests of the Eastern Region, although they are important today, have been relatively less important to the general economy of the Region than the National Forests of the West are to theirs. Timber companies and their interests are today less dominant in the general economy of the Eastern Region than such companies are in the West. Indeed, when most of the Eastern Region National Forests were established, the logging companies had abandoned them because the timber had been harvested with no attempt at reforestation.

Under the management of the Forest Service, the ravaged forests of the East have been reclaimed. Logging has come back. Once-threatened wildlife and plant species have returned. The recreational use and scientific study of the National Forests have increased dramatically.

This history of the Eastern Region will endeavor to tell the story of the return of the forests to the Region and what that has meant to the people and the economy of the area.

1997

PREFACE

Along with other readers of this history, I was impressed by the many changes taking place since I departed the Forest Service in 1976. Even more changes have occurred since the authors completed their work on this history in 1987. Times have indeed changed, and will continue to do so. New laws have resulted in the development of new rules, regulations and responsibilies, and with those came an influx of bright, new specialists to help meet the new challenges and complexities which were imposed on the Forest Service. From where I sit today, I see more enthusiasm and progress being made in the Eastern Region than in any of the other Regions.

While I spent almost one-third of my Forest Service career in the Eastern Region and thought I knew it well, I learned a great deal more in the months I have spent reading, re-reading and editing the manuscript for this history. I have gained even greater respect for what our predecessors did to acquire and establish purchase units...these were the "lands that nobody wanted!" Then they protected, managed, and helped create the magnificent National Forests we have today. This required extraordinary effort, a lot of hustling and teamwork, and much blood, sweat, tears and sacrifices on the part of those in the Forest Service family.

The reader will be reminded that the geographical, ecological diversity, and socio-political complications make the 20-state Eastern Region unique. Added to that difference is the reality that most of the Region's National Forests are within a day's drive of one-half of the nation's population.

This history names some of those builders of this Region, but a reading of this book will also bring to mind many unsung heroes who were not named by the authors. My reading, along with yours, will bring to mind other people, events, stories, and accomplishments which might have been written. But for a number of reasons, including sheer volume alone, not everything could be recorded. We can be grateful for the rich history and memories that have been captured on the following pages.

I wish the people of the Eastern Region well, and urge them to read this rich legacy of history and carry on the proud traditions of the U.S. Forest Service.

Jay H. Cravens
Milwaukee, WI
July 1997

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CHAPTER I

THE REGION

Environmental Setting

The story of the formation of land, rivers, and forests in the northeastern quarter of the United States begins in the age of ice when nearly all of the region was covered by vast glaciers. The Ice Age began when the climate of North America became cold enough that more snow fell than melted. As the snow accumulated it compressed into ice, forming great domes, the weight of which forced the ice to move away radially. There were several ice domes or caps in North America and four or five glaciers that pushed onto the central plains. Those glaciers came from the Patrician Cap, located several hundred miles north of Lake Superior. The glaciers which affected New England came from the Labrador Cap far to the north of New England. 1

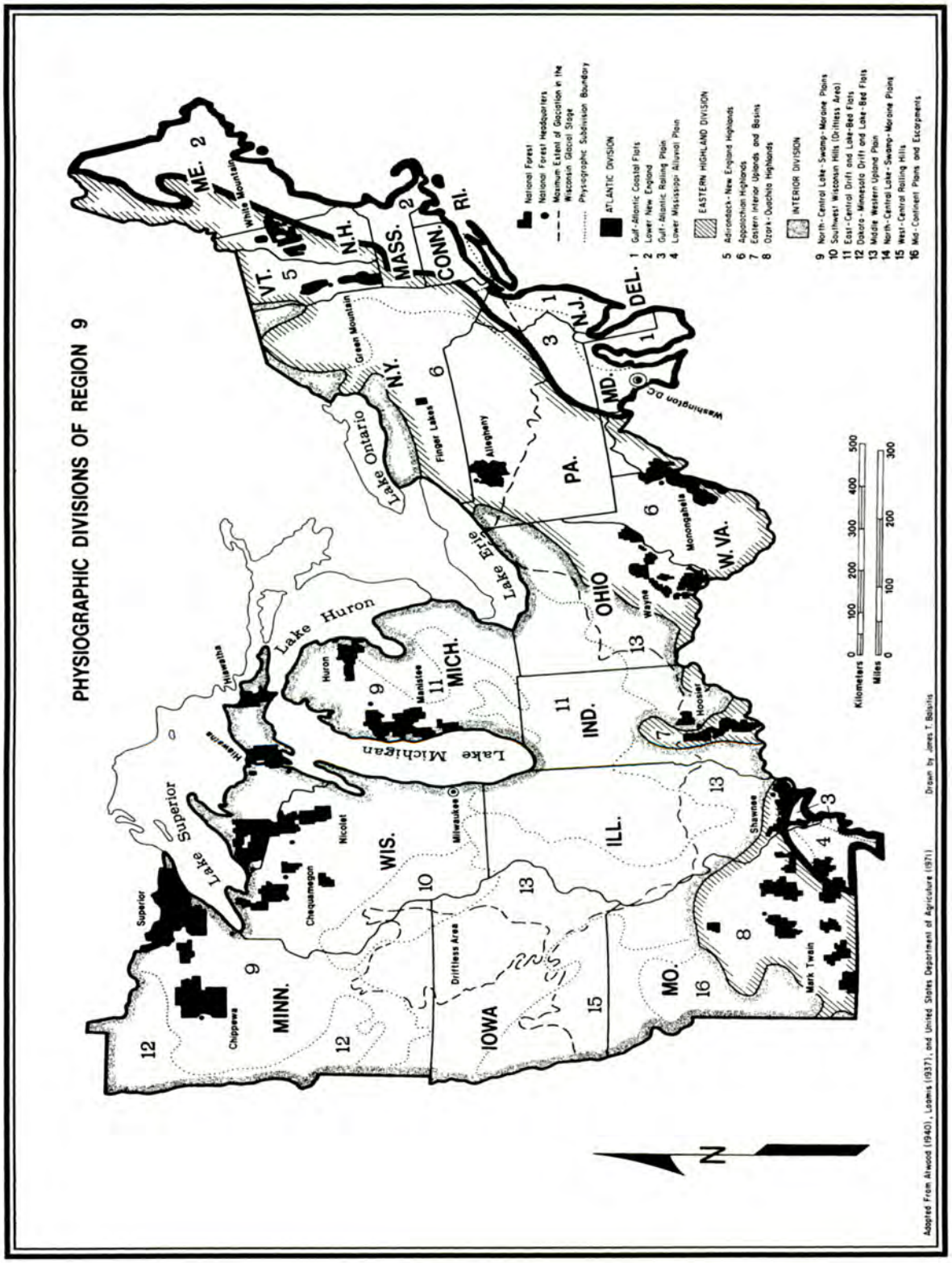
Scientists believe that before the Ice Age the terrain of the region was much like those areas not affected by glaciers, such as the Ozark Plateau. Like other unglaciated-glaciated areas, its contour was formed by uplifts and domes which have been faulted and folded and then eroded by streams. Most terrain was vitally influenced by the type and contour of the underlying bedrock, but when the Ice Age came, a sheet or drift of rocks, sand, gravel and soil was laid down, its thickness determined by the number of glaciers and the contours beneath it. Obviously, the drift was thickest where there were valleys and thinnest where it lay over mountains. A drift thickness of several hundred feet was not uncommon in most of the Great Lakes areas. In the Hiawatha National Forest in northern Michigan, the drift is as thick as 1,100 feet. Since none of the glaciers extended that far south, National Forests such as the Mark Twain, Shawnee, Hoosier, Wayne, and Allegheny were not affected (See map on Maximum Extent of Glaciation in the Wisconsin Glacial Stage).

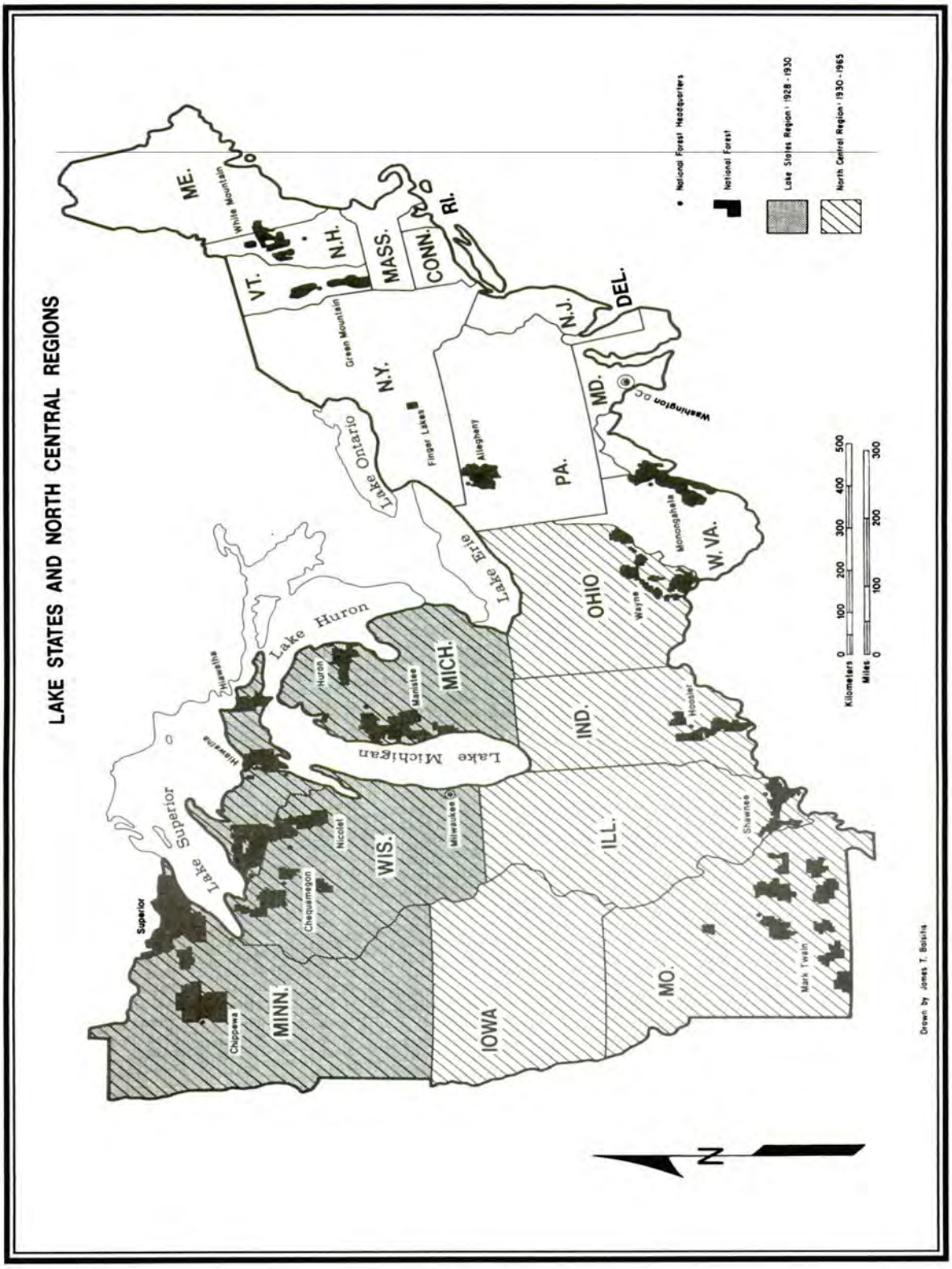
The major effect of the glaciers was to level the topography, cutting down hills and filling valleys. The glaciers left their deposits in moraines which resemble hills, but the terrain is less contoured than before glaciation; it is basically a plain. Scientists are not sure whether the glaciers created the Great Lakes. They generally believe the area was an interconnected lowland draining to the northeast before the Ice Age. 2

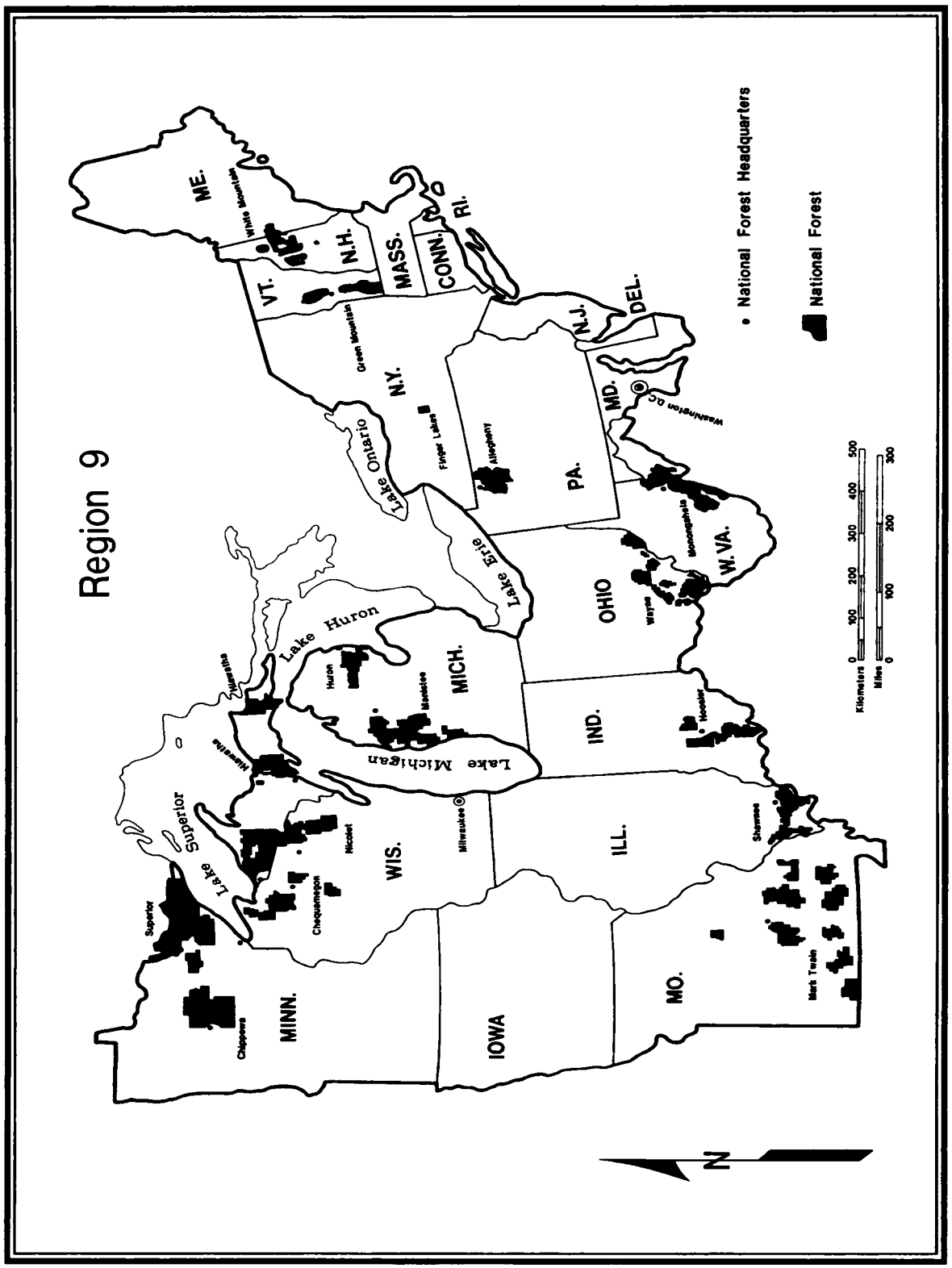
Physiographic Divisions

The land within the Eastern Region is divided into the following physiographic divisions: Atlantic, Eastern Highland, and Interior. Within these are subdivisions called provinces (See map "Physiographic Divisions of Region 9").

The Atlantic Division includes the Coastal Flats Province, which extends from Cape Cod southward to the Chesapeake Bay. It is a monotonous coastal plain with broad, flat-bottomed valleys. Inland, the next province is the Gulf-Atlantic Rolling Plain or Piedmont. It extends from the Hudson Valley into southeastern Pennsylvania and central Maryland and is essentially a







peneplain which has been uplifted, folded, and eroded. [3] None of the National Forests of the Eastern Region are in either of these two provinces.

Within the Eastern Highland Division are four provinces. The first of these, the Adirondack-New England Highlands, is essentially a basin which has been crumpled, faulted, thrust upward, and then glaciated and eroded. Two of the Eastern Region National Forests are found in this province, the White Mountain and the Green Mountain. [4] The Allegheny, Monongahela, and the Wayne National Forests are in the Appalachian Highland province.

The Ozark Highlands, although separated from the Appalachian Highlands by several hundred miles of plains, are generally considered a part of the same geological structures. The plateau was created by a great uplift dome, and it shows the topographical results of much faulting, folding, and stratification. [5] The Mark Twain and eastern parts of the Shawnee National Forests are in this province. The Hoosier National Forest lies largely within an extension of the Eastern Highlands Division known as the Eastern Interior Uplands.

Although the Interior Division has nine provinces, all of the eight National Forests in this division are within the North Central Lake-Swamp-Moraine Plains. The National Forests within this province are the Superior, Chippewa, Ottawa, Chequamegon, Nicolet, Hiawatha, Huron, and Manistee.

A physiographic analysis of the location of the National Forests of the Eastern Region illustrates the underlying determinants of land use patterns in the Region. The heavily forested areas of the northern Great Lakes and the Ozark and Appalachian highlands were never as profitable for agriculture as the rich lands of the southern Great Lakes area or the piedmont and coastal plain areas or the East Coast. In these same rich agricultural areas grew the first great cities and industries of America. Thus the ecological structure of the Region shaped land use patterns and population growth. The same determinants also dictated where the National Forests would be located. None of them were established in the heavily populated areas east of the Appalachian Mountains, along the southern shores of the Great Lakes, in the rich agricultural lands of the Midwest, or in the older, settled areas of Pennsylvania and upstate New York. All of them are in the northern Great Lakes and highlands areas.

Climate

The climate of the Northeast is affected by the Allegheny Mountains. The area having the greatest precipitation coincides with the high part of the Appalachian plateau which lies east of and parallel to the Allegheny front. Rains in the area usually come three to seven days apart and last one or two days. Local storms during the summer often last for only a few hours and sometimes bring as much rain as one inch. Such rains can result in flash floods and erosion damage.

The area of greatest snowfall is much the same as that of most rainfall. Snow seldom accumulates on the ground throughout the winter except in altitudes above 3,000 feet. Heavy rains in early spring often melt snow rapidly at high elevation and cause spring floods. [6]

All of the Eastern Region is in the temperate climatic zone. The length of growing season ranges from 210 days per year along the Atlantic Seaboard to 90 days per year in the far north where the Hiawatha, Green Mountain and White Mountain National Forests are located. The plant hardiness zones range from Northern Minnesota (where the Superior National Forest is located)

where the temperatures drop as low as -50° F; to the relative balmy zone of Maryland and southern Illinois, where the average minimum temperatures are from 0° to 10° F. Naturally, the climates of the higher elevations of the Appalachians and Adirondacks call for hardier plants. There the minimum temperatures average -40° to -30°. Most of the Appalachians and interior areas have minimum temperatures of -30° to 0°.

Overall, the Region has a humid climate. Precipitation in the Region is less in the northwest and greater in the east and highlands. The annual average rainfall in the Chippewa and Superior National Forests is between 24 and 32 inches. At the higher elevations in the Appalachian ridges, the Green Mountains, the Catskills, and the Poconos, the climate is considered super-humid. Precipitation averages 24 to 40 inches per year in the Region west of the Appalachian Mountains. In some mountain areas, it is well into the 40s and at higher altitudes reaches as high as 74 inches, which is the precipitation average in the White Mountain National Forest. [7]

Forests

The hardwood forests of the northeastern United States are unique in the world. For sheer sylvan beauty, they are unsurpassed. However, the eastern forests are not all one type. The northernmost of these forests are in the transition forest zone which lies between the boreal—the cold and slow growing forests such as those of Canada—and the deciduous forests of warmer climates. The transition zone, is about 150 miles wide, extending from Minnesota to New England. In it the conifer species of the boreal forest mix with the hardy deciduous species. The zone is filled with a system of large lakes, but in New England, the forests extend to high elevations and even to the summits of rounded mountains and ridges. In the transition zone, the dominant tree is the sugar maple, which can crowd out spruce, fir, pine, and hemlock. Usually, however, the sugar maple associates with such deciduous trees as yellow birch, poplars, and basswoods.

From the Great Lakes to the southern extent of the Region is the deciduous forest zone. These forests once completely covered the Northeast with a veritable explosion of species—well over a 100. The sugar maple no longer dominates but rather mixes with the yellow poplar, sycamores, sweetgum, oaks, yellow birch, and in the southernmost areas, magnolias. Sugar maple associates primarily with American basswood in the northwestern part of the Region, in the Chippewa, Superior, Chequamegon, Ottawa, Nicolet, Hiawatha, Manistee, and Huron National Forests. While oaks and hickories exist throughout most of the deciduous forests, they tend to concentrate in the Ozark Highlands. Along the southern part of the Region, such as in the Monongahela, Wayne-Hoosier, Mark Twain, and Shawnee National Forests, the deciduous forest achieves its peak in age, maturity, number of species, size of individual trees, and area preserved in virgin state. The cove hardwood forests (sheltered, bottom land areas growing species like yellow poplar in ravines and hollows of the Appalachian and Ozark Mountains) provide, even in this modern world, a living museum illustrating the evolutionary development of the eastern forests after millions of years. [8]

There is a timelessness about the eastern forests. One estimate is that they are at least 75 million years old. If modern-day foresters could go back 70 million years and wander through the forests of New Jersey, they would feel quite at home in the 200 varied species of pine and deciduous trees they would see, including varieties of willow, poplar, beech, elm, mulberry, sassafras, grape

vines, and the Virginia creeper. On the ponds floated water lilies, much as they do today. Even the mighty oak tree had its ancestors in these ancient forests. [9]

This great expanse of hardwood trees and pines was a new experience for the Europeans who came to explore and settle North America. The Europeans could recognize some trees they had known in Europe, such as beeches, oaks, and elms, but the American species of these trees were obviously different. Completely new to Europeans were white oak, hickory, dogwood, wild cherry, witch hazel, sassafras, walnut, sweet birch, and cranberry. Plants such as these exist only one other place in the world—Eastern Asia. [10]

Scientists today believe that Sir Francis Bacon was correct 300 years ago when he postulated a theory of drifting continents. During geological time, the continents have moved across the face of the earth. If the theory is true, Asia and North America could have been part of the same land mass originally. Plant geographers have come to accept the theory that millions of years ago, a hardwood forest evolved at the base of the Himalaya Mountains and spread eastward, forming a partial ring below the North Pole. About 50 million years ago, the land masses shifted, and the Ice Age began. The great glaciers of the Ice Age pushed the forests southward into all continents in the Northern Hemisphere. In Europe, where the ice pushed the forests against the Alps and Caucasus mountains and could go no further, the forests were covered by ice and destroyed. New species of these trees evolved later. Since the important mountain ranges of North America run essentially north and south, the forests spread as far south as climate would allow into Canada, Greenland, and the northeastern United States. There they remained and prospered, changing very little in the past 75 million years. [11]

Forest Types

Forest types are determined by the species of trees that predominate. In lower New England forests (Province 2, Division I), the dominant species are white-red-jack pine and spruce-fir. In the southern part of the province are oak-hickory forests. The Atlantic coastal flats (Province 1) are a mix of loblolly-shortleaf pine, oak-pine, and oak-hickory with a smattering of elm-ash-cottonwood. The Gulf-Atlantic rolling plain (Province 3) is largely hickory-type forest. The Gulf rolling plain in southeastern Missouri and southern Illinois (where parts of the Mark Twain and Shawnee National Forests are located) have oak-gum-cypress, oak-hickory, and oak-pine dominant forests.

In the Eastern Highlands Division, the Adirondacks-New England Highlands (Province 5) have spruce-fir forests in the north mixed with maple-beech-birch forests to the south. Some pockets of white-red-jack pine and spruce-fir forests exist. The Appalachian Highlands (Province 6) are largely oak-hickory forests in the south with some oak-pine at the higher elevations. In New York and northern Pennsylvania are oak-pine, maple-beech-birch, and white-red-jack pine forests and, along the southern shore of Lake Ontario, some elm-ash-cottonwood forests. In most of the Ozark Highlands (Province 8) the forest types are oak-hickory with oak-pine occupying portions of the northeastern Ozarks.

The Interior Division has a great non-forest zone which extends from central Ohio to Iowa and southern Minnesota. At its widest, this zone spreads from Green Bay, Wisconsin, to central Illinois. Large parts of the east central drift and lake-bed flats (Province 11), the middle western upland plain (Province 13), and the driftless area (Province 10) are lands that either never supported

forests or which is now developed for other uses. To the south of this non-forest belt, the forests are predominantly oak-hickory with a large maple-beech-birch forest in southwestern Indiana. Along the rivers are forests of the elm-ash-cottonwood type.

North of the non-forest area is a mixture of forest types. In southern Michigan, northwestern Wisconsin, and central Minnesota, the forests are mostly oak-hickory. Northward are great forests of white-red-jack pine, maple-beech-birch, and elm-ash-cottonwood. In the far north are many maple-beech-birch forests, especially along the southern shore of Lake Superior and the eastern shore of Lake Michigan. This also is the empire where the great aspen-birch forests exist along with the spruce-fir, and white-red-jack pine types. 12

Forest types are determined by the species of trees that predominate. For instance, the Adirondacks-New England highlands have spruce-fir in the north mixed with maple-beech-birch forests in the south. These will be detailed in the final work for all of the areas of the Eastern Region where there are National Forests. Other indigenous plant and animal life of National Forest System will be examined briefly.

Wildlife

The far northern and highlands forests of the Region are the home of many insect eating birds, the most common of which are the yellow-bellied and olive-sided flycatchers, tree swallows, and warblers such as the northern Parula warblers. The mammals of these areas are shy and nocturnal creatures such as the river otter, porcupine, muskrat, marten, fisher, ermine, bobcat, and beaver. The largest mammals are the moose; also seen are lynx, snowshoe hares, wolverine, black bear, gray wolf, and caribou.

Throughout the Great Lakes and New England forests, where the food chain depends largely on seeds and leaves, gray squirrels flourish in the deciduous forests and red squirrels in the coniferous woods. Grosbeaks, finches, buntings, towhees, siskins, juncos, and sparrows consume large quantities of seeds. The greatest consumer of leaves is the white-tailed deer. They browse so much of the new growth that it damages the forest and affects the patterns of development. Porcupines consume conifers to the point of occasionally killing a tree by girdling it. Cedar waxwings flock to any source of fruit. Insects abound in the forest, but so do insect eaters such as the tiny ruby-crowned kinglet and multiple species of warblers, chickadees, nuthatches, orioles, and tanagers.

In the deciduous forests of the southern part of the Region, the rich environment of the forest floor is a beehive of animal activity. Frogs, toads, and salamanders feed on insects and are in turn eaten by the predators of the forest, the snakes, skunks, and raccoons. Many of the insect-eating birds of forests to the north migrate to these forests to nest when the insect larvae are emerging in the spring. The mammals of these forests include the black bear, elk, white-tailed deer, red fox, woodchuck, gray squirrel, red squirrel, opossum, bobcat, and originally bison. This is the home of the cardinal, blue jay, wild turkey, and many varieties of owls, hawks, and water birds. Migratory ducks and geese often spend the warm months in these areas. 13

History of the Region

Early People

Americans hunted the now extinct mastodon and a larger Ice Age bison and gathered wild plant foods in a zone near the face of the glaciers. When the glaciers receded, the flora and fauna associated with colder climates disappeared. Food resources shifted to the white-tailed deer, acorns and hickory nuts, and a wide variety of other plant and animal resources which began to adapt to the warming climate.

A long prehistoric period followed the early Ice Age hunters which can be characterized by an increase in cultural complexity. Small hunting and gathering societies evolved into more complex societies. Subsistence activities began with the collecting of wild plant and animal foods and culminated with the domestication of the three major New World crops—corn, beans, and squash. Human population increased and tended toward denser settlement patterns reaching its highest level from A.D. 1100-1500.

The archaeological record within Region 9 reflects this cultural development. Representative sites include the Itasca Bison Kill site near the Chippewa National Forest, the Rogers Shelter in western Missouri near the Mark Twain National Forest, and the Meadowcraft Rock Shelter in western Pennsylvania near the Allegheny National Forest. [14]

Indian Removal

The history of the two-century war between the white settlers of the Region and the Indian tribes who occupied it was a dark and bloody struggle which casts little glory on either side. Generally, it is a story of encroachment of white settlements, Indian resistance, wars and campaigns by the United States Army to repress the Indians, and eventual removal to places farther west through a process of forced treaties. In the end, what was called "the Indian problem" was solved to the satisfaction of the white population by taking the Indians' lands away from them and putting them on small, out of the way reservations, where many of them remain today.

The major Indian tribes of the Region were the Iroquois, Huron, Ottawa, Shawnee, Delaware, Wea, Piankashaw, Kickapoo, Miami, Winnebago, Sauk, Fox, Illinois, Chippewa, Sioux, Illinois, Osage, and Pawnee. The smaller New England tribes were made virtually extinct by extremely harsh treatment by the New Englanders before the end of the colonial period. Many of the eastern Great Lakes tribes such as the Iroquois, Hurons, and Ottawas were pushed by war into Canada where they now have reservations. In the areas west of the Great Lakes, the Chippewa and the Sioux were confined by military action onto small reservations in Wisconsin, Minnesota, and South Dakota. Most of the other tribes were removed, often by force, to lands and reservations in Oklahoma. Today, some of the remaining elements of Indian culture in the Region are located on or near the Superior, Chippewa, Hiawatha, Manistee, and Huron National Forests, which have about 13 Indian reservations nearby and tens of thousands of Indians living in the general area. The Allegheny National Forest has several hundred Indians living on or near it. [15]

Economic Development

The general historical development of Region 9 is far too great an undertaking to cover in this work. The boundaries of what eventually became the Eastern Region were drawn for reasons other than historical. It is, therefore, difficult to approach the historical development of the Region with any sense of unity. For the historian, the Region breaks down into distinct regions: New England, the Middle-Atlantic areas, Appalachia, the Ohio Valley, the Ozarks, the Mississippi Valley, the Great Lakes area, and the Great Plains. Each of these regions has its own history and there is great variety from one to another— all the way from the pilgrim settlement of Plymouth to frontier Indian fighting in Minnesota and Civil War battles in the Ozarks.

There are, however, several historical factors which unify the Eastern Region. It is the part of the country which first industrialized and developed into a modern nation. The system of waterways was the key to the pattern of economic development. In colonial times, trade with the Indians and most trade with settlements away from the Eastern Seaboard, was carried on by water transportation. Early settlement tended to spread up the Hudson, Mohawk, Connecticut, Delaware, Potomac and Susquehana Rivers, down the Ohio River, and up and down the Mississippi. With the completion of the Erie Canal in 1825, the entire Great Lakes region was opened to trade with Atlantic Coast trade centers, principally New York City. In the same way, the Pennsylvania Canal opened trade between Philadelphia and the Ohio Valley. Later, canals connected the Great Lakes to the tributaries of the Ohio and Mississippi Rivers, so that by the 1850's, thousands of canal, lake and river boats and barges carried the raw materials of the West and the manufactured goods of the East to their markets.

Trade centers, strategically located on the waterways, began to grow. Cities such as Chicago, Milwaukee, Detroit, Cleveland, and Buffalo developed on the southern shores of the Great Lakes. Along the Ohio and Mississippi Rivers grew Pittsburgh, Cincinnati, Saint Louis, and Minneapolis-Saint Paul. After the 1840's a growing network of railroads connected these trade centers and made possible the development of manufacturing and eventually heavy industry.

The steel industry which developed after the Civil War in the Pittsburgh area is a good example of how the rail and waterway system worked. The heavy iron ores of the Mesabi Range in Minnesota were carried by rail to Duluth and other Lake Superior ports, then shipped from there through the Great Lakes, to the southeastern shore of Lake Erie where ore was moved by river barge and rail to the Pittsburgh area. There the other ingredients for making steel were available—the coal of western Pennsylvania and coke from the local ovens. Finished steel products were then shipped east and west by rail and down the Ohio River and back through the Great Lakes.

By the turn of the 19th century the upper Ohio Valley had become one of the great industrial regions of the world. Much of what was produced sold in the rapidly expanding markets of the Midwest and Great Plains. Chicago, Minneapolis, and Kansas City became the suppliers of the needs of the great agricultural heartland of America and the processors of its products.

When the automobile developed, it was natural that Detroit, with its location on Lake Erie and its connections to the east-west axis of rail trade would become the manufacturing center. The national system of highways which developed for automobile and truck use in the 1920's and the Interstate Highway System of the 1950's served only to connect already established population and trade centers.

Geographical Determinants

Too much has been made by some writers of geographical determinism, but there can be no denying the importance of geographical factors on the economic development of the Eastern Region. The great cities and industrial areas developed along the southern shores of the Great Lakes, on the great rivers, and at the transportation crossroads. The lumber and other extractive industries developed in mineral and forested areas. Agriculture flourished in the fertile valleys and glaciated plains of the Lake States and the Great Plains. In the end, many forested areas were used and abandoned while others with little accessibility were undisturbed. These are the areas where National Forests were to be created, generally in the Ozark and Appalachian Highlands and the north woods country of the upper Great Lakes area. Stretching from the northeast to the west-central part of the Region is a broad belt of heavily developed area in which there are no National Forests today.

Political Development

Politically, the Eastern Region has been the most powerful part of the country. Because nearly half of the people of the United States live in the Region and most of the large cities are there, the Region has dominated national politics and elections. More presidents have come from this Region than any other and all major political parties have had to come to terms with the needs of the Region. Since the Civil War and well into the 20th century, the big business and Wall Street interests of the northeast have exerted strong political pressures on federal and state governments to the point of domination and sometimes corruption. Many of the reform movements of the modern era have been campaigns to break the power of the eastern industrial financial establishment and return control of government to popular majorities.

In terms of political affiliation, the rural areas of the Eastern Region have tended historically toward the Republican Party and the urban areas toward the Democrats. Cities such as Boston, New York, Philadelphia, Chicago, and Kansas City have had deeply entrenched political machines which controlled local politics and were power brokers in state and national elections. While these city machines were usually within the Democratic Party, there were comparable state political machines in some states which were usually Republican.

Generally speaking, the large states of the Region with big cities are mixed politically and can lean toward either party depending on the issues and the candidates. The states without large cities are traditionally Republican and are generally considered conservative. The cities, as a rule, have liberal tendencies.

Mining and Minerals

The general history of mining in the Region has many commonalties. Iron and lead mining developed in colonial times in New England and the Appalachian Highlands. Lead was mined in the early 18th century in Missouri and Illinois. In the 19th century, coal became the principal fuel of the new American industrial complex. A major source was the Appalachian Highlands and the Ohio Valley. After the Civil War, the iron ore for the steel mills of Pittsburgh and other steel centers along the Great Lakes came largely from Minnesota and Wisconsin. Much of the copper used by

the growing American electrical industry came from Wisconsin and the Upper Peninsula of Michigan, and much of the lead for many industrial uses came from Missouri. Most of the world production of fluorspar, a scarce and strategically important mineral, takes place in or near the Shawnee National Forest.

Contrary to conventional interpretation, there were significant deposits of gold and silver in the states of the Eastern Region. Total gold production of approximately 100,000 troy ounces has taken place in Pennsylvania and lesser amounts in most of the other states. Even the non-mountainous state of Iowa has produced about 50,000 ounces. Silver production has been greatest in Missouri, where over a million troy ounces were produced in 1970. Silver mining extends from Maine to Wisconsin throughout the Great Lakes region.

Other major metals produced in the Region include copper, found in the Gogebic range in and north of the Ottawa National Forest and in scattered pockets in the Piedmont area of the east coast and New England. Lead has been produced since colonial times in Missouri (about one million short tons), Illinois, Massachusetts, New York, and Pennsylvania. Some of the lead mine areas of Missouri are in the Mark Twain National Forest. Zinc production has been highest in New York (over a million short tons), Wisconsin, Illinois, and Pennsylvania.

The most important metal mined in the Eastern Region has been iron. Minnesota is the leading state in the production of iron with more than 100 million long tons worth over $1 billion. Some of the major deposits are in the Superior National Forest. Wisconsin and Michigan iron production is almost as great, with important deposits in the Ottawa National Forest. A portion of the Missouri production of iron came from deposits in the Mark Twain National Forest. There has been significant production going back to colonial times in Massachusetts, New York, Pennsylvania, and in more recent times in Michigan, West Virginia and Ohio. [16]

The American oil industry, the first in world history, originated in western Pennsylvania. The Standard Oil Company of John D. Rockefeller achieved its near monopoly of the industry from its beginnings in Cleveland, Ohio. Until after the turn of the 20th century, what is now the Eastern Region was the world center for the production, processing, and distribution of oil. While the industry has moved to other parts of the country and the world, Pennsylvania lubricating oil remains the standard of the industry and important production and processing still takes place in the Region.

Lumber

The lumber industry in the Region began in New England and in the Middle Atlantic colonies during British colonial times. The forests of the area were important sources for ships' masts and naval stores for the British Empire. The Navigation Acts, Orders in Council, and numerous pieces of colonial legislation endeavored to protect and regulate the cutting of trees used in shipbuilding. The Great Lakes area, where the forests were so dense as to be virtually impenetrable by the ordinary 19th century frontier farmer, was the lumberman's empire. The great lumber companies and the famous timber barons of this age operated in the same areas that are managed today by the Forest Service in West Virginia, Pennsylvania, Michigan, Wisconsin, Minnesota, Missouri, New Hampshire, and other states.

Like other extractive industries, the lumber industry tried to consolidate and monopolize during the late 19th and early 20th centuries. Lumber became big business, employing all of the

ruthless practices of burgeoning American capitalism. There were monopolistic devices such as pools, trusts and holding companies. There were company towns, where exploitation of the workers mixed with paternalism and corruption of local and state governments and politicians. The lumber industry tended to operate in a cycle. In the early days there was very rapid economic growth, even boom times, followed often by decline and collapse when the forests had been cut and the lumber companies had moved away.

The Appalachian and Ozark Highlands and the northern Great Lakes plains were once covered with spruce-hardwood forests, but by the 1940's these areas had been generally logged. Only about 20% of the pre-European forests remained. The rest was covered with brush, slash from the cutting, and timber of poor quality. Fire was a great danger there. Scattered throughout the Region there remained a few isolated stands of hardwood and spruce, but there were few markets for the timber. [17]

Summary

The economic development of the Eastern Region was done largely by extractive industries. The great manufacturing complexes of the area fed on the coal, iron, oil, water, soil, and wood of the Region. These industries, along with advanced agriculture, helped to create great cities and change the face of the land. In the process they abused the natural resources badly and polluted the air and water. It was this situation which created the need for conservation in the United States and action by the federal government.

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CHAPTER II

THE BEGINNINGS OF FEDERAL FOREST WORK

Many of the great fortunes and giant corporations of the late 19th century grew out of the extraction of the rich natural resources of the Eastern Region. By the end of the century, new and powerful corporate organizations had virtual monopolies on the use of oil and iron ore. While the timber industry was highly competitive, there were great timber barons who tried with some success to apply monopolistic tactics of American big business. At the same time, millions of acres of land had been taken under cultivation, some of it marginally suited for agriculture.

There were significant benefits to the nation from the exploitation of its natural resources. The era of logging, for example, provided jobs for hundreds of thousands of workers, many of them immigrants. The lumber produced was an inexpensive building material for the mushrooming towns and cities. The railroads, which tied together the trade of the country and made travel much easier, ran on wooden ties. America would not have grown to be a prosperous industrial nation and world power without the rapid exploitation of its natural resources which took place in the 19th century.

There were, however, some prices to be paid. It was becoming painfully apparent by 1900 that the once vast resources of minerals and soil were not endless. Perhaps as much as two-thirds of the forests of the nation had been cut. Equally distressing was the erosion of soil caused by the cutting of forests and the fires which frequently followed the cutting. Most rivers and streams in the East and Midwest were beginning to silt badly, causing them to be less navigable and to flood severely. Wildlife, ranging from the buffalo, elk and deer to the passenger pigeon, had disappeared from places where they had once abounded.

While these problems may have troubled some thoughtful people in the latter part of the 19th century, they could do little about it. State governments in that age were often manipulated by corporate interests; their leadership, legislators, and court systems were much more concerned with economic progress and industrial development than with protecting the environment. This was the golden age of laissez faire, when the national government considered its sacred duty to be encouraging industrial growth with protection, favoritism, and outright subsidies. The presidents, congresses, and federal courts of this so-called Gilded Age considered, as un-American, any attempt to limit the right of anyone to exploit, abuse, destroy or to make money in any way from private property or the public domain. Indeed, most Americans believed that it was not the proper function of the federal government to do anything about the destruction of America's natural resources.

Forest Conservation

Most Western ideas about human's place in nature and his/her responsibilities toward it have their origins with the ancient Greeks and in the Bible. Generally, these philosophies place man in charge of the earth, giving it to him to have dominion over. The Bible tells man to "replenish the earth, and subdue it." However, by the later part of the 19th century, it was becoming increasingly apparent that man had done too much subduing and not enough replenishing. In 1874, the prophetic

American writer George Perkins Marsh noted that the face of the earth was changing and that unknown and unsought results would flow from man's interference in nature. He warned against the heedless destruction of the nation's natural resources. [1]

In 1871, a forest fire near Peshtigo, Wisconsin, showed how destructive humans could be to the natural environment. The fire was of theretofore unbelievable magnitude, killing as many as 1,500 persons. The fuel for the Peshtigo fire was in large part the unused wood and debris left by lumber companies when they cut the forest. [2] In 1879, John Wesley Powell, working for the U.S. Geological Survey, published his *Report on Arid Regions*. The report dealt with forests in the West and their vulnerability due to aridity; it urged public ownership of western lands to protect streams and prevent forest fires. [3]

In the early 1870's, Franklin B. Hough, a physician, historian, and statistician, became motivated to do something to stop the destruction of American forests. He made a personal crusade of getting himself appointed by Congress to study the situation, becoming the first federal forestry agent. His 650 page report, made in 1879, called for a new kind of forestry and a re-examination of property rights. He described the forest situation in blistering terms, condemning the "pioneer mentality" toward forests and the greed of the timber companies. He called the cutting of trees on public land "thievery" and recommended the strict enforcement of existing laws and the creation of forest reserves. [4]

The Division of Forestry

Others were influenced by Hough's report Secretary of Interior Carl Shurz took action to enforce the existing land laws and to stop timber thievery on public lands. In 1881 the Division of Forestry was created within the Department of Agriculture. Hough was named chief but he was uncomfortable in the spoils dominated administration of President James A. Garfield and his successor Chester A. Arthur. Although he persevered in publishing his forestry reports, he could accomplish little in government and left it. He died in 1885. His place was taken by Nathaniel Egleston, who was well intentioned but a product of the spoils system and ineffective in office. Egleston was replaced in 1886 by Bernard Fernow, but remained active in forestry affairs for years. Fernow, a German-born professional forester, set the Division of Forestry on a firm course, even though he assumed leadership of the Division at a time when budgets were as low as $10,000 per year and the handling of forest lands in the public domain had come into disrepute.

Early Forest Land Laws

The bad name which had come to be associated with forest lands and federal agencies was largely the result of scandals in northern California (and elsewhere) having to do with the General Land Office and the notorious Timber and Stone Act of 1878. This Law permitted individuals to purchase nonarable and nonmineral land from the government for $2.50 per acre. It was designed to help western farmers and ranchers in arid areas acquire enough land to make a living, but it was terribly abused by lumber companies who hired individuals to file claims for as little as the price of a beer and thereby acquired commercial forest land. It is estimated that 95% of the claims were fraudulent out of a total of 8 million acres of land acquired under the Act. [5]

Other land laws of the United States, including the Homestead Act of 1862, the Timber Culture Act of 1873, the Desert Land Act of 1877, and the sometimes scandalous land grants to transcontinental railroads, were subject to open abuse, especially in the West, where land fraud was considered a minor offense. Part of the problem was that the land laws were written to accommodate the American frontier at a time when forests were considered a boundless resource and a barrier to settlement. Even the later Timber Culture Act, which was designed to encourage agriculturalists on the Great Plains to plant trees, was abused to the extent that 10 million acres of government land were sold in the 18 years the law was in effect. At the same time, few trees were actually planted. [6] One author has commented about the General Land Office situation in the West that "fraud was a frontier way of life." [7]

The federal government and indeed the nation had difficulty thinking and acting in realistic terms with regard to the American forests. However, a small group of foresters and conservationists led by Fernow and Hough, often acting through the American Forestry Association, sought affirmative action from Congress to protect the nation's dwindling forest resources. Shortly after taking over as head of the Division of Forestry in 1886, Fernow drafted a bill to be presented in Congress by Senator Eugene Hale of Maine which was aimed at ending land frauds through strict enforcement of the land laws. Included in the bill was a provision to take control of forest lands away from the Department of Interior's General Land Office and into the hands of the Division of Forestry of the Department of Agriculture.

The Hale Bill died in committee, but in 1891 Fernow, Hough, and the American Forestry Association were able to convince enough Congressmen to pass the Forest Reserve Act of 1891. This vitally important legislation authorized the President to create Forest Reserves out of the public domain. President Benjamin Harrison was quick to use the new law, setting aside the Yellowstone Forest Reserve by presidential proclamation in 1891. Before his term was up in 1893, Harrison, guided by Fernow and the Division of Forestry, had created 15 Reserves containing over 13 million acres. Grover S. Cleveland, who followed Harrison as President, added 5 million acres but then stopped the process, saying he would add no more until Congress acted to adequately protect the Forest Reserves. As things stood, the Reserves existed only on paper and in reality were no better off than unreserved lands in the public domain. [8]

The Forest Conservation Movement

In 1896, under the urgings of Fernow, Gifford Pinchot and eminent botanist Charles S. Sargent and the Secretary of Interior, Hoke Smith, requested that the National Academy of Sciences appoint a National Forestry Commission. The purpose was to survey the timber resources of the nation and make recommendations concerning them. Also behind this move was the American Forestry Association, which had become a major force in American forestry. Established in 1875, the Association was a vehicle for those interested in forestry to meet in conventions, exchange ideas, and to publish their writings. Hough was quite active in the organization, as were most of the early leaders of American forestry. [9]

In 1897, on George Washington's Birthday, President Cleveland, acting on the recommendations of the Forestry Commission and the new Secretary of Interior, David R. Francis, created 13

new Forest Reserves covering 21 million acres. The action was really quite precipitous because there was still no agency or governmental structure to administer so many millions of acres. [10]

When the McKinley Administration took office, the new Secretary of Interior, wanting to know more about the Forest Reserves, commissioned Pinchot to make a confidential study of the situation. Pinchot strongly recommended the adoption of three goals: (1) permanent tenure of forest land, (2) continuity of management, and (3) permanent technically trained foresters. In these three precepts lay the future of the Forest Service. [11]

Roosevelt and Pinchot

Meanwhile, outside of the federal government was a small but potentially influential group of concerned citizens who were worried about the damage being done to the environment. It was, ironically, a group of big game hunters whose very purpose was a threat to wildlife. Their leader, Theodore Roosevelt, was one of the most avid hunters of his day. As a young man, he had hunted in the backwoods of Maine and New Hampshire and on the prairies of Illinois. By the 1880's, his hunting range was no longer in the East but had been pushed westward to the Badlands of Dakota and to the Rocky Mountains and Black Hills.

Roosevelt, like other hunters, regretted the disappearance of game from the natural ranges in the East and could see the same process taking place in the West. In 1887, he and other hunters met in Roosevelt's home at Sagamore Hill to form the Boone and Crockett Club. The members were all wealthy sportsmen, and the rules they adopted for the Club provided that every member had to have killed a big game animal. They took their name from two famous hunters, Daniel Boone and Davy Crockett. However, the goals of the Club were more than just improving the prospects for hunting. The members wanted to practice conservation, not only for the big game but also for other wildlife and for the public lands and forest resources of the nation. [12]

In American Big Game Hunting, published in 1893, Theodore Roosevelt wrote,"The preservation of forests and game go hand in hand. He who works for either works for both." Never one to make empty statements, Roosevelt began about this time to make discreet inquiries about a forester named Gifford Pinchot. Through a mutual friend, C.Grant LaFarge, secretary of the Boone and Crockett Club, Roosevelt saw to it that Pinchot was signed as a member. Pinchot gave the Club a new direction and forestry became more and more important. The Boone and Crockett Club had powerful connections and became an important element in the coalescence of the national Conservation Movement. The Movement tended to focus on forest conservation, partly because of the leadership of Pinchot but mostly because of recognized need. Most Americans could easily see that the forests were endangered and that the forest landscape was deteriorating rapidly. Problems such as the exploitation of minerals, erosion and watershed damage, and the extinction of wildlife were less obvious. [14]

The work of Gifford Pinchot in American forestry is detailed elsewhere. It will suffice to say that when he became head of the Division of Forestry in 1898, a new era began for American forestry. In addition to being the founding father of the modern Forest Service, Pinchot was also the father of the multiple use concept of National Forest management and a principal leader of the Conservation Movement. [15]

As President, Theodore Roosevelt took most of his advice concerning conservation from Pinchot and Secretary of the Interior, James R. Garfield, son of the assassinated President James A. Garfield. Together, the three men set the policy of the federal government on a new course toward real conservation of public lands.

The Multiple Use Concept

Pinchot, being a forester, seemed to have been interested primarily in saving American forests, especially in the West where there were still forests to be saved and where the lands remained in federal hands. But as he moved toward the formulation of a comprehensive policy for saving the forests, it became clear that Pinchot held a pragmatic philosophy which had the capacity to fit forest conservation into the basic American goals of economic progress and development. The concept is now known as "multiple use," and it would allow the continued development of the Forest Reserves through timber cutting, grazing, mining, drilling, dam-building, irrigation, and public recreation. However, the federal government would have to manage them so that the resources were used in reasonable ways and not destroyed. [16]

Preservation

Concurrently with the crusade for the protection of wildlife and forests another movement was developing. Its origins can be traced to nature writers such as John Muir, a California naturalist and advocate of the creation of National Parks to protect natural wonders such as Yosemite. One other was John Burroughs, and eastern naturalist whose many writings gave the nation greater interest in protecting the natural environment. Burroughs greatly influenced Theodore Roosevelt, himself a serious naturalist. Muir was the founder of the Sierra Club and the intellectual father of the movement which is best termed preservation. Muir looked upon forests and wilderness as a place to renew one's soul and upon nature itself as a reflection of God, truth, and beauty. Muir's blend of pantheism, mysticism, and dogged activism set the direction for future generations of environmentalists and preservationists. The preservationists look upon humans as interlopers in the wilderness, unnatural intruders whose activities must be kept to a minimum or eliminated entirely.

The two philosophies, multiple use and preservation, were obviously antithetical, and this became clear nationally in the Hetch-Hetchy controversy. Hetch-Hetchy was a valley in Yosemite National Park which the federal government planned to fill with a lake by building a dam. Water was badly needed to supply the city of San Francisco after the earthquake/fire of 1906. Although there was much support for the project locally, John Muir and his followers fought to block the project, arguing that the valley was one of unique beauty and that to flood the valley would destroy the beauty forever. [17]

Chief Forester Pinchot and Secretary of Interior Garfield saw the Hetch-Hetchy as an excellent way to utilize a Forest Reserve in the public interests. They had the backing of powerful industrial and municipal interests as well as much public support. In the end, President Roosevelt sided with his advisors, and the Hetch-Hetchy dam was built. This same story has been repeated many times since, with different settings and projects and with different outcomes. The significance

of the Hetch-Hetchy controversy is that it began a divergence of views which continues to this day. In the early days, the fight between Muir and Pinchot, who had once been friends, became bitter. [18]

Creating the National Forest System

When Gifford Pinchot became chief of the Division of Forestry in 1898, one of his first goals was to gain control of the Forest Reserves. Since these were still nominally under the control of the Department of Interior, the matter had to be handled diplomatically between two departments of the federal government. After the Department of Interior realized the shortcomings in its efforts to combat trespass and fraud on the Forest Reserves, it became willing to allow the Division of Forestry to manage the Reserves. Foresters of the Department of Agriculture would examine the Reserves, make all technical decisions, and administer the plan they developed. Interior land agents were to assist when possible. Pinchot, as head of the Division of Forestry, would report to the Secretary of Interior on accomplishments. It was a hybrid bureaucratic arrangement which had little hope of permanency, but it gave Pinchot de facto control of the Reserves. [19]

When Theodore Roosevelt became President in 1901 with the assassination of William McKinley, the work of forest conservation quickened. Roosevelt and Pinchot were old friends who had worked together in the Boone and Crockett Club to help preserve wildlife and establish wildlife reserves. Roosevelt understood fully the importance of forest conservation. Politically, he saw the public favor to be gained from espousing conservation movement, even if it meant antagonizing some of the major corporate interests of the nation.

As President, Roosevelt backed Pinchot in the creation of a whole new system of Forest Reserves, later called National Forests. When pressures from corporate and western interests forced Congress to withdraw the power to create Forest Reserves in 1907, Roosevelt and Pinchot worked over maps until midnight on the day the power ended creating new "midnight forests." [20]

The Forest Service

The Forest Service is Born

Concurrently, Pinchot worked to reorganize, strengthen, and redirect the agency he headed from a largely technical advisory bureau to a diversified management organization capable of overseeing the vast new Forest Reserves. In 1901, Congress changed the Division of Forestry to the Bureau of Forestry, a definite bureaucratic upgrading. [21] On February l, 1905, the Forest Reserves and personnel were transferred to the Bureau of Forestry; and on July 1 of that year, the Forest Service, with Pinchot as its head, was created, replacing the Bureau of Forestry.

Organization

The head of the Forest Service was called the "Forester" until 1935. He was directly responsible to the Secretary of Agriculture and charged with the general administration of the Forest Service. Under the Forester and heading the various branches were "Assistant Foresters." The chief assistant to the Forester and the person in charge in his absence was the "Associate Forester." After 1935, the title of Forester was changed to "Chief." The various departments of the Washington

Office as of 1930 were the Office of the Forester (Chief) and the branches of Finance and Accounts, Operation, Forest Management, Range Management, Lands, Engineering, Public Relations, and Research. [22]

In order to facilitate communication between himself and the assistant foresters, branch chiefs, and other key figures in the Washington Office, Pinchot began the practice of formal weekly or biweekly meetings. This was known as the Service Committee. Over the years, much important policy and action was discussed and decided in these meetings. Special visitors were often invited when it was thought they would contribute to the proceedings.

Decentralization

From the beginning, Pinchot and the Forest Service worked on the principle of decentralization. The work of the Washington Office was overseeing the big picture—coordinating with other federal agencies advising the President, and working with Congress—but the basic work of the Service in the field was to be directed outside of the Washington Office. To achieve this goal, Pinchot and his successors recognized that the people working in the field had to be increasingly well qualified for their jobs, beginning with the Rangers. Pinchot insisted that Rangers pass difficult Civil Service examinations and that they be robust, outdoors men who were "capable of enduring hardships and of performing severe labor under trying conditions." Horsemanship and woodcraft were essential, and Pinchot made it abundantly clear that "Invalids seeking light out-of-door employment need not apply." But the Rangers needed to be more than simply strong, silent types; they also had to be able to deal "tactfully with all classes of people" and to make "intelligent reports". [23]

Pinchot envisioned a forest agency with a Chief Forester and seven Districts each supervised by a District Forester with headquarters on or near the Forest Reserves of the District. [24] These Districts would have broad functions and staffs which were miniatures of the Washington Office with modifications to meet local needs. Once in power, Pinchot implemented the system the way he wanted it. It remains essentially the same today. Each Regional Forester (the Districts were changed to Regions in 1931) exercises considerable power, often managing millions of acres. He/she has the authority to make policy and administer his/her Region with a more or less free hand. In 1930, there were nine Districts (Regions) of the Forest Service: #1 (Northern) in Montana, northeastern Washington, northern Idaho, and northwestern South Dakota and headquartered at Missoula, Montana; #2 (Rocky Mountain) in Colorado, Wyoming, South Dakota, Nebraska, and western Oklahoma and headquartered at Denver, Colorado; #3 (Southwestern) in New Mexico and Arizona and headquartered at Albuquerque, New Mexico; #4 (Intermountain) in Utah, southern Idaho, western Wyoming, Nevada, and northwestern Arizona and headquartered at Ogden, Utah; #5 (California) in California and southwestern Nevada and headquartered in San Francisco, California; #6 (North Pacific) in Washington and Oregon and headquartered at Portland, Oregon; #7 (Eastern) in Maine, New Hampshire, Vermont, Pennsylvania, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Arkansas, Mississippi, Louisiana, Tennessee, and Puerto Rico with headquarters at Washington, D.C.; #8 (Alaska) in Alaska with headquarters at Juneau, Alaska; and #9 (Lake States) in Michigan, Minnesota, and Wisconsin with headquarters at Milwaukee, Wisconsin. [25]

Line Authority

Each National Forest, and there are 156 today, is headed by a Supervisor who has what is called "line authority" to protect, develop, and utilize the resources of his/her National Forest. Each Supervisor devotes most of his/her time to reviewing and supervising programs and insuring compliance with policy and procedure. In effect, the forest headquarters of the Supervisor is a planning unit. There is also a structure of Forest Ranger Districts. The Forest Ranger System is headed by the Chief of the Forest Service. Ranger Districts do the grassroots job of the Forest Service, working with ranchers and loggers, state and county officials, local business interests, conservation groups, and the media. [26]

The "line authority" mentioned earlier is a basic tenet of Forest Service management. The line begins with the Chief and extends downward to the Regional Foresters, the Forest Supervisors, and the District Rangers. At each level, the line officer makes his or her own decisions and answers only to the next higher level. The line of authority is obviously similar to the chain of command in the military. The system has evolved gradually over the years. When Henry S. Graves was the Forester (1910 to 1920), he decided to reorganize the Forest Service at the top to further strengthen the line of authority. He created five top positions, including himself, all of whom had his authority and could deal directly with officers in the field. William B. Greeley, the next Chief, was concerned that District Foresters, Forest Supervisors, and District Rangers were spending too much effort in making reports to each other and to Branch Chiefs. Greeley also moved to decentralize authority, especially to the District Foresters. For instance, cases dealing with occupancy problems would be handled by the Districts. He had thought about having a satellite office headed by an Assistant Forester located somewhere in the West to be closer to the problems, but he decided against this plan, preferring instead to strengthen the District Foresters with much of the same powers that the satellite Forester might have had.

The general idea was to take much of the work out of the various branches in Washington and give it to the Districts. Most day-to-day operational planning and decision making would be at the District level, and the five top leaders would concern themselves with policy making, dealing directly with the Districts. The line of authority would run "up and down the line" and would not be diverted into suboffices in Washington or in the District Offices. [27] The system has worked in much the same way ever since. The "line officers" of the Forest Service are reasonably autonomous and answer only to authority up and down the line. Line officers are assisted by a staff of specialists.

Paperwork

Another distinctive characteristic of the Forest Service is a distaste for paperwork. In 1916 Graves endeared himself to all of the District Foresters by telling them he wanted to change certain reports to make them bi-yearly rather than monthly. Also, what he wanted in the reports, rather than a detail of specific incidents going on in the offices, was a concise "epitome" of the progress and conditions of work as a whole. For instance, in a fire report, he did not want a diary of all the fires and what happened on each. What he did want was "the same sort of thing a District Ranger would tell me if I just happened to drop into a District Office at the end of a fire season." [28]

Salaries

In 1920 and 1921, the Forest Service was concerned with salaries of employees. It was a period of rapid inflation and Forest Service salaries did not keep pace. The District Forester of District 7 reported several times at Service Committee meetings that technical experts of his District had been lured away by private industry or forestry agencies in other countries for salaries as high as twice as much as they had been making. He reported a general decline in morale in the District over the salary question. Those who remained with the Forest Service, however, had generally come to terms with the situation and decided to see it through. They had faith in Congress to eventually give them adequate salaries. [29]

Summary

The assault of the Industrial Age on the natural resources of the nation and particularly the Eastern Region was so devastating that something had to be done to stop it. In a democratic society and under the federal system, the best place for something to be done was in the national government. The creation of the National Forest System was a logical and effective step toward the national goal of forest conservation. The Forest Service, given the task of managing the National Forest System, became the part of the federal government most concerned with promoting better forestry and forest conservation throughout the nation.

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CHAPTER III

THE EASTERN FORESTS

History has not dealt kindly with the eastern forests of the United States. Much of what Alexis de Tocqueville once called in the 1820's a "sea of leaves" has been replaced by farms, cities, and broad highways. There are still forests in the East—162.4 million acres of forested lands—but major parts of what was once a vast empire of hardwood forest are gone forever. Of the remaining forests, only 8.49 million acres are today in National Forests. A similar situation exists with rangeland in the Eastern Region. With 1.8 million acres of rangeland in the Region, mostly in Missouri, only about 65,000 acres are on National Forests. While National Forest lands represent such a small part of the land in the Eastern Region, they are the largest blocks of singly owned and managed land in the East.[1]

Early History

In 1907, a special report by the Secretary of Agriculture on the eastern forests raised concerns about the problems of the eastern forests. At that time, the eastern forests had been largely cut-over, there were terrible forest fires, and there had been serious floods on rivers in New England, the Ohio Valley and elsewhere. [2]

Fire in the Eastern Forests

Fire on the North American continent is an ancient phenomenon. In the original forest wilderness, fire probably followed weather cycles, with great conflagrations in drought periods. There is evidence in the form of scars on great trees in California of prehistoric fires in the years 1245, 1441, 1580, and 1797; in Colorado in the years 1676, 1707, 1722, 1753, and 1781; and in the region south of Mount Katahdin, Maine, evidence has been found of an extensive fire in 1795. there are records by early New Englanders of "dark days" caused by heavy smoke due to extensive fires on May 12, 1706, and May 19, 1780. A number of 18th century explorers mention forest fires in their travel accounts of the continent, often speaking of them as "Acts of God" which regularly occurred during dry seasons. Lightning surely caused some fires, just as we can safely surmise that Indians occasionally set fires either accidentally or to drive game or fight enemies. [3]

Natural fire played an important role in creating and sustaining the American landscape. Certain species of trees such as the Pacific Coast chaparral require periodic burns to remove competing timber species. Certain species of hardwoods can only reproduce successfully in conditions like those created in the years after a forest fire. It is also true that the great prairies of Illinois were in constant competition with the timber surrounding it. Ecologists believe that "only prairie fires and the resulting herds of buffalo can explain the perpetuation of the vast prairies. But these fires in the wilderness state of the continent occurred at long intervals and were part of the natural cycle of the land." [4]

When early settlers came to the East, their first job had to be the clearing of land. Dense virgin forests were the greatest obstacle to the establishment of a farming economy. With only primitive tools, the process of girdling, felling, and sawing trees was long, slow, and hard work. Since there was an ample supply of wood for building and fuel, most of the felled trees were simply set afire. Amidst the burned stumps corn could be planted. "'It was all a part of the job of taming the wilderness and 'burning the woods' that easily became a part of the pioneer psychology." [5] As a tradition, the idea of using fire as a good way to clear farm land remained a difficult one to dispel from the American mind.

It was not until the settlers were pushing westward to the treeless prairies that Americans began to realize how spoiled they had been in terms of a timber supply and how carefully they should guard their wood resources. In this same period, 1850-1890, communities in the East and Great Lakes regions were made painfully aware of the destruction to life and property caused by fire. The Peshtigo Fire mentioned earlier burned 1,280,000 acres and caused 1,500 deaths. Another million acres burned in Michigan in 1881. Two huge fires in 1894 near Hinckley, Minnesota, and Phillips, Wisconsin claimed 431 lives and destroyed much forest land.

An understanding of the forests as an endangered resource had begun to emerge and was reflected in the 1873 Timber Culture Act, but this had no effect on preventing or controlling fires in the East. In Wisconsin alone, during the 1880's, 2,500 separate fires burned an average of 500,000 acres each year. [6] What was needed was an education policy and a federal agency to manage the publicly owned land.

Not until 1897, when Congress provided for the administration of the Forest Reserves, was any serious effort made to control forest fires as a part of forest land management. When Pinchot was pushing for the addition of more land to the National Forest Reserves, he also recommended "exerting every effort to gain the good will of those living on or near the Reserves, for their help would be essential in fighting and preventing forest fires." [7] Those who were Forest Service permittees in grazing, timber, or power were obligated to fight fires without compensation whenever their permit area was threatened. In fact, officials often listed fire protection as a major justification for issuing permits. [8] In the early publications by the fledgling Forest Service, fire protection was pointed to as the first duty of the agency. [9]

In 1910, a series of disastrous fires claimed the lives of 78 fire fighters and burned more than $25 million in timber on National Forest lands alone. [10] It was for the fiscal year 1911 that Congress first appropriated money directly related to forest fire control [11] "For fighting forest fires and for other unforeseen emergencies, $135,000." This amount was increased to $150,000 the next year [12] of which $70,000 was made "immediately available," and an additional $1 million was provided "for fighting and preventing forest fires in cases of extraordinary emergency." These "extraordinary emergency" appropriations were a direct result of the 1910 great fires. [13]

The Weeks Act

Concerns over flooding, erosion, and forest fires led Congress in 1911 to pass the Weeks Act. This law had a profound effect on the history of Region 9 and the Forest Service. The Weeks Act had many advocates and rose from a need obvious to many individuals and groups in the East. Its author, U.S. Representative John Weeks, told the Forest Society in 1915, "It was not passed by one

man or any half dozen men." But a large part of the initial impetus for passage seems to have come as a result of what had happened in the White Mountains of New Hampshire. In the late 1880's, devastating fires swept through the Zealand Valley at the headwaters of the Pemigewasset River. About the same time, the Crawford Notch area was clearcut without replanting, resulting in terrible erosion. In 1889, the New Hampshire Forestry Commission issued a warning that deforestation was having a disastrous economic effect on the 1,100 summer inns and hotels of the White Mountains, a $5 million annual industry. Newspapers in New York City and Boston, home cities of many of the seasonal visitors to the White Mountains, began to call on New Hampshire to do something to save its forests.

In 1896, serious flooding on the lower Merrimack River was made worse by excessive tree cutting on the headwaters of the Merrimack and Pemigewasset Rivers in the White Mountains. The flooding caused the closing of the Amoskeag Cotton Mills in Manchester, the largest cotton mill in the nation. Some 6,000 workers had to be laid off. But this was an era of laissez faire and politicians and the public were reluctant to interfere in what was considered inviolable private property.

Often in situations like this, what is needed is an intellectual shock or a publicity effort to goad politicians and the public to action, even when there is a recognized need. In the White Mountains situation, it took the writings of an Episcopal Minister named John E. Johnson to bring matters to a head. In a 1900 pamphlet which today seems heavy-handed, Reverend Johnson passed over dry statistics about deforestation and put things in very human terms. He gave the public a villain, the New Hampshire Land Company, one of the leading timber companies in New England. He accused the Company of a policy of "refrigeration," that is, of driving the native New Englanders off the land by the simple method of starving them out. Johnson charged that by controlling the local logging industry and refusing to sell wooded land to local farmers who derived a significant part of their income from logging, the Company was reducing their incomes and chances for employment to the point where they could no longer survive on the land and had to sell out to the Company. As it tightened its control over the forests, the Company, according to Johnson, refused to sell land for inns and resorts, thus crippling the important tourist and resort industry. Johnson charged that the Company had sold the whole town of North Woodstock to a pulp mill "as though they (the people) were so many serfs or slaves and went with the land as a matter of course—like a Southern plantation before the war . . . " [14]

Reverend Johnson's attack was clearly in the tradition of the writers of the day who were known as "muck-rakers," and like much of this sensational and reform oriented writing, it was quite effective. The Governor of New Hampshire, responding to the outcry, urged the legislature to buy the White Mountains and make it a public park, but still the general public was not ready to act. Wider support was needed. This came from an article in *The New England Homestead*, an agricultural magazine read throughout New England. The article featured three photographs of dilapidated wood slab houses at Thornton Gore, where about 30 hill families lived trying to scratch out a living from the rocky land and forests. The families were all that remained of a village that had once been reasonably prosperous. The New Hampshire Land Company was buying out the landowners one by one, and soon there would be nothing but a ghost town at Thornton Gore. The *Homestead* article said that what was happening at Thornton Gore illustrated the "refrigeration" policy of the New Hampshire Land Company. The article proposed the formation of a White

Mountains Forestry Association to do something about the situation. It asked its readers to write in immediately to support the idea. [15] Letters poured in from all over New England. In January and February of 1901, meetings were held in Concord, New Hampshire, between Reverend Johnson and other state and New England leaders to form the proposed organization. Their work resulted in the Society For the Protection of New Hampshire Forests, first headed by Frank Rollins, Governor of New Hampshire. The Society is still active and recently celebrated its 75th anniversary.

One of the first acts of the new Society was to hire a forester, Philip Ayres. Ayres was not a trained forester but rather a historian, organizer, and public speaker. Ayres spent his first year fact finding in the White Mountains. He was appalled by what he saw—loggers cutting the spruce trees, some of them 200 years old, and leaving them on the ground so larger trees could be rolled over them to the logging roads and rail sidings. Ayres took pictures of one 240-year-old tree which had been felled for this purpose and showed them to women's clubs, Grange Halls, and teachers' meetings throughout New England. Ayres also talked with the managers of the timber companies. He found that while they regretted the wasteful practices, they were convinced they had to continue them in order to show a profit in their highly competitive industry. Ayres concluded that the only solution was state or federal action.

Since New Hampshire had a small tax base and could obviously not afford the cost of saving the White Mountains forests, the Society turned to Congress in 1903 for help. Meanwhile, Ayres kept a careful journal of the damage done by forest fires in the state—towns encircled by fire, mills closed, and smoke and ash covering wide areas. In June, Senator Jacob H. Gallinger of New Hampshire introduced a bill in Congress to purchase a Forest Reserve in the White Mountains.

The Congressional reaction to Gallinger's Bill was negative. In the House of Representatives, Speaker Joseph Cannon denounced the bill, saying "not one cent for scenery." [16] Western senators and representatives, smarting under the creation of Forest Reserves and parks in their states which they believed impeded economic development, followed Cannon in opposing the idea of creating a Forest Reserve in New Hampshire. They were joined by eastern senators and representatives who were strongly dedicated to the principles of free enterprise. They believed that it was unconstitutional for the federal government to purchase land from private owners for the purpose of creating a Forest Reserve and protecting natural scenery. Many of them were equally opposed to the government interfering with business, in this case the logging industry in New Hampshire.

The attitudes in Congress, while they may seem hopelessly reactionary and outdated today, were not far from the political consensus of the day. They may not have represented the true opinions of the general public, but this was not an era in which true public opinions counted for much, and matters were decided by politics. Business and banking interests had a strong voice in Congress, especially in the Senate, and the political reforms of the Progressive Movement, which eventually democratized the system considerably, were still a few years in the future. The Conservation Movement was already under way and indeed was behind ideas such as the New Hampshire Forest Reserve, but it was not yet strong enough among the general public and certainly not in Congress to gain passage of the measure.

The Gallinger Bill languished in Congress for three years. Finally, in 1906, Senator Frank B. Brandegee of Massachusetts worked a deal with southern senators who wanted a Forest Reserve in the Appalachians, to gain passage of a modest measure to fund a survey of the eastern mountain

forest areas. During these years, Philip Ayres lobbied tirelessly in New England and throughout the nation. He gained endorsements from governors, women's organizations, conservation groups, and civic clubs. The reform-minded press, especially *Colliers Magazine* a leading publisher of muck-raker literature, took up the cause. *Colliers*, blamed Speaker Cannon for defeating the Forest Reserve bills in one Congressional hearing after another.

In New Hampshire, public sentiment was clearly on the rise. It was stimulated not only by the publicity and the activities of the Society For the Protection of New Hampshire Forests, but by the worsening threat to the forests. Logging crept higher and higher in the White Mountains, forest fires and flooding continued, and Ayres saw to it that the public was made increasingly aware of these developments. In 1909, when 11,500 acres of timber land in the Crawford's Notch area went on sale, New Hampshire citizens began a fund raising campaign to buy it and make a State Forest Reserve.

Speaker Cannon, perhaps feeling some political heat, made a concessionary move. He appointed to the House Committee on Agriculture Rep. John Weeks, a Boston banker serving his second term in Congress. Weeks was not pleased with the appointment and complained to Cannon that he expected to be put on the Banking or Finance Committees and had few farmers in his district. Cannon's answer was that he wanted someone with a good head for fiscal responsibility on the Agriculture Committee. Weeks, who was born in Lancaster, New Hampshire, and summered each year with his family at their home on Mt. Prospect, then told Cannon that he had a deep interest in Forest Reserves including the White Mountains. Cannon, who probably knew this already, told Weeks that if he could come up with a forest bill acceptable to a businessman, he would support it as Speaker. In the Congress of that day, those words from Cannon were tantamount to passage of a bill. [17]

The following year, 1908, Weeks introduced a bill which did not mention the White Mountains or the Appalachians. It authorized Congress to appropriate money to purchase Forest Reserves for "the conservation land improvement of the navigability of a river." Later, Weeks explained this stratagem: "It was a slender thread but it was sufficient, and no constitutional lawyer has been able to upset the theory on which the bill was framed." By that he meant that although it might be constitutionally questionable for the federal government to purchase private land for the protection of scenery or even forests, it was more acceptable to do it for the protection of the navigability of streams, which Congress had traditionally done as an implied power under the Interstate Commerce clause of the Constitution. [18]

Filibusters from opponents of the Weeks Bill and delays in various committees kept the bill from coming to a final vote until June 24, 1910. Speaker Cannon kept his word and cast one of the last seven votes when it appeared the bill might not pass. When the measure went on to the Senate, it was approved by a vote of 57 to 9 with few changes. President William Howard Taft signed the Weeks Act into law on March 1, 1911.

The Weeks Act did not halt the assault of the "lumber barons" on New England forests, but it opened a way for the creation of 48 National Forests across the nation, among them the White Mountain National Forest. No single law has been more important in the return of the forests to the eastern United States. [19] In effect, the Weeks Act was the authority for the creation of the National Forests of the Eastern Region. Until this time, National Forests had been made out of lands over which the federal government already had control—usually public domain, exchange lands, or Indian

lands. The Weeks Act allowed the purchase of the forest lands of the East, which had been cut-over, either by lumber companies or farmers. The intent was to protect the headwaters of streams from further denuding, to improve the navigability of streams, and to begin the process of reforestation. It was obviously a job for the Forest Service. [20]

Fire Protection Under the Weeks Act

Enough public consciousness had been raised regarding the consequences of forest fires that by 1911 individuals and states were ready to admit that the job of preventing and controlling forest fires called for specialized training and federal control. The Weeks Act set up a fund of $200,000 to be used as matching funds for states having forest protective agencies. [21]

Protection agencies had appeared in many states by this time. In the beginning, these agencies were primarily fire departments. They required spark arresters and other safeguards on logging equipment. Mainly they engaged in fire patrol and suppression. The Weeks Law enabled these state agencies to apply for funds up to $10,000 each to be used for fire patrolmen salaries. The individual states were required to match the federal funds with their own. New Hampshire applied first and received $7,200. Soon agreements were made with Minnesota for $10,000; New Jersey, $1,000; Wisconsin, $5,000; Maine, $10,000; and Vermont, $2,000. Within eight years, 23 states were cooperating with the federal government under Section 2 of the Weeks Law. [22] One effect of the federal aid was that the states began to cooperate with one another on fire problems as well as insect control and forest diseases. By the late 1920's, the Forest Service had come to view the efforts of the state agencies as complementary to their own. [23]

The National Forest Reservation Commission

The Weeks Act also created the National Forest Reservation Commission (NFRC), consisting of the Secretaries of Agriculture, Interior, and War, plus two senators and two congressmen. A Forest Service officer served as secretary. The function of the Commission was to purchase the kinds of land authorized under the Weeks Act. The Forest Service was to search for the lands eligible for purchase and the Geological Survey examined the tracts to determine if they came properly under the Weeks Act requirement to protect navigation. [24]

Land Purchases

Chief Forester Henry S. Graves of the Forest Service assigned 35 men to conduct the field work searching for the lands to be purchased. William Hall of the Forest Service supervised the search. In the first few years, there was much confusion about the amount of money available to be spent and some attempts by landowners to take advantage of the situation by charging exorbitant prices. Nonetheless, at the end of the first two years, over 700,000 acres had been purchased at an average price of less than five dollars per acre. In 50 years of operation, the National Forest Reservation Commission purchased about 20 million acres, nearly all of it in the East. [25]

The procedures for acquisition of lands under the Weeks Act began when the individual field men were assigned areas or states to survey. Often they worked with state conservation or forestry

departments or other federal agencies, specifically the Bureau of Indian Affairs or the Bureau of Land Management. Occasionally, state or Congressional political figures and state university faculty members became involved in the acquisition process because they hoped that ownership of cut-over and denuded areas by the federal government would lead a revitalization of the depressed economies in such areas. [26]

When the purchase agents had selected an area which met the requirements of the Weeks Act, they organized it into a purchase unit. They then set out to negotiate purchase agreements with as many landowners as possible, strictly on a willing-seller basis. In the early purchase units much of the land was bought from lumber companies. In later purchases intermediary land agents and companies played important roles. Often a piece of land passed from the original owner to an intermediary and then was sold to the government as part of a package deal. Even so, Supervisor Hall and his purchase agents made a great effort to see that fair prices were paid and that no one profiteered.

When the purchase unit was ready, it was submitted to the National Forest Reservation Commission to be approved for purchase. The function of the Commission was to determine whether the proposed purchase unit qualified under the Weeks Act and whether there was enough money available from the funds provided by Congress to make the purchase. [27]

The purchase of land was such a complicated process that virtually every National Forest had one non-Forest Service person who made a living by short cutting the process. The procedures were that a proposal was made and then an appraisal to determine the price range to be paid. Next the proposal had to be approved by the Supervisor's Office, then the Regional Office, and then the Washington Office. Finally it reached the NFRC where final authorization would be made. Then the titles had to be cleared by lawyers and Forest Service title experts. The whole process could take years. Meanwhile, landowners who had offered to sell their lands were waiting for their money.

At this point the private land jobbers entered the picture. They would buy the land involved in a proposal at less than what the government would eventually pay for it. For example, the agreed upon price might be $3.00 per acre and the jobber might pay $1.75 plus paying the back taxes. The landowner was willing to sell because he received his money immediately and did not have to wait for months and even years. Often the profit made by the jobber was only twenty-five cents an acre, so no one was getting rich on this. But with tens of thousands of acres being purchased, a jobber could make a living. [28]

Formation of National Forests

As the purchase units and National Forests were being formed, the Forest Service began the process of organizing to administer and manage the eastern National Forests. Often several purchase units were put together to make one National Forest. In 1914 the Eastern National Forest District was established as a regional agency to administer the purchase units and the new National Forests. The Headquarters of the District was set up in Washington, D.C. The first National Forest established under the Weeks Act was the White Mountain followed by the Allegheny National Forest. During the 1920's, several other purchase units were acquired which would later be included in National Forests. [29]

The Clarke-McNary Act

In 1924, Congress passed the Clarke-McNary Act, which ranks with the Weeks Act in importance to forest policy for the Eastern Region. Much of the impetus for passage of the bill came from Chief Forester Greeley and the Forest Service. The conduit for Congressional action was Senator Charles E. McNary of Oregon, who introduced a bill in the Senate on December 15, 1923: "to provide for the protection of forest lands, for the reforestation of denuded areas, for the extension of National Forests and for other purposes." [30] The bill was immediately sent to the Select Committee on Reforestation, which was appointed for the purpose of studying this bill and chaired by McNary. The Select Committee toured 14 states and held 24 public hearings before voting unanimously in favor of the bill. [31] Greeley later admitted that he had packed many of the public hearings with witnesses who would testify that forest fire was the greatest single threat facing forest land owners. [32]

On January 7, 1924, Representative John D. Clarke of New York, the House conduit for the reforestation bill, introduced a bill in the House identical to McNary's. There were nine important sections of the Act. Sections 1 and 2 authorized the Secretary of Agriculture and therefore the Forest Service to "devise and recommend an adequate system of forest protection and fire prevention in the several states . . ." and to extend financial help "if there is cooperation." This was a broadening of Section 2 of the Weeks Act, which had provided some fire programs but which had apparently been less than effective since there were still 50,000 forest fires annually over 8 million acres. [33]

Section 3 provided for an extensive study of the tax laws of the states with a view to revisions which would allow private owners of denuded lands to replant without having their taxes raised. Section 4 provided for cooperation between the federal government and the states for furnishing seeds and plants for reforestation of state, federal, and private forests. Section 5 authorized cooperative programs with states or "other suitable agencies" to assist the owners of farms in "establishing, improving, and renewing woodlots, shelter belts, windbreaks, and other valuable forest growth and in growing and renewing useful timber crops." This section, together with Section 4, was the beginning of the work of the Forest Service in what is known as "State and Private Forestry."

Section 6 amended the Weeks Act to authorize the purchase of "such forested, cut-over, or denuded land within the watersheds of navigable streams as . . . may be necessary to the regulation of the flow of navigable streams or for the production of timber. . . " Into this simple statement are tucked vast new powers for the Forest Service. Instead of limiting the purchase of land to the headwaters of navigable streams, the law would now read "watersheds," a vastly broader definition. Furthermore, and probably even more important, the new law could be read to authorize the purchase of land "for the production of timber" with no limit at all on where it could be purchased.

Section 7 authorized the acceptance of land donated to the federal government for the creation of National Forests by states or private owners. Section 8 set up the National Forest Reservation Commission to supervise the acquisition of forest lands by the federal government. Section 9 authorized the President to establish as National Forests lands within the boundaries of government reservations which were not already set aside for such purposes as Parks, Indian reservations, and mineral reserves. [34]

When the Clarke-McNary Bill came to the floor of the House for debate, there was little opposition. The bill passed Congress with few changes and was signed into law by President Calvin

J. Coolidge on June 7, 1924. For all of its importance to the national Conservation Movement and to the Forest Service, it was a remarkably short and simply written law. Unlike many other acts of Congress, it did not attempt to tell the government agencies involved how to execute it. The shape and form of whole new programs were left completely to administrative determinations by the Forest Service. The language of the law was vague, but it imparted broad powers and placed few limits on them. This was probably as the Forest Service wanted it, and the members of Congress, although many of them may not have fully understood what they were doing, acted in good faith in the laudable cause of forest conservation.

The Clarke-McNary Act opened a whole new world for the Forest Service in the East. The purchase of land was no longer restricted to lands within the headwaters of major streams or which affected navigation of streams. Now the Forest Service could buy any lands which were once in timber or which could be used to produce timber. With this vastly larger target, the Service now set out through the purchase unit procedure to create a comprehensive National Forest System in the Region. The passage of the Woodruff-McNary Act in 1923 greatly facilitated the process by providing a series of yearly appropriations of up to $8 million per year to carry out the provisions of the Weeks Act as amended. [35]

Since the amount of money available to purchase land under the Weeks Act was limited and in some years severely curtailed, a way was found to exchange lands of equal value outside the National Forests for lands within. Such exchanges were authorized under the Land Acquisition Act of 1925, and the exchanges were used increasingly in the years that followed, especially after World War II, when the acquisitions of the National Forest Reservation Commission were far greater than the funds Congress had allocated. [36]

Fire Protection Under the Clarke-McNary Act

In 1924, the Clarke-McNary Act extended the federal support of the Weeks Law programs to private efforts and increased the money to $2.5 million. [37] The hope behind this Bill was that if cooperation was encouraged between the federal, state, and private sectors of forestry, fire risks would be reduced, prompting timber owners to be less hasty to cut and therefore be less destructive in their methods of cutting.

In the early years of fire fighting, methods and equipment were very crude compared to today's standards. In the late 1920's on the Chippewa Forest, when a fire was reported, the Supervisor Howard Hopkins started hand-cranking an old Ford flat-bottomed or stake road truck that was used only for that purpose every two or three weeks. After great effort the truck would start and the exhausted Hopkins would drive to the corner saloon-pool hall, dash in, and obtain all available men (usually 90 % Indian) for a fire crew. [38]

Nevertheless, even in these early years, the Forest Service's fire prevention policies, of the 1920's, did much to save American forests. Still, the damage from indiscriminate logging and fires could never be undone. A moving passage from James B. Trefethen's *Crusade for Wildlife* expresses a natural reaction to what had happened:

> "Beautiful rivers that had flowed cool and clear since the passing of the Ice Age became clogged overnight with silt and logging debris and flooded their

banks after every shower. With the vegetation gone from the watersheds, many smaller streams disappeared completely. On the barren hills where the lumberjack and fire had done their worst, rills and gullies appeared as the soil flowed downhill to the streams. Millions of acres of mountainous country that under modern forest management might have produced periodical crops of timber forever were destroyed during this period to the extent that they would never again support anything more noble than stunted brush". [39]

Tragic as these consequences were, they were not necessarily permanent. It now became the job of the Forest Service, all the state forest agencies, various local governments, interstate agencies, private lumber companies and landowners, and indeed every visitor to the forests of the land to help to eradicate the damage of past forest fires and prevent and control future ones.

Inherent Problems of the Eastern Forests

There are certain inherent problems in managing the Eastern Region National Forests caused by the fact that they are not solid blocks of government-owned land as are many of the western National Forests. Because they were acquired by purchase, usually after someone other than the government had owned and used them, the National Forests of the Eastern Region are a patchwork of public and private ownership. In the Wayne National Forest, the government owns only about 20% of the land within the boundaries. Generally, government ownership is less than half.

The fragmentation of control has created special problems for the Eastern Region National Forests. Maintenance of boundary lines, settling boundary claims, rights-of-way questions, wildlife control, and general forest management are made more difficult by the fragmentation. Even so, the National Forests of the Eastern Region provide the public with a nondeclining source of wood and wood products, grazing, wildlife habitat, wilderness, diverse recreational opportunities, preservation of special features and natural areas, watershed protection, mining opportunities, and a number of other uses. In these capacities, the National Forests of the Eastern Region have become a vital part of the economy of the northeastern quadrant of the United States. At the same time they are the guardians of the natural environment against further encroachments by the rapidly growing urban population of the region. [40]

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CHAPTER IV

REGION SEVEN

Although the major work of the Forest Service was in the West in the early years, by 1914 several National Forests had been established in the East. To administer these lands, the Eastern National Forest District was created in that year. For the next several years the Eastern District operated as little more than an adjunct to the Office of the Chief Forester in Washington, D.C.. The story of how District 7 became a full-fledged District and later a Region will be developed in this Chapter.

Early History

The first headquarters of District 7 were in the same building as the Office of the Chief Forester and his staff in Washington D.C.. Originally, the District included all East Coast states and the entire area west to Arkansas except in the Great Lakes area. The National Forests involved were the Arkansas, Ozark, and Florida National Forests, along with 15 purchase units.

The first District Forester was William L. Hall. He had a small staff made up of two Assistant District Foresters, Franklin W. Reed and H.0. Stabler, a Forest Inspector, K.W. Woodward, and a few clerks and secretaries. In 1918, Franklin Reed became District Forester, serving in that position until 1925. He was succeeded by Evan W. Kelley, who served until 1929 when Joseph C. Kircher became District Forester. In 1930, all Districts became Regions, and in 1934 Robie M. Evans became Regional Forester. In the same year Region 8, the Southern Region, was created out of Region 7. Evans remained as Regional Forester for the unusually long time of 16 years. In 1950 he was replaced by William S. Swingler, who was followed by Charles L. Tebbe in 1953. Hamilton K. Pyles in 1956, and Richard F. Droege in 1962. Droege served until 1966 when Region 7 was abolished and combined with Regions 9 and 8. 1 (See Appendix for complete list of Region 7 Regional Foresters.)

District 7 Goals

Franklin Reed, who was District Forester for seven years and who put his stamp of leadership on the District, explained to Chief Forester William B. Greeley in 1920 what the District was trying to accomplish. On the Florida National Forest and those of the southern Appalachians, the goal was "profitable forestry through intermediate yields." Intermediate type production was about all that was available in Region 7 at that time because the Region encompassed the eastern forests which had been recently cut-over and would not be productive for many years. Reed reasoned that the government owned forest lands of the East were ready to play an important part in furthering forestry in the entire country. These forests could provide valuable knowledge and experience in silviculture and forest management practices. Current policy in the Forest Service was that future supplies of timber would have to come largely from lands that were owned and operated by private capital.

Reed contended that the eastern National Forests could become demonstrations of what was right and what was practical in forestry proving grounds where private forest owners could come and see the results of actual field tests.

Reed recognized that it would be many years before the eastern National Forests would produce significant amounts of sawlogs. In the meantime, private forestry needed to be shown how to make business profits out of intermediate yields. Already, the National Forests were demonstrating how this could be done: turpentine production in Florida, acidwood, pulpwood, and ties from thinning and improvement cutting in the southern Appalachians, and the sale of minor forest products to New England wood using industries. Throughout the region income was being obtained from grazing, fish and game, and recreation.

Reed was convinced that if the Forest Service could drive home "the lesson of early, frequent, and profitable cash return," it would convince private forest land owners that they should pay the taxes on their cut-over lands and keep them. Reed was interested in further acquisition of land in the East by the Forest Service in order to bring it under good management. He thought that the principal role to be played by the Forest Service in the East was to provide demonstration forests for forestry in much the same way that the U.S. Department of Agriculture in these years was beginning demonstration farms for agriculture. [2]

Administrative Problems in Washington

When District 7 had its headquarters in Washington, D.C., the District could never completely avoid getting its organization lines entangled with those of the Chief Forester's Office. In 1925, District Forester Evan Kelley felt the need to write a memorandum to the Chief Forester's Office stating his understanding of how the relationship should work: the Eastern District should be "held responsible for results, good or bad," but it should be allowed to operate as much as possible like western Districts—with "straight lines of administrative authority and responsibility." Kelley admitted that to a certain extent this would be impossible as long as the District headquarters remained in Washington, D.C. . [3]

In 1926, although the District Office of District 7 was still located within the offices of the Forest Service in Washington, Forester William B. Greeley moved to separate some of the essential functions so that District 7 would be more autonomous. He notified all Branch Chiefs that effective May 1, 1925, all public relations activities, state cooperative work under the Weeks and Clarke-McNary acts, and forestry extension or educational work in the states of Virginia, West Virginia, North Carolina, South Carolina, Tennessee, Kentucky and Arkansas were to be handled under the direction of the District Forester of District 7. [4]

Despite the Forester's desire for greater separation between the Washington Office and District 7 Headquarters, the unique relationship continued. Communication between the Forester and his staff and the Western Districts was by letter, telegraph, rare long-distance telephone calls, and even rarer visits. When the Forester or his assistants wanted to communicate with anyone in District 7, it was a simple matter of stepping down the hall or making a local call. At the top level the District Forester and often members of his staff met regularly with the Service Committee. Over the years, it became common practice for the Branch Chiefs, the Assistant Foresters, and the foresters of the Washington Office to get many of their impressions about what was going on in the

field from the District 7 people who were present at the Service Committee meetings and readily available for other meetings and conferences in Washington, D.C. . [5]

In the 1920's, salaries of employees of District 7, having fallen far behind comparable pay in private industry, caused many employees to be dissatisfied and led some to leave. It was the same throughout the Forest Service, but it seems to have been a major problem in District 7. [6] However, the salary situation had improved somewhat by 1928. The Assistant Foresters made $3,200 to $4,600 per year, District Engineers $4,600 to $5,600, Logging Engineers $3,800 to $5,600, Forest Supervisors $3,500 to $5,600, Assistant Supervisors $2,600 to $3,700, conductors of fire prevention traveling projects $2,300 to $2,800, Road and Trail men $1,600 to $3,300, Draftsmen $1,800 to $4,000, Chiefs of Maintenance, $2,600 to $3,100, Assistant Rangers, $1,800 to $2,100, Game Wardens $1,620 to $1,920, Clerks $2,000 to $2,500, Executive Assistants and Top Clerks $1,800 to $3,100. [7]

Because of its location in the East, District 7 was required to deal with certain special situations not required of the other Districts. In 1929, the Forest Service received a request from the Secretary of Agriculture that he be provided a private camp for his own use on the North River on the Shenandoah National Forest. The matter was turned over to R. J. Paxton, who was District Forester of District 7 at that time. Paxton had the arrangements made. The Secretary was provided a camp site, cabin, telephone, toilet and water well at a cost of about $4,100. While these facilities were being built, a tent was provided for the Secretary's use. [8]

Perhaps because they were Washington, D.C.-based, District 7 officials were expected to spend as much time as possible in the field, especially in the warmer months. In the summer of 1916, District Forester Francis Kiefer went on a two month inspection trip through National Forests from North Carolina to New England. This illustrates Kiefer's affinity for the woods and his desire to get out of Washington and into the field that he spent his two week vacation that year in the Allegheny National Forest. That summer, most of the District Chiefs were engaged in field projects, and indeed field work was what the District expected. [9]

In 1930, District 7, like all other Districts, became a Region. At the end of the year, the Regional Forester, Joseph C. Kircher, sent a Christmas message to the Region's employees. He was not encouraged by the situation. It had been a difficult year for the Region because of too many forest fires, and he wanted improvement. Without being specific, he said, "Some of us have made costly mistakes," but he believed that the Region would continue to work until most of the mistakes were corrected. [10]

The Eastern District Digest and its successor, *The Courier*, were weekly newsletters of Region 7 published in Washington, D.C. and sent to all National Forest Headquarters and Stations. They contained the activities of the Regional Office, the National Forests of the Region, new assignments, deaths and promotions, Civil Service items, technical data, reports on forest fires, plantings, and a broad range of miscellaneous items. Often there were messages from the District Forester. The editorial stance of *The Courier* was strongly supportive of conservation and the goals of the Forest Service. It was obviously designed to give the Forest Service personnel of the Eastern Region a feeling of unity and of being part of a worthwhile effort. At times, there was an effort at folksiness with humorous cartoons and anecdotes, but generally the publication had a slightly formal tone. [11]

Throughout the 1920's District 7 continued to grow. The National Forest Reservation Commission, on December 12, 1928, authorized purchases in 10 different District 7 National Forests of a total of 37,467 acres at a price of $176,240. [12] In 1920 the Ouachita National Forest of District 7 bought some cut-over land for five dollars per acre and in the first year of government ownership the Forest was able to sell low value forest products for a yield of $40 to $50 per acre. A report of this remarkable business success was made to the Service Committee by the District Forester and the Forest Service leaders there were quite pleased. [13]

The Attempt to Promote Grazing

In 1918 when District 7 included all of the southern National Forests extending as far west as Oklahoma, there was an attempt within the Forest Service to make the "grazing business" pay on eastern National Forests as it had for years on western National Forests. District 7 Forester Franklin W. Reed, who had spent years in the West and was familiar with the grazing business, ordered a study of the potential for grazing in District 7 by W. F. Hill, National Forest Examiner. What Hill found was a situation radically different from that of grazing in the West. Livestock animals were grazing on all of the National Forests in District 7, but not in significant numbers. The smallest herd was about 20 horses and cattle on the Monongahela National Forest, West Virginia. The largest was 3,598 on the Ouachita National Forest, Arkansas.

One finding of Hill's survey was that there had been serious losses of horses and cattle from foraging on poisonous plants in the National Forests. There had also been considerable losses to predators. Hill also reported that the National Forest Supervisors gave little thought to grazing on their Forests and treated it as something which had to be done. Hill concluded that before there could be any significant improvement in grazing on the Forests of District 7, drastic changes would have to be made. Range improvements such as drift and pasture fences would have to be built. Hill was genuinely concerned about the ecological effects of grazing on southern hardwood forests in view of the fact that no studies had been made on what plants had poisoned the livestock in the eastern hardwood forests nor on what grazing might do to the forests.

District Forester Franklin W. Reed was surprised by much of Hill's report. It puzzled him that livestock were killed in the eastern National Forests by predators. He had assumed, like many others, that in the oldest settled part of the country, "one would expect that bears and similar wild beasts would have been eradicated long ago." [14] A second unexpected item in Hill's report was the death by poisoning of livestock grazing in the hardwood forests. Most surprising of all was the lack of knowledge about ecological effects of grazing. Reed decided that before anything else was done, there would have to be "more definite and practical knowledge on the relationship between grazing and silviculture in southern hardwood forests." [15]

District Forester Reed was clearly interested in promoting what he called the "grazing business," but he recognized the imposing obstacles to such a policy. He reported to Forester Henry S. Graves that District 7 was not ready for a full scale program of issuing grazing permits. [16] The Forest Service grazing regulations required the registration of all livestock owners who used the National Forests for grazing except for the National Forests in Arkansas. There, livestock owners were allowed to graze free and without permit 25 head of cattle, 50 hogs, or 75 sheep or goats on the condition that the livestock owners assist in fighting forest fires without charge to the government.

In 1919, Acting Forester Albert F. Potter wrote to Congressman Otis T. Wingo of Arkansas, explaining that the livestock owners of Arkansas had not held up their end of the bargain. Potter said, "This special provision was made in order to meet peculiar local conditions." Yet, the local people had often asked to be paid for fire fighting. The Forest Service then decided to put the Arkansas National Forests on the same basis as all others, and Potter wanted to explain to Wingo why it was being done. [17] A Florida real estate developer named Jonathan B. Perrine advertised in 1919 a development adjacent to the Ocala National Forest. The place was modestly called "Vale of Paradise," and featured stock farms where the buyer could easily run more livestock than his own land would warrant, by allowing them to graze on what he called "the wonderful government preserve." When Forest Service officials in Washington learned of this they were outraged. Acting Forester E. A. Sherman considered Perrine's advertising to be "cunningly worded" to give the impression that National Forest grazing land was free for the taking. He made sure that Perrine and the "Vale of Paradise" land owners received copies of the Forest Service grazing regulations. [18]

The Pisgah Forest had been owned and managed by George W. Vanderbilt for over 20 years before it became a National Forest. The Pisgah National Forest, where Gifford Pinchot was once forester, operated as a forest and game reserve. Over 2,500 deer and bear occupied the Forest, along with an abundant supply of pheasants, wild turkeys, and various other small animals. In 1916, Senator Lee S. Overman of North Carolina inquired of the Forest Service why stock grazing was not being allowed on the Pisgah National Forest. Forester Graves replied that there was not room to allow to graze in the same areas as wild animals. He estimated that only about 100 cattle could safely graze on the Pisgah without damaging the environment, so he would continue to restrict grazing there. [19]

In 1918 on the National Forests of District 7, considerable losses of cattle were sustained from eating the buds of scrub oak trees, which contained excessive amounts of tannic acid. The oak poisoning occurred in a cool spring when grass was slow in coming and the cattle fed on the fresh oak buds. Some 200 cattle were lost on the Shenandoah National Forest alone in 1919. The only preventative measure was to remove the cattle. [20]

In early 1925, the Forester had sent a circular to all Districts stating his desire to "stabilize" the grazing industry throughout the Forest Service. Acting District Forester Clinton Smith of District 7 responded that grazing conditions in District 7 were radically different. Part of the problem was the fact that the eastern and southern forests were newer and, in fact, only about 38 percent of the land within their boundaries was government owned. In the Ozarks, Arkansas, and Florida, the Texas fever had infected cattle to the extent that the livestock business was at a low ebb, thus making it a poor time to impose grazing restrictions in those areas. Except in minor instances, there was no competition for the use of range on the National Forests of District 7, and the introduction of term permits in the area "would not be received favorably by local stockmen." The attitude in the southern and eastern states by stockmen was that permits, rather than being a privilege, as they were considered in the West, were a limitation on rights they had long held. [21]

On another occasion, Smith told the Forester that many parts of District 7 were not really grazing areas, particularly the White Mountain National Forest. Smith stated, "We must of necessity work out our own system of utilization and appraisal subject to the dominant use of the area for growing timber." [22]

Regional Headquarters Moved

By 1941 it had become clear that because of its close connection to the Washington Office, Region 7 needed to have its headquarters moved far enough from Washington, so it could operate as independently as all the other Regions. Accordingly, the Chief Forester obtained authorization from the Secretary of Agriculture to relocate the headquarters in Philadelphia, Pennsylvania. Originally, the new offices were located in a downtown building, which presented parking and transportation problems for employees. In addition, the City of Philadelphia collected an income tax on the employees. Because of these disadvantages, Regional Forester Robbie M. Evans moved the headquarters to the nearby town of Upper Darby, which was just outside of the area in which the City collected the income tax. The new location offered better parking and easier access to transportation facilities. [23] Apparently, the separation of the Regional Offices of Region 7 from the Washington scene achieved the desired result. In the 1940's and 1950's and down to the end of its existence in 1966, Region 7 seems to have operated as independently as the other Regions. Its records now in the Philadelphia Federal Records Center reflect little of the problems which had motivated the separation. [24]

National Forests of Region 7

As of 1932, the Eastern Region included the following National Forests in the locations indicated:

Alabama - Alabama
Allegheny - Northwestern Pennsylvania
Cherokee - Eastern Tennessee
Choctawhatchee - Florida (Transferred to Elgin Air Force Base)
George Washington - Western Virginia
Green Mountain - Vermont
Homochitto - Southwestern Mississippi
Kisatchie - North Central Louisiana
Monongahela - Eastern West Virginia
Nantahala - Southwestern North Carolina
Natural Bridge - Virginia
Ocala-Osceola - Northern Florida
Ouachita - Eastern Oklahoma and Western Arkansas
Ozark - Northwestern Arkansas
Pisgah - Western North Carolina
Shenandoah - Western Virginia (now the George Washington National Forest)
Unaka - North Carolina (transferred entirely to the Pisgah National Forest)
White Mountain - Northern New Hampshire

Many of these National Forests were transferred to other jurisdictions in subsequent reorganizations. Those which eventually came to be a part of the new Eastern Region, Region 9 in 1966, were the White Mountain, Green Mountain, Monongahela, and Allegheny. [25]

National Forest Histories

White Mountain National Forest

Individuals from New Hampshire were some of the earliest and strongest proponents of a National Forest System in the East. Before 1911, Philip Ayres, head of the Society For the Protection of New Hampshire Forests, advocated the creation of the White Mountain Forest Preserve along with the Appalachian Preserve. Congressmen John W. Weeks was another native of New Hampshire who supported the cause even though he made his political career in the neighboring state of Massachusetts.

Within a month of the passage of the Weeks Law in 1911, Congress approved the White Mountain purchase area. A year later, Congress approved another area in Maine and New Hampshire, the Wild River Section. These areas adequately fit the requirements of the Weeks Law, situated as they were at the heads of the Saco and Merrimack Rivers and at the sources of several major tributaries of the Androscoggin and Connecticut Rivers.

The land acquired for the White Mountain National Forest lies in four large counties. Nearly one half of the entire Forest is situated in Grafton County, New Hampshire. The rest is located in Coos and Carroll Counties, New Hampshire, and Oxford County, Maine. The tracts of land purchased varied greatly in size, from a few acres to several thousand, and extended far across a mountain range.

Like nearly all the land in the East which was purchased by the Forest Service, the White Mountain areas were burned-over or cut-over timber lands. At the end of the 19th century, logging camps flourished in the White Mountains. Nearly all the major stream valleys were penetrated by logging railroads that brought timber out of the valleys: the Wild River, the Zealand, the Swift River, the Dry River, the Rocky Branch and the East Branch.

The timber was harvested ruthlessly, with no regard for waste or succeeding Forest regeneration. Slash areas were vast and numerous. According to one local historian and District Ranger Al E. Eckes, "Loggers and local citizenry were not forest fire conscious, the techniques of forest fire suppression were almost unknown, and equipment was not available." To make matters worse, little tax money was being used for the protection of the forest resources at local levels. Any fire that started was likely to become a roaring inferno. [26]

The Kilkenny Fire of 1903 destroyed more than 25,000 acres of spruce-fir before it burned itself out. This fire began in the town of Stark and spread to the towns of Milan, Berlin, Randolph, and Kilkenny. Within a few years, several other large fires had burned additional areas of the White Mountain: the Wild River drainage, Zealand Valley, Rocky Branch Valley, Mt. Lafayette, Baldface Mountain, and others. Such large fires have not occurred since public ownership began in 1911. Some areas of the Kilkenny Fire are still in the "recovery stage" and succession to a hardwood forest type.

As early as 1916, some foresters anticipated the recreational potential of White Mountain Purchase Units for the growing New England population. [27] One of the choice areas was a 4,500 acre tract of land purchased in 1915 from E. Libby and Sons Co. of Gorham, New Hampshire. This tract included mostly cleared parcels making them immediately suitable for buildings and recreation. Another adjoining tract was 30,000 acres purchased from the Berlin Timber-Land Company. These acres lie on the sides of Mt. Madison, Mt. Adams, Mt. Jefferson, and Mt. Martha—the Presidential Range.

Early officials of the White Mountain Purchase Units realized that the Martins Location, with clear openings close to the scenic Presidential Range and a good water supply, would be well suited for recreational development. In 1916 E. D. Fletcher, the Forest Examiner in charge of land purchasing for the White Mountain, surveyed the land. He prepared a map of the Dolly Copp farmstead and adjacent farmsteads on and near Martins Location with a view to their future development as a summer home colony. The farms were divided into about 89 one-acre lots and advertised the next year for $18.00-$25.00 for a one year lease. Long-term leases were also to be made available for 10 or 30 years. Any buildings by the proposed owners would require Forest Service approval. Although similar plans proved successful in other parts of the country, lots on the "Dolly Copp farms" were not sought after. In 1921, the summer home idea was abandoned; the area was opened for tent and trailer camping and has remained in popular use by visitors ever since. [28]

Out of the White Mountain Purchase Unit (1911), the Androscoggin Purchase Unit (1913), and the Kilkenny Purchase Unit (1913), the White Mountain National Forest was established on May 16, 1918, with a total of 950,114 acres. A little over 10,000 acres were dropped from the National Forest System by 1924, and the entire Androscoggen Purchase Unit was dropped in 1928. In 1929, the National Forest Reservation Commission report showed 801,900 acres in New Hampshire and 53,300 in Maine constituting the White National Forest. [29]

Monongahela National Forest

The area which is now the Monongahela National Forest was first settled by whites, mostly Scottish-Irish, in the 1730's. The local Indians, principally the Shawnee, fought back until a final battle in 1774 at Point Pleasant where they were decisively defeated. After this, settlements grew in size, causing more roads to be built. A railroad finally connected West Virginia to the East in 1853.

The natural resources of West Virginia in the 19th century were invaluable. The hills there had produced the greatest stands of hardwood timber in the world. By 1900, as was the case throughout the Appalachians and the Midwest, almost all the valuable timber had been cut.

The widespread denuding of the forest resulted in ecological chaos. In 1907, spring rains caused devastating flooding of the Monongahela River. The rich agricultural land in the river basin was swept downstream, causing an estimated $100 million in damage, an incredible sum for that time. Much of Pittsburgh was flooded, people were killed and homes destroyed. The public and the politicians of the Allegheny region began to realize that the excessive cutting and burning of the forests within the watersheds of the Allegheny and Monongahela Rivers directly caused the disaster.[30]

At a 1908 Congressional hearing, the State Geologist of West Virginia and members of the Pittsburgh Chamber of Commerce testified to the need for a National Forest at the headwaters of the Monongahela River in West Virginia. They pointed to the damages caused by the filling and pollution of streams used for water supplies. During the years of Congressional debate, the state legislature of West Virginia passed an Act on February 26, 1909, consenting to the purchase of state lands by the federal government. [31] In 1911 the Weeks Law was passed and land could be purchased. The first land acquired was 7,200 acres in Tucker County, West Virginia, bought from Thomas J. Arnold. [32]

In 1915, the National Forest Reservation Commission reported the following regarding the Monongahela purchase area:

> "This area, which lies on the extreme headwater basins of the Monongahela River in the great timber region of the State of West Virginia, contains 682,316 acres, of which 52,610 acres have been approved for purchase. To a large extent the most valuable timber has been removed, and that which remains is held by lumber companies and is not generally available to the Government at present. Lying as it does within the Allegheny Mountains, the area is characterized by broad, rolling plateaus, deeply trenched by valleys. The soil on both ridges and slopes is well adapted to timber production, and once supported a heavy growth of valuable timber. While farming and grazing have been carried on for upwards of 100 years, the land which can be used for these purposes is limited and confined largely to the limestone valleys. Lumber operations have in most cases been followed by severe fires, which have greatly damaged the remaining forest and soil, and on some of the lands protection through many years will be required to produce another stand of timber. The presence of many mills and wood-using plants together with favorable freight rates to the chief markets, gives timber of all classes an excellent value. The forest will be of especial value in its protective influence on the Monongahela River, and the purchases that have been made should be considered as only a start on this important area." [33]

W. A. Hopson, Forest Examiner, was the first to supervise the purchasing of lands in West Virginia from 1916 to 1920. Organized fire protection began in 1916. [34] On April 28, 1920, the Monongahela Purchase Unit was proclaimed the Monongahela National Forest by President Woodrow Wilson. The first Ranger District was the Cheat River District. A second Ranger District, the Greenbriar, was established in June 1922, increasing the total acreage to 166,000 acres. [35]

The passage of the Clarke-McNary Act in 1924 had profound effects on the Monongahela National Forest. Extension of the boundaries was approved by the National Forest Reservation Commission in 1927. Within the new boundaries were the impressive Seneca Rocks, the famous Smoke Holes on the South Branch, and the North Fork of the Potomac River. The second boundary extension was in 1933, bringing the total acreage of the Forest to 261,968, acquired at an average price of $3.43 per acre.

Allegheny National Forest

Most of the land that now comprises the Allegheny National Forest was of little agricultural value. Its greatest resource was its timber, particularly the eastern white pine. As early as 1801, pine timbers were being rafted in huge numbers down the Allegheny River. By 1820, Tionesta Creek, which drains the heartland of the Allegheny National Forest, had 21 sawmills along its banks. Immense rafts of lumber were a common sight each spring on the larger streams. On the Allegheny, rafts were sometimes 70 feet wide and 300 feet long. Often 30 such rafts made up a fleet. [36]

Until 1850, white pine continued to be the leading species produced in the area. Then hemlock began to be cut for its bark, which was used in tanning leather. The hemlock logs were left to rot in the woods. The great exploitation of timber did not really begin until after 1885, when the logging companies and railroads made even the most remote areas accessible and assured a year-round supply of logs for the many new sawmills. The biggest lumber companies during the logging railroad era were Central Pennsylvania Lumber Company, Wheeler and Dusenbury Lumber Company, and T. D. Collins Lumber Company.

Intensive logging left Pennsylvania's forests devastated and the land susceptible to further destruction by fire during the dry seasons and erosion during the rainy months. The "cut-out and get-out" era created the mangled landscape out of which the eastern National Forests were created. Once the Monongahela National Forest was established in 1920, attention was turned to the land at the headwaters of the Allegheny River. The editors of the *Pittsburgh Post* were early proponents of National Forests in the East. In 1921, the Allegheny River drainage land was surveyed, and the boundary was settled on for the Allegheny Purchase Unit.

Loren L. Bishop transferred from his job as Supervisor of the Choctawhatchee National Forest in Florida to secure land proposals from his new office at the Allegheny Purchase Unit's headquarters in Warren, Pennsylvania. The largest land sales were made with Central Pennsylvania Lumber Company of Williamsport, Pennsylvania, South Penn Oil Co., Wheeler and Dusenbery Lumber Co., T. D. Collins Lumber Co., McCean Chemical Co., Day Chemical Co., Armstrong Forest Co., M. W. Jamison, and Elisha Kane. When Bishop had secured offers on over 200,000 acres, he reported to District Forester Reed that examination and appraisal of the offered land could begin. E. V. Stone, Jr. and Phillip Hodgkins were hired to assist Bishop with this work. [37]

The crew of land examiners toured various lots of stumps and scrub, much of it damaged by recent fires. They chose some sample lots for young tree growth studies. [38] By September 24, 1923, when the Allegheny National Forest was formally established, 739,277 acres had been surveyed and purchased. Ray Conarro was the first District Ranger. In July 1927, the Forest was reorganized into a two Ranger District unit.

The early history of the Allegheny National Forest is marked, as most of the National Forest histories are, by the varied but continuous battle against fire. After a few dry weeks in May 1924, a fire at Loleta was swept out of control by high winds, burning over 10,000 acres in two days. Concurrently, a second fire was spotted at Owls Nest along the Bear Creek. An estimated 2,000 men worked constantly on both fires. Although entire towns were emptied of the food in their stores, lumber camp cooks managed to turn out three meals a day plus a midnight meal for the night shift. The Bear Creek Fire burned over 18,000 acres and had cost more than $1.5 million to control. There

were heavy losses of timber, and the Pennsylvania Gas Company suffered extensive damage to gas wells and pipelines. [39]

Green Mountain National Forest

While the Green Mountain National Forest was created on April 25, 1932, it consisted of only about 32,000 acres and shared headquarters with the White Mountain National Forest in Laconia, New Hampshire. It will be described in more detail in Chapter VI.

The following National Forests were created for a short time and then abolished:

> Pine Plains National Forest (1925). Located in New York, it was converted from the Pine Plains Military Reservation into a National Forest. In 1927 it was abolished and reverted to National Guard use. It is now known as Fort Drum.
>
> Tobyhanna National Forest (1925). Established from part of the Tobyhanna Military Reservation in Pennsylvania, and rescinded three years later.
>
> Upton National Forest (1925). Also in New York, it was converted from the Upton Military Reservation for two years and then rescinded.
>
> Dix National Forest (1925). Located in New Jersey and made from the Dix Military Reservation, it was returned to the military in 1928 and became Fort Dix.
>
> Savanna National Forest (1925). In Illinois, this Forest became the Bellevue-Savanna National Forest in 1926 and was abolished in 1954.

The permanent effects of the creation of the temporary National Forests in the 1920's were probably not great. Those areas seem to have been military reservations which were tried as National Forests but returned to the military. Mostly, these were lands that had never been in civilian hands.

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32. Ibid., p. 7.
33 Ibid., p. 6.
34. Ibid., p. 7.
35. Ibid., p. 10.
36. Larry Stotz, "Cut Out and Get Out! The Story of Early Logging on Allegheny National Forest," Special Fiftieth Anniversary Series, Article #4 (Allegheny National Forest, 1973).
37. Raymond Conarro, "Birth of a National Forest: The Labor That Produced the Allegheny," Special Fiftieth Anniversary Series, loc. cit.
38. Raymond Conarro, "You Can't Help But Miss It! Early Land Acquisition on Allegheny National Forest," Special Fiftieth Anniversary Series, loc. cit. p. 1.
39. Roy A. Marker, "Wildfire! A Saga of Early Fire Control Methods and Communications Systems on the Allegheny National Forest," Special Fiftieth Anniversary Series, Article #5, loc. cit.

CHAPTER V

THE LAKE STATES REGION

THE FIRST REGION NINE

Establishment

The history of Region 9 begins in 1928 when the Forester's office in Washington, having studied the forestry situation in the three Lake States of Wisconsin, Michigan, and Minnesota, concluded that a new Region needed to be established there. The Forest Service planned to expend $6 million over the next 10 years in the Lake States. In the words of Assistant Forester Leon F. Kneipp, "careful coordination and constructive cooperation" was needed between the Forest Service, the lumber industry, and the three state governments. Michigan already had a state forestry program, Wisconsin was in the early stages of forming one and Minnesota had only begun planning. [1]

Recognizing the magnitude of the job ahead, the new type of work with state governments, and the need for a permanent Forest Service presence in the area, the Assistant Forester came to the conclusion that there needed to be a separate Region for the Lake States. He envisioned that there would be no great increase in overhead, only the salaries of a Regional Forester, an assistant, an executive assistant, and two or three well-qualified clerks. Kneipp noted that many people in the Lake States area were incredulous when they learned that the Forest Service administered the area from an office in Denver, Colorado. Having a Regional Office in one of the Lake States would remove this feeling of being under an "alien administration." [2]

Forester Robert Y. Stuart was in accord with the recommendations of his Assistant. On December 20, 1929, he wrote to his superior, the Secretary of Agriculture, justifying the decision to create a new Forest Service Region in the Lake States. "One of the outstanding problems of the forest economy of the nation," he wrote, "is presented by the Lake States of Michigan, Minnesota, and Wisconsin, where acute need exists for the reclamation of large areas admirably adapted to timber production but at present denuded and unproductive of either economic resources or taxes." The Forester assured the Secretary that the situation was one where the "active participation by the federal government" was justified and desired by the state governments.

Forester Stuart explained that the National Forest Reservation Commission had already approved a program for the acquisition of 2.5 million acres of land for the establishment of nine purchase areas in the proposed District 9. In answer to the potential argument that no new Region was needed because the Lake States were currently a part of District 2, the Forester stated that this arrangement would not "adequately meet the new administrative requirements" of the already approved acquisition program because Denver was remote from the acquisition activities. The distance involved made it impossible for the Denver Office to devote the attention needed to the problems of the Lake States. Striking a political note, Stuart spoke of the resentment caused in the Lake States by the Forest Service trying to administer their area from an office which lacked contact and familiarity with local conditions and needs.

To remedy the situation in the Lake States, Forester Stuart proposed to create a new District in the Lake States. He admitted the new District would be small compared to others of the Forest Service, but it would contain 10 important forest units embracing a total of 1.2 million acres of government land, which compared favorably to the size of District 7 when it was created. Also included were the additional 2.5 million acres which had already been approved.

One distinctive feature about the Lake States area made "careful leadership and supervision indispensable"—the vast acreage of privately owned forest. For the general development of the regional economy to continue, the Forester believed that the Forest Service must take a large role in promoting state and private forestry. The proposed program alone would mean the expenditure of more than $6 million in the Lake States. That kind of spending, while it would certainly benefit the local economies, needed to be carefully monitored to guard against irregularities and assure that the greatest possible benefit was obtained.

Since the states of the Lake States area already had forestry programs, close cooperation with the appropriate state agencies and coordination with their plans and programs would be essential. Stuart cited this as another reason why a new District Office was needed in Milwaukee. "It might never be necessary," said Stuart, "to build up in the Lake States an organization so large as the first six Districts." The range of Forest Service activity in the new Region would be "narrower," and some of the positions might be consolidated as they had been in Districts 7 and 8 (the new Southern District). The Forester assuaged any fears the Secretary might have had about additional costs to the government from creating a new District by saying that these would not be great. All that would be involved was the salary of the District Forester and his assistants, their travel, and some clerical help. Even these small expenses would be partially offset by the savings generated by not having to send people from Denver to do the work. [3]

The man chosen to be District Regional Forester for the newly created District 9, Earl W. "Ted" Tinker, had been working for the past several years out of the Denver Office supervising land acquisition in the Lake States. He had been instrumental in developing the program by which acquisitions of the 2.5 million acres had recently been approved by the National Forest Reservation Commission. In the opinion of Forester Stuart, Tinker was "probably more familiar with the Lake States situation than any other member of the Forest Service." Tinker was a native of Michigan, a graduate of the Michigan State College School of Forestry, and had done graduate work at the Yale School of Forestry. After a long stint of forestry work for the Canadian Pacific Railroad, he had joined the Forest Service, serving first as a technical assistant and later as Supervisor of two important National Forests. In the Washington Office, he had been an Inspector and Assistant Chief of the Office of Forest Management. In the Denver Office, he had been Assistant District Forester in charge of the Office of Lands. The Forester was well pleased with Tinker's work, saying it had been "uniformly excellent, particularly in connection with the forestry program in the Lake States." [4] (See Appendix for complete list of Region 9 Regional Foresters.)

Setting Up the New District

The Secretary approved the creation of the new District (Region), and on December 22, 1928, Stuart wired the Regional Forester at Denver as follows: "Lake States Region has been established. Proceed to Madison, Wisconsin, and establish temporary office." [5]

The job of selecting the location for the permanent headquarters of the new Region fell to Earl Tinker, the new Regional Forester. Regional headquarters were usually placed in large cities in the Region. Tinker chose Milwaukee. In Washington, Forester Stuart approved Tinker's choice and also his plans to open the office with a very small staff and to handle the work of the office without creating a formal organization by branches. As soon as the Secretary of Agriculture released acquisition money, it was understood that Tinker was to submit definite recommendations for filling the positions which had already been approved. [6]

When Region 9 was established, it consisted of only three National Forests: the Michigan National Forest and two in Minnesota. Newly appointed Regional Forester Earl W. Tinker stopped in the Lake States Region en route to Washington to meet with the three Supervisors and hear their views on his plans for the Regional staff. He proposed that the staff at the Regional Office consist only of himself, a Deputy Forester, and a Fiscal Agent. All the other staff in timber management, lands, and other resources, would be placed on the Forests, "where the work was." Naturally, the three Supervisors endorsed the plan. But when Tinker learned in Washington that funding for the Region would depend on the amount needed by the District Office, he withdrew his idea. [7]

The new Lake States Region was to oversee the National Forest lands in Wisconsin, Michigan, and Minnesota as follows: the Flambeau Purchase Unit, the Moquah Purchase Unit, and the Oneida Purchase Unit in Wisconsin (a total of 409,000 acres gross [within boundaries] and net or actual holdings unknown); the Chippewa National Forest, the Superior National Forest and Purchase Unit, and the St. Croix Purchase Unit (abandoned in 1930) in Minnesota (a total of 2,150,200 gross and 1,034,800 net acres); and the Huron National Forest and Purchase Unit, the Keweenaw Purchase Unit, the Mackinac Purchase Unit, and the Marquette National Forest and Purchase Unit in Michigan (a total of 1,290,300 gross and 388,500 net acres). The grand totals were 3,849,500 gross and 1,423,300 net acres. [8]

These holdings would not seem to warrant the creation of a new Region, but Forester Stuart was looking ahead. The Clarke-McNary Act had passed in 1924, and purchases of timber lands authorized by it had begun. Earlier in 1928, the National Forest Reservation Commission had approved a program recommended by the Forest Service whereby approximately 1.1 million acres would come under federal ownership in Michigan and Minnesota, and a number of other purchases would be made in the Lake States. The declared purpose of these land purchases was to aid in timber production and demonstrate forestry practices. [9]

On January 1, 1929, temporary headquarters for Region 9 were established with the Forest Products Laboratory at Madison, Wisconsin. Meanwhile, Tinker looked for a suitable building in Milwaukee. The best he could find was the former rye whiskey testing laboratory in the Post Office Building. In March the tiny staff occupied its new quarters, equipped with hand-me-down furniture and a few battered file cabinets. [10] In 1932, the offices moved to the Post Office Building at 517 East Wisconsin Avenue in downtown Milwaukee. At that time, the entire staff, consisted of 19 people. One employee commented that the new office space was "what a real Forest Service office looks like—or should look like." [11] In 1935, after the Region assumed supervision over 15 million new acres and had been given responsibilities for the Civilian Conservation Corps (CCC) in the Region, the offices were moved to the Plankinton Arcade Building at 161 West Wisconsin Avenue. (See Appendix for list of Region 9 Regional Office locations.)

The organization of the Regional Office was in Divisions, each headed by an Assistant Regional Forester. In 1962, the divisions were: Engineering, Fiscal Control, Information and Education, Personnel, Operations and Fire Control, Recreation, Wildlife and Range Management, Lands, Minerals, and Water, State and Private Forestry, Timber Management, and Emergency Conservation Works (the CCC from 1933 to 1943). In 1930, the states of North Dakota, Iowa, Indiana, Illinois, Ohio, and Missouri were added to Region 9, all but North Dakota being transferred from Region 7. [12]

From the beginning, the Lake States Regional Office had been a sparse affair. By 1930, there were only 13 members of the staff, very few compared to other Regions. Regional Forester Earl Tinker was ready to say that perhaps the austerity had been "overdone." Tinker suggested this in a report to the Forester, but little note was taken. Nevertheless, the staff began to grow and the Regional Office had 166 employees by 1940.

The total number of permanent employees in the Region increased from 138 in 1928 to 207 in 1931. Some technical foresters had been added, a few clerks, and several District Rangers, but there was one less Supervisor. The Region had only three types of specialists: lecturers (a term no longer used), acquisition specialists, and surveyors. This indicates how much simpler the job of the Forest Service was in those days. [13]

After Earl W. Tinker, who served until 1936, the Regional Foresters were Lyle F. Watts (1936-1939), a forestry trained graduate of Iowa State College, formerly Director of the Northern Rocky Mountain Forest Experiment Station at Missoula, Montana and Jay H. Price (1939-1954), a forestry graduate of the University of California, whose previous position was Associate Regional Forester for Region 5. [14]

Throughout the 1930's, a major factor in communicating and bringing all of the different elements of Region 9 together was the *Daily Contact*, a daily and later biweekly newsletter published by the Regional Office in Milwaukee and distributed to all other offices. The purpose of the *Daily Contact* was not only to provide information and education but to give a feeling of unity to Region 9. [15]

Early History of Region 9

New Units

During the 1930's, Region 9 decided to complete plans for purchase units in the Lake States under an authorization from the Forester to purchase 2.5 million acres under the Clarke-McNary Act. After a reconnaissance, the Regional Forester and his staff developed a new purchase area of approximately 171,000 acres in Minnesota, to be called the Mesaba. The consent of local people was obtained by means of letters and petitions. The State Forester offered no objections. The unit was sent to the Forester in Washington for approval, and placed before the National Forest Reservation Commission, which authorized the purchase work to begin.

In Wisconsin, the planning was for a 1,674,450 acre purchase (the Oneida) in the northern part of the state. These two units put the Region over its 2.5 million limit by more than 250,000 acres. Meanwhile, the Region arranged land exchanges with the State of Michigan which would absorb all remaining public lands in that state. In such exchanges, the public lands were exchanged for state owned lands already within the boundaries of National Forests. [16]

Timber Management

By 1930 there were a few timber sales on the National Forests of the Lake States. Sales on the Superior Forest were approaching $100,000 per year. The principal task on the Huron Forest was timber cruising. There was a modest replanting program throughout the Region. The plants came from two nurseries at Cass Lake and Beal, Minnesota. The two nurseries were capable of producing 10 million tree seedlings per year. The Region had also made arrangements with the State of Wisconsin for the donation of a nursery site by Oneida County. The Kiwanis Clubs of Wisconsin had raised $10,000 for the construction of this site. [17]

Fire Protection

Throughout Region 9, some 60 miles of firelines were built in 1930 to protect new forest plantations. Most of the work was done by Forest Service personnel. Fire protection began on five new forest units that year. The new equipment included six fire trucks, 15 tool caches, and one power pump. The fire season that year was the most severe in many years. The new units, because their fire fighting teams were not yet well organized and trained, suffered heavy losses in timber and personal injuries. In the Region there were 49 Class A fires (less than 1/4 acre), 41 Class B (1/4 to 9.9 acres) , and 42 Class C (10 to 99.99 acres), for a total of 132 fires; of these, 111 were man-caused and 21 were due to lightning. Hydroplanes were used for the first time for patrol purposes in the Region with positive results. Smoke and haze so obscured the vision from lookout towers that aircraft were an essential improvement. [18]

Public Relations Work

In the early years of Region 9, the big job in public relations for the Regional Office was establishing closer relations with state conservation agencies. The job of dealing directly with the public was left largely to the National Forests and Purchase Units. The Regional Office did have close contacts with such organizations as the Izaak Walton League, the Arrowhead Association, the Minnesota Federation of Women's Clubs, and the Kiwanis. The Regional Office also strove to interest the various Congressional delegations in the work of the Forest Service and in conservation. Six states had been added to the Region in 1930—North Dakota, Missouri, Illinois, Indiana, Ohio, and Iowa, but little had been done to begin public relations work in those states because there were no Purchase Units there. [19]

Demonstration Forests

Forester William B. Greeley, (called Colonel Greeley) had much to do with determining the course taken in the Lake States Region. In a speech to the American Forestry Association, Greeley laid out his plans. There would be much Forest Service acquisition of cut-over forest lands which would be organized into large National Forests. The ultimate purpose was to restore the great pineries of the North Woods Country by good forestry and management.

By 1931 the large production forests had given way to a system of smaller forests to be used as demonstrations of good forestry practices. The idea was that private forestry and the profit motive rather than the Forest Service would be used to restore the great pineries. The demonstration forest concept had been heartily accepted in Region 7. The idea was generally attributed to Associate Forester Kneipp, although he once scribbled "credit not mine" on a letter that crossed his desk.

Region 9 Regional Forester Earl W. Tinker had doubts about the workability of demonstration forests. He was convinced it would never work in the Lower Peninsula of Michigan and Minnesota. He had come to believe that the system could work in the commercially profitable forests of Wisconsin and the Upper Peninsula of Michigan if given special attention and funding. In fact, he predicted that by 1935 there would be 2 million acres of privately owned land in Wisconsin producing timber crops. Tinker had even adjusted to the idea of having smaller forest units. He was convinced that timber interests would want to retain or even acquire new timber lands within National Forest boundaries because there would probably be a revival of the timber industry in the area.

One large drawback existed in the demonstration program—it meant the end of the plans for great National Forests in the Lake States Region. If Colonel Greeley's plan for the Lake States had been carried out, as many as 10 million acres of land might have been acquired. However, with the new emphasis on demonstration forests, Forest Service land acquisitions had been reduced drastically.

Tinker was clearly upset by this turn of events. He blamed it on the demonstration forest concept, but it was so widely accepted in high places in the Forest Service, he did not dare oppose it. Instead, on Christmas Eve, 1930, he wrote a long letter to Forester Robert Y. Stuart pointing out the serious complications Region 9 was having with the demonstration program. Demonstration forests required "especially intensive administration, protection, and development." There could be no more than two purchase units under each Supervisor, Ranger Districts would be no larger than 100,000 acres, planting programs would need to be much smaller, fire protection would have to be upgraded, and, in general, management costs per acre would be much higher than on a production type forest.

Tinker and his staff had developed a five-year plan to implement the demonstration forest concept. Tinker called for new policies and plans for the administration of units where it had been decided that demonstration was the primary objective. He asked the Chief Forester to recognize that Region 9 had special financial needs if it was to reach the desired objectives. He wrote, "This is, frankly, a plea for special consideration, based upon the plans for Region 9 as we conceive them." [20]

Tinker's letter caused quite a stir in the Washington Office. The most violent reaction came from Ed A. Sherman, Associate Forester and head of the Branch of Lands. Sherman suggested to Forester Stuart that Tinker needed to be "straightened out." The original plan, according to Sherman, had been to use the Clarke-McNary Act to purchase about 5 million acres of land for forest production in both the Lake States and Southern Regions, with the acreage equally divided between the two. That was what had been approved by the National Forest Reservation Commission. Sherman admitted that the figure of 2.5 million acres for each area was not necessarily final. He was confident that the public would eventually want more purchases. Anyone who attempted to commit the Forest Service to more than that was a "dreamer."

As for the issues Tinker had raised concerning demonstration forests, Sherman declared that demonstration was nothing new in the Forest Service. From the beginning the forests acquired under the Weeks Act had been demonstration forests. They required no different management, protection, or development from production forests. Sherman denied the validity of Tinker's suggestion that the forests of the Lake States were so different that they required the development of new procedures in demonstration work. He contested there were forests elsewhere which were similar. [21]

The whole matter raised by Tinker landed finally on Chief Stuart's desk. He wrote to Tinker that the change in plans regarding the Lake States from a system of large National Forests built up over extensive cut-over areas to a system of "smaller areas well distributed by types" had been necessary because Congress had placed acreage limitations on large-block land purchases in the East. Congress was reluctant to take whole counties or large parts of them off the tax rolls, and they refrained from placing obstacles in the way of states assuming responsibilities in forest land acquisition and administration.

Stuart recognized the significance of the Lake States National Forests as presenting an outstanding opportunity to demonstrate sound forest practices. But this did not mean that they should be given special management and more financial support. In his 1931 memo he stated, ". . . our National Forests are not to be thought of either as experimental forests where costs are subordinate to fundamental research, nor as examples of forest demonstrations which can not be practically followed by forest land owners because of cost consideration."

Stuart advised Tinker to administer the National Forests of the Lake States with no greater emphasis on demonstration work than would be made anywhere else. He was pleased with the progress being made in the Lake States—"You are getting at the fundamentals of the job splendidly and upon this base we shall build"—but he could not promise any special treatment for the Lake States District. [22]

The National Forests of Region 9

The original Region 9 National Forests were the Minnesota (Chippewa), Michigan and Marquette (Hiawatha), Superior and Huron. (See Appendix for Chronology of Establishment of Eastern National Forests.) A short history of each follows:

Minnesota (Chippewa) National Forest

The Chippewa National Forest, originally called the Minnesota National Forest, has the distinction of being the first Forest in Region 9, although at the time of its formation (1908), it was part of Region 1 with headquarters in Missoula, Montana.

The land on the headwaters of the Mississippi which now comprises the Chippewa National Forest was once the homeland of the Ojibwa Indians. For centuries the Ojibwa had lived along the Great Lakes, hunting, trapping, fishing, gathering wild rice, and making maple sugar. The Ojibwa were one of many tribes of the Algonquian language family. They lived in scattered groups in an immense area around the Great Lakes and northwest into Ontario, Manitoba, and Saskatchewan, Canada. During the 17th century they developed a growing fur trade with the French. This trade

required more intensified fur trapping and a broader hunting ground. Consequently, conflict ensued with the Iroquois, Sioux, and even with other Algonquian tribes of surrounding areas. [23]

The Ojibwa were caught in the middle of the European struggle for control of North America from 1754 until 1783 when a peace settlement was finally signed between England and the United States. The treaty divided the Ojibwa land between the two nations. England retained actual control of the Great Lakes region for another 30 years. In 1825 the United States government called a meeting of all upper Mississippi tribes at Prairie du Chien, Wisconsin. At this meeting the upper boundary of Ojibwa land was fixed. In the succeeding decades treaty upon treaty was proposed and then broken by the United States government. Finally, a "removal" policy was adopted in 1830 directing all Indian peoples to relocate west of the Mississippi River. In the 1850's a reservation policy began which concentrated the Ojibwa on land set aside for them in Minnesota. Promises were made to treat these peoples as citizens of autonomous nations. Nevertheless, by 1871 the practice of making agreements with Indian tribes or bands as though they were independent foreign nations was abandoned. [24]

In the face of the American 19th century forms of progress—lumbering, farming, and railroad —the United States government found it to be too much trouble to bother with separate Indian nations. The urgency of "white" manifest destiny pervaded the thinking of the frontiersmen and their government officials. Non-Indians became angry when they saw "undeveloped" Indian land.

The new philosophy toward the Indian was try to make him like the European settler. The means to this end would be ownership of land through allotments, many believed that "if Indians could have their own, ambition would overwhelm their tribal values and they would want to support themselves as many other Americans did by farming." U.S. government officials trusted that individual land ownership would be "the ultimate settlement of our Indian problem." [25] The Ojibwa were offered 160 acres of land per family and annuities of three dollars per person each year, paid in goods or cash as the government should choose. [26]

Some Ojibwa saw the Dawes Allotment Act of 1887 as the best they might obtain since before this time the federal government had given away their reservation land to railroads and lumber companies. [27] They hoped that if they held the deeds to their land their tribe would fare better. But unfortunately, during the allotment period the best 80% of the land originally reserved for Indians passed into non-Indian ownership and Indians received no more than a tenth of its value. [28]

During these same years, there was a concentrated effort to destroy Indian culture by moving the Indian communities to reservations where an agent administered all aspects of their lives: their work, schools, housing and possessions, weekly food rations, travel, religion and conduct. All this was in the name of "education" and "civilization." [29]

When the allotment program was first implemented in 1887, all reservation land not divided among the tribesmen was to be sold at auction based on estimates made by timber cruisers. This led to fraud and collusion. In 1897, Congress passed a law permitting the sale and logging of "dead and down" timber on Ojibwa lands. However, once the operators started cutting, they took every green tree within reach, paying only for "dead and down" prices. Indians complained bitterly about this. [30] They also believed great injustices had been done to them by a government agent who was in the practice of arresting Indians on charges involving liquor, then transporting them to Duluth, Minnesota collecting mileage from them, and letting them walk back.

On September 15, 1898 two incarcerated Indians of the Bear Island Band were rescued by their tribesmen and warrants were issued for the rescuers' arrests. One hundred federal troops were brought in to control the Indians who were resisting arrest and tried to forcibly take them into custody. The Indians continued their armed resistance and on October 5, 1898 the Sugar Point battle began. Within a few weeks the Indians were tried, found guilty, sentenced and fined. Pardons were finally granted them on June 3, 1899, but in the end, little or nothing was done to stop the timber frauds on reservation land. [31]

The Morris Law in 1902 provided for the Ojibwa Indians to be paid the proceeds on the pine timber from their ceded lands, but the U.S. government would retain title to the land, which would become a Forest Reserve. This legislation promoted by General Christopher C. Andrews, two state medical societies and the State Federation of Women's Clubs had its opponents. In 1905 the legislature heard requests to open the Reserve to farms and settlement. The debate resulted in the establishment of the Minnesota National Forest on May 23. 1908. Within the boundaries were the peninsulas and islands previously reserved for the Indians who were to be compensated. Not until the amount of $14,091,976 was agreed upon in 1923 did the Minnesota National Forest come under the complete control of the Forest Service. [32]

In 1928 the name of the Forest was changed. Members of the Chief's office agreed to the validity of naming the Forest after the Native Americans of the Region, but most believed that "Ojibwa" was too difficult to pronounce. Thus, the name "Chippewa," a popular adaptation of "Ojibwa" was agreed upon. [33]

Michigan and Marquette (Hiawatha) National Forests

Located on Michigan's Upper Peninsula, the Hiawatha National Forest touches the shores of three of the Great Lakes—Lake Michigan, Lake Huron, and Lake Superior. This area remained unexplored by Europeans until the mid 1800's. Discovery of copper and iron deposits heralded decades of mining booms. The exploitation of the Upper Peninsula's forests followed. "Sawmills screamed and towns hustled and bustled in prosperity." But then the logging and lumber companies moved on, leaving the slash, debris, and consequent fires behind them. By the early 1900's the Upper Peninsula was almost entirely denuded of its forests. [34]

As early as April 1902 and February 1908, suitable lands in the Upper Peninsula of Michigan were withdrawn from public entry by the General Land Office for National Forest purposes. [35] The Michigan and Marquette National Forests were then established on February 11, 1909. It was decided during that year to place a Ranger on the Marquette. Gene Green of Traverse City was hired and arrived at Brimley to assume his duties, of which he admittedly knew very little. There were no roads through the woods, no telephones, and the first lookout towers were scaffolds built in the tops of tall trees. In 1912 the Ranger's cabin and office were built in a lovely Norway pine grove. Dubbed the Norway Ranger Station, it served as a gathering place for the logging crews. In 1914 the town of Raco was established by the Richards and Avery Lumbering Company. For a brief time, as long as there was lumber to buy, the town boomed. [36]

In 1915 the Michigan and Marquette National Forests were consolidated. In 1931, the entire area was renamed the Marquette National Forest [37] and the Hiawatha National Forest on the Upper Peninsula was established. Like other National Forests, the Hiawatha was part of a significant group

of Forests created after the passage of the Clarke-McNary Act in 1924, which authorized the purchase of lands for timber production purposes. For several years after the passage of the Act, W. W. Ashe of the Chief's Office did general reconnaissance work, looking for suitable areas in Michigan, Wisconsin, and Minnesota. The Michigan land which Ashe finally proposed was situated in Marquette, Delta, Schoolcraft and Alger counties. This proposed purchase unit, called the Mackinac, originally included a gross area of 641,860 acres. In 1926, Ashe's report was presented to the National Forest Reservation Commission. Action was not taken until the February meeting in 1926 when the Commission adopted a major acquisition program of 9.6 million acres. There were 1.1 million acres acquired in Michigan and Minnesota "both primarily to aid in timber production and demonstrate forestry practice." [38]

The Hiawatha National Forest was established out of this acreage of the Mackinac Purchase Unit. In 1930, when the Chief's Office asked the Region for suggestions for suitable names for each of the purchase units, seven Indian names were suggested. The name Hiawatha was chosen and approved by the Chief's Office because it was well known. Hiawatha was a Mohawk chief who brought about the confederation known as the Five Nations of the Iroquois Indians. He was also the hero of Longfellow's poem, "Hiawatha."

The headquarters of the original Mackinac Purchase Unit was established in 1928 at Munising, Michigan. The first officer in charge was William B. Barker. In 1933, additional land covering a gross area of 345,253 acres in Alger, Schoolcraft, and Delta counties was added to the Hiawatha National Forest. In 1935, a gross area of 118,000 acres were added; and in 1936, another 142,000 acres were added to the Hiawatha National Forest. The 640,000 acres Dukes Experimental Forest located in Marquette County, a donation from the Cleveland Cliffs Iron Company, was included within the boundaries of the Hiawatha National Forest in 1937. [39]

Under the supervision of the Munising office, a third purchase area was established in the western part of the state. The Keweenaw Purchase Unit was established as the Ottawa National Forest in 1931. Munising remained the headquarters of the Hiawatha until 1935 when the office was moved to Escanaba, Michigan.

Headquarters of the Ottawa National Forest was established in Ironwood, Michigan in 1935. In 1953, some outlying areas totaling 34,977 in the northwest part of the Hiawatha National Forest were eliminated by an Executive Order dated 1961. [40] In February 1962, lands of the Marquette National Forest were merged with the Hiawatha National Forest.

Superior National Forest

The creation of the Superior National Forest "climaxed a period of approximately 30 years of efforts by a few conservation minded Minnesotans seeking to preserve portions of Minnesota's magnificent virgin forest." It was also one result of the attempts of one great man to secure recognition of forestry practices in Minnesota. [41]

General Christopher C. Andrews, who was later to be characterized as "The Apostle of Forestry" in Minnesota, had served as the U.S. Minister to Sweden and Norway from 1869 to 1878. He was impressed with the different aged forests, managed in a checkerboard fashion by the Swedish forestry system. Upon his return to St. Paul, Minnesota, in 1880 he acted as chairman of a Chamber of Commerce committee whose purpose was to secure a donation of federal land for a School of

Forestry. The committee prepared a report to Congress in which Andrews wrote of the land that had been wasted through legal fraud and careless timbering practices, but nothing came of these efforts. In 1882 Andrews continued the crusade by reading a paper to the National Forestry Congress on "The Necessity for a Forestry School in the United States." [42]

For the next 20 years Andrews published various articles on the prevention of forest fires and the need for the establishment of conservation practices. In 1895 Andrews was appointed the state's Chief Fire Warden, a position from which Andrews relentlessly appealed for a system of Forest Reserves in Minnesota. Finally, on June 27, 1902, a 225,000 acre Forest Reserve was established which eventually became the Chippewa National Forest. After this success in the upper Mississippi River country, Andrews turned his attention to promoting Forest Reserves in what is now largely the Boundary Waters Canoe Area of the Superior National Forest. [43]

Although Andrews had acquired a national reputation as a lecturer on forestry topics and as a promoter for state and federal forests, Minnesota lands were not being offered for ownership. The farmer oriented legislature were intent on clearing trees for more farms. "In most cases county commissioners would not even turn over long tax delinquent lands for forestry." [44] Consequently, Andrews appealed for 500,000 acres from the public lands which yet remained in Cook and Lake Counties. This withdrawal of land from private acquisition was approved in 1902. In 1905 a second withdrawal of land was accomplished, covering 141,000 acres in the Lac LaCroix-Crooked Lake area, on the Canadian border. Another 518,700 acres were withdrawn from land entry in 1908. [45]

Through the efforts of Andrews and a growing number of Minnesotans, the Superior National Forest, consisting of 1,018,638 acres was finally created by President Theodore Roosevelt on February 13, 1909. All of the lands were legally appropriated from public land. [46] Just prior to this National Forest proclamation, another 1.2 million acres along the International Border were established as a game refuge by the Minnesota Game and Fish Commission. Andrews had been promoting the idea of an international park along the border for several years. His efforts were to realize fruition very quickly. Within the next two months after the creation of the Superior National Forest and the Superior Refuge, the Quetico Forest Reserve in Canada was also established. All agreed to keep the entire area in "a state of nature as far as that is possible." [47]

The Superior National Forest acreage was expanded in 1912 and again in 1927. In 1936, President Franklin D. Roosevelt approved the addition of 1,215,000 acres to the Superior and declared the Mesaba Purchase Unit a part of the Forest. In the early 1960's President John F. Kennedy approved the addition of another 136,777 acres and provided for a major retraction of purchase unit boundaries. In 1966 the total area administered by the Forest Service was 2,137,942 acres. [48]

Boundary Waters Canoe Area

Contrary to popular belief the Boundary Waters Canoe Area (BWCA), was not created from a natural wilderness. As early as World War I, much of the BWCA had been either burned or cut-over. This resulted in a forest growth of jack pine, spruce, balsam, and aspen rather than the earlier stands of red and white pine and white spruce. [49]

The years after World War I saw a great increase in recreation visitors to the Superior National Forest. Automobile transportation, the development of highway systems, and a stimulated

interest in outdoor life accounted for more than 12,000 visitors to the Superior in 1919. This marked the beginning, however, of two decades of controversy over the Forest's use and management. By 1922, it was apparent to many, including Arthur H. Carhart, a Forest Service landscape architect, that there would have to be balances struck between several Forest uses in the Superior: the production of timber, the generation of hydropower, and the aesthetic enjoyment of tourists and sports enthusiasts. As a consequence of such farsightedness, the shorelines of the BWCA have been legally guarded and kept in their natural state from as early as 1926.

The Boundary Waters Canoe Area has been the focus of many intense debates between a variety of interests: Congress, the state of Minnesota, the Forest Service, land developers, industrialists, conservationists, loggers, resort operators, outfitters, sportsmen, and most recently, snowmobilers to name just a few. The story of this area is one of the most lively and instructive of all in the history of the Eastern Region.

Huron National Forest

The forests which originally grew on the Michigan land now known as the Huron National Forest were also first inhabited by the Ojibwa Indians. One of the Forest Districts, Tawas, is named for a Ojibwa chief, O-Ta-Was, with whom some of the early fur traders bartered. The region was first settled by Europeans in the 1850's. In 1854, H.C. Whittemore settled his home in Tawas City, with an objective making lumber from the extensive forest of white pine. All of the earliest towns of the region, until the 1870's, originated as lumber camps. The largest mills operating were S. & C. D. Hale, C. H. Whittemore, East Tawas Mill Co., Iosco Mills, Adamas Swanery Co., and Orlando Newman Co. In 1890 each of these mills sawed between 1 million and 8.5 million board feet of lumber. In addition, vast cuttings of unsawn logs were floated down the rivers to mills at Tonawanda and Buffalo, N.Y. "It has been stated that half the houses in Buffalo are made of lumber from the Huron National Forest vicinity." [50] Railroads were built in the 1870's, which facilitated larger timber harvesting, until the 1920's when the supply of timber and agricultural products had nearly run out.

During the years of the most intensive logging, 1890-1905, the streams and rivers of the area were decimated by the log rafting. Fires destroyed many of the slash areas as well as uncut land. Furthermore, because of the soil and climate conditions, much of the farm land reverted to the State through delinquent taxes. Beginning in the early 1900's, efforts were begun by interested groups and citizens to protect the forests and to regenerate the barren lands. The Huron National Forest, which was first known as the Michigan National Forest, was created largely out of public domain land. [51]

On February 11, 1909 Theodore Roosevelt officially proclaimed the creation of the Michigan National Forest. During 1927 and 1928, about 60,000 acres were bought, another 15,000 secured by exchange, and still further blocks totaling 76,000 acres were in the process of being negotiated for acquisition from the state. On July 30, 1928, the name of the Forest was changed from Michigan to Huron. The Huron's headquarters were at Oscoda, Michigan until 1911 when a fire wiped out the office, and East Tawas became the home of the Supervisor's Office. [52]

On July 11 and 12, 1911 a fire began in brush just outside the towns of AuSable and Oscoda. A strong shifting wind carried the fire through the towns causing $10 million in property loss. According to Forest Service personnel, no records exist of any fires which destroyed much mature

timber in the Huron vicinity. However, slash fires which followed the logging crews occurred repeatedly and are responsible for the scarcity of timber except jack pine. Between 1913 and 1927, an average of 5,396 acres of cut-over land burned annually. By 1945, eight fire towers had been built in the Huron. Organized fire control techniques greatly decreased the average number of fires per year. From 1928-1944 an average of only 915 acres of the Huron burned each year. [53]

The Huron had small tree nurseries on it as early as 1910 in accordance with the early policy of managing a nursery at each Ranger Station. [54] Jack pine proved to be the most suitable planting stock. Today the forests are covered by mostly 20 to 60 year old trees. The many acres of pine and other trees planted by the CCC are now productive forests. [55]

Economic and Demographic Effects of National Forests

Most of the lands brought into the National Forest System of both Regions 7 and 9 during this period were severely abused and wasted. These once-forested areas were never prime agricultural land. After the forests were harvested, little was left to support an agricultural economy, and there were no other industries to sustain a growing population. The logging camps, mill towns, railroad towns, county seats, and trade centers declined steadily. The population declined, and permanent depression set in. A sparse population of hand loggers, marginal farmers, small merchants, and others who provided goods and services hung on, probably because they owned property and had no where else to go. [56]

An area such as the one just described was a suitable candidate to be a Forest Service Purchase Unit. Landowners who thought their land was worthless now had a buyer at a fair price. In the time-honored tradition of the American frontier and their grandfathers, they could now "pull up stakes," leave the land they had exhausted, and move on to new opportunities. Even though the purchase by the government of exhausted land in a given area might have been a blessing at the time, it was not a long-range cure for an ailing local economy. New jobs would be created by the Forest Service, but these people would be engaged in rebuilding the forests and the soils, and it would be a long time before the logging industry would again be viable in the area. Meantime, much of the land, up to half in some areas, would now be in government hands. It would be taken out of private production, off the tax rolls, and would no longer be available for people to live on.

In effect, the areas administered by the Forest Service were taken back in history. They were "de-developed," to coin a word, and although they might have an economic future, development would have to be more gradual and diverse than before. The role of the Forest Service and National Forest management in the redevelopment of local economies was a long term goal. The first job of the Service in such areas was to regenerate the forests and protect the land and wildlife. Certainly the Service wanted to help the local economies and people and, in the long run, it probably did, but the fundamental responsibility was to restore the lost forests of the entire nation.

Fire Control

Part of the motivation to establish the National Forests in Lake States Region had been to prevent the kind of forest fires which had occurred in 1910 and had cost many lives. The disaster was of such magnitude that action by the federal government was clearly indicated. Although the

action would have to be taken with the cooperation of the states, the states would have to be helped in developing fire protection programs and provide minimum standards of operation. There was also the problem of fire prevention and suppression on the National Forests. This was clearly the job of the Forest Service. Over a period of decades a comprehensive program for fire control in the United States did emerge. Also emerging in 1950 was Smokey Bear, probably the most widely recognized program symbol in the country.

Region 9's Place in the National Forest System

From its earliest beginnings in 1908 with the creation of the Minnesota (Chippewa) National Forest, Region 9, had grown in size and importance. By the time of World War II, it was clear that the Region had taken its rightful place among the Regions of the Forest Service. It was leading the way in improving forestry and fire protection practices in the Lake States and in restoring cut-over and abandoned lands.

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CHAPTER VI

THE GREAT DEPRESSION AND NEW DIRECTIONS

The Great Depression with all of its tragic consequences hit rural America quickly after the stock market crash of late October 1929. Rural areas, which had not really shared in the high-flying prosperity of the 1920's, now found themselves in deep depression. Farmers, who were already in a recession caused by overproduction and low prices, were now faced with mortgages they could not hope to pay and farm prices which were less than the cost of production. The lumber industry suffered the same woes. Mining, particularly coal, had gone into a depression in the mid-1920's because of declining use of coal and overproduction. When the Great Depression struck, many coal towns in Pennsylvania, West Virginia, and Illinois became what the New Dealers euphemistically called "stranded." Things were so bad that there were no jobs and nowhere else to go. In some of the coal counties of southern Illinois unemployment reached 75%. [1]

The impact on local communities and economies was disastrous. Banks closed and depositors could not withdraw their money. City and county governments could not meet their obligations because people could no longer pay their taxes. School districts paid their teachers in script and postdated warrants. Business failures and farm foreclosures were the order of the day, and a whole new class had been created in the country—the new poor.

The coming of the Great Depression changed America's way of thinking. The people had to come face to face with harsh realities. Politicians and intellectuals alike had to recognize that America was no longer the promised land and that something had to be done immediately about the problems of unemployment, business collapse, hunger, and poverty.

Naturally, in the atmosphere of desperation and disillusionment of the 1930's, political leaders had to offer new reforms, not only to help those who could not help themselves, but to remake the old system so that such a depression would never happen again. The New Deal of President Franklin D. Roosevelt, which began with the Hundred Days Legislation of early 1933, set the nation on a new course toward federal responsibility for the economy and the welfare of the citizens.

Some of the most important reforms of the New Deal came in agriculture, and several of them had an impact on the Forest Service and the National Forest System. A series of Agricultural Adjustment and Soil Conservation Acts passed in the New Deal years were aimed at eliminating agricultural overproduction by drastically reducing farm acreage in production. Farmers contracted to not cultivate up to 40% of their land, and these Agricultural Adjustment Act (AAA) programs, combined with price supports, saved many farmers from failure and foreclosure and kept much farm land in production. [2]

While the AAA programs had little direct effect on the National Forest System, several other New Deal programs certainly carried secondary implications. The Norris-Doxey Cooperative Farm Forestry Act of 1937 provided technical aid to farmers to manage their woodlands. [3] The Bankhead-Jones Farm Tenant Act of the same year, with its primary goal of alleviating farm tenancy, began

several new programs which allowed the federal government to acquire wasted lands, some of which ended up in National Forests. [4]

The Resettlement Administration had a program of relocation and land acquisition which began in 1935 and continued under the Farm Security Administration (FSA) after 1937. [5] A 1937 report by Chequamegon National Forest Supervisor, Chester L. Van Giesen, explained the predicament of numerous families, particularly in Bayfield County, Wisconsin, trying to farm sub-marginal farm lands. As their farms were purchased by the Farm Security Administration and the Forest Service, the families were moved to an 800 acre site near Drummond, Wisconsin, where they received individual 20 acre farms. The farms had homes, barns, garages, running water, and baths. The plan was to provide the men part-time forest work on a permanent basis. This stable, trained work force would aid the Forest Service, by working 180 days in various jobs. But the lure of better jobs or the draft of World War II brought an end to this resettlement community. [6]

The FSA had a land program that worked in conjunction with the Forest Service, exchanging lands back and forth to meet the needs of the two federal agencies. In some of the same ways, the Federal Emergency Relief Administration had land programs which allowed destitute farmers to take up subsistence homesteads on government land. These programs eventually led to exchanges of land with the Forest Service. [7]

There were two New Deal programs which dealt directly with the National Forest System, both of which began in 1933. One was the Civilian Conservation Corps (CCC), which will be discussed in Chapter VIII. The other was a far-reaching expansion of the National Forest System, especially in the East. This momentous policy change was given its direction by "National Plan for American Forestry," a master plan developed by the Forest Service and submitted to Congress as an Omnibus Forestry Bill. Even though the Washington Office staff and leaders of the Forest Service did everything they legitimately could to encourage its passage, the Plan never made it through Congress. It was, nevertheless, a profoundly influential document in the Forest Service for years to come. [8]

The Plan had two goals: a large extension of public ownership of forest lands and more intensive management on all forest lands. [9] When these general principles became firmly fixed in Forest Service thinking, the wheels were set in motion for the creation of eight new National Forests in the Region. Since the new land acquisition program was directly connected to the land ownership problems of the Great Depression, the Forest Service became part of a major New Deal effort to aid American farmers.

The hope was that the purchase of submarginal land by the Forest Service and other government agencies would put money in the hands of farmers so they could survive the Depression. In the process, the Forest Service now found itself dealing with a whole new class of people. Instead of large landowners such as lumber companies and railroads, it was now dealing with distressed and bankrupt farmers, tenants, and squatters. The Service was now involved in a completely new role—one of trying to help solve the social and economic problems of the individual landowners of the most depressed areas of the country.

When the Forest Service began acquiring land that had once been in private hands, it faced a new kind of land management problem. Formerly, most National Forests had been created out of government owned land or wasted and cut-over land purchased from lumber companies, large private owners and land jobbers. Now the Depression had created a new situation. Because of the

agricultural depression, land was so cheap to buy that the government could purchase small tracts, in effect the farms of failed farmers, if such lands qualified under the Weeks and Clarke-McNary Acts.

Tragically, the Great Depression had brought an agricultural disaster never before seen. By 1930 or 1931, many farmers who once had been reasonably successful were facing ruin. Debts for operating expenses, new equipment, and expansion made in the 1920's were now insurmountable. Throughout rural America, the story was the same: hundreds of thousands of farmers losing their farms and falling into tenancy, sharecropping, or being completely displaced from the land. The situation was particularly bad for upland farmers whose lands were less productive. Government benefits from the AAA programs were based on previous production, so upland farmers received less help than bottom land and prairie farmers. [10]

In many of the upland areas such as the Ozark Highlands of southern Missouri, the Green Mountains of Vermont, and the hill country of southern Illinois and Indiana, farmers and other landowners lost their lands to banks and mortgage companies in wholesale amounts. Often, the land became so worthless on the local market that the owners did not pay the minimal local taxes, and large tracts of land could be purchased from the counties. The Depression was so severe in many parts of Regions 7 and 9, that literally millions of acres could easily be bought at prices from two to five dollars per acre. [11]

This situation was in the minds of those who formulated the plans for development of new National Forests in the areas where so much inexpensive land was available. For Congress, the land purchases were more of an anti-depression measure. For the Roosevelt Administration, the purchases were a visible sign of its willingness to help the "forgotten man". For the leaders of the Forest Service, land purchases were a golden opportunity. Chief Ferdinand L. Silcox exhorted the Service Committee and indeed the entire Service to make an extraordinary effort to take advantage of the situation. If ever there was time to act to complete the National Forest System, it was now. [12]

Regional Forester Joseph C. Kircher took up the cause immediately. In the *Courier*, he pointed out that the Forest Service and Region 7 were both growing rapidly during this eventful period. On October 30, 1933, an additional 823,737 acres of forest land was acquired by the Region, bringing the net acreage of the Region to 6,528,851. This was an increase in size of 22% in six months, yet the Regional Forester predicted that the growth would be even faster in the next six months if the Region lived up to his expectations. He believed that the Region should be at 10 million acres by July of the coming year. Such growth would not simply happen. It would require "a lot of hustling and a lot of teamwork." The Region would have to become "acquisition minded." Kircher told the Region: "It is a golden opportunity to consolidate, to build up real National Forests. It cannot be done from my office, nor can the special acquisition men do all of it. It is a job for every one of us, and the administrative men who have most to gain should be active in this field."

To illustrate the full extent of the opportunity, the Regional Forester pointed out that there was, "enough money" to create better National Forests and to develop those already established. Also, the CCC was available to do the needed work and the Roosevelt Administration strongly supported the effort. "Never before," said Kircher, "have we had a better chance for public service, and I know we are grasping it." [13] Subsequently, as a reaction to the agricultural depression and not as a conscious decision to do so by Congress or the architects of the New Deal, the federal government entered a massive program of buying land as a relief and conservation measure.

Regional Forester Kircher had been right. It was a golden opportunity for the Forest Service. It is altogether possible that without the Great Depression, many National Forests would never have been created and millions and millions of acres of land would have remained in private hands to this day.

To understand the anti-Depression motivations of the government, it is necessary to look into the economics of the Great Depression. The most serious problem of the time was a critical shortage of money, not only in the general economy but in local economies. The New Deal solution for this problem was injection of money into the economies by various emergency relief measures. Forest Service purchase of land from distressed farmers would, so the theory went, not only put money in the hands of consumers but also provide money to circulate in local economies. An extension of the same argument was used to justify the creation of new National Forests. This would not only put money into circulation through the purchase of land but would create jobs and, in the long run, broaden the economic base by restoring the timber resource.

Depression Purchase Units

Throughout all of the purchase procedure and in the assumption of control, no coercion was used by the Forest Service. The policy was always to find willing sellers. The "power of condemnation" was never exercised. There were, expectably, some mishandlings and injustices as there always are in such massive operations.

Because they were now buying land from smaller landowners, the purchase agents were not able to put together large, solid blocks of land. Instead, the purchase units of this period looked like crazy quilts. Often, the government was able to acquire no more than half of the land in a purchase unit. The problem here was that although farmers and landowners were depressed, they had not lost their senses. They tended to sell to the government the less productive land and keep for themselves the better land. Government land purchases were an opportunity for landowners to sell their less productive lands. In addition, quite a few landowners had the foresight to retain the mineral rights to the land they sold. Unfortunately for the future management of these lands, the Forest Service was under such pressure to buy land that it purchased surface without mineral rights.

Resigned to the reality that they could not acquire large blocks of land without private owners retaining some of the land, the National Forest managers had to strive for ownership patterns which protected the Forest resources, permitted reasonable public recreational use, and was, at the same time, efficiently manageable. Since a large part of the land within a National Forest (often as much as half) was still being used for some private purpose, whether agricultural or recreational, the Forest Service had to be concerned with how its management of the land affected the private owners and the local economies, including the communities within or near the National Forest. It soon became clear that federal ownership could not be a static condition and it would have to adjust to changing regional social and economic needs. What the Forest Service prefers to call "land ownership adjustment" was, and is, a never-ending process. [14]

Managing the Depression Forests

A new management problem the Forest Service now faced was dealing with the people who were left on the land after the government had bought it. They could be the actual landowners who

had sold in desperation but who really had no place else to go. They also could be tenants on the land who had no part in the sale but had lost tenure on the land by the sale. They could even be squatters who had no legal rights at all but who also had no place else to go. The Forest Service had to deal carefully with these situations. The Service could not afford to be in the position of forcibly evicting families from the land and turning them out into the nearly hopeless economy. A group of evicted tenant farmers in the Missouri Bootheel staged a demonstration by camping along a federal highway in 1937. They attracted enough national attention that the Roosevelt Administration was forced to act. The New Deal was sympathetic to those the liberal press called "the disinherited" and the leaders of the Forest Service had enough political awareness to position the Service accordingly.

The most sensitive cases dealt with tenants and squatters. The Forest Service needed great patience and forbearance with some of these cases, and occasionally the situation required a certain amount of courage on the part of field personnel. When the Forest Service purchased large tracts of land from timber companies, as was the case in the Mark Twain National Forest, there were often squatters who had lived on the land for years, even generations. If they were old, they were often allowed to live out their lives on the land as tenants with the understanding that when they died their cabins would be razed. If the family was younger, they were offered temporary permits. In some rare instances where the land was still suitable for farming, the Forest Service constructed new houses, out buildings, and outdoor privies. In the Ozarks of the 1930's, privies were considered a new fangled luxury by many rural people.

Most of the land acquired by purchase was too exhausted or cut-over to be used for farming, so the District Rangers had to try to move the squatters off the land or place them under permit. Either way, the squatters looked upon it as unwarranted government interference in their lives. [15] It was not unheard of for a squatter or tenant to meet the threat of eviction with a rifle in his hand. Even a visit by Forest Service personnel could evoke a violent response. To ease the transition from private to public land and the squatter-tenant problems, the Forest Service developed a policy that was lenient toward people still occupying the land. In effect, the Service became a landlord by granting to such people special use permits, sometimes for the payment of a small fee and sometimes free. In 1934, the Service established a policy that anyone could continue to occupy National Forest land by obtaining a special use permit and paying a fee, usually slightly less than the taxes would have been if they were still being paid. Even with this liberal policy there were problems. As landlord, the Forest Service now had to make the tenants obey rules and regulations intended to control timber cutting, prevent fires, and dispose of trash. Former landowners who had always decided such things themselves resented these controls. [16]

After several years of dealing with squatter-tenant problems, Region 7 had not handled matters to the complete satisfaction of two Washington Office inspectors. The inspectors visited the George Washington and Jefferson National Forest in Virginia and became concerned that Region 7 was "not doing enough" for the poverty-stricken Appalachian people who had sold their land to the Forest Service and still remained on it as tenants. On these two National Forests, the inspectors thought Region 7 had done too much in developing recreational resources. They seemed to believe that a better balance should be struck between these expenditures and money spent on upgrading the property occupied by tenants. [17]

Impact on Local Economies

The conversion of close to 500,000 acres of agricultural and timber land into National Forests had important effects on the local economies. There was fear in some localities that the coming of federal management would bring new controls on the lives of locals and limit their use of the woods. There were local organizations which resisted the change, but there were also local civic and political groups which encouraged it. One problem which emerged was the decline in tax collections by counties which had thousands of acres of land taken off their tax rolls when the federal government purchased it. [18]

There were also new types of problems in dealing with the small landowners who were left as in-holders within the National Forests. Their boundaries and acreage were not known exactly and often had to be surveyed. Occasionally, there were law suits which had to be settled in court. Land title problems were complex for lands which had been patented as many as 200 years earlier. Often, the property had changed hands many times over the years, and each transaction had to be verifiable in court or else the title was not clear. [19]

Forest game management in the new National Forest areas was an immediate problem. Since frontier times, local people had hunted and fished freely in certain areas which were now in the National Forests. Now, to hunt and fish legally, they had to obtain state licenses and were sometimes restricted from hunting in wildlife reserves. Where there were Indians in the locality or where Indian lands were involved in the creation of the National Forest, as was the case on the Chippewa National Forest, there were special treaty rights problems. [20]

In 1940, the Manistee National Forest conducted a study to determine the effects on the local economy of "woods work," that is, the manufacture and distribution of forest products, and work relief in the forest such as CCC and WPA. Also included in the study were people living within the boundaries of the Manistee who were on relief. The study, as reported by Supervisor Wellington I. "Bob" White, found that 6,000 residents of the Manistee were dependent on woods work for their livelihood. It also showed that agriculture and industry supported only 60% of the Manistee's total population of about 15,000 people. Of the 3,147 families living on farms within the Forest, only 1,392, or 44% gained their primary living from farming. Of the others, 27% obtained part of their living from agriculture, and 29% received no appreciable support from their farms and were therefore dependent on forest work or relief.

The Manistee study attempted to determine why farm families were living on the farm but not really farming it and concluded that these were farms where the land was so poor that no living could be made from it in the depressed agricultural economy of 1940. The report concluded that if all of the poor land not being farmed could be planted to trees, either by individuals or by the state, local, or federal government, the tree crop would eventually provide a local living for a great many more people and reduce the relief load in the area. [21]

The New Forest Ranger

The role of Forest Ranger in the Eastern Region evolved into something quite different from his or her western counterpart. In the Eastern Region, Rangers were more likely to live in the very communities which were most affected by the National Forest instead of in Ranger compounds as

was the practice in the West. As a result, eastern Rangers became more involved in their communities and more visible to the public. They had new types of problems to face—those of acquisition, boundary, mineral rights, tenants, wildlife restoration, and intentional fire setting by locals. In addition, timber thievery was more common and easier to do in the Eastern Region because of the patchwork pattern of ownership. In general, the new breed of Forest Ranger in the Eastern Region spent less time riding the range and more time in the office doing paperwork and dealing with people. The Ranger's basic responsibilities remained the same, but the way of going about the job had changed. [22]

Even if the role of Forest Ranger had become a bit more prosaic, the Forest Service still had a romantic image with the public. One sign of this was a letter written in 1940 by Bill Wood, a 14 year old boy of Peoria, Illinois, who wrote to Region 9 asking for authority to form a junior version of the Forest Service. The new organization would be made up of boys clad in forest green uniforms and meeting regularly at a public recreation center. There would be two categories of members—12 to 16 year olds and 9 to 12 year old boys. Young Bill asked also for a book from the Forest Service which would explain what the Forest Service did. "I have decided," he wrote, "with the help of our board of directors, that this book should be studied and learned enough to pass a test on it." Regional Forester Jay H. Price answered that he had no authority to authorize a new branch of the Forest Service, but he did not want to discourage young Bill and his efforts. He offered his help in any way possible, and he immediately sent the books which Bill had requested. [23]

A good example of a role model for the new Forest Ranger in the East was Jack Horner, the District Ranger for the Washburn District, Chequamegon National Forest. Horner, whose curious name was enough to attract attention, carried on a steady campaign to improve relations between the Forest Service and the local community. He wrote a series of articles for the Daily Press of Ashland, Wisconsin, entitled "Beauties of Our U.S. Forest Areas." While the articles could certainly pass for good nature writing, they also did much to explain what the Forest Service had done in the past and aimed to do in the future. [24]

Among Ranger Horner's other tactics were organizing tours for local leaders and newspaper editors and speaking at service clubs. After getting Horner's treatment, one editor wrote the following: "Northern Wisconsin is most fortunate that the U.S. Forestry Department is on the job. Not only do they replant trees in a gigantic reforestation project, they prevent forest fires and quench them when they do start. They improve beauty spots, make safe, comfortable, all weather roads from one beauty spot to another. We take our hats off to that governmental department so well represented locally by Jack Horner." [25]

Sometimes a little good humor would go a long way toward solving the problems of dealing with local people. J. P. Campbell, editor of the *Prospect News* of Doniphan, Missouri, had been an ardent critic in his editorials of the Forest Service and many of the actions of the Clark National Forest, currently the Mark Twain National Forest. Campbell was also a leader of a group of residents of the Fristoe Ranger District who had organized to bring a grievance against the Forest Service for the inauguration of a range management program on the Clark.

One Sunday in 1940, while hiking in the Clark, Campbell came upon a lookout tower and decided to climb it. When he reached the top, he found a young man named Ed Cunningham, the Towerman, who showed him the sights. Before Campbell left, Cunningham asked him to sign the guest book which he kept because he had so many visitors on Sundays. He then gave Campbell a

card and a certificate which made him an official member of the "Ancient and Honorable Order of Squirrels." The certificate like the whole Squirrel Order, was Cunningham's own invention. It read as follows: "This certifies that on May 30, 1940 Mr. J. P. Campbell climbed the Briar Lookout Tower guarding the Clark National Forest against fire. He is therefore recognized as a member of the Ancient and Honorable Order of Squirrels." (signed) Cunningham, E. Towerman. In signing as a member of the Order of Squirrels, Campbell pledged to "be careful for the fire in the woods as I work, as I walk, as I ride." The pledge ended with, "As I so subscribe, I am therefore a squirrel." Campbell was so amused by all of this that he published an account of it in his newspaper, including the Squirrel Pledge. He remarked that his attitude toward the Forest Service had been greatly improved by the experience, and his criticism was thereafter considerably blunted. [26] The cards were still being issued as late as 1970.

Forest Histories

The National Forests created under the special conditions of the Great Depression in the Lake States Region, (Region 9) and which came to be a part of the new Eastern Region, (Region 9) were as follows: the Ottawa, Green Mountain, Nicolet, Chequamegon, Wayne-Hoosier, Manistee, Shawnee, Mark Twain and Clark.

Ottawa National Forest

The Ottawa National Forest lies between Lake Superior and Lake Michigan, which were known to the Native Americans of the region as "gitche guam" and "mitche guam," big waters and small waters. [27] One of three National Forests in Michigan, the Ottawa was established in 1931 out of the Keweenaw Purchase Unit administered from Munising, Michigan. Munising was the headquarters for the Michigan National Forest which had been established in 1909. Between 1924 and 1928, W. W. Ashe from the Chief's Office had made general reconnaissances of the Lake States area for additional lands suitable for National Forest purchase. By 1928 enough prospective acreage was found, mainly in Houghton and Iron Counties located in the far western portion of the Upper Peninsula, to establish the Keweenaw Purchase Unit. [28]

Much of this land was bought from timber companies who were eager to sell. Even before the Keweenaw Purchase Unit was approved by President Herbert C. Hoover, the Forest Service received from the Von Platen-Fox Company an offer to sell approximately 35,000 acres for $1.50 an acre. The same price was asked for 12,000 acres offered by the Weidman Lumber Company. [29]

Between 1928 and 1931, some 80,000 acres were acquired for the Keweenaw, comprising mostly cut-over and burned lands. In May of 1930 the Chief's Office suggested the possibility of proclaiming the three Purchase Units: the Marquette, Mackinac, and Keweenaw, separate Forests and solicited suggestions for names. The proposed names were: Hiawatha, Ojibwa, De Soto, and the favorite, Ottawa. The Ottawa were an Algonquian tribe who in the preceding century had been pushed north by the Iroquois.

Establishment of the three National Forests came about only through the cooperative effort of the Forest Service and the citizens of the Upper Peninsula Development Board, particularly George E. Bishop. [30] The dedication of the three forests: the Marquette, Hiawatha and Ottawa, took

place on September 20 and 21, 1931. By this time the Forest occupied land in four Michigan counties: Ontonagon, Houghton, Gogebic, and Iron. Two huge land additions were made in 1933, totaling 464,500 acres in the original four counties and Baraga County. [31] Active promoters of these additions were Ex-Congressman Frank E. Hook of Ironwood; W. C. Janson, former editor of the *Daily Globe*; Donald R. Cotton, a large landowner of the Lake Gogebic area; and Linwood I. Noyes of Ironwood and publisher of the *Daily Globe*. [32]

An additional million acres were proposed to the National Forest Reservation Commission for approval as the Lake Gogebic Unit in 1935. Regional Forester Earl W. Tinker argued before the Commission for the establishment of this purchase area, informing them that it was the necessary step to halting the process of "economic desperation." Tinker explained that the 20,000 inhabitants who were dependent on wood-using industries would join the half of the population already on relief rolls if sustained yield management of the Forest was not enacted quickly. Even those land owners who practice sustained yield forestry programs, Tinker argued, were in dire straits financially because their larger trees were taxed as virgin timber, a situation they could not afford. After some further discussion of the proposed costs of purchases in the Lake Gogebic Unit (between $9 and $10 million), the motion was carried to approve its establishment. [33] This area was included in the Ottawa National Forest in 1935.

Also in 1935 the James W. Toumey Nursery was established at Watersmeet. Toumey was Professor of Forestry at Yale University. In 1981 the Toumey Nursery furnished seedlings to the Ottawa, Hiawatha, and Huron-Manistee National Forests in Michigan, the Nicolet and Chequamegon in Wisconsin, and the Superior and Chippewa in Minnesota. The Ottawa National Forest is unique in that it is the only National Forest with a Great Lakes harbor—Black River Harbor on Lake Superior. The Sylvania Recreation Area, purchased in 1966, is another outstanding asset of this National Forest. This beautiful 20,626 acre area is comprised of hardwoods. [34]

Green Mountain National Forest

The Green Mountain National Forest runs north and south in south-central Vermont, enclosing the rocky backbone of the Green Mountains. When settlers first arrived in Vermont, the entire landscape was covered with trees—huge, 250 feet tall trees, great white pines, as well as fir, spruce, hemlock, beech, birch, maple, oak and ash. The largest straightest pines, those up to five feet in diameter, were harvested and carried to England to be used by the Royal Navy of Great Britain for ship masts.

After the Revolution, Americans needed wood of all kinds for boats, wagons, tools, containers, fences, charcoal, and fuel. As the population increased, the loggers went higher up Vermont's mountain slopes. A century ago "the port of Burlington was third in the entire nation as a wholesale lumber market." It has been stated by some that nowhere were forests removed and soils exhausted faster than on the flanks of the Green Mountains. [35]

One famous Vermonter who had enough insight to recognize the danger and also had the courage and eloquence to write well about it was George Perkins Marsh. His Man in Nature, published in 1864 was an indictment of America's greedy and wasteful habits. Although the book was an international best seller, and Marsh's voice was as true and commanding as any ever was heard on the subject, alone it was not enough.

Other Vermonters, Joseph Battell and Marshall J. Hapgood, appealed to the state legislature and the Theodore Roosevelt Administration. Battell is quoted as saying, "Buy up the mountaintops before they're skinned alive." [36] U.S. Senator Redfield Proctor, R-VT., became an ally to the conservation cause, having himself hiked the Vermont woodlands. Proctor was one of the Congressmen who in 1905 proposed the transfer of Forest Reserves to the Department of Agriculture, the first step in the creation of the Forest Service.

The Vermont Legislature had passed its own act in 1909, creating the position of State Forester, and allowing for the purchase of state forests. But the act neglected to allocate the necessary funds for land purchasing. In 1925 Vermont finally turned to the federal government to establish a National Forest in their state. But not until a disaster with severe economic consequences were the conservationists' voices finally heard. In November 1927, great rains on barren hillsides flooded into the rivers, sweeping away roads, bridges, and whole towns. The flood cost the state more than $35 million. This was an incredible amount for 1927 and a price that finally could be translated in terms that no one could dismiss easily—$100 per Vermonter. [37]

The few voices became a general clamor, and a year later in December 1928, the National Forest Reservation Commission authorized a National Forest in Vermont. The initial tract of 1,842 acres near Peru, was purchased from the estate of Marshall J. Hapgood. By the end of 1931 an area of 89,400 acres comprised the Green Mountain Purchase Unit. On April 25, 1932 the Green Mountain National Forest was created, but actually consisted of only about 32,000 acres. During the Depression many small landowners were eager to sell, the average purchase price being $11.02 per acre. A number of large landowners sold land as well, including the International Paper Company, the Emporium Forestry Company, and the Bellows Falls Ice Company. Several large tracts came from individuals such as Silas Griffith and Peggy Beckwith. [38]

In its earliest years, the Green Mountain National Forest shared headquarters with its older sister, the White Mountain National Forest (established in 1918 in Laconia, New Hampshire). In 1935, the Green Mountain staff moved into an independent office in Rutland, Vermont where it has remained ever since. In 1937 Franklin D. Roosevelt approved another area of 580,520 acres for inclusion in the Forest. This land embraced the present Middlebury and Rochester Ranger Districts.[39]

During the Depression there were four CCC camps on the Forest—at Danby, Peru, Rochester, and Weston. The CCC used the local men as foremen of work crews which built roads, maintained the Long Trail, laid out ski trails at Breadloaf and Bromley, and improved timber stands and stream flow. They built the Greendale Recreation Area north of Weston, the White Rocks Picnic Area east of Wallingford, and the picnic areas at Texas Falls and Hapgood Pond.

When the Hapgood Pond was completed in 1936, a Vermont writer, Vrest Orton, related in a newspaper column the CCC improvements done on this small relatively unused weedy site. He described the building of a dam to raise the water level, the sand and gravel brought in, the bath house and pavilion that were built. As a result, he wrote, "the people of Vermont now have a lovely pond and beach surrounded by well-kept green slopes in the midst of a beautiful forest." Orton then asks in his column a question many were smart enough to ask during and since the CCC years: "what kind of place would this little pond have been had some promoter bought it, sold out concessions and opened the place for profit?" [40] If any one person can be attributed to establishing the Green Mountain National Forest, it should be Gerald S. Wheeler. Gerald S. Wheeler was

instrumental in the development of Hapgood Pond. Today the Green Mountain National Forest embraces 630,000 acres, less than half under federal ownership. [41]

Nicolet National Forest

The Nicolet National Forest in northeastern Wisconsin is named for a brave and intelligent French explorer of the 17th century, Jean Nicolet. Nicolet first came to America at age 20 with Samuel D. Champlain. These Frenchmen found several tribes settled in northern Wisconsin: Chippewas, Potawatomies, Menominees, and Brothertons. Nicolet made a peace treaty with the Winnebago Indians and eventually settled in Canada with the Nippissing tribe, learning their language and acting as interpreter for them with the French. He never learned to swim and he drowned during a storm on the St. Lawrence River.

Other explorers, fur traders, and eventually settlers claimed Wisconsin land, either killing or driving most of the Indians westward. The French and Indian War and the War of 1812 finally established the area as a territory of the United States. It was a land rich in quality furs: bear, wolf, beaver, otter, fisher, marten, and mink. Within a short time, however, the fur-bearing animals had nearly been hunted to extinction. Next to be extracted was the timber. "By 1866, all the pine timber located close to streams and lakes had been cut." [42]

Railroad companies laid tracks through the middle of the present-day Nicolet National Forest to haul out the huge loads of logs and lumber. The lumber was cut at the mill towns which developed along the tracks. By the last decades of the 1800's, all the principal rivers and tributaries draining the current Nicolet Forest area were filled each spring with rafts of pine logs headed for the mills at Oshkosh, Oconto, Green Bay, Menominee, and Marinette. "Lumbering reached its peak in 1899, thanks to the railroads. In that year, Wisconsin produced more than three billion board feet of lumber. The timber industry continued at a high level until the early 1900's, when the great stands of pine, which many people thought were inexhaustible, disappeared." Quickly though, pulp and paper mills encouraged new, more transient sawmills to be built on the riverbanks. [43]

During the lumbering era, many logging firms operated within the boundaries of today's Nicolet National Forest. The Thunder Lake Lumber Co. headquartered at Rhinelander; the Holt Lumber Co. at Oconto; the Connor Lumber Co. at Laona; the Goodman Lumber Co. at Goodman; the Christensen Lumber Co. at Phelps; the Menominee Bay Shore Co. at Soperton; the Hiles Lumber Co. at Hiles; the Menasha Wooden Ware at Menasha; the Oconto Co. at Oconto; the Minor Brothers at Carter; the G. W. Jones Lumber Co. at Blackwell; the Siever Anderson at Mountain; and the Peter Lundquist at Mountain. [44] The Menominee Bay Shore Mill is considered one of the most destructive to have ever operated in northern Wisconsin. Its slash and burn policy left the land devastated and unsellable to prospective farmers. [45] Not only unsellable but dangerous, these vast areas of slash were an explosive timber box. It was a combination of heavy slash, drought, and windy conditions that led to the disastrous Pestigo Fire in 1871. [46]

As fires continued to periodically destroy resources and damage the land up through the 1920's, numerous land speculators began to purchase the devastated lands at very low prices from the lumber companies. They then falsely advertised plots to unwary buyers who ended up abandoning them because they could not even make enough on the land to pay taxes. The land then

fell into the hands of the county or state governments. Out of these scarred, infertile scraps of land, the Nicolet National Forest was pieced together. [47]

On December 12, 1928, the National Forest Reservation Commission approved the Oneida Purchase Unit, consisting of 151,680 acres in Oneida, Forest and Vilas counties. The first lands were purchased from the Thunder Lake Lumber Company. In 1929, a Forest Service office was organized in Park Falls. The chief duties of the Ranger and his assistants were to control fire and prevent the illegal cutting of timber on the Purchase Unit. A total of 68,000 acres was added to the Oneida Purchase Unit in 1932, and the 204,800 acre Oconto Purchase Unit was established as well. A year later, on March 2, 1933, the Oneida Unit became the Nicolet National Forest with its headquarters to be established in July of that year at Rhinelander. S. Duval Anderson was the first Supervisor of Forest Service activities in the Nicolet National Forest area, serving from 1928 to 1932. Raymond Harmon served in 1932, and Paul Wohlen in 1934.

During these first years, fire continued to be a great threat. On April 18, 1931, the town of Tipler, Wisconsin, was burned by a fire that raged with 80 mile-per-hour winds behind it. Later the same year, a fire raged at Hiles, Wisconsin. But the fighting of this fire was a turning point in Wisconsin Forest Service history. It was the first time the federal, state, and county agencies cooperated to suppress a fire and to pay the costs. This cooperation in the Depression years allowed for the regeneration of the forests in the Nicolet and throughout the Eastern Region. [48]

Chequamegon National Forest

The Chequamegon National Forest in northern Wisconsin was created by Presidential Proclamation Number 2061 on November 13, 1933. The name Chequamegon came from the Chequamegon Bay of Lake Superior, which in the Ojibwa language meant "place of shallow water" (pronounced "Sho-wah-mo-gon"). Earlier that year, when the neighboring Nicolet Forest was established, two of its original divisions, the Flambeau and Moquah Purchase Units, were transferred to the proposed Chequamegon National Forest which consisted of the Mondeau and the Chequamegon Purchase Units.

The forests that became the Chequamegon were several purchase areas that were created by the efforts of many conservation minded citizens and organizations in Wisconsin. In 1933, when the Purchase Units in the counties of Bayfield, Taylor, Ashland, Sawyer, and Price were combined, the total gross area of the proposed National Forest was 630,279. [49]

The trees in this forest were mixed hardwoods, pine, birch and spruce. The entire area had been logged for pine. Fires followed, then maple, birch, aspen, and spruce naturally restocked much of the area, but it was estimated in 1932 that at least 25,000 acres in the Mondeaux Purchase Unit of Taylor County, for example, would require replanting. Because of infertile soil and the limited growing season—under 100 days—the land was considered valueless for agricultural purposes. Tax delinquency on these tracts was so severe that the states and counties concluded that no further revenue could be obtained from taxing the land. The largest landowner of the Moquah Purchase Unit in Bayfield County was the county government. The price paid for the land did not exceed $2.00 per acre.

The planting of trees on federal lands in the area began in 1930. One local resident later remarked in a letter to the Forest Service that "it looks like the Moquah bear will soon have a place

to hide." In 1931, Regional Forester Earl W. Tinker gave the principal address at the dedication in Taylor County of the George Washington Memorial Forest, a tract of 120 acres of newly seeded Norway and white pine. The whole project is significant in that it was a cooperative project between the county, state, and the Forest Service. It was fitting that the first tree planted in this Memorial Forest was placed in the ground by E. L. Urquhurt, an 85 year old logger who had been cutting timber in Wisconsin for 50 years.

Wayne-Hoosier National Forest

The Wayne-Hoosier National Forest was a consolidated Forest created in 1951 out of Ohio's Purchase Units and Indiana's Purchase Units. Establishment of federal forest land in Ohio was considered as early as 1919 but a bill authorizing lands to be sold to the federal government was not enacted until 1934. In those difficult economic times, the Roosevelt Administration established many new purchase units and authorized additions to many others already existing. For example, at the January 21, 1935 meeting of the National Forest Reservation Commission (NFRC), 39 new units or additions, with a gross area of over 12 million acres, were approved. [50] Within a year of these large purchases, it became obvious to the NFRC that such large amounts of funds for purchasing land would not be available to them in the future. Reluctantly, in January 1936, the Commission adopted the 20% limitation rule that approval for specific purchases would not be given unless at least 20% of the total purchasable area was under federal control. This temporarily stopped most purchasing in the five Ohio units since so little land had been purchased there. In 1939 this limitation was abrogated and purchasing resumed. [51]

In 1949 the consolidation of the Ohio and Indiana Purchase Units was completed. Combining the two administrative staffs was part of an effort toward increased efficiency and cost effectiveness. Also in that year the federal government disposed of some 38,000 acres in three land utilization projects it had cooperatively administered with the Ohio Agricultural Experiment Station. The projects had been part of a Depression Era agricultural relief program which had long since ended. Some of the lands in these projects bordered the Wayne Purchase Units and were administered by the Regional Forester. In 1957 the deeds for these lands were delivered to the State's Director of Natural Resources. [52]

Another 778,279 acres of the Wayne were recommended for elimination from the legislative boundary in 1953 but no formal action has been taken. In 1962 the Forest Service actually administered 108,822 acres in the Wayne National Forest. The Wayne National Forest was named for "Mad" Anthony Wayne, a fearless American soldier chosen in 1792 to rid the Ohio and Indiana frontiers of the Indian tribes in order to open the area for American settlement.

Indiana is primarily known to Americans as an agricultural and industrial state. However, just as in Illinois, there is located in the south central part of the state a triangular-shaped unglaciated area. This area contains the most rugged topography of the state, featuring long narrow valleys up to 400 feet deep. Pioneers found the area covered with quality deciduous trees. They logged the forest, cleared the stumps, and witnessed uncontrollable fires that ravaged remaining timber. When first cultivated, the soils produced good yields, but soon overcropping and erosion had severely damaged the farm and pasture lands. In this abused state, the land was purchased by the Forest Service in 1935. These Purchase Units in the counties of Brown, Jackson, Monroe, Lawrence,

Martin, Dubois, Orange, Crawford, and Perry Counties, were declared the Hoosier National Forest in 1951. [53] The Wayne and the Hoosier were consolidated in 1951 into the Wayne-Hoosier National Forest, administered from Bedford, Indiana. (In 1994, the Forests separated into two administrative units, the Wayne National Forest and the Hoosier National Forest.)

Manistee National Forest

The Manistee National Forest was a product of the Depression Era. Funds were made available to purchase land and to establish Civilian Conservation Corps camps within the Purchase Units or Forests. The Manistee area, on the west side of Michigan, was first examined in 1933. The land acquired in the Manistee Purchase Unit included the very poorest lands which were often tax delinquent, abandoned farms, burned-over areas, logged-over areas, and sand blows. [54] From 1933 to 1939, the young men in the 25 camps on the Manistee National Forest planted trees, fought forest fires and grasshoppers, constructed roads, lodges and ski areas. The CCC essentially built the Manistee National Forest, as they did many others. [55]

In 1934 suggestions were requested for naming this new Forest in Michigan. The names, Joliet and Wolverine, were both considered, but the chosen one, Manistee, seemed to the majority the most eloquent. The major river drainage in the area is the Manistee and this portion of Michigan has become known as the Manistee River Country. The Indian meaning of the word, Manistee, is "the whispering of the wind thru the pines." [56]

On July 1, 1945, the Huron National Forest consolidated with the Manistee National Forest to form the Lower Michigan National Forest with the Supervisor's Office located at Cadillac, Michigan. In 1945 the Forest was renamed the Huron-Manistee National Forest.

Shawnee National Forest

The Shawnee National Forest, located in 10 counties across the entire width of southern Illinois, is an excellent example of a "Depression Forest." The Forest was created in 1933 when many southern Illinois communities had greater than 60% unemployment and the coal counties of Williamson and Saline had the highest unemployment rates in the country. The Shawnee National Forest was made up of abused hill land considered by most as "wasteland." [57]

Before European settlement in the last decades of the 18th century, southern Illinois was covered in timber. The forests of southern Illinois were a mixture of bottom land and upland tree species: willow, cottonwood, red and silver maple, elm, sycamore, ash, gum, pecan, black walnut, honeylocust, boxelder, catalpa, river birch, oaks of many varieties, cypress, and yellow poplar in the bottom lands. In the uplands could be found butternut, hickory, ironwood, oak, elm, hackberry, mulberry, pawpaw, sassafras, red and black gum, black cherry, honeylocust, sugar maple, buckeye, basswood, persimmon, and white ash. [58] The area was a logger's and lumber company's dream; individual acres of bottom land hardwoods yielded 25,000 board feet compared with an average bottom land forest of the state at 9,000 board feet. [59] The annual growing season in southern Illinois averages 193 days and the area enjoys approximately 41 inches of rainfall each year. [60]

This land between the rivers had been for centuries a rich hunting ground for the peaceful Illini and the Shawnee. In the early 19th century, the area still abounded in wildlife as well as huge

forests, but within 100 years of the first Europeans' settlement, the game and the forests were all but gone. Between 1880 and the 1920's, southern Illinois was at its height in the production of lumber and wood products. During those years, it held a national role in timber production, much of it distributed through the rivers out of Cairo, Illinois.

As a consequence of the reckless clearing, intensive logging, and the local practice of annually burning off the woods, southern Illinois hill-land was severely eroded or badly damaged by 1930. In 1931, the Regional Office of the Forest Service at Milwaukee sent William L. Barker, Jr. to make a report on the Illini Purchase Unit of southern Illinois. His report describes the dismal conditions he found there: "The general region has been farmed for 100 years and much of the farm soil is worn out. Many farms have been abandoned on account of worn out soil and erosion. A large percentage of these are on soil which should not have been cleared of timber. It was suitable only for tree crops. Practically the whole region has been logged from one to ten times. . . . Many abandoned farms are being reforested naturally." [61]

The *Chicago Tribune* deserves credit for being among the first to bring attention to the need for National Forests in Illinois.[62] In 1925, a National Forest, the Bellevue-Savanna, had been established in Jo Daviess and Carroll counties of northwestern Illinois. Its entire 10,710 acres was within the Savanna Proving Grounds Military Reservation and was the joint responsibility of the Secretary of War and the Secretary of Agriculture. It was abandoned as a National Forest in 1954.[63]

Civic groups, such as the Izaak Walton League, took up the cry first voiced by the *Chicago Tribune*. They were partially satisfied soon thereafter when two purchase units were established in far-southern Illinois: the Illini with a gross area of 307,840 acres in Jackson, Union, and Alexander counties, and the Shawnee with 291,392 acres in Gallatin, Saline, Pope, and Hardin counties.

The land within the Shawnee Purchase Unit, had eroded into deep gullies running into streams full of silt and debris. Only 5% of the western area was under active cultivation in 1931 and was available for procurement by the Forest Service in more consolidated larger tracts. Even though the purchase units existed, land could not be purchased until the National Forest was formally established. The Depression Era economics caused the project to remain unapproved for two years. [64] Success required the efforts of many civic groups and private persons sending advice and pleas to Congressmen and the National Forest Reservation Commission (NFRC). Representative Claude V. Parsons urged the Forest Service Chief and the Commission to give approval to the Illinois units. Finally, on August 30, 1933 appropriations were earmarked by the NFRC for the Illinois units. [65]

Meetings were held throughout the region at which local boosters, University of Illinois extension agents, county Farm Bureau agents, and Forest Service representatives pushed for quick land sales which would mean the establishment of a National Forest, thereby bringing Civilian Conservation Corps camps and the promise of much needed jobs to the distressed area. [66] John 0. Wernham, the first Acquisitions Chief, and his staff traveled in October 1933 to a land of eroded soils and poverty-stricken people. Wernham, William Barker, and L. E. Sawyer drove over 265 miles the first week of October. They spoke several times a day to explain the policies and needs of the Forest Service to hundreds of farmers. In the first year of operation, 1933-1934, a total of 40,888 acres in options was approved on 263 tracts at an estimated cost of $4.59 per acre. By 1939, the Forest had 183,446 acres purchased or optioned, and on September 6, President Roosevelt proclaimed the purchase units as the Shawnee National Forest. [67]

Mark Twain National Forest

In 1926, Charles F. Hatfield, General Manager of the St. Louis (Missouri) Convention, Publicity, and Tourist Bureau, journeyed to Washington, D.C., to look into the possibilities of establishing two National Parks in the Missouri Ozarks. In Washington he talked with Park Service and Forest Service officials and soon learned that the best possibilities were with the Forest Service under the provisions of the Weeks Act. There were many areas in the Ozarks which had been cut-over and many watershed areas that needed protection. Hatfield learned also that an enabling act needed to be passed in Missouri to allow the Weeks Act to be applied there.

Hatfield returned to St. Louis and began a publicity campaign to have two National Forests created in Missouri. He asked the Governor of Missouri and several legislators to begin action on passing an enabling act. Hatfield's actions set in motion what the Forest Service had been trying to accomplish for years. In 1914, Forest Service land experts had recommended the purchase of two large tracts of land in the Ozarks, but it was not done because of the lack of an enabling act. [68] For some time, the Forest Service had endeavored to have an adequate state forestry program going in Missouri. Assistant Chief Forester Edward A. Sherman in a speech delivered in St. Louis, told the people of Missouri that with better forestry they could end the importation of $8 million worth of lumber each year. Toward that end, Sherman said, "the federal government is ready and willing to help." [69] Sherman urged the Missouri legislature to pass an enabling act giving consent to the acquisition of land by the federal government.

This began years of debate on the "National Forest Question in Missouri." There was strong opposition to federal interference in what were considered the internal affairs of the state, much of it led by State Forester Frederick Dunlap. Why Dunlap opposed Weeks Act purchases in Missouri was a mystery to Forest Service officials in Washington because he never expressed his reasons to them in writing. Even Chief Forester Greeley was aware of Dunlap's unbending attitude. In an effort to prevent the State Forester's negativism from stopping the development of better federal-state forestry programs in Missouri, Greeley wrote Dunlap outlining the programs and reminding him of an understanding the two had that: "the organization of state forestry work should come first, that it should not by any chance be delayed through the interjection of the National Forest question, and that the letter should wait until the advisability of Federal purchases could be worked out in cooperation with the State Forestry Department." [70]

Regional Forester Earl W. Tinker of Region 9 had been working for some time to establish federal cooperative forestry programs in Missouri and to have Missouri included in Region 9. In 1931 the inclusion was accomplished, and Chief Greeley wrote to Dunlap that in time the action would be "justified in many ways".

It was 1929 before the Missouri legislature passed the Consent Act enabling use of the Weeks Act in the state. Even then the Act was extremely restrictive. No tract of land of more than 25 acres could be purchased and no more than 2,000 acres could be purchased in any county. This was practically useless to the Forest Service, so the limits were raised to 25,000 acres per county by an amendment to the Consent Act in 1933. A year later the limit was raised to 100,000, and in 1935 acreage limitations, both for tracts and counties, were eliminated altogether. [71] All of these actions indicate that Dunlap's and others' opposition to federal land purchase in Missouri were being overcome by the strong economic pressures of the Great Depression. The situation had changed

enough by 1933 that Region 9 was able to begin the processes of creating eight purchase units in Missouri. [72]

In 1937, the Chief's Office instructed Region 9 to establish two National Forests from the eight purchase units in Missouri and asked for suggestions for names. For the four units in southwestern Missouri, the Washington Office preferred the name "Mozark," but the Regional Office wanted "Pershing National Forest" in honor of World War I hero General John Joseph Pershing. The Chief's Office turned that down and asked for a name taken from some outstanding geographical feature. Apparently there was some lack of understanding because the Region now came back with the name "Mark Twain National Forest," after Missouri's famous literary figure.

The Mark Twain National Forest was established by Presidential Proclamation on September 11, 1939. [73] It was made up of the Gasconade, Pond Fork, Table Rock, and Gardner Purchase Units. Headquarters for the Forest were originally at Rolla, Missouri, but because of the heavy volume of reforestation and CCC programs, a new headquarters was established at Springfield in 1935. The Supervisor's Office remained there until 1952 when an economy move brought it back to Rolla to be combined with the Clark National Forest, the other Forest in Missouri.

In 1960, a report by the Chief's Office indicated the need to separate the two Missouri Forests, and the Mark Twain headquarters moved again to Springfield in 1962. The Headquarters administered the Pond Fork, Gardner, and Table Rock Purchase Units, and the Mark Twain and the Fristoe Purchase Unit of the Clark. It probably came as no surprise to the personnel of the Supervisor's Office when the Headquarters was moved once again back to Rolla in 1969. It has remained there ever since. [74]

A serious problem on the Mark Twain in the early years was forest fires. The Ozark natives had practiced intentional fire setting for generations in the belief that it eliminated insects and pests and cleared out underbrush so cattle and hogs could feed in the forest. A big job of District Rangers was fighting forest fires during the season and trying to convince the locals that they could not continue setting fires on National Forest lands. [75] The Forest Supervisors and their staffs throughout the 1930's mounted numerous fire prevention programs and the work of the CCC did much to alleviate the problem. [76] But in the end, it was World War II that stopped fire setting by taking most of the young men away to the War. Many never came back to the Ozarks and forest fires have not been such a problem ever since. [77]

In 1968 Congress designated the beautiful Eleven Point River of south central Missouri as a Wild and Scenic River. Under the National Land and Water Conservation Fund Act, the Mark Twain National Forest has been able to acquire much of the Eleven Point River Valley. In 1972, an interdisciplinary planning team of the Mark Twain prepared a plan of management designed to protect and preserve the natural features, including the water, air, vegetation, wildlife, fish, and soil of the valley. The team based its planning on the assumption that without protection, the public would soon destroy the values which classified the Eleven Point as a Scenic River in the Wild and Scenic River System. The management plan, therefore, was aimed more at people than nature.

The Eleven Point Wild and Scenic River Plan contains elaborate and strict rules about how the public may use the River environment. The rules are designed to allow users to experience the River without doing damage to the environment. Its implementation has succeeded in protecting the River and in certain instances, has probably restored some of the wild and scenic qualities. [78]

As a part of the National Forest management planning process of the 1980's, the Mark Twain found it necessary to develop a comprehensive system of terrestrial ecological land classifications. In order to plan the management of multiple resources in a widely diverse environment, it was necessary to develop units of land common to all resources and on which total land capabilities could be based. This process was explained in a 1981 study published by the Mark Twain. The system was useful to other Eastern Region National Forests in preparing their forest plans. [79]

Clark National Forest

Originally, the rocky slopes and ridges of the Ozarks in southeastern Missouri were covered with oak-hickory forest mixed with pines. The narrow valleys of streams such as the Current and Eleven Point Rivers contained a wealth of pineries. After railroads made their way into the Ozarks in the 1890's, large lumber companies began harvesting the forests so intensely that during the first two decades of the 20th century lumber companies such as the Ozark Lumber and Mining Company supplied much of the lumber used to build houses in the entire Midwest. Other companies produced railroad ties for the nation from the hardwoods of the area. Around Potosi, lead mining had been carried on since the 18th century when the first French miners worked the region. Charcoal making to supply numerous iron furnaces in the Ozarks had made use of the hardwood forests. All of these activities left the rocky soils of the area exhausted and eroded and the accessible forests cut.

When the lumber and mining operations had finished in the Ozarks, large tracts of land for which there was little use were left in the hands of the companies. Since such lands qualified eminently for purchase under both the Weeks and Clarke-McNary Acts, the process began in the mid-1930's. By 1938 several purchase units had been established in southeastern Missouri. The units were administered by the Shawnee National Forest. The lands acquired were not only cut-over and eroded but also farm land worn-out by small farmers and adjacent forests burned-over by the frequent forest fires in the region. Quite often, large sales of land were handled by local land jobbers who put together package deals for the Forest Service to purchase. The profits made by the land jobbers were not excessive and the Forest Service land agents appreciated their efforts and worked closely with them. [80]

In 1939, the Clark National Forest was established by Presidential Proclamation. Headquarters Forest Supervisor's Office for the new Forest was in St. Louis, Missouri. [81] Later, the Headquarters was moved to Ironton and then Rolla, Missouri. From the beginning, the Clark was plagued with forest fire problems. Rangers on the Potosi, Van Buren, Poplar Bluff, and Doniphan Districts found themselves in almost constant battle with fires. The problem of fire setting became so severe that Forest Supervisor Paul D. Kelleter decided to prosecute a test case and publicize it widely in order to discourage other fire setters.

The test case was that of Lynn Crocker who was caught in April of 1936 in the act of setting a fire by a Forest Service Fire Guard. His case was complicated by the fact that he had fought with the Fire Guard who arrested him, breaking two of the Guard's ribs. Crocker received a sentence of six months in jail in a federal court with an additional one year probation for attacking the Guard. The Supervisor's Office in St. Louis issued a statement that Crocker's case had been brought by the Forest Service "as a part of its effort to put a stop to the setting of promiscuous fires in the woods." [82]

By 1938 the fire protection efforts of the Clark were beginning to pay off. The severity of forest fires had been greatly reduced in 1937 compared to 1936. There were 645 fires on the Clark over 15,921 acres, but this was 1,049 less fires and 56,371 acres less than in 1936. The reasons for these amazing reductions were, according to Supervisor Kelleter, the growing awareness on the part of the people living on and around the National Forest of the benefits to be gained from protecting the forest land from fire. The Supervisor preferred to put it this way in order to encourage public awareness, but actually, as a National Forest Service study that same year showed, other factors such as the work of the CCC and improvements in fire fighting technology were also quite important in the greatly improved fire record. [83]

In 1939, the Clark National Forest, as part of a cooperative program with the Missouri Conservation Commission and the U.S. Biological Survey, established three wildlife refuges totaling 35,000 acres in size in Oregon and Reynolds Counties in an area known as the Irish Wilderness. The area was so untouched by settlement that deer, wild turkeys, wolves, and wildcats still lived there. The purpose of the program was to provide an area for the study and demonstration of wild turkeys, natural foods, responses to planted food patches, effects of predators, and effectiveness of management practices. These refuge areas were managed by Paul Kihlmire, District Ranger of the Forest Service station at Doniphan. [84]

In 1969 the Clark National Forest ceased to exist when it became a part of the Mark Twain National Forest. The Forest Supervisor's Office of the Mark Twain was moved from Springfield, Missouri to Rolla. This reorganization was done to achieve greater administrative efficiency.

Summary

The Great Depression set the North Central (Region 9) and Eastern (Region 7) Regions on new directions. Depressed economic conditions in many areas made it possible to establish new National Forests. Not only were land prices low enough for the Forest Service to purchase millions of acres of eroded and cut-over land, but it was a definite boost to local economies to do so. The infusion of money from land sales helped but so did the reforestation, conservation, and construction work necessary to build National Forests. Ten new "Depression Forests" were added to the two Regions during the Depression years. It is unlikely that more than one or two new National Forests would have been possible in normal times. The two Regions, especially the North Central (Region 9), made good use of what the Chief called "a golden opportunity" to expand and improve the National Forest System.

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CHAPTER VII

REGIONS 7 AND 9 IN THE GREAT DEPRESSION

The years of the Great Depression, 1929 through 1941, were ones of profound change for both the North Central Region and the Eastern Region. The two Regions continued to operate with essentially the same organization and with their headquarters at Milwaukee and Upper Darby, but because of the exigencies of the Depression, both Regions found themselves carrying many important new responsibilities.

Region 7, Eastern Region

Timber Management

The major thrust of timber management during the Great Depression was a massive program of reforestation through planting. It was made possible by the work of the special anti-Depression work programs of the Civilian Conservation Corps, the Works Progress Administration, and others. These tree plantings, which are discussed in Chapter VIII, were so extensive that by 1938 further planting was no longer a major goal for Region 7. Only about 100,000 acres remained to be planted, most of them on the Monongahela and Allegheny National Forests.

Another major area of work for the CCC was timber stand improvement. When the General Integrating Inspection (GII) took place in 1938, the Washington Office inspectors concluded that much of the timber stand improvement work done by the CCC was of questionable value. The same inspectors had seen the forests in 1933, 1934, and again in 1938. One of the inspectors was C. M. Granger, Acting Chief of the Forest Service, and the other was head of the Timber Management Branch. Both were experienced foresters whose judgments carried much weight. They believed that the clearing of undesirable trees and brush and trimming of trees done by the CCC, while it may have provided the Corpsmen with honest work, had little lasting benefit to the forest. The inspectors may have been unduly pessimistic, but after four or five years they could see almost no sign of the many hours the CCC had spent on timber stands. [1]

Another lesson learned was that it was not a good idea to try to plant every small clearing. These were needed for small game. In addition, on certain National Forests where the deer population was dense, particularly the Allegheny, the deer did severe damage to planted trees by eating the tender leaves and sprouts. On the Allegheny, the problem was partially solved by planting red pine even though it was out of its range at that location. Deer did not find the red pine to be palatable.

Another project of the CCC was a survey of timber resources on National Forests in Region 7 as a basis for making timber management plans. In some areas, timber sales had been deferred pending the completion of these management plans. Since timber management planning in Region 7 involved reforestation of cut-over areas, the process was one of putting together many diverse elements, including the work of the Experiment Stations. [2]

By the late 1930's, the replanted forests of Region 7 had grown sufficiently that commercial harvesting was practicable. From 1938 to 1943 timber sales in the Region were encouraging. During these years the volume of timber harvested rose from 42,965,000 board feet to 56,944,000 board feet. Production increased markedly until labor shortages in the early War years reduced it. There had been a noticeable exhaustion of accessible stands of American chestnut due to cutting and disease, but general stumpage values had risen steadily. Timber sold and marked was far ahead of actual harvesting.

Range Management

Range management on the National Forests of Region 7 was not a matter of great concern except on the Cumberland and parts of the Jefferson. In the other Region 7 National Forests, grazing was not an important part of the local economies.

Water Management

Water management, a natural concern of the Forest Service, was not a well-developed program in the 1930's. The Region 7 experts were aware that pollution of lakes, streams, and rivers was a growing problem, but since the Forest Service controlled such a small share of the major drainage basins in the East, it was beyond its power to solve the problem. Far too little was known of the effects of erosion and ground cover, and hydrology was not yet a highly developed science. [3]

Wildlife Management

In the area of wildlife management, several strikingly successful cooperative agreements were made between Region 7 and state governments. The best of these was with Virginia, where a one dollar extra charge was made on all state hunting licenses. The revenue from this source was used by the state to improve game conditions on the National Forests. In 1938, when the GII inspectors looked into this arrangement, their reaction was ambivalent: "It is hard to know whether to applaud or discourage this type of arrangement." They thought that it was wrong to charge in any way for the use of the National Forests; on the other hand, the program did provide money to improve game management, and that was obviously desirable. They were willing to see the Virginia plan continue for several years with the understanding that a judgment on its value would then be made. [4]

The most notable effort by Region 7 in wildlife management took place in the George Washington National Forest. There, a program of creating artificial clearings in the forest to provide natural food for game and birds had attracted wide attention, including publicity provided by the well-known Washington, D.C. cartoonist, J. Norwood "Ding" Darling. [5]

Recreation

Region 7 contained some of the most important industrial and trade centers of the country and was the most populous part of the nation; yet forests covered 55% of the total area. There were

great ranges of forests and mountains of Appalachia and upper New England which were virtually untouched by modern development. Although the National Forests of the Region accounted for only 5% of the total area, the Forest Service had an important role to play in providing an outdoor experience for millions of northeastern and mid-Atlantic city dwellers.

In the 1930's, Chief Ferdinand Silcox called on all Forest Service Regions to take steps to make the American public more aware of the recreational opportunities available on the National Forests. The Chief also wanted the public to understand that the facilities offered were part of the National Forest System and did not belong to the National Park Service. In response to the Chief's directions, Region 7 produced a number of leaflets to be distributed to the public which described trips which could be taken through the National Forests, and the facilities and activities available. The Region also published recreational maps and other materials. The leadership of the Forest Service was moving increasingly toward greater emphasis on public recreation in the National Forests. How much of this was their own idea and how much of it was a response to the new national movement for outdoor recreation is not clear. What is clear is that the leaders in Washington had already moved far ahead of the people in the Regions in their attitudes on recreation.

The key positions in the Regional Offices and on the National Forests were still held by "old forester" types who often looked upon the general public as interlopers in the forests. It was not easy for these foresters to adapt to the new ways of thinking emanating from Washington.

The philosophical differences on recreation between the leaders in Washington and in the Regions can be illustrated by a seemingly minor matter which came up during the 1938 GII of Region 7. The inspectors were touring a recreation area which had camping shelters and cabins. When they learned that Region 7 had denied a permit for a concessionaire to provide soft drinks and sandwiches on the site, the inspectors asked why and were told that if such services were allowed on this site, they would have to be allowed on all. Later, when inspecting another recreation area, the inspectors asked Regional Forester Joseph C. Kircher why there was no boat concession on a lake where fishing was the principal use and could only be done from a boat. The inspectors wrote these incidents into their report and commented that Region 7 and the Regional Forester did not seem to be sufficiently flexible on matters of recreation: "Our thought is that there are places where provision of refreshments is an important service to enable the satisfactory use of the National Forests' recreational opportunities, and that it cannot either be denied or permitted blanket-wise. Likewise, a properly administered boat concession. . .would be reasonable, if kept inconspicuous."

The divergence of viewpoints went even further. When the inspectors pointed out a need for better roadside signs indicating campgrounds and picnic areas, the Regional Forester raised the question of whether there was not a danger of over-emphasizing recreational development. Both sides had now reached the crux of the matter. It was probably quite offensive to the eye of a traditional forester like Kircher to see painted signs in the midst of a National Forest. Such signs had the purpose of guiding city people to places in the National Forest where they could camp, picnic, and possibly create unsightly messes and even carelessly cause forest fires. This was not something which Kircher or many others of his background in the Forest Service could readily tolerate. What was actually said next is unknown, but everything in their final report indicates that the two high-ranking Forest Service officers told Regional Forester Kircher that Region 7 was in no danger of over-emphasizing recreation. [6]

Region 7, located as it was within automobile driving distance of many of the most populous areas of the nation, probably received a greater influx of new recreationists than any other Region. The Region concentrated most of its recreational development efforts almost entirely on providing camping and picnic areas and facilities for winter sports. They perceived no need to develop new resorts since their part of the country was adequately supplied with resort facilities. Likewise, there was no summer home development.

The greatest opportunity for development was in organization camps for the underprivileged. In 1938, when the GII inspectors came, the Region had begun this process by setting up two somewhat make-shift camps. One of these camps in the Jefferson National Forest was a Boy Scout Camp called Powhatan. The inspectors thought it was a good example of what could be done well at low cost. They advised the Region not to "over refine" such camps, meaning that the outdoor forest experience should not be diluted by too many urban amenities.

Region 7 also developed a segregated campground on the Jefferson National Forest for blacks. The GII inspectors, recognizing that Virginia was a Southern state and that racial attitudes being what they were, concluded that "facts must be faced. . . racial discrimination is an accepted thing in the South." On the question of whether the Region should expose itself to criticism by advertising that it had a camp for blacks, the inspectors' reaction was that there was no reason to have the camp if the people for whom it was intended did not know about it. [7]

Fire Control

In the three southern states of Region 7, Kentucky, West Virginia, and Virginia, there were severe problems with forest fires in the 1930's. As in states like Missouri in the North Central Region, forest fire prevention was a complex problem which involved an educational and public relations program with rural people. The goal was to convince them that they must not set fires on purpose and that they must do more to prevent them. By the end of the 1930's good progress had been made in Appalachia at teaching fire prevention. One way was the use by the Forest Service of free films in rural areas where there was little other outside entertainment.

Another source of the fire problem was the coal-burning locomotives of the 1930's and careless tobacco smokers riding in open passenger cars. Throughout the 1930's a policy of demanding settlement from the railroads when their trains had clearly caused forest fires. By the end of the 1930's this policy was paying off with greater efforts by the railroads to prevent fires.

Region 7, while it may have neglected certain areas of activity, was dedicated to a strong program of fire prevention. In the National Forests, crews and equipment were in a constant state of readiness. The fire record of the Region was admirable and had improved markedly during the 1930's. [8]

In addition to the usual jobs of the Forest Service, Region 7, because of its location in the northeast where there were both dense forests and dense human population, was responsible for restoring forests which had been cut-over, and dealing with a myriad of state, local, and private agencies in areas such as forestry, fire prevention and coordination of fire fighting and providing recreation.

State and Private Forestry

State forestry was probably more important in Region 7 than any other Region with the possible exception of Region 9. In 1938, there were 401 state forests in Region 7 containing slightly over 5 million acres. Connecticut had the best developed forest system with systematic harvesting of forest products, effective timber improvement measures, and good recreation programs. At the other extreme, Virginia was just getting started with its state forest program. The work being done in New York in the acquisition and planting of submarginal and cut-over land was admirable.

Private forestry in Region 7 was vitally important since 91% of the forest land was privately owned. One company in Virginia, the Camp Lumber Company, was operating on a sustained yield basis. The Armstrong Company in Pennsylvania was experimenting with a minimum diameter limit plan whereby younger trees were not cut, and several other companies were, in a limited way, practicing forest conservation. The inspectors lamented that these were "the only discernible efforts in the entire (Eastern) Region that faintly resembled a positive private forestry program." [9] This would have been an unfair criticism in earlier years in view of the fact that Gifford Pinchot started practicing forestry on the Vanderbilt Estate in North Carolina before the turn of the 20th century. But North Carolina was no longer in the Eastern Region, and apparently the inspectors knew of no other such effort in the present Region.

These findings were dismal enough, but the inspectors found downright discouragement in one important area: "In the field of farm woodlands there appears to be very little actual forest practice underway." This situation was a surprise in view of the large number of trained foresters, both public and private, in New York and New England and the past history of programs to promote forest management in the area. In the past, there had been plenty of discussion, research, and attention given to Experimental Forests, but the net result had been "largely that of foresters selling forestry to each other rather than to the timberland owners." [10]

The sorry situation in private forestry was due in part to continuous "high-grading," that is, cutting of best trees. The inspectors (who clearly spoke for the leadership of the Forest Service in this matter) concluded that what was needed in the northeast was "a constructive program of permanent forestry by landowners." The State and Private Forestry people of Region 7 told the inspectors that they despaired of ever achieving real sustained yield management in the Region. However, they assured the Washington officials that they would continue to work toward that desirable goal through state forestry programs and by trying to convince private lumber companies to follow better practices. They believed, moreover, that their best chance for success lay in the area of convincing private landowners to manage their woodlots more efficiently. Their plan was to conduct an initial timber survey on private lands using the CCC, then to encourage the formation of area cooperatives among farm woodlot owners to promote the management and marketing of timber. [11]

Region 9, North Central Region

Timber Management

Timber sales for Region 9 in 1940 tripled in fiscal year 1940 over FY 1939. In 1940, a total of 114,183,000 board feet of lumber were sold at value of $266,833. The year before, 44,773,000

board feet valued at $85,132 were sold. Most the timber was sold to small operators inasmuch as 3,768 of the 3,830 sales were of $500 or less. H. Basil Wales, Timber Management Chief of Region 9, calculated that the sale of each 1,000 board feet of timber required approximately three days of labor for felling, limbing, bucking into logs or pulpwood, slash disposal, hauling and milling. Wales estimated that between 4,000 and 5,000 jobs had been provided in the 1940 harvesting operations in Region 9 National Forests. [12]

Since the extent of cut-over lands in Region 9 was much more than in Region 7, there was still an ongoing program of planting trees as late as 1940. That year, Regional Forester Jay H. Price announced that 39,812 new trees were planted in Region 9. Only one other Region of the nation's 10 Forest Service Regions carried on a comparable planting program—the Southern Region, Region 8. The number of trees planted in the North Central Region (Region 9) was over 82 million, mostly jack pine, red pine, and other pines. [13]

Under a policy which allowed the local farmers to purchase and cut timber in the National Forests at actual costs, 262 sales of this type had been made in 1940. Among the forest products sold in addition to logs were Christmas trees, pine boughs for ornaments, apples, pears, maple sap, spigots, and garden plants. The Huron National Forest sold around 25,000 Christmas trees and looked forward to even greater sales the following year. [14]

Wildlife Management

A Forest Service-wide survey completed in 1940 revealed that Wisconsin's two National Forests, the Nicolet and the Chequamegon, ranked first and third of all National Forests in population of deer. The Chequamegon was first with an estimated 62,000 deer, and the Nicolet was third with about 48,000. Fish Lake National Forest in Utah was second with 50,000. The two Wisconsin forests together had approximately 1,000 black bears and 3 lonely moose. However, the Chippewa and Superior National Forests in Minnesota had about 1,100 moose.

Deer population in the East and Midwest of the United States had been growing since 1908, after having been severely decimated in the 19th century. There had been a significant increase in all big game animals on National Forests, averaging about 282 per cent since the 1920's. Much of this increase was attributable to the addition of many thousands of acres of land to the National Forest System in those years. In the West, better management of herds on National Forests was a big factor in increasing populations. [15]

Information and Education

In 1940, 35 Regional field personnel involved in State and Private Forestry and in Information and Education met at a one-day conference. There, Regional Forester Jay H. Price traced how the emphasis had changed in Forest Service policy to consider state and private land as well as federal lands. Congress had passed the Clarke-McNary Act authorizing federal cooperation in fire protection of state and private forests and some extension and educational programs. At that time, a Congressional committee was studying further federal-state-private cooperation in forestry. Price said that what was needed at this point was some thinking on the part of people like those he was addressing. He wanted their ideas on what should be done next. [16]

The Timber Management Division of Region 9 sponsored a program among women's organizations and school groups to promote reforestation. This was part of a national Forest Service program called "Penny Pines." The program raised money to buy stock which the Forest Service planted and cared for. By 1940, about 6 million trees had been planted on 6,000 acres. Though nationwide, this program was particularly strong in Region 9. Of the 71 cooperative forest plantations sponsored by the General Federation of Women's Clubs, 41 were in Region 9. Much of the success of the program within the Region could be attributed to Margaret March-Mount, who many called the "Penny Pines Apostle of Region 9." Another prime mover in the program was Helen Bruha, Chief Clerk of the Timber Management Division, who handled communications with the women's and school groups. [17]

Margaret March-Mount led a party of 30 women of the Minnesota Federation of Women's Clubs on "Conservation Caravans" through parts of the Superior and Chippewa National Forests in June of 1940. Accompanied by Claire Hendee, Supervisor of the Superior, the ladies visited the George Washington Memorial Forest on the Superior and there planted the 500,000th tree that they had sponsored. [18]

Recreation

The Great Lakes area had always been known as a summer vacation land because of the cool climate, but by 1940 it had become a winter playground for winter sports enthusiasts as well. In earlier years, these recreation areas had been virtually inaccessible in the winter because of heavy snows. With improved transportation by rail and auto, winter use had increased to the point that in the winter of 1939-40, close to 500,000 visitors used the 15 recreation facilities in, Region 9.

The winter sports enthusiasts came from all parts of Michigan, Wisconsin, and Minnesota and the northern parts of Illinois, Iowa, and Indiana. More than one-quarter of them were tobogganists, 88,000 were skaters, 81,000 were spectators, and about 70,000 were skiers. The recreation areas most used were (in Wisconsin) Anvil Lake Ski Trail and Eagle River on the Nicolet National Forest; Mount Valhalla at Washburn, Spur Lake at Fifield, and Perkinstown at Medford, all on the Chequamegon National Forest; (in Michigan) Silver Valley near East Tawas on the Huron National Forest; and Caberfae near Cadillac and Newago Lake near Newago on the Manistee National Forest; and (in Minnesota) Shingobee near Walker on the Chippewa National Forest. [19]

Fire Control

One vitally important job of Region 9 was to anticipate and prepare for forest fires throughout the Region. In 1940, Chief of the Engineering Division Holland Coleman went on a tour of the northern woods areas and returned to the Regional Office to report to the other Division Chiefs. He had good news and bad: fire conditions on the Upper Peninsula of Michigan were extremely hazardous, but the National Forests were ready. Tractors and trucks had been overhauled and all equipment was in good shape. In fact, Coleman stated, "It has been a long time since we saw a Forest better prepared for the job of fire fighting." The National Forests to which Coleman referred were the Hiawatha and the Ottawa.

Operations Chief Gunnard Fenger had worked out arrangements to send 150 backpack pumps and 150 Pulaskis (a fire fighting tool much like a double-bitted axe except one side was a grub hoe) to Region 9 so that these would be available for fire fighting. The expectation on the part of the Region staff was that 1940 would be a severely dangerous fire season, and they were taking every precaution to be ready for it. 20

Summary

The changes in the timber and wildlife management, recreation, information and education, State and Private Forestry, and fire protection activities in Regions 7 and 9 during the Great Depression years were more the result of the maturing of the replanted forests and increased public use than they were products of the Depression. Another important factor was the evolution of Forest Service programs generated by new legislation, particularly the Clarke-McNary Act.

In one area, however, there were dramatic and drastic changes in both Regions which were directly connected to the Great Depression. The most intractable problem of those trying years was unemployment. In a desperate effort to find some immediate and short-range solutions to this problem the federal government turned to the Forest Service, especially to the Regions of the East where unemployment was most severe. This story will the subject of the next Chapter.

Reference Notes

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CHAPTER VIII

THE CIVILIAN CONSERVATION CORPS IN REGIONS 9 & 7

One of the most effective and popular New Deal programs to combat unemployment in the Great Depression was the Civilian Conservation Corps (CCC). It was also a new kind of program for the Forest Service, one which profoundly affected its purpose and development.

Beginnings of the CCC

"The Forest Army," "Soil Soldiers," "The Woodpecker War," these were some of the titles given to the Civilian Conservation Corps (CCC) created by Franklin D. Roosevelt immediately upon being inaugurated President of the United States in 1933. The idea of using young people to work in the woods was not original with FDR, but it was one of the most radical national programs ever implemented by any President of the United States. The Forest Service in both California and Washington, in cooperation with state and local agencies, had already organized teams of unemployed people to work under relief concepts that the CCC was proposing. In other countries, such as Denmark, Norway, Bulgaria, Austria, and the Netherlands, such programs for the unemployed had also been developed. The most controversial international model was the German Labor Service, originally created by the Weimar Republic to check unemployment in the cities. Like the CCC, the German Labor Service was voluntary and open to six month enlistment periods, but under Adolph Hitler it became an essential wing of the Nazi propaganda machine. [1]

President Roosevelt was aware of these programs. As Governor of New York in 1932 he had developed an unemployment program which took 10,000 people off relief rolls by putting them to work planting trees. In his acceptance speech to the Democratic Convention, Roosevelt had alluded to a million man conservation work force necessary in the immediate future. [2] In March 1933, one-quarter of the work force of the United States was unemployed, an estimated 13.6 million men and women. It had become painfully obvious to the entire population that our country's people and our land were being shamefully wasted. [3]

Two days after taking office in the spring of 1933, Roosevelt called a meeting of the Secretaries of War, Agriculture, and Interior, the Director of the Bureau of the Budget, the Judge Advocate General of the Army, and the Solicitor of the Department of the Interior. [4] They designed a bill for the establishment of Emergency Conservation Work, later called Civilian Conservation Corps. The goal was to put a 250,000 young men and World War I veterans to work by early summer building dams, draining marshlands, fighting forest fires, and planting trees. Congress pushed the measure through in 10 days by voice vote. [5]

On April 10 the first quota of 25,000 men was called, and on April 17, the first camp, Camp Roosevelt, in the George Washington National Forest near Luray, Virginia, was occupied. [6] Gerald S. Wheeler was appointed administrator. Recruitment for Camp Roosevelt as well as all future

camps was done by the Department of Labor. Transportation, camp construction and management was the responsibility of the Army. The Departments of Agriculture and Interior cooperated with the State Department of Forests and Parks to both select camp sites and coordinate work projects.

The first job at Camp Roosevelt was to construct buildings. Until barracks were completed at all of the camps, the men slept in tents and ate their meals outdoors. When Regional Forester Joseph C. Kircher visited Camp Roosevelt in its first weeks of operation, he found that the men had experienced some "rough" days in camp because it had rained almost constantly since they arrived. Kircher reported that their spirits were high, and they were getting the Camp into shape. [7]

By June 29, 1933 the Forest Service had 529 CCC camps approved, 115 had been manned in the preceding week for a total of 523 already manned. The states had 292 established, private organizations had 179 and the National Park Service had 62 camps in operation. Of the 1,196 camps already set up, the Forest Service had almost half of all the CCC programs. Of the 523 Forest Service camps established by this early date, 103 were located in Region 7 and 56 were in Region 9. [8]

Forest Service Administration of CCC Projects

Several months later two high ranking Forest Service officials were in Robert Fechner's (CCC Director) office when a telephone call came, asking if the Forest Service could handle administering the work of an additional 4 million men. The Forest Service men were aghast at such a figure. They replied that the Forest Service and the Park Service could accommodate no more than an additional 500,000.

Later the Forest Service leaders attended a meeting at the Federal Emergency Relief Administration (FERA). They were told by Harry Hopkins, head of the FERA, that it was the President's desire to put men to work and take them off relief rolls. The idea was to put them to types of work which would not compete with private employment. Thereupon the Forest Service sent telegrams to the Regional Foresters, asking them to supply by November 13, 1933 estimates of how many men they could employ. By now, the leadership had decided to come to terms with the extraordinary conditions of the Great Depression and the New Deal. "To put 4 million men to work and keep them employed until February will tax our resources and those of the states to the limit," they admitted, but they determined that "the Service should do its utmost to accomplish the objective." [9]

The leadership of the Forest Service had to change their way of thinking in order to cope with the newly forming CCC. Before, they had hired experienced men to work in the forest. The primary concern was getting the most labor for the least money. Now they had to plan work for men who may have never been in a forest before. They had to think about training and even rehabilitating young men whose families were on relief and who often had no qualifications except their need for a job. The Forest Service had to recognize that the CCC was a plan for the relief of men, particularly city men, and "not a case of getting the best labor we can get for $30.00 a month and subsistence." [10] Instead, the leaders of the Forest Service had to understand their humanitarian roll in restoring among the enrollees self confidence and faith in the future through worthwhile work. [11]

At the beginning, the Forest Service adopted the name "Emergency Conservation Work" (ECW) for the CCC activities in the National Forests. The White House instructed the Army to contact the Regional Foresters for the purpose of planning the location of the CCC camps. Forest

Service personnel also agreed to be instrumental in the educational program at the camps, at least to teach enrollees the rudiments of forestry. The Forest Service's primary duty however, was to train the enrollees as a work force in the Forests. Some Forest Service leaders disapproved of using men to build highways remote from Forest lands, to work on major flood control, to work on fish and wildlife projects, or to work on private land. Some also gave considerable thought to the plight of unemployed men who lived near the National Forests or who normally had made part or all of their living on the Forests. Not wanting to create a situation where newly hired city men would march past the homes of unemployed local men to go to work for the CCC they decided to employ local men at each camp in supervisory capacities wherever practicable. Often these men became more or less permanent employees of the camps. Usually they did not live at the camps but went home at night to their families. [12]

CCC Camps in Regions 9 and 7

The second CCC camp in the country opened on the Allegheny National Forest. These newest enrollees came to the Forest from Pittsburgh, the hard coal region around Scranton, south Philadelphia, and the deep South. They were immediately put to work planting 781 acres of burned and cut-over land with a blanket of trees, establishing the first CCC plantation in the U.S. at Duhring, Pennsylvania. Eventually, 14 camps were built throughout the Allegheny. Because of the excess of deer in these early years, planting could not be done on a large scale until the deer herds were reduced by hunting, [13]

Each of the National Forests in Regions 9 and 7 had CCC camps located within its boundaries. On the Chippewa National Forest there were 23 CCC camps supervised by Forest Service personnel. All of the camp buildings have since been moved or leveled except those at Camp Rabideau where the original structures still stand. This historic camp has been placed on the *National Register of Historic Places* and is under going restoration for adaptive use.

Art Schafer, technical supervisor for the CCC camps on the Munising and Manistique Districts of the Hiawatha National Forest until 1941, describes the camp arrangement after barracks were built to replace the tents. The barracks were "cheap, just Celotex, tarpaper and no insulation. They had barrel stoves for heat, and 30 to 40 of the boys slept in cots in each barrack. Each camp had five barracks, each about 20 feet wide and 100 feet long. There was also a mess hall, bath house, and buildings for the Forest Service and the Army personnel. There was a garage and repair shop, tool shops; and they had their own well and elevated water tanks." After 1942 Schafer was the man in charge of auctioning off the camps—everything from oil barrels to barracks and sheds. [14] Camps on the Hiawatha in the West Unit were at Chatham, Au Train, Wyman, Evelyn, Kentucky, McComb, Dukes, Steuben, Cooks, Polack Lake, Morman Creek, Sandstrom, and Garth. On the East Unit camps were placed at Raco, Strongs, Paradise, Moran, Round Lake, Kenneth, Rexton, Trout Lake, Pine River-Ewald, Eckerman, and Brevoort. Also on the Hiawatha were two National Industrial Recovery Act camps run completely by the Forest Service, at Pole Lake and at Kilpecker Creek. These were comprised of local men who went home on weekends. Camp Marquette, on the Hiawatha, located south of Paradise, was an all Indian CCC camp.

The Monongahela had as many as 12 camps operating at one time at Davis, Alpena, Parsons, Glady, Circleville, Thornwood, Elkins, Leadmine, North Fork, Richwood, Cranberry, Black

Mountain, Cowen, Frost, Anthony, Minnehaha Springs, Onego, Hutton, Cheat-Durbin, Scott, and Petersburg. Two camps were located on the George Washington National Forest. [15]

There were 17 permanent CCC camps on the White Mountain National Forest. After establishing their campsites, the men constructed ski and hiking trails, high country shelters, roads, campgrounds and parking areas. Where there was only a foot trail before, the CCC built the road through Evan's Notch. The planting of new trees was not as necessary on the White Mountain as it was in the 1930's on other National Forests. The lasting impact of the CCC camps in the New England National Forests may be seen today as it is on other Forests in the Eastern Region. The CCC work was considerable, and their salvaging efforts after the 1938 hurricane were essential and saved millions of board feet of timber from being wasted after the blow down. [16]

CCC camps supervised by the Forest Service on the Shawnee National Forest were Camps Dry Hill, Kedron, Hutchins, Simpson, Eddyville, Cadiz, Hicks, Delta, Tamms, and Pomona (an all-black enrollee camp). Men from these camps were instrumental in the relief and clean up work required by the 1937 Ohio River flood disaster.

The CCC Company at Tell City, Indiana on the Hoosier National Forest was also involved in the 1937 flood relief work. Some 30 Corpsmen with trucks evacuated the entire town of Leavenworth in three days of ice and sleeting weather conditions. CCC men from both Indiana and Illinois sandbagged levees, built refugee camps carried mail in CCC trucks, provided short-wave radio communication, and saved thousands of board feet of cut logs by removing them from the flooding banks. [17]

There were 11 CCC camps on the Huron National Forest and 25 on the Manistee National Forest. The Manistee men built the Chittenden Nursery at Wellston to supply seedlings for planting. In 1939 there were seven camps on the Ottawa National Forest: Camp Gogebic, Camp Bonifas, Camp Paulding, Camp James Lake, Gibbs Camp, Camp Sidnaw and Pori Camp. [18]

The first CCC enrollees on the Chequamegon National Forest came from Milwaukee. There were CCC men at Camp Brinks, Camp Horseshoe, Two Lakes, Delta, Pigeon Lake, Drummond, Taylor Lake, Mineral Lake, Morse, Moose River, Clam Lake, Beaver, Ghost Creek, Loretta, Riley Creek, Sailor Creek, Sheep Ranch, Jump River, Mondeaux, and Perkinstown. [19] The Forest Service organized and supervised the work at each camp through a superintendent, three to four construction foremen, and two to three subforemen, some being Local Experienced Men (LEMs). At the peak of the program, the Nicolet National Forest had 22 camps. The first being Nine Mile Camp established in April 1933. The Nicolet also had a National Industrial Recovery Act camp (NIRA) near the historical site of the Jones Logging Company Camp. For about one year the NIRA camp was in operation clearing roads, improving timber stands and constructing campgrounds. Also on the Nicolet was a camp cooperatively managed by the State of Wisconsin and the Forest Service, Camp Imogene. The Camp first housed state prisoners, then the state's transient population. These men constructed campgrounds and cleared the right-of-way for State Highway 70.

A significant legacy of the Nicolet CCC is the Trees for Tomorrow Environmental Center which they built near the town of Eagle River. Until 1942 the Center was used as a training facility for Eastern Region National Forest managers. In 1946 the property was provided to Trees for Tomorrow, Inc. under a special use permit. According to one historian of the Nicolet, "The corporation represents a unique example of cooperation between federal and state governments and private industry." The Center was used to conduct proper resource management training during

World War II for federal and state land managers, as well as small landowners. Today the Center, listed on the *National Register of Historic Places*, offers year-round programs on such subjects as winter ecology, outdoor sports, safety, environmental education training, orienteering and survival skills. [20]

The Work of CCC

The 1938 Hurricane

On September 21, 1938, a devastating hurricane came up the Atlantic Coast, up the Connecticut River inland and back out. In a few hours this storm blew down an estimated 175 million board feet of merchantable timber. Thousands of acres of timber were completely ruined. The Forest Service was assigned the supervisory responsibility of clean up and hazard reduction for all of New England. Ken Sutherland asserts that "this is one of the most outstanding jobs that was ever done by a federal organization and by the U. S. Forest Service." In Massachusetts where there is no Forest Service, almost every pond of five acres or more had logs dumped in them to store them until they could be sawed into lumber. Many of the barracks of World War II soldiers were made out of this lumber. In order to manage the task, the Forest Service detailed hundreds of people from National Forests across the country. [21]

Timber Stand Improvement

Regional Forester Jay H. Price described the Chequamegon and the Nicolet National Forests when he first saw them in 1937 as "sorry sights indeed." The evidence of old burns were everywhere and aspen was coming up. The plantings done by CCC were still hidden by fireweed. [22] The CCC work in timber stand improvement included planting seedlings, gathering seeds to produce nursery stock, and in all ways encouraging desirable trees to grow. For example, in 1937 over 7 million trees and 35 bushels of seeds were planted on the Chequamegon by the CCC. [23]

The first planting on the Shawnee National Forest was done by CCC crews in April 1934. Many of these early plantings failed because inappropriate species were used. As soon as it could, the Forest changed to other species: chiefly shortleaf pine, black locust and loblolly pine. The spring of 1941 was the peak of the planting activity when 8,000 acres were planted by 600 WPA laborers,100 CCC workers, and 100 hired men. [24]

During 1933 and 1934 nearly 8,000 acres on the Ottawa National Forest were treated for timber stand improvement by the CCC. [25] The Federation of Women's Clubs worked cooperatively with the Forest Service through the CCC on a variety of projects. One was an idea for Memorial Forests which first originated in Wisconsin but quickly spread to all states. During the Depression years in Indiana a 175 acre pine plantation, the Claypool Memorial Forest,was funded by the Indiana Federation of Women's Clubs. [26]

On the Huron and Manistee National Forests, the CCC planted thousands of acres of red pine. Today the Huron-Manistee have 14% of the red pine in the Lake States and 45% of all the red pine in the state of Michigan. [27] Millions of grasshoppers descended on the Manistee in 1936. On one 160 acre plantation of the Cadillac Ranger District foresters estimated there were at least 37,840,000

grasshoppers. CCC enrollees mixed 350 tons of arsenic-laced bait and applied it to thousands of acres effectively killing most of the insects. [28]

On the Allegheny National Forest, the CCC crews waged a "porcupine war" by poisoning the animals which killed many of the valuable black cherry, yellow poplar and hemlock, by girdling them. On the Chequamegon National Forest snowshoe hares had to be controlled, as they were notorious for chewing new bark off tender seedlings. [29]

The CCC crews gathered seeds which were sent to various nurseries. The Toumey Nursery at Watersweet, Michigan was established, named for Professor James W. Toumey of the Yale School of Forestry. In the Spring of 1935 some 8 million red pine and 10 million jack pine were produced. Seedlings were sent to the Ottawa, Nicolet, and Chequamegon National Forests in the North Central Region (Region 9). [30]

In 1937 the Cass Lake Seed Extractory in Minnesota was built. Thousands of bushels of seeds were collected and shipped (with Clarke-McNary Cooperative Funds) to almost every state in the East (80-85% Norway pine and 15-20% white pine). [31] The CCC men learned to use double-bit axes to fell or girdle undesirable trees, usually red maple, beech, black birch, pin cherry and aspen on the Allegheny National Forest. Black cherry, sugar maple, red oak, white ash, cucumber, yellow poplar, basswood, beech and hemlock were selected by trained foresters for retention as the crop trees. The hardwood stands were thinned to reach maximum productivity. [32]

Wildlife Management

The Forest Service used CCC crews in their wildlife management programs. The enrollees built wildlife ponds, established clearings, built artificial nest sites for waterfowl, and stocked ponds and waterways. They released beaver, turkey, quail, deer and other wild animals and birds. On the Allegheny a U. S. Fish Cultural Station was built in 1941 by the CCC. From 17,000 to 20,000 pounds of fish were raised annually to legal size then stocked in streams within the boundaries of the National Forest. [33]

Construction

The CCC did a vast amount of construction work on each of the National Forests in Regions 7 & 9. They build picnic shelters and tables, fire towers, camp buildings, lodges, Forest Service headquarters, roads, bridges, dams, to name only a few. Road construction was one type of project that lent itself to putting many men to work in a short time. Since the National Forests were badly in need of roads, much of the CCC effort was put there.

In 1938 a repair depot to maintain the Monongahela National Forest CCC heavy equipment was built at Elkins. The depot and another service building were taken over from the CCC by the War Department in 1942 and then transferred back to the Monongahela. [34]

The construction of the Chippewa National Forest Supervisor's Office was initially planned in 1934. First a 100 foot untreated redwood fire lookout tower was built. A log archway was constructed at the entrance and large elm trees were sledded in to landscape the site. Red pines were selected from the areas of Star Island and Lake 13 by CCC personnel. Al Nelson and Ike Boekenoogen were construction foreman. Several local Finnish log workers provided the expertise

which guided the CCC and WPA men on the project. In March 1936 the staffs of the Supervisor and Cass Lake District Ranger moved into this 27 room office building.

Recreation Areas and Facilities

It was not until the CCC were put to work on the National Forests that any substantial progress was made in the development of recreation areas in the Eastern and North Central Regions. On the Hoosier National Forest, the CCC built the German Ridge Recreation Area. On the Green Mountain National Forest, the Corpsmen constructed 119,227 square yards of parking area and parking overlooks and built Hapgood Pond.

On the Allegheny National Forest in 1937, it was estimated that 6,500 picnickers and campers had been using the forest facilities annually. Ten years later the figure was up to 150,000. [35] The Nicolet National Forest is one of the many National Forests in the 1980's still using campground facilities built by the CCC. [36]

Education Programs

The CCC announced in 1940 that the educational programs carried on in CCC camps had succeeded in teaching 80,000 young men to read. Their figures showed that three of every 100 enrollees in the Corps were functionally illiterate when they enlisted. The Corps had devised special readers designed for young men rather than children. Camp instructors had been able to teach their students to read newspapers and write ordinary letters within three months. [37]

In reaction to this news, the *Springfield Daily News* of Springfield, Missouri, said that it was a national embarrassment that 80,000 young men could "slip through the educational system without getting the most elementary preparation for life—the ability to read and write. "The newspaper commended the CCC for its literacy work and commented. "Better late than never. . .the CCC thus sets another feather firmly in its cap." [38]

Control of CCC Camps and Work Projects

There were serious problems between the U.S. Army, who had control of CCC camps, and the Forest Service, who provided the work for camps located on National Forest or state forest lands. In 1940, after years of contending with the problems, a meeting was held in Milwaukee offices of Region 9 with Army personnel, Forest Service and Emergency Conservation Work (ECW) officials. Included among the latter were some educational officers. The purpose of the meeting was to work out solutions and coordinate directives to be sent out by the Army and the Forest Service to CCC camps. The conference agreed to standardize the courses of instruction so that the same skills would be taught in all camps. [39]

State Cooperation with the Forest Service and the CCC

President Roosevelt was well known for taking an interest in the detailed workings of the Civilian Conservation Corps. In early 1937 Director Robert Fechner received a note from the

President inquiring as to the provisions that the states had made to maintain and use the physical improvements constructed by the ECW. The original arrangement was that improvements made by the CCC on state and private lands would be cooperatively maintained and that certain profits derived from the sale of products resulting from CCC activities would be divided 50/50 between the state and federal government. The Washington Office of the Forest Service periodically checked compliance. Regional Foresters were instructed to inquire of state conservation commissions what their plans were for supervision, maintenance, and use of ECW improvements. When the inquiries were sent in Region 9, the responses from the states were standard bureaucratic fare. Most states had taken some measures to maintain the ECW improvements, but much of it seemed to be only on paper.

Neither Fechner nor Roosevelt were satisfied, so Fechner wrote to the governors stating that no further CCC activity would take place on lands other than federally owned ones unless the state of the political unit made adequate provision for maintenance, supervision, and use of the projects to be constructed. In a separate letter, the President held out the bait of new projects to the Governors, stating that many camps had already completed their approved work projects. "It will naturally follow that those states which show a proper concern for their part in this cooperative work with the federal government will be entitled to receive first consideration." The President asked that the information be sent to Robert Fechner on what each state had done or would agree to do. [40]

In early March of 1937, Regional Forester Lyle F. Watts of Region 9 reported to Fechner that the states in Region 9 had what he called a "very healthy attitude" and had every intention of maintaining the ECW improvements. His analysis was that all of the state departments of conservation had received large appropriations from their legislatures. In addition, the sale of hunting and fishing licenses would yield the money to maintain the improvements on their state lands. It was true, he wrote, that the ECW camps were doing a lot of the maintenance that was done on state lands, but the Regional Forester argued that it was useful conservation work. He believed that all the states were embarking on a more ambitious conservation program. [41]

President Roosevelt's initiative drew significant results. Wisconsin Governor Philip LaFollette reported spending far more than the $30,000 a year minimum set by the Forest Service. [42] Governor LaFollette also contacted Regional Forester Lyle F. Watts and requested that he contact the State Conservation Department in order to coordinate future CCC projects.

Minnesota was a different story. The amount the Forest Service estimated was $25,000 a year and since Minnesota had appropriated only $14,000, Fechner wrote Governor Elmer Benson suggesting he review the situation, giving no assurances of continuing the program in that state. [43]

Forest Service Inspections

The Forest Service periodically sent out inspectors into the CCC camps. In general, they checked to make sure that the offices were well organized and that the daily diaries were kept. The inspectors were also asked to rate the personal relations with the Army, the cooperation given by the Army, and the cooperation given to the Army, the general condition of the camp, whether there was a comprehensive camp plan, how the crews were organized, whether the educational work was being done, whether the tool supply was adequate, the condition of the vehicles and fire equipment, and the health of the men.

From an inspection report of Camp Sawyer on the Chequamagon National Forest we learn that it had 210 men with an average of 29 work details per day during the past week. The Camp turned over an average of 80% of its enrollees to the Forest Service for work during the week of the inspection. [44]

On an inspection tour of camps in Missouri, specifically at Indian Trail Camp, an inspector found that more truck trails than were needed were being built and that plans for timber stand improvement in this particular area were not necessary because it was primarily a game reserve. He also observed that hundreds of cords of wood had been piled up as products of the work, and he suggested that this be sold. He had a number of suggestions about personnel, in several cases that the employees be fired. [45]

Even in Iowa, where there were no National Forests, the Forest Service had the responsibility of inspecting the forestry work being done at the CCC camps. In 1940, Joseph F. Kaylor, a federal inspector, completed a four-state inspection of state CCC camps. He reported that generally the newly inaugurated system of dividing the work of the camps into the same divisions as existed in the state department of conservation was working well. Approximately 10% of the work was being done on fish, 14% on game, 50% for reforestation, 22% on field administration, and 4% for miscellaneous work such as geology and land projects. The camps were making rapid strides in fire protection, erecting towers and towerman dwellings, and extending telephone lines. Increased work opportunities were being provided in Indiana due to a land acquisition program on a number of state forest units. In Ohio the news was the possibility of forming a planning council to guide state CCC work programs. [46]

In 1936 Robert Fechner made a personal tour of inspection of CCC camps on National Forests in the Lake States area. He took two Sundays off to go fishing in some of the rivers and lakes of the forests, and for years after a photograph of him with a good stringer of fish hung on the wall of the Region 9 offices in Milwaukee. In 1940, when Fechner died, the *Daily Contact* expressed "considerable sadness" at his passing. [47]

CCC Accomplishments

A typical CCC camp, such as the one at Tell City, Indiana on the Hoosier National Forest, was in operation for six years. Total strength of the company was less than 250 men. Within its six years the company built 14 buildings, 3.5 miles of road and 75 miles of telephone line. They had planted 1.5 million trees on 1,500 acres, cut 2,000 posts, built three lookout towers, and completed several hundred acres of erosion control work. They dug six game ponds, fought many forest fires, quarried and crushed 13,000 yards of stone, built a new recreation center, constructed a dam for a small lake, searched for lost children, and assisted in other emergency rescue work. [48]

As a result of the great use made by the CCCs in local and national emergencies and the obvious benefits to the unemployed and the land, there continued through the end of the 1930's strong bipartisan support for the program. "The removal of a CCC camp from a constituency could spell political trouble for the incumbent in an election." [49] In Washington, however, officials were constantly arguing over the CCC program and its general purpose. Army personnel and investigators were told to watch in the camps for "communist" activities. Others fearing fascism, worried about the Army's growing militarization of the camps. [50] As trouble brewed abroad in the 1930's, the

voices of those such as General Douglas MacArthur grew louder in their appeals to use the CCC as a reservoir of military strength. [51] When World War II came, many men did leave the CCC to enlist in the regular military. But the Corps remained as it began, committed to two principal objectives: the relief of unemployment and the accomplishment of useful conservation work. [52]

The CCC was an extremely popular program. The benefits to the local area economies were profound. It has been estimated that nearly $5,000 per month was spent by each camp in the local market. On the Monongahela National Forest, for example, 45,000 pounds of potatoes were purchased monthly from local farmers and miles of bread loaves were eaten each month (17.1 miles if placed end to end). Furthermore, $15,000 to $17,000 per camp was spent on the building of each of the camps. Much of this work was done by local labor. [53]

Final Days

President Roosevelt issued in 1940 a summary of what the CCC had done since its inception. In addition to obtaining the advantages of "security, discipline and a well ordered life," the President said, "these youngsters'" had accomplished the following: 1.7 billion trees planted, 100,000 miles of trails and roads built, 75,000 miles of telephone lines laid, and 5 million man-days of fighting fires. [54] In 1940 Forest Ranger Thomas "Buck" E. Roberts of the Kenton Ranger Station on the Ottawa National Forest noted that whenever he came upon a well managed farm in his District, it was almost a sure thing that the farm owner had a son who had been in the CCC and who was carrying out the forestry practices he had learned there. [55]

After Robert Fechner's death on January 1, 1940, James D. McEntee, who had been the Assistant Director since 1933 became Director. McEntee was not as forceful as his predecessor, and the CCC was already experiencing problems mainly due to international events. After Hitler invaded Poland and overran Western Europe, the U.S. economy gained strength through military spending. Unemployment declined dramatically. The most enthusiastic of the unemployed were not entering the CCC any longer and many of its leaders were also returning to regular life in the Army.

Enrollment in the CCC dropped from 300,000 to 160,000 in the year 1941. Hundreds of camps closed as jobs became more plentiful and recruitment into the Corps more difficult to fulfill. After December 7, 1941, the CCC offered all its camps to the Army for work on military projects, and to the American Red Cross it offered help with War emergencies. [56] In its nine year history the CCC did an impressive amount of work, particularly on the National Forests, for a relatively small cost of approximately $1,000 per year for each enrollee. [57]

On July 1, 1942 the Assistant Chief of the Forest Service, Fred Morrell, sent telegrams to all Regional Foresters stating that Congress had passed a bill liquidating the CCC: "The War Department will take over all camps and CCC property. All CCC employees were to be furloughed or terminated as soon as their services were not required to supervise enrollees, guard vacant camps, or to handle property and reports." The Regional Office of Region 9 sent out orders to all camps to concentrate efforts while employees were available on cleaning up, assembling, and storing equipment and leaving projects in the best possible shape. These instructions went to all National Forest Supervisors.

Summary

The work done in the National Forests by the CCC advanced the cause of conservation efforts by many years. The men saved millions of acres of forest and crop land that were in danger of being lost forever. It has been often said by Forest Service officials that more was accomplished by the CCC in those years to develop the National Forests and their various potentials than had been accomplished since the establishment of the Forest Service. [58] But just as important were the cultural and spiritual lessons the forest and conservation work taught American men. These benefits to the United States are incalculable.

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CHAPTER IX

THE WAR YEARS

On December 8th, 1941, the entire staff of the Regional Office in Milwaukee gathered around radios to listen to President Franklin D. Roosevelt ask Congress for a Declaration of War against Japan. The mood was grim. The people of the Region were asking themselves what they could do in the War effort. They understood that their role, in the words of the *Daily Contact*, was "not the kind to inspire rhetorical enthusiasm." What they could do was buy War Bonds and Stamps, do a full day's work and then some, save equipment and supplies, eliminate careless waste, and find some niche in the civilian defense programs. It did not seem like much when American soldiers and sailors were dying and coastal cities were preparing for air attacks, but that seemed to be all the more reason to work hard and sacrifice willingly. [1]

Reorganization for War

The programs of Regions 7 and 9 were completely reorganized to meet the needs of the War. Only those jobs of importance to the War were continued. The National Forests had to keep up their regular protection against forest fire and at the same time rapidly increase production of wood and minerals. This meant longer hours and greater effort by all personnel. Every office in the Regional headquarters and every unit in the field were engaged in the War effort. [2]

The Unit of War Activities

In January of 1942, Region 7 Regional Forester Robie M. Evans set up a Unit of War Activities within the Region. The purpose was to coordinate War activities and work with the Army and Navy. The Unit handled contacts with the military and analyzed new projects presented by the Armed Forces to determine how to best accomplish them. An example of one of the projects was the on-going program of cooperation between the Region and the Army and Navy in forest fire prevention. The Secretary of War requested in August of 1942 that the Forest Service undertake the protection of critical military areas which might be endangered by forest fires. Emergency funds for this program were made available under the Sixth National Defense Appropriation Act and the Clarke-McNary Act. Some of the money was earmarked for protection of the National Forests; the rest was to go to the states on a matching fund basis. [3] In the Region, the Unit of War Activities cooperated directly with the Army and Navy and with the state foresters to see that the program was implemented. State fire towers with lookouts were organized into a network of volunteer observation posts under the Office of Civilian Defense so that the towers served not only as fire but as aircraft and defense lookouts. The job of the Unit of War Activities was to examine the plans for this system, inspect the facilities, and make fund allocations to the states to support the system.

Particular attention was given to the dimout areas along the eastern seaboard where military leaders were anxious to reduce smoke from forest fires because it silhouetted ships offshore and made them better targets for German U-Boats.

As a part of the coordinated fire control program, the Forest Service responded to a request from the Army to provide instructors to train Army personnel as firefighters. In cooperation with the states, the existing system of forest fire weather stations had been reorganized; many stations had been relocated and new ones built. The Army was vitally interested in improving this system for use in forecasting fire weather.

To support these activities, surplus equipment and tools from the CCC or on loan from the Army were reconditioned by both Regions and loaned to the states so they might build up their fire fighting forces to protect critical areas.

The War Production Board

A vital part of the overall War effort was the War Production Board (WPB). This Board had special wartime powers to organize and regulate many aspects of American business and industry. Regions 9 and 7 made their field forces and technical skills available to the WPB. Forest Service personnel made an annual census of lumber produced and used in manufacturing. They conducted a survey of kiln drying equipment, several surveys on veneer equipment, a survey of sawmill equipment, and estimates on the amount of lumber and logs moved on trucks. The latter was necessary because of a critical shortage of rubber to make truck tires in the early part of the War. [4] Other studies made by the Regions for the WPB included one to determine the status of equipment in the pulp industry and another on labor shortages affecting pulp and lumber production. The Regions also worked on locating lumber supplies and prepared reports on the need for access roads to make the supplies available.

The Office of Price Administration

Another major wartime agency with which the Regions worked was the Office of Price Administration (OPA). This office, as the name implies, controlled prices on just about every economic activity in the country, including wages, rents, consumer prices and services. In order that the OPA might fix and regulate prices on wood products, the Regions provided experts for fact-finding task forces to determine the cost of producing fuelwood and pulpwood. Also, from time to time, the Regions advised the OPA on the effects of its price ceilings on production of lumber and pulpwood. [5]

Wartime Timber Production and Sales

The wartime demands for wood were so great that both Regions 7 and 9 stepped up the production from their National Forests to a level which, in the words of Region 7 Regional Forester Robie M. Evans, was "inappropriate in peacetime." According to Ken Sutherland, a retiree from the White Mountain National Forest, the Forest Service "threw out a lot of management principles because the nation needed more wood." [6] Conservation and good forestry practices had to be

sacrificed in order to obtain higher production. At the same time, the Regions did everything they could to encourage increased timber production on private lands. One mechanism was the Norris-Doxey Farm Forestry Program, a cooperative effort between the state foresters and the state extension services to help farmers find War markets for woodland products and to harvest at unprecedented levels. Both Regions were encouraged that their State and Private Forestry programs seemed to have laid the groundwork for a successful wartime program to increase private timber production. In fact, past efforts of the State and Private Forestry personnel to educate farmers and woodlands owners in the need for conservation and good forestry had been so successful that the program to increase production was met with strong resistance until the landowners were convinced that the emergency cutting would be done with good forestry practices. 7

Because of the increased demand for lumber and pulpwood during the War, the Superior National Forest rapidly stepped up its sales. New contracts to cut and process lumber and pulpwood were awarded to several private companies. The Tomahawk Craft Paper Company of Tomahawk, Wisconsin, received a ten-year contract covering approximately 250,000 cords of pulpwood, mostly jack pine. The K.B. Tomlinson Company received a contract for 22,000 cords of pulpwood plus 35,000 tiebolts. Enormous quantities of pulpwood needed to be harvested because it was over-mature. About one-third of all of the jack pine in the Lake States was growing on the Superior along with about one-fifth of all of the spruce. 8

On the Chequamegon National Forest, the War years for the forests were a time for waiting. "These were the custodial years when the forests were safeguarded from fire and the stealing of timber, but little else." Some logging continued as long as there was any birch because birch veneer was valuable in the manufacture of war planes. 9

New England Hurricane

The excessive demands on timber resources caused by the War were exacerbated by circumstances in New England. A terrible hurricane in 1938 blew down much timber and caused much breakage. The Forest Service went to work immediately in the effort to salvage the damaged timber and reduce the increased fire hazard caused by the downed trees. Then came the War and the heavy demand on the remaining stands of timber. In New Hampshire, the cutting of white pine in 1943—320 million board feet, some from the 1938 hurricane salvage— was the heaviest of any state. Pulpwood harvesting was also unusually high. The State Forester of New Hampshire estimated that the emergency cutting plus fire, insect, disease, and ice losses during the years 1941 to 1946 averaged 1.3 million cords per year compared to an annual growth of 900,000 cords.

On the positive side, landowners in New Hampshire were showing increased interest in forestry practices, and by 1946 there were definite signs that the forests of New Hampshire were on the way to recovery from the losses sustained in the hurricane and during the War. The recovery was largely attributable to natural recuperative powers of the forests since there had been no replanting programs on the scale of those before the War. 10

Timber Sales

Despite stepped up sales, nation-wide timber sales by the Forest Service in 1943 do not seem really large today, at least in dollar values. The total for all Regions was $3,232,123, which was twice as much as the year before. The biggest producer was the Pacific Northwest's Region 6, which accounted for more than half of the receipts. The lowest was Alaska's Region 10 with about $68,000; Region 7 was next lowest with $88,802. Then came Region 9 with $92,314. [11]

Stimulating Timber Production for the War Effort

Timber Production War Program

In early 1943, President Franklin D. Roosevelt directed the War Production Board to initiate a program to stimulate lagging production of lumber and other forest products which were badly needed for the War and essential civilian uses. Regions 7, 8, and 9 of the Forest Service were involved. Unlike other products where the problem was a shortage of raw materials, there was plenty of wood to be harvested. The problem was a shortage of labor in the sawmills and wood products plants. This was especially true with the small mill operations, sometimes called "popgun," "peckerwood," or "pony" mills.

Thousands of these small sawmill operations were located on farms and in back-country areas out of touch with the War Production Board and other federal agencies. To reach them the President approved the new program to be administered by the Forest Service. It was to be called the Timber Production War Program (TPWP) and always spoken of in the Forest Service by the catchy nickname of "TeePeeWeePee." The purpose was to contact the small operators and encourage them to greater production. Field expediters would carry the word and also supply local producers directly with the specific types of forest products which were most critically needed. They would assist in making firm contracts for the output of logs and lumber. This enabled the producers to secure adequate financing through private sources. Just as important they would assist producers in the complicated procurement procedures for government purchase of war material. The "red tape" of government procurement had been a real discouragement to many small producers. The TPWP program was designed to alleviate some of the problems. The expediters were to help find markets for mills which did not have one, plus give technical guidance to the mills in the efficient use of available manpower and facilities.

One expediter named Harry Croke visited a sawmill near Cape Girardeau, Missouri, close to the Clark National Forest. While talking to the owner, Croke noticed that many of the mill workers went into a tavern across the street for lunch from the mill and did not come back to work. Croke told the mill owner, who had reported high absenteeism. "That tavern over there is your problem." The owner said, "I'll fix that," and stalked across the street into the tavern. When the owner came back he had the deed to the tavern in his pocket. Croke assumed that lunch hours would be much shorter in the future. [12]

The Forest Service believed there was plenty of wood to be harvested. The heart of the problem would be in reaching the farmers and landowners who had timber to be harvested. The work of the field expediter gradually converted to that of the farm forester, that is, working with the

landowners to encourage production. But true to its basic beliefs, the Forest Service was determined that even though there was great need for forest products, there would be no destructive forestry practices. [13]

Regions 7, 8 and 9 were asked by the WPB to act as agents for the federal government in achieving the goals of the project. This primary responsibility could not be delegated, so the Forest Service set up a new organizational structure. Accordingly, the three Forest Service Regions were divided into Districts. Each was headed by a District Forester who was a Forest Service employee. Under the District Forester were the farm foresters, one for each county. The Farm Forestry Program which provided the county farm foresters developed first earlier under state administration. The foresters were paid half by the federal government and half by the state. [14]

Each of the National Forests was to cooperate fully with the goals of the TPWP—increase the production of saw and veneer logs. To insure cooperation, each Forest Supervisor was required to make a quarterly accomplishment report to the WPB. The reports not only covered log production but the status and availability of labor, absenteeism, production, effectiveness of special wartime programs such as manpower controls, the status of Prisoner of War Camps on the National Forest, status of equipment and stumpage, and black market lumber activities. The reports required that a dollar value be put on the effort being made in each major area, probably so the reports could be evaluated by higher headquarters. [15]

TPWP Crusaders

Part of the TPWP program was a public relations campaign in forest areas known within the Forest Service as "showboats." The purpose was to convince local lumbermen, businessmen, and economic and civic leaders to do everything possible to increase forest production. To carry on this job, Region 9 chose two War heroes who were former employees and who had just returned to work for the Forest Service. The idea was that such men could draw crowds and command respect.

One of the TPWP crusaders O. B. (Obbie) Obbhoff was a Marine Corps veteran recently returned from the fighting at Guadalcanal. He drew large crowds at public and civic club meetings. He told about his War experiences and then gave them the TPWP message which was to do everything they could to increase timber production. Farmers were instructed to bring their timber to market and where the markets were. In less than a year, "Obbie" covered 95 meetings in seven states speaking to nearly 10,000 people.

The TPWP traveling show man in Upper Michigan was Cliff Davis. Like other men who did the same job, Davis was a veteran who had seen much action. The District Rangers set up meetings with local civic and lumber industry leaders. Davis spoke about his War experiences, and then made his pitch for the TeePeeWeePee program. Several of the Rangers reported to the Regional Office that Davis' meetings were receiving a favorable reaction. [16] Similar work was carried on by two other recently returned combat veterans. Curley Brooks worked in Minnesota, and Dudley Brice covered the Upper Peninsula of Michigan. They reported increases in production in their areas as a result of their meetings.

There was one problem which was "a tough nut to crack"—absenteeism by loggers in the northern logging camps. Many of these workers were transients and people with few if any family

ties. They seldom stayed on one job very long, and they were absent from work whenever they felt like it. Social pressures and the urgings of War heroes meant little to them. [17]

Overall, the TPWP crusaders seem to have done a good job. District Rangers reported to the Regional Office that inquiries reaching their offices about private timber sales had increased dramatically. One Ranger making such a report was Jack Horner, the ever-active District Ranger of the Washburn District on the Chequamegon National Forest. [18] As part of the TPWP the Division of Information and Education of the Regional Office produced a film with the catchy title of "On Felling and Bucking." The idea was to portray to the novice farmer or woodlot owner the proper use of the axe and saw. The film was made near Laona, Wisconsin in the heart of the Nicolet National Forest. [19]

Market Developments

Part of the job of those who worked in the TPWP was to report on market developments. In late 1943, "Obbie" Obhoff reported on a contact in Kirksville, Missouri, with the National Biscuit Company. An official of the Company had told Obhoff that the shortage of cartons for cookies and crackers had become so acute that he had been forced to buy a car load of any kind of paper he could find. The Company had recently bought its own pulpmill because of the paper shortage and was making its own cartons. They were also buying back cartons from merchants for re-use. About 20% of the Company's products were going to supply the Armed Forces. [20]

How's That, Schicklegruber?

At Tomahawk, Wisconsin, the TeePeeWeePee program organized a parade down the main street of the town in October of 1943. In what must have been a vivid wartime scene, the high school bands from Tomahawk and nearby Rhinelander and Merrill marched with flags and stirring martial music. They were followed by mud-splattered trucks loaded with pulpwood and draped with banners which said, "This is not a paper war, but paper will win it." Prizes of "Axe the Axis" War Bonds were offered for the biggest load of pulpwood brought in.

The Region 9 *Contact* noted with some pride the diversity of the names of the winners of prizes in the Tomahawk pulpwood contest. The names were Polish, German, Swedish, Norwegian Anglo-Saxon and others. The editor of *Contact* described how one of the winners, a Polish-American named Wallentz T. Kowski, had driven his prize-winning load of pulpwood in the parade with his three-year old son in the truck cab with him. Later he stood on the stand with his son on his arm to receive his prize. "How's that Schicklegruber?" commented the editor, referring to Adolf Hitler's family name. [21]

Cooperative Programs

Under the Clarke-McNary Act of 1924 there was a cooperative program funded in part by the federal government to encourage and support state forestry. It was the job of the Division of State Cooperation within each Forest Service Regional Office to supervise and inspect this program. Occasionally, the Chief of the Division of State Forestry in the Washington Office inspected state

operations. When he did, he made a report of his inspection to the appropriate Regional Forester. In the summer of 1943, James Fitzwater, Chief of State Forestry of the Washington Office, accompanied by the Regional Forester of Region 7, made such an inspection in Pennsylvania. Joined by the State Forester, the inspection party looked at a number of private woodlots where the owners had been cooperating under the program with the assistance of "farm foresters," who were state employees working in each county. Fitzwater found the state forestry people "enthusiastic about the program." He asked them to make monthly reports on both State and Private Forestry activities. [22]

The State and Private Forestry people of Region 9 achieved what they considered an important victory in a cooperative program when they got the Pioneer Cooperage Company of St. Louis, Missouri, a major timber harvesting company in Missouri, to agree to a selective cutting and continuous forest cropping plan. The emphasis would be on solving the age-old problem of forest fire in the Missouri Ozarks and on improved forestry practices. [23]

In the early 1940's the Cooperative Forest Fire Prevention Campaign was active, promoting its message through the predecessor of Smokey Bear that people were the cause of fires.

Farm Forestry Program

As a part of the effort to increase forest production and in line with the TPWP, Congress passed the "Private Forestry Law" in 1944. The Law arranged for any private woodlot owner who wanted to improve his forestry practices to apply through the county Farm Bureau for assistance from the Farm Forestry program. The Farm Bureau was a private farmer's organization with no official status with the government, but it was very well connected with the Department of Agriculture and the system of county agents. If the local Farm Bureau deemed the application of a land owner to improve his woodland to be legitimate, it was approved. The program gave high priority to land where there was no special fire hazard, where the interest of the owner was high and his ability to cooperate was guaranteed, and where the benefits were valuable from a public relations standpoint. [24]

It must be noted that there was a certain amount of elitism inherent in the Farm Forestry program. The Farm Bureau was well known for being the organization of large and successful farmers. If the Farm Bureau was given control of who received assistance from the Farm Forestry program, the local big farmers who dominated the Farm Bureau would probably see to it that they and their kind would receive the benefits of the program and that poorer and smaller farmers, who were more likely to be members of rival farm organizations, received very little. The curious provision that high priority was to be given to projects that would be valuable from a public relations standpoint can be better understood if one knows that the Department of Agriculture had operated for years on the premise that to be successful, agriculture programs had to be acceptable to the bigger farmers. By the same token, letting the local Farm Bureaus judge whose "interest was high" among the applicants or whose "ability to cooperate was guaranteed" was an invitation to cronyism.

The Forest Service was entering unknown waters, when it went into locally administered assistance programs. Inspection reports and correspondence indicate that Forest Service personnel tried to stay out of local farmer politics. The Service was interested primarily in improved forestry practices and seeing to it that federal funds were reasonably used.

Forest Service Policy on Wartime Production

In December 1943, in a publication called *The Agricultural Situation*, Chief Lyle F. Watts outlined the wood products needs of the War effort and the contributions already made by the TPWP. He estimated that 1.75 billion board feet of lumber and 3.25 billion square feet of veneer would be needed to pack food and agricultural products in 1944. The timber cut from the National Forests in Fiscal Year 1943 had been 2,359,463,000 board feet, or 83% more production than in 1939. In addition, the Forest Service was doing a "grinding job" of helping thousands of individual farmers and small woods owners get their timber to the mills. Watts was concerned, however, that all of this increased timber cutting was being done unwisely, especially on private lands.

The most pressing problem, according to Chief Watts, was destructive cutting. This needed to be stopped so that the productivity of every forest acre currently bearing or capable of bearing merchantable timber could be maintained or increased. [25] The Chief described how a food growing program on National Forest land called the National Forest Range was making a valuable contribution to the nation's food supply. The Forest Service was also collaborating with the Office of Price Administration, the War Production Board, and other agencies in determining forest products requirements, supplies, and output. He indicated the important role played by the Forest Products Laboratory, Madison, Wisconsin, in designing adequate, efficient, and economical containers and crates, and their work in plastics, plywood and wood chemistry.

Region 9 Field Day on Timber Production

The Regional Office and the Regional Forester of Region 9, apparently concluding that the heavy wartime cutting of state and private forest timber made it necessary for the area foresters of the TPWP to have a refresher course in Forest Service timber production practices, scheduled a field day for all Region 9 area foresters and their assistants. Also present were representatives of the Lake States Forest Experiment Station, Rhinelander, Wisconsin, the Regional Forester, and all of the Regional Office staff concerned with timber production.

The field day was held on a private farm near Milwaukee. The program, conducted by the Regional Office staff, consisted of lumber grading, tree grading, and the method of determining residual timber value by the land owner. After lectures on each topic, everyone went into the woods to grade trees and lumber and to do the timber value calculations. The day ended with a discussion period and then a picnic lunch. [26]

Special Wartime Needs

One wood critical to the War effort was yellow birch, which was needed to make veneer for aircraft (many aircraft, especially gliders, were partly made of plywood during the War). Also in demand was walnut for gunstocks, and hickory for handles. The Regions were aware of such demands and made every effort to meet them.

Black Walnut in the War

Quite a bit of emphasis was put on the production and harvesting of black walnut during the War in the southern forests of Region 9 and Region 7 because the wood was used in making gunstocks. The National Forests involved were the Monongahela, Wayne, Hoosier, Shawnee, Mark Twain, and Clark. [27]

Charcoal Making Revived

Wartime fuel shortages brought about the revival of charcoal making. This had once been an important industry in the hardwood forests of the Ohio Valley and the Ozarks. The industry reached its peak about the time of the Civil War and declined in the decades that followed when coke replaced it as a fuel for furnaces. The usual method was to cut hardwoods in the forest, lay the wood in piles in pits or mounds, and burn it covered with soil. The fuel was used to make the super-hot fires needed for blast furnaces and smithing.

Nothing was left of the charcoal industry by 1918, but during World War II it revived. Charcoal was used in the manufacture of rayon, black powder, and munitions of several kinds. As a result, charcoal making operations returned to the Wayne Purchase Unit in 1944. Foresters of the Purchase Unit saw many advantages to this revived industry. The limbs from improvement cutting and thinning could be used to make charcoal. and this had the added bonus of making the remaining trees better candidates for saw logs and veneer stock in the future. The charcoalers could also use the tops and limbs left from logging operations and the side slabs from portable sawmills. [28]

Portable Saw Mills

Wartime need for lumber caused the development of a new type of portable sawmill in Wisconsin, Minnesota, and Ohio. The sawmill traveled from farm to farm much in the manner that threshing machines did in these days. The mills could saw an average of 4,000 board feet of lumber in one place, and then be moved in about 30 minutes and set up again in another location. The mill was moved on a trailer which weighed only 2 tons with the mill on it. This made it easier to move into difficult places. [29]

Tires From Dandelions?

In the early stages of World War II a critical problem developed over rubber. The normal source of supply for crude rubber in Southeast Asia had been cut off by Japanese conquests, and rubber was badly needed for tires for military vehicles and many other wartime uses. Because of this situation, the Department of Agriculture was assigned the task of finding other plants capable of producing large amounts of rubber. There were two experimental projects carried on by the Forest Service. One involved the growing of guayule, a shrub which could be grown in the Southwest. The other dealt with kok-saghyz, or Russian dandelion.

Reports from Russia, where over 2 million acres of kok-saghyz had been planted, indicated that the cleaned roots of the plant yielded a milky juice from which rubber could be made. It could be grown in the cooler temperate climates and would yield 150 to 200 pounds of rubber per acre. [30]

In July of 1943 a party of officials from the Washington Office visited the Region 9 Regional Office to confer with Regional Timber Management Chief H. Basil Wales, and the staff concerning the kok-saghyz program. Involved in the conferences were experts in silviculture, plant genetics, forestry, timber management, and others including the Forest Supervisors whose National Forests were to be given the tasks of growing the plants. [31] Earlier, with the cooperation of the Soviet Union, several tons of seed had been brought from Russia by airplane to Washington. There, the seeds were examined, repackaged, and sent by plane to 60 prepared test fields in National Forests in the northern states. All of this happened within three weeks because of the urgency of the rubber problem. The seeds went to Chippewa, Chequamegon, and Upper Michigan National Forests. Forest Service workers planted 35 acres at Cass Lake, Minnesota, 10 acres near Butternut, Wisconsin, and 23 acres at Manistique, Michigan. Other plots were planted elsewhere in the Lake States. The plants grew well but ripened unevenly, causing problems in harvesting seed and requiring special machinery. [32]

Later that season, about nine tons of kok-saghyz roots were harvested from the nurseries. On the basis of this program the Department of Agriculture announced that the plant could be grown successfully in the northern tier of states from Vermont to Oregon. The report also found that kok-saghyz required a fertile soil and was especially adaptable to organic soils such as mucks and peats. Average production had been two tons of roots per acre, about what the Russian reports had indicated. The largest harvest was reported from a plot near St. Paul, Minnesota, where four tons per acre was produced. Seed production was satisfactory in the moist soil of the Lake States and with irrigation in Montana and Oregon. The rubber produced by compressing the roots of the kok-saghyz was of high quality, and the amount acquired in 1942 was thought to be sufficient to permit experiments to test the rubber in specific uses. [33]

The optimistic report of the Department of Agriculture concerning kok-saghyz did not lead to a rapid conversion by large numbers of Lake States farmers to cultivation of the plant. It was a labor-intensive product, and the only reason to consider it was the critical shortage of rubber. That shortage was alleviated by discoveries of American scientists who had been working desperately to develop a synthetic rubber. When this was accomplished using petroleum-based compounds, the need for alternate plants quickly diminished. Years later, it became a standard joke among the Forest Service people who had taken part in the kok-saghyz program that all of their efforts had produced only one truck tire. [34]

Christmas In Wartime

At Christmas time in 1941, some of the key people of the North Central Region gave some thought to the importance of Christmas trees. Every year, about 10 million Christmas trees were cut, but the War had put heavy pressure on the use of the balsam fir, Douglas-fir, spruces, cedar, hemlock, and all of the pines—the trees used for Christmas trees. At the same time, the War had cut off the flow of these woods from Scandinavia. The firs were needed in the War for shipping crates, building materials for military camps, veneer wood, mine timbers, railroad ties, silos and tanks, and

timber for ship construction. The cedars were needed for posts and poles, ties, and planking for boats and canoes. Hemlock was used for general construction and paper pulp, and the pines were used for just about all purposes from matches to posts, or from pattern making to ship building.

The timber management people of Region 9 predicted the market for Christmas trees for the season in 1941 and asked if this demand threatened the supply of conifers needed for the War effort. They decided that there were enough coniferous trees available to see the United States through a dozen wars—if they were cut wisely. They sent out word throughout the Region that cutting Christmas trees was permissible. The big job of the Forest Service was to see that both America and the spirit of Christmas endured. [35]

Activities Which Had to Wait

Land Purchases

During the War, purchases under the Weeks Act came to a virtual halt. In 1943, the land purchased nationwide amounted to only 8,759 acres. This was the smallest amount acquired by the Forest Service in any year since the program began in 1912. Clearly, in the War years the federal government had more important needs for its money than land purchases.

The peak year for Weeks Act purchases in the North Central Region, Region 9, was 1934. That year, 1,760,489 acres were bought at an average price per acre of $1.97. In 1926, the Region paid the lowest average price per acre—one dollar—for 50,403 acres. The highest average payment was in 1942 when the Region purchased 92,864 acres for $4.08 per acre. As of 1944, the total acreage purchased in Region 9 was 6,280,273 acres at an average price of $2.68 per acre. While all of these prices seem unbelievably low compared to land prices in the 1980's, it must be remembered that the land being purchased in the 1920's, 30's, and 40's was, by the constraints of the Weeks Act, cut-over, denuded, and badly eroded land. [36]

Land Exchange Program

In 1943, the state of Michigan and the Forest Service exchanged lands in Michigan under the Bankhead-Jones Farm Tenant Act. These lands had been purchased by the Farm Security Administration, a New Deal agency which carried on programs to alleviate farm tenancy. Most of the FSA programs had ended by 1943, so the lands involved were exchanged for certain land utilization project lands in Michigan. The lands received by the Forest Service were added to the Huron, Manistee, Ottawa, Marquette, and Hiawatha National Forests by Presidential Proclamation on August 12, 1943. [37]

Recreation

When World War II began, funds for recreation dried up. Forest Service employees involved in recreation planning, such as Robert L. Clayton on the Hiawatha National Forest, had to leave the Forest Service to find work elsewhere. [38] Even so, recreational use of National Forest facilities increased during the War. Occasionally the job of recreation guard could become violent. A recreation guard at a beach in the Vesuvius Recreation Area, Lillian Armstrong, saw a group of six

people on the beach drinking hard liquor, a violation of Forest Service rules. When Armstrong told the party to quit, they ignored her, and when she tried to enforce her order a fight broke out in which she was hit in the back of the head with an iron pipe. A concessionaire at the beach, Carl Malone, came to Armstrong's aid and was hit in the mouth and knocked down. Law enforcement officials were called and they arrested five of the group, one of them having fled from the scene. Neither Armstrong nor Malone were permanently injured. The worst trouble makers of the group were two women who were put in jail. They were sentenced a month later to 30 days in the county jail and a fine of $50 each. [39]

Fire Prevention

Fire prevention was an important part of the Forest Service's War effort. Since wood products were crucial War materials, it was important to prevent forest fires which could do inestimable damage to the source of supply. As it had always been, one of the keys to fire prevention was getting the message to local communities. The North Central Region had a program in 1944 by which the District Rangers and others in the field contacted local newspaper editors to encourage them to make use of page proofs supplied by the Forest Service to run special issues on fire prevention.

The Regional Office was especially pleased when reports came in that special issues had been published in several Missouri and Wisconsin newspapers which were widely read in counties with high proportions of National Forest land and with histories of forest fire problems. Often the newspapers involved were the only ones read in the county. The thinking in the Regional Office was that the program was reaching people who otherwise might not have been reached. These rural people were the ones who could do the most to prevent forest fires. [40]

Cooperative Fire Fighting

With the help of the state foresters, the Forest Service directed a public forest fire prevention campaign consisting mostly of posters and printed matter distributed throughout the Regions. It also took part in the organization of the Forest Fire Fighters Service, which gave assistance to Civilian Defense in setting state fire control systems and in planning training. Dave Godwin, a Region 7 official, was national coordinator for the Forest Fire Fighters Service.

All of these efforts in the area of forest fire protection were a job which the Forest Service was well fitted to accomplish, not only by the nature of its work but because of the previous experience in working with the states under the Clarke-McNary programs.

Both Regions 7 and 9 helped the Army and Navy in purchasing lands needed for cantonments, training camps, and ammunition dumps. An important part of Army training was effective camouflage. For advice on what would work in forests and what kinds of plants to use, the Army Corps of Engineers turned to the Forest Service. The Service conducted extensive studies on forest camouflage and also on the use of plant growth substances to stimulate growth on planted camouflage. [41]

The Clarke-McNary Act of 1924 provided for a cooperative program of fire protection administered by the states but funded by the federal government and coordinated by the Forest

Service. During the War, an Emergency Fire Protection Fund was set up by the federal government under the administration of the Forest Service Regions. One of the main functions was to inspect the operation of the state organizations and the fire protection districts (called CM-2 districts because the authority came from Section 2 of the Clarke-McNary Act).

Such an inspection was conducted by Region 7 State and Private Forestry personnel in 1943. The inspection included Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. The inspectors were interested primarily in how each state's fire protection system worked. The organization in Maine was typical. When a fire was discovered by a lookout, he or she notified the first town selectman (equivalent to councilman) he or she could find in the nearest town. There were also two or three contact persons in each town and at least one fire warden. The warden's immediate duty was to summon a crew of local fire fighters, probably both firemen and volunteers, and go to the fire. After contacting the town authorities, the towerman was to notify the county warden, who was a state employee.

Each town had fire fighting tools purchased through the CM-2 program and nearly all towns had organized fire fighting crews with some training. Basically, the burden of the fire fighting program was borne by the town governments in forested areas.

The Region 7 inspectors had the task of checking the system, determining if it worked, and seeing that it justified the expenditure of federal funds. Generally, their conclusions were positive about the system in Maine and in the other states. [42]

Fire Guard Sees Army Plane Crash

One day in November of 1944, Nick Wynn, a Forest Service Fire Guard on the Huron National Forest watched from his tower while a formation of Army Air Corps planes from the Oscoda Army Base flew over the Forest—a bomber and three fighter planes as escort. Suddenly the bomber went out of control and dived straight into a stand of Norway pine not far from the fire tower. It plowed down several rows of trees and exploded, starting fires in four places from burning wreckage. Wynn and a fire crew left immediately for the scene of the crash and put out the fires after three or four acres of trees had burned. Four Army Air Corps fliers died in the crash. [43]

Region 9 Answers the Call

The wartime draft had taken so many young men into the armed services—over 10% of the population—that there was resentment toward those who had not been drafted. The federal Civil Service, which was generally not exempt, was occasionally charged with being a place for draft dodgers and slackers. To answer such charges, a study made in 1943 showed that of the 2,825,000 Civil Service and other civilian employees of the federal government, almost 2 million worked for the War and Navy Departments. Only 84,000 of all federal employees had been given draft deferments for occupational reasons. Of the non-deferred employees, 315,000 were in the Post Office Department, leaving only about 200,000 others, about half of whom were women. There were about 119,000 men of draft age among the non-military federal employees, and only 13,992 of them had received draft deferments. Also, there were 238,154 federal employees in the Armed Forces.

These figures about military service were circulated widely in publications of both Region 7 and Region 9 so that Forest Service people would know that the charges about being draft dodgers were just not true. [44]

An example of new and different ways which the Forest Service cooperated in the War took place in the Jonesboro District of the Shawnee National Forest. Some very important long distance telephone lines of the American Telephone and Telegraph Company ran for 50 miles through the District. Ranger Ty S. Gill agreed to report all fires along the line to AT&T immediately so their crews could see that the long distance lines were kept in service. The lines, according to Jay H. Price, were important because they were "kept hot these days with national defense business." [45]

During World War II, German Prisoners of War were held at several abandoned CCC camps on National Forests such as the White Mountain, Chippewa and Shawnee. For a time on the Chippewa and White Mountain, the POW's worked for local loggers who were short of manpower. [46] There was a Conscientious Objector Camp and a Prisoner of War Camp established on the Allegheny National Forest. Frank Rudolph was the foreman of the Conscientious Objector Camp after his years as CCC Camp foreman.

Region 7 at War

By September of 1942, less than a year after U.S. entry into the War, the Regional Office of Region 7 estimated that the Region was "better than 80% into strictly War activity." Some 117 men from the Region had joined the Armed Forces, and others had left to work in War industries and for the War Production Board. Many Forest Service positions left vacant by these departures had been unfilled or filled with untrained people which presented a sizable wartime job for the Forest Service in itself. [47]

Forest Service Men Killed in Action

In 1947, an 80 acre tract of virgin timber on the Chequamegon National was dedicated in a Memorial Day ceremony to four Forest Service men killed in World War II: Edward S. Kafka, Arnold A. Lundstrom. Steve J. Nanjestnik, and Maurice L. Blair. [48]

Planning for the Postwar Years

Postwar Readjustments

As early as December of 1943 the Forest Service was concerned about postwar personnel readjustments. At a conference held in St. Louis, Missouri, agency personnel officers laid out a postwar policy was later confirmed by the Secretary of Agriculture. There would be a 39 hour work week after the War with time and a half for overtime. Veterans returning from the War were to be given the benefit of automatic promotions and every other gain they would have had if they had remained on the job. Employees who voluntarily left for civilian jobs with other government agencies would not be given re-employment benefits; those who went into the military service would. Temporary Forest Service employees would be terminated when furloughed people returned

from the military, but this would be done on an individual basis. Temporary employees who had "made good" could be retained.

Management also allowed for increased delegation of authority in the future. This was done to allow field offices greater latitude in employment and disciplinary matters and in determining the wage rates of temporary employees. These changes were adopted throughout the Department of Agriculture. The Forest Service was proud of the fact that many of its policies with regard to decentralization were adopted by the entire Department. [49]

Postwar planning began early in the War in some areas. One enthusiastic report informed the Region 9 Regional Office in November of 1943 that postwar planning had been going on for two years in the Shawnee National Forest, which was jokingly called "the annex to the Region." This would mean that postwar planning began there before the War started. The burden of such far-sighted planning was being borne by the Egyptian Planning Commission (southern Illinois is sometimes called "Egypt" because like Biblical Egypt, the region supplied corn to settlers in northern regions during a year of crop failure in the early 19th century). The Commission had been meeting monthly for more than a year with 35 to 40 people in attendance. The main theme of the meetings was conservation.

The same report noted that the Egyptian Planning Commission had helped the local people to cope with wartime disruptions. When the Ranger at the Jonesboro Ranger Station left and could not be replaced for several months, the Commission told everyone that since there would be no Ranger they would have to protect their own land from fires. The report was happy to note that there had been no forest fires during the interim period between Rangers. [50]

Based on the CCC experience, the Region 9 leaders began planning for the use of demobilized soldiers and workers after the War on what they called "wild lands." They reasoned that conditions after the War would have great potential for "public action in the entire field of wild land use." To that end, Loren T. Murphy of the Region 9 Division of Operations was assigned the task of making plans for the postwar activities in this area. [51]

Postwar Plans

In the midst of World War II, the leaders of Region 7 became increasingly aware of the special problems the War was creating for American forestry. The War was placing such great demands on these resources that unless there was a coordinated program to restore the forests in the postwar period, there was great danger to the resource.

In 1943, Regional Forester Robie M. Evans told a, women's group, "We need to quit wasting wood." He added that, "most of the waste occurred in production." Steps had been taken to eliminate waste but much remained to be done. The problem was that because of the War, the nation was using 17 billion cubic feet of lumber each year from forests which were growing only 11 billion cubic feet of wood each year. All of the wood was going for military and essential civilian uses, and Evans said, "We shall not deny a stick of it as long as it is taken from helpful cuttings such as thinnings of mature trees which have had their growth."

The wartime cutting was a necessary drain amounting to 50% more than new growth. Government studies showed that before the War the National Forest resource was losing 2.3 billion cubic feet of wood more than was being grown due to fire, insects, disease, and consumption.

Postwar demands for wood would be ever greater than before. There would be better wood products—more attractive finishes, stronger woods, and with better architectural use. "Greater pressure put on the wood resource", Regional Forester Evans said, "meant that more effective measures would have to be taken to protect the resource; we have got to be more careful with fires, and we have got to tackle more effectively the problem of controlling devastating insects and disease."

Evans had a seven point program for forestry in the postwar period:

1. Protect the forests from fire, insects, and disease.
2. Provide for adequate re-stocking after cutting by natural regeneration.
3. Prevent premature or wasteful cutting of young stands of valuable species.
4. Leave enough young growing stock to keep the forest productive.
5. Prevent damage to young trees by careless logging operations.
6. Prevent damage by grazing to woodlots.
7. Prevent clearcutting except where the land was to put to some higher use or where clearcutting was indicated as the best forestry practice.

Because so much of the eastern forests were owned by private owners, it was clear that the Forest Service could not meet the postwar needs by management of federal lands alone. The cooperation of private landowners was absolutely essential. The Chief of the Forest Service had proposed a three point program for the postwar period: one, expanded public aid to forest land owners in such matters as fire prevention and reforestation; two, increased public ownership of forest lands; and three, control of cutting and other management practices on privately owned lands.

Behind the Chief's program lay the conviction that only with improved management of its forest resources, would the nation be able to meet its future needs. Evans agreed with the Chief that this would mean much greater participation by the Forest Service and state and local forestry agencies in the management of forests on private land. Also, Evans pointed out that prosperous wood products industries would mean many jobs for the millions of servicemen and women returning to civilian life from the War. [52]

Summary

As it was for most segments of American life, World War II was a major shift in direction for Regions 7 and 9. The wartime demands for wood products were so great that basic principles of forest management had to be abandoned temporarily. The TPWP program was a coordinated effort to stimulate forest production on private lands and to improve industry practices. The Russian dandelion experiment, although unsuccessful, proved Region 9's willingness to go all out on a project deemed essential to win the War. Many Region employees entered the Armed Forces leaving both Regions short handed; those who stayed on the job worked long hours and helped in the War effort with volunteer work. It was a time of waiting, anxiety, and greater than usual unified effort. When peace came, both Regions had made plans and were ready to resume their usual work.

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Horse drawn log sled, northern Minnesota, early 1900's.

Gathering of conservationists in the early 1900's President Theodore Roosevelt and naturalist John Muir (4th from right) and others.

Eroded lands which became part of the Shawnee National Forest, Illinois, 1930's.

Loading logs on the Ottawa National Forest, Michigan 1935.

Happy Days, the national weekly newspaper for the Civilian Conservation Corps, June 11, 1938.

Miss Margaret March-Mount of Regional Office and Ray W. Knudson of Chequamegon Nat'l. Forest Supervisor's Office show size of Women's Club's cooperative plantation.

Smokey Bear Fire Prevention sign, 1960.

Accelerated Public Works Project workers laying a culvert on Alvin Creek Road, Eagle River Ranger District, Nicolet National Forest, Wisconsin, 1963.

Beaver aircraft dropping water on spot fire, Kawishiwi Ranger District, Superior National Forest, Minnesota, 1962.

Timber harvesting, Chequamegon National Forest, Wisconsin.

The Inter-Mountain

Only Daily Newspaper in Randolph and Seven Bordering Counties

VOL. LXVII NO. 34 ELKINS, W. VA., 26241 THURSDAY AFTERNOON, NOVEMBER 8, 1973

Only Congress Can Change 1897 Law Governing Timber Practices

Maxwell Says Clearcutting Forbidden In National Forest by Organic Act

Monongahela National Forest clearcutting issue, Inter-Mountain, newspaper, Elkins, West Virginia, November 8, 1973.

Young stand of pine trees Hiawatha National Forest, Michigan, 1936.

Cultural (Heritage) Resources excavation of prehistoric archeological site.

CHAPTER X

POSTWAR AND THE FIFTIES

Earlier periods of development of the Forest Service have been well covered by many writers, but what has happened since World War II is not so well understood. There was, according to Larry Henson, a period after World War II and before the 1970's when the Forest Service was in a "growth mode" which was "fairly unconstrained by the public." The growth was in budgets and in personnel. During the War, heavy demands for wood products had been put on the National Forests. When the War was over the building boom caused even more demand for lumber from the National Forests. The Forest Service responded to this by growing bigger and taking on more land to manage.

In addition, through the 1950's and 1960's there was a great increase in public leisure time. The Forest Service reacted by building picnic and camping sites and by providing greater recreational opportunities. [1]

Postwar Policies

During the War, there was much thought given to what would happen in the postwar period. The Department of Agriculture set up the Interbureau Committee on Postwar Programs to coordinate planning between the agencies of the Department. The Forest Service branch of this effort was headed by Richard E. McArdle. McArdle became so dissatisfied with the complexities of coordination that he began making a separate plan for the Forest Service, even though the Interbureau Committee freely accepted Forest Service thinking on planning goals. Essentially, the goals were the predictable ones of protecting the timber, range, water, recreation, and wildlife resources, with an additional one of stopping the destructive cutting which had been necessary during the War. [2]

In the years 1945 through 1952 a great debate raged between the Forest Service and American Forestry Association (AFA) over basic forestry issues. Chief Lyle Watts ordered a reappraisal of the forestry situation in 1946. The result was a report which found that the national timber supply was dwindling at a rate of 18.6 billion board feet per year. The Chief blamed the problem on poor cutting practices on private lands and called for public control of all logging, even on state and private land.

The AFA made their own survey and with essentially the same findings reached the opposite conclusion that less public control was needed and that more logging should be permitted on public lands. The debate went on with the National Lumber Manufacturers Association (NLMA) and its publicity branch, the American Forest Products Industries (AFPI) joining the fight on the side of less regulation. The debate was settled politically with the election of Dwight D. Eisenhower in 1952. Eisenhower opposed what he called "federal domination of people through federal domination of their natural resources." When he was elected President, the Forest Service was forced to drop their goal of federal regulation of private forestry.

Richard McArdle, who became Chief in 1952, claims he had already decided there were more important concerns than regulation when Eisenhower became President. Be that as it may, McArdle stayed on as Chief under Eisenhower and the Forest Service turned to the task of managing the National Forests. [3]

Land Acquisition

No new laws were passed in the 1950's to allow for the acquisition of large blocks of land for the Forest Service or for the completion of purchase units of National Forests already begun. Some purchasing continued under the Weeks and Clarke-McNary Acts, but funds were drastically reduced by Congress.

In 1953 the Forest Service received some 7 million acres of "land utilization project" lands. These were lands acquired during the depression years of the 1930's by the Resettlement Administration and the Farm Security Administration as part of programs to provide lands for sharecroppers tenants, and other landless farmers. These lands were added to the National Forest System. [4]

Another method of land acquisition was the tripartite exchange. Typical was an arrangement made in 1949 in Vermont which enabled the Forest Service to acquire the Joseph Battell estate. Middlebury College sold the estate land to the nearby towns who then sold it piecemeal to the Green Mountain National Forest over a three-year period. [5]

One provision which made land acquisition complicated was that the state had to pass enabling legislation, inviting the Forest Service to acquire land in that state. In Vermont problems arose in the 1930's, when the Forest Service was acquiring land in the town of Peru, a summer home area popular for recreation residences. Local people believed the Forest Service was picking up parcels better suited for residential development. The townspeople tried to get a movement going which would have eventually stopped future purchases by the Forest Service in Vermont. According to Dick Ackerman, current staff officer of the Green Mountain National Forest. "A compromise was finally reached requiring all purchases of land in Vermont for Forest Service purposes to be approved by the selectmen of the town where the Forest was located." Next, the proposed sale had to be approved by the state board on National Forests. Although the process was time-consuming, most New Englanders seem to agree with Ackerman that:

> "these two approval steps required us [the Green Mountain Forest] to maintain public relations and contacts, at least with the selectmen, ever since 1935. It was either do that or risk alienating the public sector outside the Forest Service and not be able to buy land." [6]

According to Jack Godden, Gerald S. Wheeler was involved in the settlement and compromise with town governments. As he was involved in Vermont, he carried the same interests and involvement with town officers in New Hampshire and Maine.

Outdoor Recreation

In the mid- to late-50's, many campgrounds in the National Forests were in need of repair. They had been built during the CCC days, and all wore out at the same time. There had not been appropriations or manpower available for upkeep for many years, so the National Forests had to deal with a tremendous rehabilitation need. [7]

There was also a rapidly growing need for outdoor recreation. In 1948, approximately 3 million people lived within 150 miles of the Allegheny National Forest. By that time the Forest was experiencing heavy recreational use in all seasons with the exception of water sports in the winter. Use figures showed an increase between 1940 and 1947 as follows: residences increased from 250 to 400, picnickers from 75,000 to 132,000, and campers from 3,000 to 4,400 per year. There had been a drastic reduction in such recreation use during the War, but it had increased dramatically after the War. [8]

Recreation Facilities of Region 7

In 1952 Region 7 published a brochure on "Recreational Facilities in the Eastern National Forests." The brochure described the facilities available to the public in each of the National Forests. In the White Mountain National Forest it spoke of the Campton Pond Recreation Area, a 40 acre pond with a sand beach used primarily for swimming and camping, the Dolly Copp Recreation Area, a camping area with a beautiful view of a mountain panorama, a swimming pool, and a nature trail, plus dozens of camping-picnic areas plus an area of geological interest, all developed by the CCC.

Most of these facilities provided drinking water, picnic sites, and some had sanitation facilities. There were also high country cabins at Black Mountain and elsewhere. These cabins had accommodations for 12 persons including bunks and mattresses, a stove, firewood, and toilet facilities. The cabins were originally intended for winter sports enthusiasts, but they were being used throughout the year by those wishing to spend a short time in the mountains. Several of the cabins were of the Adirondack type with one open side for "rugged" camping.

In addition to the cabins provided by the Forest Service, many shelters had been constructed on the White Mountain National Forest by hiking and hunting clubs. The Forest in 1952 had 1,000 miles of hiking trails, 60 miles of ski trails, several practice slopes, and many miles of scenic roads.

The Green Mountain National Forest had four picnic-camping areas and many driveable roads on which motorists could view the richest of Green Mountain scenery. A leading recreational feature on this Forest was the Long Trail hiking trail. Adirondack shelters were placed at six mile intervals along the trail. There was also a good system of horse trails.

In 1952 the Allegheny National Forest had nine camping, picnicking, and nature areas and a protected area of virgin white pines known as the Kelly Pines. One of the most attractive features of this Forest was the abundance of wild animals. Visitors were almost certain to catch glimpses of deer, rabbits, grouse, and other wild game. The Monongahela National Forest listed 10 recreation, picnic, and camping areas. The George Washington National Forest had at least five such areas, and Jefferson National Forest had seven. Many miles of the Appalachian Trail ran through the Jefferson.[9]

There had been an increased use of recreational facilities on the Monongahela during these years, but there were no funds to hire attendants and lifeguards, so the movement toward concessionaire operations began. In 1951 a concessionaire at the Stuart Recreation Area was allowed to charge for parking and to sell food, soft drinks, and souvenirs. [10]

Fire Control

Fire Protection—State and Private

Under the Clarke-McNary Act, each state was required to make an annual fire report to the Regional Forester. The report covered causes of fires, areas damaged, areas burned out, cases of arson prosecuted, escaped fires, and number of fires in state and federal protected areas and total area protected. The reports also included the budgets for fire prevention and expenditures by agencies. These reports were made by the state foresters or fire control officers on a Forest Service form. [11]

Some of the 22 states within Regions 7 and 9 had adequate to good fire protection systems. Others, in the estimation of Forest Service officials, had "far to go in obtaining adequate protection." The work of the CCC in the 1930's did much to improve state fire protection with such projects as fire towers, roads, truck trails, and detection and communication systems.

In 1947, because it was not sure how much of the CCC work still existed, Region 7 requested that all of the states in the Region make comprehensive plans for future development of CM-2 areas. CM-2 was a cooperative fire prevention and suppression program authorized under Article 2 of the Clarke-McNary Act. After providing sufficient time for the plans to be implemented, Region 7 inspectors went to three states, where they found many deficiencies. The main problems seemed to be a lack of a clear concept of the objectives and a lack of interest.

Edward Ritter, head of the Division of State and Private Forestry of Region 7 had the job of recommending reforms for the entire CM-2 system. He proposed a series of studies be made by the states. First, there would be a transportation study in which timber management, recreation, and wildlife activities would be considered. Second, there should be a detection study which would determine which areas were visible from fire towers, where lookout stations and communications systems should be located, and the availability of water supply and the hazard of its use. Third, there should be a plan for expansion which would be integrated with plans for new roads and trails in order to meet the Forest Service's hour-control standards (fire response times). Fourth, there should be a fuel-type study to include the types of forests involved and plans of action to reduce the amount of slash and brush and other fire hazards along roads and trails. And fifth, there should be a maintenance plan which would insure protection of the fire control facilities planned and existing. Ritter's recommendations were to be Region-wide. He recognized that each state would need to adopt standards and policies applicable to localities and special situations. [12]

Ritter saw the job of cooperating with the states in the fire control program as a major concern of the Region. After all, there were seven important states in the Region which had no National Forests and therefore had no dealings with the Forest Service except through such programs as the one for fire control.

In 1947, Ritter conducted an extensive inspection tour of each of the 101 CM-2 Districts of the Region. After completing his tour, Ritter wrote: "I now realize that the CM-2 job can be much bigger than I had first judged it. There are many constructive things [Forest Service] inspectors can

help state foresters with if state men will accept the assistance." What Ritter had in mind was help in training, preparing necessary legislation, and what he called "moral backing for those worthy ones in need of it." It was well known within Region 7 that certain states were more worthy than others of Forest Service support for their forestry programs. Pennsylvania was near the top of the worthy list, probably because of the influence of Gifford Pinchot. On the other hand, partisan politics and political appointments to forestry positions put West Virginia and Kentucky near the bottom of the worthiness pile.

In an effort to improve the CM-2 program, Ritter persuaded the Regional Forester to instruct his subordinates to produce new guidelines and standards which would be flexible enough to allow the Region to meet its inspection obligation but "without too much lost motion." Since there were 101 administrative or fire districts within Region 7, more than two in each state, he wanted a "detailed inspection" of at least one district in each state every year. The number of inspections beyond that would depend on the situation and the willingness of state officials to be inspected. [13]

During 1948, the stepped-up inspections by Regional officials brought a measure of reassurance to Ritter and the Regional Office. The inspections showed improved fire records in some states. The improvement was due in part to better communication and improved equipment. Much surplus military equipment had been turned over to the states and was being put to good use. Connecticut for instance, had established a FM radio fire network which broadcast fire messages and weather reports. State arson laws had been improved and some states were actively prosecuting forest fire setters. [14]

Most of the improvements in state forest fire protection in Region 7 were the work of the states themselves, but the CM-2 program and the inspections by Regional officials undoubtedly contributed significantly.

First Aerial Detection Flights

With some trepidation, the Superior National Forest began fire detection flights in the summer of 1945. One pilot in a Piper Cub airplane began making flights over the LaCroix, Kawishiwi, and Tofte Ranger Districts. The flights eliminated the manning of four lookout towers. The plan was to make the flights on a basis of need in accordance with fire danger and visibility conditions. Normally, it would take three hours for the plane to make one patrol flight, and there would be one flight per day; however, as many as three flights might be required after electrical storms or when forest conditions were very dry and winds were high.

Apparently, the Forest was uneasy about placing full trust in the flights for fire detection. It continued to man most of the towers for some time on the rationale that they would be needed to communicate by radio with the plane and would give coverage between flights. Eventually, the aerial detection flights proved successful and manned towers on the Superior National Forest came to be a thing of the past. [15]

Timber Management

Inspection of Timber Operators - Region 7

Part of the job of State and Private Forestry in Region 7 was to inspect and analyze the operation of timber operators. The purpose of this program was to allow timber to be appraised, using cost estimates. Operators volunteered the data, which included logging, sawmill, yard, delivery, selling and administration costs. Sometimes, the Forest Service inspector was unable to obtain all of the information he needed from the books of the operator. In such cases, the inspector went through the accounts, in effect doing some of the bookkeeping himself. Often he had to make appraisals and adjust amounts based on his own experience. The purpose of these reports was to determine the percentage of profit made by the operators. Often it was a difficult task because of the poor bookkeeping of the operators. The inspectors frequently encouraged the operators to keep better records and simplify their cost analysis. When the operators were willing, the inspectors helped them design and install improved record keeping systems. Many private companies were reluctant to open their books to the inspectors, but the prospect of having their bookkeeping procedures greatly improved changed many of their minds.

The general attitude of the Forest Service on this sort of work was that better accounting by the operators would benefit them and State and Private Forestry. Many hours of work and an abundance of accounting went into the inspection program. The Office of Fiscal Management made these inspections as a part of the State and Private Forestry program. In 1962, the Region made 14 of these inspections. [16]

Timber Sales

Many of the National Forests had been planted in the 1930's and were now coming into production. In a speech made in 1953, Region 9 Regional Forester Jay H. Price recognized this fact and predicted the doubling or tripling of the Region's current annual timber harvest (55 million board feet) and the production of much higher quality lumber. [17] The Chequamegon National Forest, for instance, in 1953 had a cut of 55 million board feet, seven-eighths of which was in the form of pulpwood. This was a big increase in board feet of pulpwood over previous years on this once heavily cut-over Forest. Production of sawlogs and higher quality timber could be expected in the future. [18]

Similar things were happening in Region 7. The first big timber contract on the Monongahela National Forest went to the Mower Lumber Co. of Cass, West Virginia in 1951. In the previous 13 years, only 11,000 cords of pulpwood and 50 million board feet of sawtimber were cut on 27,000 acres of the National Forest. But in the early 1960's, annual sales reached 35 million board feet and kept increasing. [19]

Dealings with Local Government in New England

Because of the uniquely New England town meeting form of government the Forest Service had to develop different, procedures for dealing with local government there. Federal laws already

on the books in the 1940's provided that 25% of the income from the sale of forest products be returned to the county governments whose tax base had been affected by the creation of the National Forest. An additional 10% was to be spent locally by the Forest Service in construction and maintenance of roads and trails. Since county governments are weak or non-existent in New England, the money was to be given to the town governments.

As the Green and White National Forests became more productive in the late 1940's, payments to New England towns increased dramatically. In addition, the Forest Service constructed far more roads and bridges than required in order to protect against fire and to increase recreational use of the National Forests. The effects of this infusion of money and increased recreational use added to the local economies. The towns were provided with funds that other towns in the United States did not have. [20]

In Vermont it is customary for local government officials to carefully monitor the Forest Service. One of their major concerns is taxes. For a long time the return on the 25% fund which the local government received from timber sales was equivalent or better than the amount the town would have received from taxes on that land.

That situation has changed in recent years because of less logging. Forest Service land acquisition staff in Vermont have had to come up with new arguments for Forest Service ownership of land. Today, they point out to local officials the many tourist advantages of preserving the distinctive scenery of Vermont by keeping the hinterlands, the high elevation lands, free from development by letting the Forest Service acquire it for National Forest purposes. The argument works well. [21]

On other National Forests, the 25% fund has continued to make a sizable contribution to the budgets of local governments. In 1953 the contribution made by the Chequamegon National Forest to local governments amounted to $100,000. [22]

Region 7 in the Korean War

The impact of the Korean War on natural resources of the country was not as great as that of World War II. When the Korean War began, leaders of Region 7 were concerned that the demands of the War in Asia would cause a return to the exploitation of forest resources which had taken place in World War II. In 1951, the Regional Office reprinted and circulated an editorial by Michael Hudoba in *The Angler*, a publication of the Pennsylvania Fish Commission. Hudoba decried the national budgetary readjustments caused by the War which threatened to "de-accent vital domestic resource restoration programs." He called for a continuation rather than an abandonment of such programs. The Regional Office was obviously sympathetic to such conservation views. [23]

Labor Concerns about Forestry

In the early 1950's, some of the unions of the Congress of Industrial Unions (CIO) became concerned about what they considered to be dangerous practices in the forest industry. Forestry, in fact, was a favorite theme at CIO conventions. For instance, the Fifteenth Annual Convention of the Woodworkers of America in 1951 adopted a resolution calling for federal legislation to regulate all cutting of timber on lands everywhere, including private lands. The resolution wanted all future

cutting to be based on the basic principles of sustained yield, selective cutting, multiple use, and intensive management. Along with this there would be federal assistance to private landowners who managed their woodlots properly. The woodworkers also had an innovative proposal for experimental public purchase of managerial rights to private timber lands. The Washington Office of the Forest Service took careful note of such resolutions and circulated them to the Regions, but without comment. [24]

The McArdle Reforms

New Timber Needs

In the 1950's, the rapidly growing need for sawtimber to supply the building boom and for pulp products, put heavy pressure on the Forest Service to "up the cut" on National Forests. In Regions 7 and 9 there were restored forests nearing readiness to be put into production. Lumber interests and some high ranking officials of the Forest Service favored increased timber sales to the point where the National Forest would be operating "in the black," a concept no doubt well received in the conservative Eisenhower Administration.

The primary obstacle to increased production was lack of roads in the National Forests. In 1956, Chief Richard McArdle urged a Senate Committee to provide more funds for roads so National Forest production could be raised. The Chief also sought to clear up some misunderstandings the Committee had about "sustained yield" and "allowable cut." The two concepts were not the same. For example, the eastern forests, which had been cut-over, would have an allowable cut low enough to allow the forests to regenerate. When they reached maturity, the allowable cut could be raised to much higher levels and still maintain sustained yield because the forest would be managed at full biological potential. [25]

Timber Resources Review

In 1952, the Forest Service began a national inventory of timber resources —an examination of timber growth measured against consumption. Six years later, following a period of controversy over, the 700 page report *Timber Resources for America's Future* went to Congress. Although the report described the declining forest base of the nation caused by urban and highway growth, the introduction, written by McArdle, stated flatly that "There is no *timber famine* in the offing." Indeed, McArdle said that annual sawtimber production had increased in the last decade. [26]

The Multiple Use-Sustained Yield Act of 1960

Chief McArdle was in the process of bringing the Forest Service into the mainstream of American life. Booms in population, technology, standard of living, housing, leisure, and recreation were placing undeniable pressures on the Forest Service to meet new needs. To meet all of these needs, McArdle and the Forest Service pressed Congress to pass the Multiple Use-Sustained Yield Act of 1960. The Act declared that the National Forests would be administered "for outdoor recreation, range, timber, watershed, and wildlife and fish purposes." [27]

What lay behind this action was an attempt to obtain legislative sanction for new policies of the Forest Service and also to back away from emphasis on timber. This is not to say that timber production was to be de-emphasized. McArdle saw the Act as necessary to "continued management of the National Forests for *the greatest good of the greatest number in the long run.*" It was not the final word on this subject, but the Multiple Use-Sustained Yield Act did set the Forest Service on a new course, or to be more accurate on a number of new courses. [28]

Forest Advisory Boards

In 1952, McArdle sent out an inquiry to all Regional Foresters concerning the status of forest advisory boards. These boards had existed since the 1930's. They were appointed boards made up of local civic leaders and persons interested in the operation of the National Forests. There was one board for each National Forest. The members were unpaid but received expenses for meetings and inspection trips. The purpose was to keep the forest management in touch with local public sentiment.

The response to the Chief's request for information about the status of the advisory boards, indicated that the number of such boards was growing throughout the country. McArdle wrote encouragingly to the Regional Foresters that such boards were nothing new in the Forest Service. "As you know," he said, "we have worked with literally hundreds of local grazing advisory boards for many years." Other advisory boards had been consulted from time to time regarding administrative and cooperative work, and every Experiment Station has had such a board at one time.

The Chief considered it a positive aspect of the advisory board approach that its use had increased and was becoming more effective. He approved this trend, saying it was "in the right direction and should be stimulated."

The advisory councils of Region 7 at that time were a state council in Virginia which included the son of the venerable former Senator of that state, Carter Glass; a council for the White Mountain National Forest; and one for the George Washington National Forest. Region 9 had two National Forest advisory councils. On councils such as these it was customary to have members designated for such areas as finance, recreation, wildlife, soils and water, timber, and overall. [29]

By the end of 1952, nationwide, there were 26 National Forest advisory boards, three state forestry advisory boards, and two Regional advisory boards. Chief McArdle, who had seemed so favorable toward such boards earlier, now wanted it understood that he was not urging anyone to form advisory boards. In fact, he wanted to "go slowly" in this area. This probably suited the leaders of Region 7 and 9 since there were so few of the boards in the two Regions. [30]

Operations of Region 7

Concessionaires

Part of the responsibility of the Forest Supervisors was to inspect and report to the Regional Forester of concessions on the National Forests. The concessions were often lodges, inns, fishing camps, marinas, and other resorts. Since they operated on National Forest land, the Forest Service was determined to monitor them carefully. The concessionaires were required to abide by strict regulations and to pay part of their proceeds to the Forest Service. [31]

Fiscal Control

The Division of Fiscal Control made an internal audit of each of the National Forests of Region 7 according to a fixed schedule. Such audits covered the accounts and fiscal procedures of the National Forests. The auditors made sure that the Forests were complying with the "Manual and the Handbook," that is the voluminous Forest Service and Region regulations concerning the handling of money.

One such inspection of the Jefferson National Forest was conducted on October 5 and 6, 1957. The inspectors were F. A. Naughton and H. C. Woods. The inspectors went first to the Supervisor's Office and then to two of the Districts to check management controls. They noted that lines of authority were missing or wrong on some of the management procedures and recommended these be made clear. Also the delegation of authority was not being handled properly, particularly with regard to temporary employment at the District level. The Supervisor had redelegated the open market purchase authority, which was not in compliance with the Manual.

The inspectors found that the Regional Office had failed to meet the schedule provided for general functional inspections, general integrating inspections and business management inspections of the Jefferson National Forest. They also looked into such matters as road construction, and found that contracts had been let for one of the these without being supported by engineering estimates. They checked Supervisor's sales reports and found some timber sales reports were missing as well as appraisal reports. A check on the same sales at the District level revealed similar missing reports.

The inspectors also looked into the funds where special use fees were kept. There they found cases where pasture permit fees of less than one dollar per acre had been allowed, a violation of Region regulations which required at least one dollar. The reason given for this was that the permitees were using only part of the acreage, but this was an "invalid" reason to the inspectors, and they recommended that the fees be raised.

Procurement was another area checked closely. Again there were irregularities. The Forest had made open market purchases without written authorization and had issued confirming orders after the services and supplies had been delivered. Also the inventory procedures were faulty. Contrary to the instructions of the Forest Service, the dates for inventories had been set in advance and pre-inventory lists had been furnished accountable officers so that they could make up shortages and make sure that the inventory came out right. The inspectors recommended that this practice be discontinued so that inventories would reflect the true status of property.

The inspectors also looked into the cooperative funds, as well as all other funds kept by the National Forests. It was a thorough inspection, the report of which ran to 26 pages in length. Where there were irregularities, the inspectors made specific recommendations for improvement. These were always put in the form of recommendations and not directives because of the principles of local autonomy with the Forest Service. There could be no question of the Forest Supervisor's administrative authority, yet the Forest Service and Region policies and regulations needed to be followed. [32]

Cooperative Programs

Region 7 was involved during these years in various cooperative programs with states in the Eastern Region. For example, in 1961 the following cooperative programs were being carried on between Region 7 and the State of Maryland: Conservation Reserve Program (CRP), Soil Bank, CM-2 Forest Fire Control, CM-4 Cooperative Distribution of Planting Stock, Cooperative Forest Management (CFM), Potomac Flood Control, and Small Watershed Projects.

The programs were supported in part by the Maryland Department of Forests and Parks. Forest Service expenditures were distributed on a percentage basis to the various programs. One example was the Soil Bank. Under this federal program, farmers were allowed to put some of their land in crops in return for payments from the Department of Agriculture. Under some agreements, the land in the Soil Bank was to be planted in trees. It was not, however, a big program. The total sum of money for planting stock provided by Maryland was only $3,224 and $5,319 by the federal government.

The fire control program was larger. The state spent more than $500,000 on this program in 1961; of this the federal government reimbursed $110,054. In the distribution of planting stock, the state spent $70,181 and the federal government put up $33,780 for a total of $103,961. For flood control the state spent $19,000 and the federal government, $6,500. Small Watershed Projects were on a matching fund basis. Only a few thousand dollars were spent altogether on four such projects.[33]

In 1961, there was a cooperative program in the lead producing Districts throughout the nation. Four Ranger Districts were funded at increased levels as a demonstration project to show what could be accomplished by the Forest Service in stimulating lead production. The Eagle River District of the Nicolet National Forest was one of the Districts. [34]

The Forest Pest Control Organization

In September, 1961 Regional Forester Hamilton K. Pyles announced the establishment of new field officers of the Forest Pest Control Organization (FPCO) in the Eastern Region. There was a Southern Forest Pest Control Zone with a field office at Harrisonburg, Virginia, and a Northern Forest Pest Control Zone at Amherst, Massachusetts. By July, 1962 there would be a Central Zone established.

These Pest Control Zones would facilitate the pest control program already in service to the states, the National Forests, and others. They were to aid in conducting surveys and determining biological pest problems. They were also to provide on-the-ground assistance in insect and disease control work. The Northern Zone covered Maine, New Hampshire, Vermont, and Massachusetts. The Southern one covered Delaware, Kentucky, Virginia, and West Virginia. [35]

Interstate Highways

One special task of Region 7 came about in the 1950's when the new Interstate Highway System was being established. The job of the Regional Office was to coordinate the building of the highways where they passed through National Forests. [36]

Revision of Forest Boundaries

Under encouragement from the Chief's Office, the Regional Forester, Charles L. Tebbe of Region 7, called a Regional Office staff meeting in late 1953 to discuss revising National Forest boundaries. A bill was in Congress at that time which would authorize the sale of National Forest lands in isolated parcels or of lands better suited to agriculture or urbanization. Chief Greeley had also proposed a state-by-state study of the federal land patterns.

At the conference, the Region staff reviewed proposed changes submitted by each National Forest. Generally, the changes considered were minor. The main idea was to bring National Forest and Purchase Unit boundaries into agreement and at the same time fit them into social and economic changes which were taking place.

It was decided that there would be some extensions and some withdrawals. The net result was a reduction of government ownership within the boundaries of the National Forests by about 1.5 million acres. [37]

Region 9 Operations

Helping Local Economies

The 1950's were a period of economic stagnation in those parts of the North Central Region where there were National Forests. Recognizing this, the Forest Service declared for itself the goal of helping the economies of low-income and depressed rural areas. This could be done by increasing employment opportunities, helping landowners to better manage and market their timber, developing timber, wildlife, water and recreation resources, and helping to stabilize forest industry employment. These activities had been going on in the North Central Region since the 1930's, but now they needed to be revitalized.

By 1960 there were clear indications that the National Forests were becoming important factors in improving economic conditions. Many of the Forests were now 25 or more years old. Wood-using industries were starting to consume the rapidly increasing supply of raw materials. Recreation and wildlife areas were also becoming economic assets to local communities because of increasing use by hunters, fishermen, and other recreationists.

In addition, there were benefits to local government from the National Forests. The counties were relieved of responsibility for law enforcement on the National Forest lands. Fire protection there became the job of the Forest Service and often extended to private forest lands. The Forest Service built and maintained roads on its lands which extended the local road systems. The National Forests also provided municipal watersheds. There were also payments made to county governments based on timber production which went to support local schools and roads.

On the down side, the amount of help the National Forests could give to local economies was limited by two factors: the scattered pattern of National Forest land ownership which severely limited the management of the Forests, and a lack of public support for a full program of protection, development, and management of the National Forests. [38]

Public Awareness

To make the public more aware of what the National Forests meant to local economies, some of the Region 9 Forests had prepared statements and brochures for local consumption which listed community benefits that had accrued as a result of the various programs. These publications also made forecasts of expected yields and other benefits. Concurrently, the Region participated in publications designed to increase consumption of wood products. [39]

Land Acquisition

During the 1950's, Region 9 and the Forest Service in Washington came to recognize that the War and postwar developments had almost completely derailed the land acquisition program in the North Central Region. Few of the National Forests of the Region owned more than half of the land within their boundaries and some of the newer ones owned as little as 20%. GII inspectors in 1960 commented that, "Spotty ownership is resulting in difficult problems for National Forest personnel . . . ." They called for a "stepped up land purchase program" to enable the Region to do the kind of multiple use job that needed to be done. The need was particularly acute in the Wayne and Hoosier National Forests and on the Shawnee, Mark Twain, Clark, Hiawatha, and Superior National Forests.

The problem in land purchasing was that there was no longer a buyer's market. Mineral companies had been buying land in Purchase Units, and Corps of Engineer dam projects had sent land prices skyrocketing in some areas. Another large element of land buying was groups and individuals buying private hunting tracts. A study in Michigan showed an average of 235 acres of land being posted every day. The study estimated that by 1975, half the forest land in the state would be posted for private hunting only.

Regional land acquisition experts estimated in 1960 that because of the heavy buying pressures, only about 2 to 6 million acres of land would be available for purchase in the coming 10 to 15 years. Even so, the GII inspectors recommended strongly that money for such acquisitions be sought from Congress. They were convinced that "the consolidation problem is the most serious problem on the Region 9 National Forests." [40]

Information and Education

While the National Forests of the North Central Region were doing a good job of planting, improving, and managing the forests and at the same time making good progress in wildlife management and improved recreational facilities, there was one area which was neglected. That was the job of Information and Education (I&E). Typically, personnel believed that if they were doing their basic jobs, there was no need to make an effort to inform the public about what they were doing, why it was being done, and what it meant in terms of public benefits.

To remedy the shortcomings in I&E work, Washington Office officials recommended in 1960 that the Regional Office put much more emphasis on information and education. They also suggested increased demonstration projects, improved media publicity, and revival of advisory councils for National Forests made up of civic and political leaders. [41]

Problems in Multiple Use

The need to think in broader terms than timber management had not yet sunk in throughout the North Central Region. Planning for multiple use lagged in the Region. The GII inspectors in 1960 found that thinking about wildlife management did not go much father than concern about the damage done to young forests by browsing deer. As for recreation, they commented, "The public will not be satisfied with dusty camp and picnic areas, or the presence of summer homes on key lake shore areas . . ." [42]

The two great hurdles to more effective multiple use management were the land-ownership problem and lack of funds. There was little the Regional Office could do about either of these without help from Congress, but there were some actions that could be taken to improve multiple use. The Washington Office urged the Region to do more in the preparation of use guides and plans and to place more emphasis on the importance of multiple use throughout the Region, both with Forest Service personnel and in I&E programs. [43]

Idle Land

The 1955 GII report identified a major forest management problem in the North Central Region. There were approximately 34 million acres of potential forest land, most of it privately owned, which were essentially idle. In the Lake States more than 10 million acres were non-stocked with productive trees. An additional 16 million acres were poorly stocked. In other parts of the Region there were 8 million idle acres.

Cost of replanting the idle lands would be high. In the Lake States, conversion and brush land planting cost from $50 to $90 per acre. However, new planting techniques of planting red pine developed on the Chippewa National Forest were producing up to 26 cords of merchantable wood in 22 years. Spruce and jack pine were also showing high yields on the same Forest. The use of herbicides in site preparation promised to lower costs.

Over 85% of the idle lands were privately owned, but the National Forests still had a job to do. Some 7.5% of their commercial forest areas remained to be reforested in order to bring it into satisfactory productivity. Reforestation on private lands was a job for State and Private Forestry to pursue. On National Forest land, the Region looked to Forest Service Research facilities to find ways to reduce costs and speed up the replanting process.

Organization of National Forests

In southeastern Missouri, there were three Ranger Districts which were supervised by the Supervisor of the Shawnee National Forest. The GII inspectors recommended in 1960 that a fully staffed Supervisor's Office be established in Missouri to handle the three Districts. They also recommended against a proposed combination of the Wayne and Hoosier National Forests, saying it would make no sense "if development of the National Forests in Indiana and Ohio is to make anything like reasonable progress." They recommended, accordingly, that a Supervisor's Office be set up in Ohio. There was, of course, already one in Indiana.

Summary

At the end of the 1950's, both the North Central and the Eastern Regions were in a state of transition. The job of the Forest Service was changing, and although the two Regions were trying to adapt to the new situation they were not meeting great success. The days of easy land acquisition and massive labor forces to work on the National Forests were over. So were the days when wartime demands for wood products overrode all other considerations. The new situation faced by the Forest Service was created by rising land prices, changing priorities, increased concern about the environment, and drastic increases in public recreational use of the National Forests.

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CHAPTER XI

EMPHASIS ON OUTDOOR RECREATION

During the late 1950's and early 1960's recreational use of the Forests grew enormously. The population of the country had increased dramatically and so had the use of the automobile. Leisure time was more plentiful and highways were improved. Areas which had never before been accessible to the public became playgrounds. Family vacations became a common reality for the growing middle class for the first time in American history.

The total recreational use of National Forests of the United States in 1957 was 61,648,000 visits and 81,604,000 man-days of use. This was a 17% increase over 1956. In the same period, the National Park Service use figures were up only 7.5%. Since 1946, the use figures for the Forest Service and the National Park Service had run a remarkably parallel course. But after 1956, the Forest Service figures shot past those of the National Park Service. National Forest visits were 45.5 million in 1955, 52.5 million in 1956, and 61 million in 1957. The National Park figures for the same years were 50 million, 55 million, and 59 million. These figures were so surprising that John Sieker, the head of the Forest Service Recreation and Land Use Division in Washington, sent a letter to all Regional Foresters requesting that the figures be confirmed before they were made public. Specifically, Sieker wanted to know whether the increase was across the board or had come from certain Forests.

Regional Forester Charles L. Tebbe of Region 7 responded that the Region's figures were correct. The entire Region was receiving much greater recreational use in 1956 and 1957, and no particular National Forest had received relatively greater use than the others. The increase, according to Tebbe, was attributable to greater actual use and to more realistic methods of reporting. The reporting of recreational use by Forest Service personnel was essentially a matter of "judicious estimating." Region 7 believed that its figures for 1955 were too low. Even though the recent figures appeared inordinately high, they were more nearly accurate.

The Regional Forester further justified the rapid increase in recreation use by logical inference. It was "only reasonable" to expect accelerated use of the National Forests of the northeastern part of the United States since this was the most populous section of the country. A 10% increase in recreational use in the 10 years since World War II was not unreasonable, given the growth of population, increase in ownership of automobiles, and greater interest in outdoor recreation. "In many instances," said Tebbe, "the Eastern National Forests offer the only opportunities to people within the Region to enjoy fishing and hunting unrestricted by no-trespassing signs, and to participate in other types of recreation which are unique and are found only in the National Forests."

The figures for recreational visits to all the forests of Region 7 in 1957 were: campgrounds—325,000; winter sports—195,000; organized camps owned by Forest Service—10,960; organized camps not owned by the Forest Service—18,800; hotels or resorts owned by the Forest Service—400; hotels or resorts not owned by the Forest Service—101,000; recreation resi-

dences—14,610; other forest areas—3,984,900; highways, roads, and water routes—13,962,000. The grand total of visits was 18,612,670.

Some of the more striking specifics were that camping on the Monongahela National Forest had increased by 70%. Picnicking had increased dramatically on the White Mountain National Forest as confirmed by automobile traffic counters. Some 93% of the increase in winter sports was on the Green Mountain National Forest. [1]

The National Outdoor Recreation Resources Review Commission

As was stated in the preceding Chapter, the dramatic increase in recreational use put heavy pressure on the aging recreational facilities. The need for more and improved campsites, trails, lakes, picnic areas, and access roads throughout the United States, was officially recognized on June 28, 1958 when Congress established the National Outdoor Recreation Resources Review Commission (NORRRC). Chaired by Laurance Rockefeller, the Commission consisted of six citizen members and eight Congressional members. The Commission was asked to assemble an inventory and evaluation of the nation's outdoor recreational resources. It would assess the current condition of facilities and future needs for the remainder of the 20th century. This Commission was an idea set forth by the Izaak Walton League in 1949 with the hope that if the nation had an idea of future needs, public land would be kept for public use rather than being sold to developers and used for other purposes.

An advisory council comprised of leaders from state, municipal and private sectors in recreation fields was established to assist the NORRRC. The Commission was to prepare a report by September 1, 1961 estimating the country's recreational requirements for 1976 and 2000. The Commission was asked to define the responsibilities of federal, state, and private landowners or agencies connected with recreation. It confronted a vast array of issues and problems, among them the overcrowding in National Parks, the need for more recreational opportunities in the East, and the need to zone water bodies for various types of recreation. [2]

There also were grass roots reasons for the NORRRC review. Richard Costley, Supervisor of the Allegheny National Forest, who worked as a liaison between the NORRRC and the Chief of the Forest Service and the Secretary of Agriculture, believed the Commission was established because "Americans were starting to get into trouble." He pointed to motorbikes, black leather jackets and boots, drugs, and long-haired poets as "the symbols of the emerging counter-culture whose values and standards were alien to the established generation." Costley saw this trend as a result of American's loss of contact with the land and out-of-doors. [3]

The Land and Water Conservation Fund Act

The report of the NORRRC was called the "Rockefeller Report." One recommendation was that the federal sector should stockpile recreation-quality land for future use. Toward that end, Congress passed the Land and Water Conservation Fund Act in 1965. Its purpose was to assure adequate outdoor recreation for the American people consistent with conservation of natural resources and to finance the necessary purchases. With regard to recreation, the Act provided for federal assistance to the states in planning, acquiring, and developing needed recreation land and

water areas and facilities. Also created were the Golden Eagle Passport (an annual pass to all fee collecting facilities), the Golden Age Passport (an annual entrance permit for senior citizens). Sources of revenue for the L&WCFA came from federal taxes collected on special fuels and gasoline used in motorboats, money from the sale of surplus government property and admission fees for federal recreation areas. [4]

The L&WCFA also provided for the charging of admission fees for the National Park System and National Recreation Areas of the Forest Service. The Act specified purposes for which the Fund could be spent. Among these were land acquisitions of inholdings within National Forests, wilderness areas of the National Forest System, other areas in or adjacent to National Forests which were "primarily of value for outdoor recreation," and lands for the National Wildlife Refuge System. [5] The provision of the L&WCFA which allowed for charging admission to recreation areas was to help obtain more and better recreational land and facilities for the public. There was some confusion in getting the public accustomed to being charged for using the facilities. Most people came to realize that the yearly $7.00 passport which was good on any National Forest was a fair deal. [6]

The Bureau of Outdoor Recreation

Most of the money from the L&WCFA has gone to the two Eastern Regions of the Forest Service as the ones most in need of recreational opportunities. Dick Ackerman, Recreation and Lands Staff Officer on the Green Mountain National Forest, explained that there had been very little money for land acquisition throughout the early 1960's, "maybe one case a year," but under the L&WCFA, the Forest Service could finally purchase land. Naturally, each purchase had to be justified on a recreation basis.

To purchase land through the L&WCFA, a National Forest submitted plans to the Bureau of Outdoor Recreation. Later changed to the Heritage Conservation Recreation Service; this agency went out of business in the Reagan budget cuts. While it functioned, the Agency had the power to disperse funds according to the recreation plans submitted by all of the various recreational interests throughout the country. The problem on the National Forests was that in proportion to other agencies, they had a very small number of site specific recreation opportunities. The thrust of recreation in the Forests has always been for dispersed recreation use: hiking, hunting, fishing, and the kinds of recreation uses that take a large area of land like snowmobiling and cross-country skiing. The site specific recreation composites required by the Bureau did not work well for the National Forests. The state and private sector were better adapted to plan those.

Richard Ackerman recalls that in the 1970's, the Green Mountain National Forest was the first Forest to receive approval for a recreation composite on a whole unit basis. Such approval allowed the Forests to effectively acquire any lands that were available inside the whole unit recreation composite. . . "so all lands that were available we could easily justify." [7]

Land Purchases Under the L&WCFA

Land and Water Conservation Act Funds were used in 1966 by the Ottawa National Forest to purchase the 20,626 acres known as the Sylvania Tract for $5,740,000 from the Fisher and Christianson estates. On July 28, 1966, Regional Forester George S. James and Supervisor Michael

W. Kageorge ceremonially took control of the tract. The land is located in the western end of Michigan's Upper Peninsula, wholly within the Ottawa National Forest. It had been in private ownership for 66 years. On it were 36 named lakes covering 4,000 acres, and it abounded in wildlife, excellent fishing, unspoiled beauty, and virgin hardwood timber, rare in that part of the country because it escaped the ax of the woodsmen. The Sylvania Tract was the largest purchase made at that time under the L&WCFA. Mrs. Lyndon B. Johnson, the Secretary of Agriculture Orville L. Freeman, and Vice President Hubert H. Humphry came to Ottawa National Forest to dedicate the Sylvania Recreation Area. [8] The Sylvania Tract is currently being considered for wilderness status.

L&WCFA funds were used to purchase land in the Shawnee National Forest for the preparation of Cedar Lake. Built primarily as a water supply for the City of Carbondale, Illinois, the Cedar Lake Management Area was to also provide a recreation experience for those persons interested in undeveloped uses such as hiking, fishing, and "primitive" camping.

On the Hoosier National Forest four artificial lakes were proposed for flood control purposes in the 1960's. Through the combined efforts of the Forest Service, the Soil Conservation Service and the local Conservancy District, four fine recreational lakes were built. The significance of this effort was noted in 1968 when the project was named the National Watershed of the Year by the National Watershed Congress.

On the Monongahela National Forest, the Spruce Knob-Seneca Rocks National Recreation Area was established by public law on September 28, 1965. This was the first National Recreation Area established on any National Forest by Act of Congress. Within the boundaries lie some of the greatest natural attractions of the Monongahela. A magnificent observation tower was constructed on top of Spruce Knob, West Virginia's highest mountain. Within a day's drive of this National Forest reside over 50 million people. [9]

The acquisition program under the L&WCFA was expanded to encompass the additions to the National Forest System made by new designations. There was the further purpose of protecting endangered species and wildlife habitat. The amount appropriated has varied from zero dollars in one of the Nixon years to about $90 million in one year of the Carter administration. In general, according to Gordon Small, Director of the Lands, Watershed, and Minerals Staff group of the Regional Office, "We continue to use the Weeks Act as the basic acquisition authority, but we use the Land and Water Conservation Fund for the funds. We have acquired some very significant wildlife and recreation oriented properties through the L&WC fund." [10]

The Wild and Scenic Rivers Act

The original idea for a National Scenic Rivers System came from the NORRRC's report of 1961. As a result of the report, a study committee selected by the Secretaries of Agriculture and Interior devised a plan that included six streams for the preservation but little protection. Another list of nine streams was to be studied. Nothing came of this preliminary effort.

In 1968 Congressman John P. Saylor of Pennsylvania introduced a bill to create a system of 16 rivers immediately and to study another 50 within the next three years. Saylor stressed the importance of such legislation because extensive urban and industrial development, along with mining, were threatening to pollute and destroy scenic rivers. He believed that by saving scenic

rivers, the public would continue to have the opportunity to escape the "grinds and strains of large cities" by being close to nature. [11]

By 1983, the Wild and Scenic Rivers System had grown to 61 river segments in 23 states, a total 6,943 river miles. The original list of 27 rivers to be studied had grown to 88, but along with this growth had come problems. The Reagan Administration, while cutting river protection budgets, continued to pump money into dam building. Local opposition to Wild and Scenic status was causing political problems, and the result was that the whole program was nearly mired.

Secretary of Interior James Watt had gained control of the program, taking it away from the Heritage Conservation and Recreation Service, and little progress had taken place in evaluating 24 study rivers since the transfer. [12]

The attitude of the Reagan Administration toward the Wild and Scenic Rivers System drew more fire from Chris Brown, Director of the American Rivers Conservation Council. In 1984 Brown declared, "They have tried to drown the whole program through funding cuts, changed recommendations, reorganizations, management plans and court cases." [13] But despite the Reagan Administration's suggested harsh cuts in funds for the program, Congress continued it and added several new rivers to the System in 1984. One of these was 23 miles of the AuSable-Pere Marquette River in western Michigan in the Manistee National Forest. Part of the Pere Marquette had been designated in 1978. The Forest Service had recommended that 74 miles of the AuSable be added to it, but private landowners along the River protested and Congress reduced it to 23 miles.

Also in 1984, Congress authorized study of the Wildcat River in the White Mountain Forest in New Hampshire. The 14 mile stretch of the River to be studied includes a 120 foot waterfall. By being placed under study, that portion of the River was protected from development for the next six years. [14]

The National Trails System Act

The National Trails System Act became law on October 2, 1968. President Lyndon B. Johnson had first requested such a law in his Conservation message of early 1965, and then again in 1966. On these occasions and when Secretary of Interior Morris Udall sent to Congress a plan for a trails system in 1966, Congress failed to act. Finally, under continuing pressure from the President and based on a report of the Bureau of Outdoor Recreation, a bill was passed. It established two trails as part of the National Scenic Trails System and designated 14 other trails to be reviewed and evaluated. One of the initial trails was the Appalachian Trail, stretching 2,000 miles from Maine to Georgia. Large segments of the trail lay in the White Mountain and Green Mountain National Forests.

Other trails in the Eastern Region placed on the study list were:

1. The Potomac Heritage Trail (825 miles) from the mouth of the Potomac River to its sources in Pennsylvania and West Virginia.
2. The North Country Scenic Trail (3,200 miles) from the Appalachian Trail in Vermont to the Lewis and Clark Trail in North Dakota.
3. The Long Trail (255 miles) from the Massachusetts border north through Vermont to the Canadian border.
4. The Kittaning Trail (130 miles) from Shirleysburg to Kittaning in Pennsylvania.

Three types of trails were devised in this Act. The first, national scenic trails, were those in remote areas usually used for hiking purposes. The second were national recreation trails near cities and used for jogging and biking purposes. The third were connecting or side trails. Only Congress had the right to designate a scenic trail; the other two types could be established by the Departments of Interior and Agriculture. The purpose of the National Trail System was to provide recreational trails and preserve historic ones. Where the trails crossed private lands, it would have to be with the permission of the owners. Or the land would have to be acquired from the owner in exchange for other federally owned land. Rules for the operation of the trails would be developed by the Departments of Agriculture and Interior. [15]

When completed, the North Country National Scenic Trail will stretch 3,200 miles from Crown Point, New York, westward to Garrison Dam on the Missouri River in North Dakota. In 1985 the Chippewa National Forest's 75 continuous miles of the trail were completed. The YCC had begun the trail construction in 1977. Each year thereafter the YCC, the YACC (Youth Adult CC), and the Senior Community Service Employment Program all worked on the trail. The Walker Ranger District developed an Adopt-a-Trail program. The program turned responsibilities of maintenance of trail sections over to local Girl Scouts, Boy Scouts, schools, and individuals. [16]

The North Country Scenic Trail traverses 60 miles of the Chequamegon National Forest. A 40 mile segment of the Ice Age Trail was constructed on the Chequamegon in 1976 and was designated a National Recreation Trail in 1977.

Since the 1920's, the Appalachian Mountain Club has published a detailed guide to the White Mountain National Forest trails and described all 1,100 miles of the Appalachian Trail. About every three years the author of the guide has toured the various Districts in the New England forests to check the trails. Ken Sutherland, retiree, described the Forest Service's relationship with the Appalachian Mountain Club as both enemies and friends. The AMC often objected to any hindrances on their recreation uses of the trail. They have developed the well used and maintained AMC Hut System. Nevertheless, the cooperation between the two groups is long-standing and essential to both organizations. Sutherland estimates that the Forest Service maintains about 50% of the trails and the AMC about 30%, leaving the rest to be cared for by other local clubs. Keeping the trails open is as important to the Forest Service for fire control as it is to the hikers for their enjoyment. [17]

The 1968 legislation, the Wild and Scenic Rivers Act and the National Trails System Act, brought new expertise into the Forest management staff. Onto the Green Mountain National Forest staff, for example, specialists such as soil scientists and wildlife managers were hired for the first time. [18]

The Ottaquechee Land Trust

The Ottaquechee Land Trust began as a response to the National Scenic Trails System legislation. The National Park Service attempted to acquire land for the Appalachian Trail on land between Rt. 100 and the Connecticut River, through farmland, recreational land, summer resort land, and through Woodstock. According to Dick Ackerman, the people living in the region were upset. The Ottaquechee Land Trust was formed out of a coalition of private individuals responding to this perceived threat by the National Park Service. Although the now powerful Ottaquechee Land Trust

started as an organization to deal with the National Park Service, today they are most concerned with the preservation of farm land in Vermont. [19]

Private Recreation Businesses in the National Forests

In early 1986 the first concessionaire permit for a campground on the Hiawatha National Forest was awarded to Mr. Charles D. Muscott who agreed to manage two campgrounds for the Forest Service. The reason given by Recreation Officer Art Easterbrook was that Recreation was not given "the bucks to operate those." [20]

In 1961 the Allegheny National Forest took steps to tighten the lease provisions of National Forest land used by vacation home owners. New special use permits with specified terms were issued to home owners who signed such contracts. All previous permit holders were given an opportunity to secure one of the new term permits. The attitude of Forest Supervisor John E. Franson was that the older permit holders would have to up-grade their homes in order to obtain a permit renewal. Also, since the Allegheny planned to improve the roads to the summer homes, it added a fee for road maintenance to the cost of the permits. [21]

The Dolly Copp Campground on the White Mountain National Forest is one of the oldest used public campgrounds in the country. Forest Historian/Archaeologist Billie Hoornbeek has spoken to fourth generation campers there. In 1917 the Forest Service had what is viewed now as a "bad idea." They were going to put the campground out to lease to campers. But the Forest Service realized in time that "they were in the position of putting land together for all people for all time, not just special people, so they canceled the whole program." [22]

The White Mountain National Forest still had problems with the Dolly Copp Campground arrangements. During the 1940's and 1950's there grew a core group from Massachusetts that spent the whole summer there. They formed the Dolly Copp Campers Association. Although they lived in canvas tents, some of their camps were so elaborate it took seven hours to put them up. They stayed from May through October.

Since the Forest Service was hard up for funds, they began to accept the campers' offers to do various jobs in the campground. Campers operated the information center, the lodge, and had movies, dances, religious services, and even a library. They were "sort of a closed corporation; if you weren't from this Massachusetts group, you might kind of belong, but not really." They became so powerful said Hoornbeek, "they were naming the campground roads after themselves, took over the administration building so that finally the Forest Service staff had to obtain permission from them to use one room in the building for storage."

Finally, around 1958 the Forest Service learned that the Campers Association manning the gate were telling Canadians that they were not welcome and would have to go to another campground. "When we found that out we clamped down on them. They lost their power. Their association died, and we were free of that encumbrance." [23]

The populations that use the National Forest in New Hampshire are constantly changing. The newest problem is the condominium and "second home" development right along the border of the Forest. A growing number of people from Rhode Island, Connecticut, Massachusetts, and other states are buying "second homes" near the White Mountain National Forest lands, and "it is changing the complexion of the land." They want specialty shops and bring with them requirements such as

sewage and water and transportation. Billie Hoornbeek, Historian on the White Mountain, warns that they will be looking to obtain water from the National Forest at some point and will want sewage disposal. Says Hoornbeek, "Water quality is one thing we have to monitor closely; such increased use has a big effect." [24]

This new population of Forest users is basically well-to-do and urbanized. According to Public Relations Specialist Ned Therrian, "The majority of them have little knowledge of resource management or even about the outdoors, but they have strong ideas about how they want it to look. They come up here for the weekends or a short period of time. Their experience here is an emotional one in most respects . . . very different than that of the person who works here. These people are more than willing to use their knowledge and ability to write and talk when they feel something is wrong. They write to their Congressmen, to the President . . ." [25]

User Fees

The Land and Water Conservation Fund Act of 1964 authorized the federal government to collect user fees at federal recreation areas that met certain conditions. As of September 30, 1967 the Region had made $304,406 on the sale of annual daily entrance and user permits, an increase of $90,400 over the previous year. Over 18,300 annual permits had been sold, an increase of more than 3,700 over 1966. One of the intangible benefits of the system has been the tremendous increase of personal contact with visitors into the National Forest. [26]

In recent years there has been growing sentiment for user fees for use of hiking trails in the National Forests. In the White Mountain National Forest the number of employees was reduced by two-thirds during the Reagan Administration. Yet, the use of hiking trails by hikers from the cities and suburbs of the East rose dramatically. Forest Service managers throughout the Eastern Region were looking for ways to pay the costs of maintaining the trails and rescuing hikers. One idea debated by Congress was user fees.

There have traditionally been no fees for the use of hiking trails on the National Forests but the Forest Service has been forced to re-examine its policy. The National Park Service had been charging for the use of its facilities for years, and in 1985 the *Wall Street Journal* speculated that the Forest Service might have to begin the practice also. [27] However, despite a proposal by President Reagan and a Senate bill in 1982, both of which would have imposed user fees, Congress has imposed none. [28]

Changing Recreation Needs

The "jewel of the north country" is what the White Mountain National Forest has come to be called in New England. During the grand hotel era hundreds of thousands of tourists came by train to stay in hotels all summer long. The motor car ushered in the next era. The privileged arrived from New York, Pennsylvania, and Massachusetts. Early botanists and other natural scientists talked about the area. Writers and artists depicted the area. There was a large school of painters, an offshoot of the Hudson painters who came there to paint for over 50 years and glorified the area. The recreation use of the area has snowballed. [29]

The Forest Service's perception of recreation needs of the public has had to change. Billie Hoornbeek of the White Mountain National Forest notes that they are attracting new kinds of tourists in the 1980's:

> "When I first came here there were mainly the winter skiers and hikers. They were a more rugged group not interested in shopping or other amenities. They just came to the forest to hike. And, of course, you had the fall leaf-peepers who mainly stayed in their car."

Now people seem to want a resort area available to them 24 hours a day, complete with fine outdoor clothing stores, movie houses, just everything. The hard-core hikers are not as large a proportion as they used to be. The tourists season is no longer just in the fall and the ski season, but all year round. Thus, the Forest Service is faced with new problems: what to do with the snowmobiler where the cross country skiers really object. Now says Hoornbeek, "the coming thing are llamas." There is talk in New Hampshire of raising llamas on farms to use as beasts of burden for the hikers. The trails are too rocky for horses. Billie Hoornbeek does not think it is going to be one of the most popular of ideas, "but it may take hold." [30]

Supervisor Steve Harper of the Green Mountain National Forest believes that the Forest Service could do more for bicyclists and people riding in their cars. Each year there are twice as many bicyclists as before. That and cross-country skiing have become big on the Green Mountain. "The bicyclists haven't asked for much yet," said Harper, "but we're talking now about using some kind of simple symbol with arrows that point to public land." Harper wants to make the National Forest available so people can use it without the feeling of a lot of restrictions:

> "People come here from the city and there are all these rules in the city: don't do this, don't do that. They come up here and want to feel free. So we're trying our best to minimize the regulations and emphasize the welcomeness with signs that say, *This is your National Forest - you are welcome to use it.*" [31]

The White Mountain National Forest imposed restrictions in the mid-1960's and now they are beginning to have to think about more restrictions. They have had to limit use in one of their wilderness areas. They are scrutinizing the resource damage in the fragile environments above treeline, in the overused campgrounds, and on trails which are worn down in the mineral soil and causing erosion. Although use of the highways cannot be limited, the Forest Service is anticipating limitations on use of the backcountry. "We really worry about having such crowds that we will have to turn people away," said Billie Hoornbeek, "It's a weird situation." [32]

The National Environmental Policy Act of 1969

The passage of the National Environmental Policy Act (NEPA) of 1969 brought great changes to the Forest Service. The Act had two purposes: to declare a national environmental policy and to promote efforts to prevent and eliminate damage to the environment. [33] The Act also

established the Environmental Protection Agency which was assigned the task of systematic review of operations that might cause damage to the environment.

Since the Forest Service had been in the business of protecting the environment for more than half a century, the NEPA concept was nothing new. The Act did, however, require greater effort on the part of many different specialists in preparing the environmental impact statements required for forest plans and proposed actions. In 1974, the Forest Service issued the Environmental Program for the Future, a 10 year plan for management and operation of the resource systems and research activities of the Service. Based on public reaction, the Forest Service later provided Congress with the far more complex information required under the Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974, also known as the Humphrey-Rarick Act. The latter called for an even more detailed Forest Service assessment of the entire nation's needs in the future for renewable resources. It also required the Forest Service to make management plans to meet the predicted resource needs. [34]

Summary

Great increases in public use and interest in the National Forests have led to big changes in recreation. Pressures from environmental and wildlife groups along with changing public perceptions have brought important new laws. These have made it necessary to re-think past policies and procedures at all Forest Service levels from Washington to the Ranger Districts. In some National Forests of the Eastern Region, the New England ones for instance, recreation has become the number one use. And throughout the Region, managers have come to realize that recreation is one of the most important of the multiple uses.

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CHAPTER XII

THE 1960'S AND 1970'S

This Chapter will deal with the major events in both Regions 7 and 9 during the 1960's and 1970's. Since the two Regions basically became one in 1965, they will be treated as one in this Chapter. All references to the Eastern Region will pertain to both Regions.

The Kennedy Years

When John F. Kennedy became President in early 1961, a new approach to government came into the White House. Kennedy had promised to get the country moving again and to do something about growing unemployment and economic injustice. However, Kennedy had won the presidency by a narrow margin of electoral and popular votes, and a divided Congress was not willing to pass much of his proposed legislation. The country was undecided about whether it wanted to return to the social programs of earlier Democratic administrations, stand pat with the conservatism of the Eisenhower era, or forge ahead to greater social and economic justice.

Accelerated Public Works

With so much indecision in the country and a Congress which reflected it, it is not surprising that few bold changes were made in policies affecting the Forest Service during the Kennedy years. One program which foretells broader programs to come was the Accelerated Public Works Program (APWP). Unable to get Congress to do anything concrete about unemployment, Kennedy implemented the APWP. This program was designed to rejuvenate the public works of the federal government thereby creating more jobs. Naturally, some of the public works were done on National Forests.

What took place on the Hiawatha National Forest was fairly typical. In 1962, the APWP funded the completion of many Forest projects. Campgrounds were developed, hardwood timber stands improved, softwoods pruned, seed production areas developed, and nature trails constructed.[1]

Another aspect of the program was the building of the Highland Scenic Highway. The Federal-Aid Highway Act of 1962 provided for a 160 mile scenic route along the mountain tops of the Monongahela National Forest. The ground breaking was held in 1965. The highway was a joint effort of the West Virginia Department of Highways, the U.S. Bureau of Public Roads, the U.S. Department of Transportation and the Forest Service. In the end, the high hopes of 1962 faded and only about 25 miles of the Scenic Highway were ever built.

In addition to the Scenic Highway, the original program permitted the first real "face lifting" on the Monongahela since the CCC days. All major campgrounds were rehabilitated. Roads were resurfaced. Lake Sherwood Recreation Area was built. [2]

The most active period in decades on the Shawnee National Forest came as a result of the APWP. In 1962, some 430 men were given jobs developing campgrounds, opening fire access trails,

building or resurfacing roads and thinning trees. Further work included clearing along roadsides, establishing game food plots, digging ponds, constructing picnic and rest facilities, and building a new office and warehouse for the District Ranger at Elizabethtown. Also the Greentree Reservoir in Jackson County was built so as to provide a habitat for waterfowl. [3]

On the Nicolet National Forest, the APWP became part of the program of work in 1962-63. Funds were finally available for building improvements and a manpower program to improve natural resources. The Nicolet hired approximately 100 men. They built campgrounds, cleared roadsides, and improved timber stands.

The APWP in 1963 developed the Kathryn Lake Camp and Picnic Ground on the Chequamegon National Forest. Another major project on the Chequamegon was the cooperative construction of the Chequamegon Waters Flowage area in Taylor County by the Forest Service and the Pri-Ru-Ta Resource Conservation and Development Program. [4]

The War on Poverty

The accession to the presidency of Lyndon B. Johnson was a heart wrenching experience for the entire nation. Many people seemed to think that by belatedly accepting the proposals of the assassinated President, they could somehow do something positive about his assassination. President Johnson was able to use his considerable knowledge and skill in handling Congress to secure passage of most of Kennedy's program. He also added much that was new, especially social programs which harked back to New Deal days. Taken all together, this social and economic program, called the War on Poverty, was one of the most important and far reaching reform movements in the 20th century. Generally, the goals were to eliminate poverty and unemployment and to equalize economic opportunities for all. Civil Rights, broadening of many social programs, an expanded farm program, measures for environmental protection, and many new social assistance initiatives were also part of the War on Poverty.

Unemployment and Conservation

One of the measures presented during the Kennedy years was a direct program to create jobs for the unemployed doing conservation work. The political father of this proposal was Senator Hubert H. Humphrey of Minnesota. Humphrey was later Vice President under Johnson. In 1959 Humphrey had introduced a bill in Congress to provide for a Youth Conservation Corps (YCC) for healthful training and employment for teenaged boys doing conservation work on the National Forests and Parks. He told the Senate it was a waste of human potential not to utilize the growing number of unemployed youths in such a program. The Forest Service had told him it had 275 million acres of forests which were in need of replacement planting, timber stand improvement, and disease control. Another 52 million acres needed complete replanting. [5]

Humphrey envisioned a corps of young men carving access roads in the forests, preventing stream bed erosion, building picnic area facilities, erecting earth dams, and fighting forest fires. Obviously, he had taken as his model the enormously successful CCC programs of the 1930's. [6] Humphrey's YCC bill had many supporters, but there was too much opposition in Congress for it

to pass. Some critics questioned the cost while others doubted the wisdom of gathering teenaged boys into the camps in a time of troubled youth. [7]

In 1963, President John F. Kennedy endorsed the idea of job training for youths from urban centers in the YCC program. A new YCC bill passed the Senate but not the House. However, a government report published in 1963 which described how one-third of draftees were being rejected because of physical and mental deficiencies gave new impetus to the YCC idea. President Lyndon B. Johnson included provisions for a Job Corps in his proposal for an Economic Opportunity Act in 1964 and the Act passed Congress. Thus the Job Corps was born. [8]

The Job Corps

From the beginning, there was some division of thinking about the basic goal of the Job Corps. Some wanted it to be a conservation corps much like the CCC. Others favored training young people in skills which would help them obtain jobs in modern society. The duality of purpose is reflected by the early decision that the Job Corps would have three different types of training centers: conservation centers, men's urban centers, and women's urban centers. Conservation leaders extracted a promise, contained in the legislation, that 40% of the enrollment would be placed in the conservation centers. [9] Sargent Shriver, who was Director of the Office of Economic Opportunity (OEO), exercised direct administrative control over the program. He began with the ambitious goal of having 40,000 young men in the camps in less than 10 months.

The conservation camps, called Job Corps Civilian Conservation Centers (JCCCC's), were established as centers for boys with reading levels of fifth grade or less. The enrollees spent half their days in general education classes and the other half working on conservation projects. When an enrollee graduated with high school equivalency, he could then go to an urban center to learn a vocation. In the JCCCC's, the enrollees learned certain useful skills such as carpentry, masonry, equipment operation, typing, and cooking in addition to remedial math, writing, and reading.

The JCCCC camps began opening in mid-1964. There were many start-up problems in the camps. Staff turnover was high, recruiters promised better conditions than existed in order to meet Shriver's goal of 40,000 enrollees, and youths arrived at the camps without having been properly screened or prepared.

By the end of 1966, there were 88 Conservation Centers nationwide with 12,426 enrollees. However, the dropout rate for the entire Job Corps was about 45% that year. Most of the conservation camps were in remote places with limited facilities for entertainment and social life. The shock to an 18 year old youth away from family and familiar environment was obviously more than many of them could handle. [10]

By 1967, there were 8,000 young men being trained at 47 Forest Service operated conservation camps. The average cost per trainee was $6,576 in 1966, reduced to $5,700 in 1967. The largest items of cost were food, medical and dental care, and staff salaries. During the first few years, there were serious problems with fights and what the news media called riots at several Job Corps Centers. The high dropout rate—32% in 1967—was also a problem.

However, before 1967 was over there were improvements in the Job Corps picture. The job placement rate rose, riots and fights decreased, and a better screening process to keep out

undesirables was implemented. [11] Even so, lack of money forced the closing of two Eastern Region JCCCC's, Isabella and Ripton, in 1968.

Despite the early troubles of the Job Corps, the Forest Service was pleased with the work of the Corpsmen. Many worthwhile improvements reminiscent of the CCC days were made on National Forests. Some examples were: campsites, picnic shelters, historic site restorations, Braille trails for the blind, forest fire fighting and training, trail marking, construction of fire breaks, watershed restoration, and improvement of wildlife habitats. And all of this was not coming out of National Forest budgets. [12]

Things changed for the Conservation Centers in 1969 after the election of Richard Nixon. A report of the General Accounting Office said that the Centers were doing more for forest and park facilities than they were for young men. The Secretary of Labor issued a report advocating a two-thirds reduction in the conservation camps. Even though Job Corps Director William P. Kelley pointed out that the Corps had contributed more than $66 million worth of conservation work, Congress passed and President Nixon implemented the closing of 59 Centers.

Now under control of the Department of Labor, all remaining Centers dropped conservation work and turned to vocational training sponsored by labor unions. Instructors provided under contracts with AFL-CIO unions taught the enrollees their trades. Graduates of the Centers took the same union examinations as others and became apprentices and journeymen in the trades. The placement rates were as high as 96%, and by 1974 the Conservation Centers led the three classes of centers in starting pay for their graduates. [14]

The Job Corps struggled through the remaining years of the 1970's, plagued by inflation which increased its operating expenses. [15] Economic hardships of the 1980's put heavy pressure on the Job Corps, but it was one of the few programs not cut by the Reagan Administration in the early 1980's. Critics charged that it was costing $13,000 a year to maintain an enrollee and some pointed out that one could send a student to Harvard for that amount. Senator Orrin G. Hatch of Idaho, a staunch defender, replied that even $13,000 was cheaper than supporting a person on welfare for an entire lifetime. [16]

In 1985 President Reagan's proposed budget cuts would have eliminated the Job Corps completely, but there were enough supporters in Congress to save many of the camps. There are today 107 centers, 18 of them operated by the Forest Service.

The Job Corps in Region 9

Beginning the work of the Job Corps went quickly in Region 9. Between mid-1964 and early 1966, 13 JCCCC's where established throughout the Region. The Lydick Lake Job Corps Civilian Conservation Center on the Chippewa National Forest was typical. It was cooperatively administered by the Forest Service and the Office of Economic Opportunity. Projects completed by the Job Corpsmen included a Ranger's office and Central Equipment Repair Shop at Cass Lake, shore stabilization on Lake Winnibigoshish, campground facilities and tramway construction at Knutson Dam, and construction of signs, fireplace grates, boat landings, and 400 duck nesting boxes.

The Ojibwa Job Corps Center on the Ottawa National Forest opened its doors in December 1965. The 220 enrollees worked on a three-mile scenic road to Wolf Mountain in Gogebic County

and a recreation center at the top of the mountain. In 1966 they assisted in fisheries surveys and constructed Bobcat Lake and Mink Lake Recreation areas. They completed canoe landings on the Presque Isle River and constructed numerous buildings at the Job Corps Center. [17]

The Blue Jay Job Corps Center on the Allegheny National Forest, initiated in 1965, could testify to success stories such as a 1968 welding graduate who was supervising 20 other welders at his private job in 1973. The Blue Jay Camp had 225 young men who had passed through its program. Many of them went on to the military service or to school, some to factory jobs, others to attending night classes. [18]

Among the building projects of the Blue Jay Corpsmen were Beaver Meadows and Tidioute Overlook. The Blue Jay Center was converted in the 1970's into drug rehabilitation center under a special use permit to the Erie Drug Council.

On the Chequamegon National Forest a Job Corps Center was established at Clam Lake. Besides receiving courses in reading, math and other basics, they did timber stand improvement, hiking trail and road construction, and landscaping. They also received training in automotive maintenance, carpentry, and welding. The Job Corpsmen at Clam Lake constructed the Day Lake Dam and camping and picnic facilities.

On the Nicolet National Forest, the Blackwell Job Corps Center was established at the site of a former CCC Camp. The staff began with four and grew to 42 people. The Job Corps Center began in 1965 with programs to help enrollees finish their high school education and repairing the Forest's natural resources. Since 1968 vocational training in the building and construction trades has been emphasized. Some of the benefits to the Forest Service in the Nicolet are new recreation areas and administrative site improvements. The Center today teaches 200 resident Corpsmen in the skills of carpentry, heavy equipment operation, painting, welding, masonry, cooking, and building maintenance.

Job Corps Disaster Work

In 1966, Corpsmen from the Vesuvius, Blackwell, Clam Lake and OjibwaConservation Centers were rushed to towns devastated by tornadoes in Ohio and Iowa. The workers received high praise from Fire Chief J. O. Zoellner of Wheelersberg, Iowa. [19] On December 21, 1967, 300 people were left homeless in Potosi, Missouri after a tornado hit. The city suffered $3 million in damage and was without lights or telephone. People were in a state of shock. Under the leadership of Ranger Frank Myers of the Potosi Ranger District, Mark Twain National Forest, the Forest Service went into action. Years of fire suppression organization experience was evident as Ranger Myers organized and directed his men. He was appointed Acting Mayor of Potosi. His wife, Ruth, took over leadership of the local American Red Cross and seemed to be everywhere at once scurrying around the town giving orders over the radio. Forestry Technician Percy Crowell was appointed Acting Civil Defense Director. Assistant Ranger Bob Jones manned the only working telephone in town at the Ranger Station, dispatching from it as a command post.

To aid the stricken town of Potosi, Mark Twain Forest Supervisor Rod Young dispatched men and equipment from the Poplar Bluff Job Corps Center. The first crew of Corpsmen arrived with dump trucks, a front end loader and hand tools. Deputy Forest Supervisor, Ed Bober, visited the disaster scene and decided more Corpsmen were needed. Because it was Christmas time, there

were only 70 Corpsmen available, but they were sent to the scene and Job Corps Center Director Larry Henson came along too. It seemed to one observer that Ranger Myers was working as if he had five Class E fires going at one time. He set up several work sectors, each with three crews working on clearing streets, salvaging books and records in the demolished city hall, cutting trees, and hauling off debris.

On Christmas Eve, four days after the tornado, most of the Corpsmen returned to the Poplar Bluff Center for some much needed rest. The day after Christmas an appeal came from the people of Willow Springs for Job Corps assistance cleaning up their tornado damage, especially in a poverty stricken area where many pension and welfare people lived. Ten volunteer Corpsmen went to Willow Springs to assist in that work. Said Regional Forester George S. James about the Corpsmen, "They proved themselves a credit to their community, to the Forest Service, to OEO Job Corps and most importantly to themselves." [20]

Regional Office Role in Job Corps

The Job Corps began shortly before the reorganization of Forest Service Regions in 1965. Coordination activities were done by the newly formed Eastern Region. Generally, the function of the Regional Office was to provide overall monitoring of the Job Corps program. Each Job Corps Center came under the direct supervision of the Forest Supervisor of the National Forest in which the Center was located.

Job Corps Centers Presently In Operation

At one time there were 14 Conservation Centers in Region 9, a large number compared to other Regions. This was reasonable because nearly half of the national population resides in the Region. However, by the 1980's there were only two centers left in the Region These were operated by the Forest Service with policy being set by the Department of Labor. Little conservation work was being done. Most projects were construction of public buildings, some of them on National Forests. The two remaining Centers in Region 9 are Blackwell in Wisconsin and Golconda in southern Illinois.

Blackwell Civilian Conservation Center

The Blackwell Job Corps Civilian Conservation Center, located on the Nicolet National Forest a few miles east of Rhinelander, Wisconsin, opened in December of 1965. The Center was built on an old CCC campsite from the 1930's. Construction of new buildings began in the summer of 1965, and were occupied a few months later.

From the beginning, Blackwell was a well-run Center. The young men who came there spent half-days in classroom activities and half-days in conservation work and vocational programs. Until 1968, the Corpsmen worked on National Forest projects such as planting trees, constructing and improving recreation areas, and other conservation projects.

The changes in the Job Corps program under President Nixon brought an end to conservation work and emphasis on vocational training. The idea was to enhance the trainee's chances of finding

employment. The vocational areas offered at Blackwell were building (Carpenters and Joiners of America), painting (National Brotherhood of Painters and Allied Trades Union), and masonry (International Union of Bricklayers and Allied Crafts). [21]

Although 50 of the 94 Job Corps were closed by the Nixon Administration in 1969, the Blackwell Center survived. This seems to be testimony to the achievements of the camp. In 1977 the Center received a Superior Service Award from the Department of Agriculture. In 1984, it was nationally acclaimed for the best overall performance of all Forest Service operated centers. [22]

For more than two decades, the Blackwell Center has run at peak levels. There is usually the full complement of slightly over 200 trainees, annual budgets in the area of $2 million, and approximately 60 staff members. [23] The usual stay for completers is one year, while the average for all is about 7.5 months. The recruits come from the five Lake States, many from Chicago, Detroit, and Milwaukee. [24]

A major contribution made by Blackwell to the entire Job Corps system has been the innovative organization and incentive programs. The Corpsmen have a student government run on a team system. All welders, for instance, live in the same dorm and have their own classroom. The same vocational instructor, teacher, and dormitory manager work with the welders, forming a team. The dorms are divided into bays of six to eight beds; each bay has a bay leader. The students have a dorm leader and an assistant dorm leader. A Center Standards Officer oversees the disciplinary system, but the approach of the system is a positive one, motivated by incentives.

The incentive system was developed at Blackwell in the mid-1970's. There are five different status levels at Blackwell, signified by the colors grey, blue, red, silver, and gold. A Corpsman starts at grey and if he makes good progress in his training and in social behavior he progresses to blue, then red; when he reaches silver and gold there is incentive pay added to his monthly allowance. Two infractions of the rules or behavioral problems can cause a Corpsman to be put down a color. The incentive systems works well and has been adopted at many other Job Corps Centers, including Golconda. Credit for developing the incentive system at Blackwell goes to former staffer Jim Steffan, now Manpower Development Specialist in the Regional Office. [25]

The skills learned by the Corpsmen have been put to good uses in the various local projects. The young men in the carpentry program built the CCC Museum building at Pioneer Park in Rhinelander in 1982. [26] In 1984, Corpsmen built a new oil and tree storage building on the Laona Ranger District. [27] The Corpsmen were in the process of building a new visitors' center and administrative building for their own Center in 1986.

Even with a soft job market in the 1980's, Blackwell maintained a good record in job placements. One welding graduate, Harold Flournoy, secured a job with a heating company in Minnesota at $8 an hour within a week after graduating. [28] Other graduates from years past now head their own paint, construction, and trucking companies. As one long time staff member puts it, "I think that's the success of Blackwell—seeing these Corpsmen getting out there and making something of themselves." [29]

A visitor to Blackwell Center finds the camp neatly kept and in a beautiful forest setting. The staff seems proud of the job they are doing and the Corpsmen, while sometimes a bit unruly while off duty, seem to have a positive attitude. The place is no country club, but it has decent surroundings. It gives young men an opportunity they might never have had otherwise.

Golconda Job Corps Conservation Center

Located on a beautiful wooded site in the Shawnee Hills of southern Illinois a few miles north of Golconda and with a picture-book view of the Ohio River, the Golconda Job Corps Civilian Conservation Center (GJCCCC) opened its doors on June 28, 1965. With a capacity for 224 trainees, the Center has run at nearly full capacity ever since. Its format is similar to Blackwell's, with the trainees spending half their work days in education and half in vocational training in carpentry, masonry, automotive maintenance, welding, heavy equipment operation, and a unique culinary arts program. [30]

Conservation work on the Shawnee National Forest was always a secondary consideration to vocational training at Golconda. However, over the years, the GJCCCC has accomplished many work projects including campground construction, wildlife habitat improvement, strip mine rehabilitation, tree plantings, horse and hiking trail construction, and stream bed improvement. Corpsmen built the new Ranger Station at Murphysboro. For several years the Corpsmen served as traffic directors and cooked barbecue for the annual Pope County Deer Festival in Golconda. [31] In 1971, they helped clear debris and trees in nearby Thompsonville, after a tornado. [32]

After the changes of the Nixon years, the Center converted almost completely to vocational training under contracts with labor unions and with union instructors. The union connection improved job placement, and in recent years graduates of Golconda have gone to well paid jobs with major companies and in construction work. The goal of the Center is to place its graduates as apprentices. In 1987 the placement rate was 72%. The Center had a turnover of about 10 trainees in and 10 out each week. The average stay was 8.5 months with a maximum of two years. [33]

Strong support from southern Illinois Congressmen, especially Representative Kenneth J. Gray and Senators Paul M. Simon and Allan J. Dixon, and low operating costs have been important to the survival of the GJCCCC. Furthermore, the Forest Service owns the land on which the Center is located and the buildings are fairly new. Some other Centers may not have survived because their management teams were less committed to the program than Golconda. Other Centers also had serious problems with local community acceptance which Golconda did not have. Most of the southern Illinois towns near the Center are supportive. The Golconda Center has, of course, had its problems over the years, but these have been managed. The isolation of the camp has always been a problem for city youths accustomed to life on the street. The camp management provides as much wholesome recreation and entertainment as possible. There are day rooms, a recreation hall, basketball courts, a baseball field, an arts and crafts building, and television in each dormitory. There are also bus trips to Paducah, Kentucky; Carbondale, Illinois; and occasionally to St. Louis and Chicago for sporting events, shopping, and socializing. [34]

The Corpsmen are paid an allowance of $40 to $100 per month depending on the development of their skills. All necessities are provided, even street clothes. They also earn up to $100 per month which is put in a savings account and given to them when they graduate. The education program compares favorably with public education. Students work on their own with much individual instruction. The Center tests students with the SAT test for comparison, and the results are close to the nationwide average. [35]

The Nixon Years

When Richard M. Nixon became President in 1969, many of the social and unemployment programs of the Great Society were immediate targets for review and drastic reduction or elimination. Nixon was far more conservative than Johnson had been, and he was forced by serious economic recession to seek ways to trim the federal budget. One major area to be trimmed was the Job Corps.

Youth Conservation Corps

In 1970 President Nixon signed into law the Youth Conservation Corps (YCC), a new youth corps aimed at employing young people in conservation work. Administered by the Departments, of Agriculture and Interior, the YCC did conservation work on federal lands much like the old CCC; however, it had both male and female enrollees and operated only in the summer. Some of the youths lived in camps and some who lived within commuting distance lived at home. Enrollees had to be at least 18 years of age and could come from any economic, ethnic, or social strata.

The YCC program proved successful in Region 9. Its biggest year was 1978, when $60 million was spent employing 3,600 young people. In 1983 the Reagan Administration withdrew YCC funding in an effort to reduce the federal budget, but because of the YCC's public popularity, Congress requested that the federal agencies involved continue the program on a greatly reduced basis from agency funds. In FY 86 there were 400 youths in the Region 9 YCC program with a budget of $490,000. From the Forest Service viewpoint, the YCC program has been a good one because it brought youth together from many diverse backgrounds, taught good environmental ethics, and promoted positive Forest Service public relations in local communities. [36]

The YCC program illustrates how far Human Resources Programs have come since the CCC days. While there is still the element of conservation, or to be more contemporary, "environmental awareness," the main thrust of the program from the beginning has been to bring youth together from various social, economic, and ethnic backgrounds and to help them to learn and develop their interpersonal relationship skills while working together in the natural environment. The benefit to the nation comes in the values which will be imparted to the youth who will be the leaders of the future. The cost of the YCC program, therefore, is not measured in dollars alone but should be considered as an investment in the future. [37]

The Senior Community Service Employment Program

The Older American Act of 1975 in Title V established the Senior Community Service Employment Program (SCSEP). This is a federally subsidized part-time employment/training program for economically disadvantaged persons 55 years of age or older. The program seeks to place a percentage of the enrollees in unsubsidized jobs in the private sector. A forerunner of this program was Operation Mainstream, which had similar goals.

The Forest Service acted as host for Operation Mainstream and for the SCSEP and then became direct contractor for the SCSEP with the Department of Labor. [38] Like most of the other Human Resource Programs, the SCSEP was allocated on the basis of population and Region 9

received a large share of it. Region 9 funding in 1976, when the program began, was $1 million. The funding level has increased annually until in 1985 it was $4 million. [39]

SCSEP enrollees are selected from the most needy as prescribed by Department of Labor guidelines. Many are on Social Security or welfare. The program allows them to have greater self-esteem by doing productive work and earning additional income. Some have earned enough through SCSEP to move off of welfare and become self-sufficient. Employment is part-time and limited to 1,300 hours in one year. Enrollees are paid the federal or state minimum wage, whichever is higher.

Job training is provided for those wishing to up-grade or learn new skills. Such training is encouraged to facilitate placement in unsubsidized jobs, but placement is not required of enrollees. Because there are no residential camps and enrollees commute to the National Forests where they work and train, it has been difficult to meet state or Region-wide minority targets. To remedy this situation, county-wide targets based on county demographics will be used in the future. For instance, if a county has an American Indian population of 30%, the SCSEP target in that county would be 30% Indians. Female participation has been encouraged and is increasing gradually. [40]

As the average age of the general population continues to increase, the need for the SCSEP program will grow, and the Human Resources Program (HRP) Staff of Region 9 anticipates that the program will remain viable. The SCSEP enrollees are looked upon as valuable additions to the Forest Service since they bring useful work skills, maturity, and a good work ethic. [41]

Volunteers in the National Forest

In 1972 Congress passed the Volunteers in the National Forest Act. This law allowed the Forest Service to have volunteers working in the National Forests without pay. Volunteers could be reimbursed for incidental expenses incurred in their work and were provided with workmen's compensation for work related injuries or illness as well as tort claims coverage.

The Volunteer Program in Region 9 began on a small scale, essentially because there was an abundance of YCC and other paid program positions available in the Region. Such paid programs were allocated on a population basis. Region 9, with 46% of the nation's population within its boundaries, received a lion's share. When paid programs were reduced, the volunteer program began to grow dramatically. In FY 78, $104,300 worth of work was accomplished by volunteers, but in FY 86 the value of volunteer work was $1,414,300, an increase of 1,356%. [42]

In 1985, Regional Forester Larry Henson remarked that the Volunteer Program had become so important to the Region that it would be difficult to operate without it. The volunteers were doing a variety of jobs ranging from trail maintenance to campground hosts. Older citizens and teenagers made up the majority of the volunteers, although there were volunteers like the two young married couples who lived all summer in the Superior National Forest and served as guides. One couple were both teachers and the other were writers.

In 1984 a special volunteer youth program called the Touch American Project (TAP) was initiated with great encouragement from President Ronald Reagan. Aimed at teenagers from the ages of 14 to 17 and supported with private sector money for work projects, the program was originated by the Secretary of Agriculture. In FY 84 some 1,200 teenagers were involved, in FY 85 there were 1,100, and in FY 86 there were 849. [43]

In recent years, the Eastern Region has developed new ways to utilize volunteers. The Regional planning process has used several professional volunteers in the public involvement portion of the forest planning process. Volunteers are being used in the Good Host Program, an arrangement whereby volunteers are placed in charge of Forest Service campgrounds. They deal with the public, collect fees, represent the Forest Service, and maintain the camps. They wear distinctive vests with Forest Service patches but receive no pay except free lodging or parking and actual operating expenses. The Good Host Program has proved to be a popular one and many retired couples spend their summers as volunteer Good Hosts. The program has improved the services to recreation users, increased fees collected, and reduced vandalism in recreation areas. [44]

The Young Adult Conservation Corps

The Young Adult Conservation Corps (YACC) was established in 1977 with a target group of unemployed young men and women between the ages of 16 and 23. The work to be done was on needed labor-intensive natural resource projects. The Region 9 share of this program was $13.4 million in 1978. To serve urban youth, there were two residential camps established, Clam Lake on the Chequamegon National Forest and Bald Eagle on the Chippewa National Forest. However, most of the enrollees were rural and were able to live at home.

By this time, Forest Service personnel had learned much about managing youth employment programs. They were able to motivate the young people by directing them in worthwhile and rewarding projects. As the YACC program developed and matured, its productivity and accomplishments in the National Forests increased.

Because of the lack of residential camps, the YACC program benefited rural youth more than urban. In 1980 there was only one camp in the Region for housing YACC urban youth. That camp was on the Chequamegon National Forest and accommodated only 60 young people, mostly from Chicago and Milwaukee. However, for the rural youth it was a way they could remain in their home towns or farms without having to migrate to the city to find a job. YACC non-resident projects provided the young people with valuable training and job experience and improved their chances for finding jobs locally.

One distinct advantage of the YACC program for the Forest Service was the youth, strength and vigor of the enrollees. Such young people could learn to handle difficult equipment like chainsaws and could cope with the sometimes harsh weather of the Region.

To the enrollees, the YACC provided training in work ethic, counseling, and encouragement to complete the general education courses offered. In some cases, the counselors persuaded high school dropouts to return to school. One noteworthy YACC project aided low income elderly people to lay in supplies of winter fuel wood.

Minority and female participation in the YACC program was significant but numerically limited. Most of the minorities and females involved in the program were employed at the Clam Lake Camp on the Chequamegon or in two subprojects of the Science and Education Administration and the Patuxent Naval Air Station in Maryland. [45]

In 1981 and 1982 President Reagan ordered the phasing out of the YACC in an attempt to reduce the federal budget. The entire Region and especially the National Forests had to adjust to less dollars, staff reductions, and less work accomplished.

Other Hosted Programs

"Other Hosted Programs" are Human Resource Programs that are administered by a sponsoring organization other, than the Forest Service. Such organizations include city, state, county, other federal, and private programs. The Forest Service hosts these programs by providing work projects for enrollees on the National Forests. Enrollee wages and other expenses are borne by the sponsoring organizations.

The hosted programs have provided a means of accomplishing the work of the Region at little expense to the budget. The former Comprehensive Employment Training (CETA) program which was replaced by the Job Training Partnership (JTPA) were examples of hosted programs, as was College Work Study, a program which supported on-campus work.

Conclusions on the Human Resources Programs

The Human Resources Programs of Region 9 added a new dimension, perhaps even a new social conscience, to the work of the Forest Service. It began back in the 1930's with the original CCC experiment. No program of Roosevelt's New Deal was better received. In the 1960's, when President Johnson, an admirer and emulator of Franklin D. Roosevelt, revived a program similar to the CCC, it was natural that the program would be turned over to the Forest Service, which had done a good job with the CCC.

Although the Forest Service has never emphasized Human Resources Programs, it has proven to be very effective in administering them. Forest Service people, with their dedication to the simple and practical idealism of conservation and with their belief in the traditional values of American society, are exactly the right kind of people to deal with disoriented and discouraged young people. Still another plus for the Forest Service was its flexible organizational structure and its traditional decentralization of authority. These qualities made it easier to set up camps for housing and administering the programs, as did the fact that the National Forests offered sites for the camps at no cost to the programs and away from the influences of big cities.

Land Exchange Program

By the mid-1960's it was painfully clear that there was a big problem in the eastern National Forests with land ownership patterns. In Region 9 there were several National Forests where only about 20% of the land within the boundaries was owned by the Forest Service. Few of the Forests had over 50% ownership. This pattern was due to the limited availability of the land for purchase when it was first acquired.

The problems rising out of such scattered ownership patterns were numerous and costly. One problem was with private owners when public use was allowed on adjacent National Forest lands. Conversely, some private inholdings were a source of direct damage to National Forest lands. Pollution from mining operations causes many problems. The pattern also created exceedingly high costs for surveying and marking interior boundary lines for exchanges of rights-of-way for access and use. In addition, small scattered ownership of land multiplies the costs of road development,

fire protection and administration. It creates hazards from fire and trespass, and complicates the processes of management. [46]

The ownership pattern of some National Forests were apparently as troublesome for private landowners as they were for the Forest Service. At its annual meeting in May 1965, the National Forest Products Association (NFPA), the leading organization of lumber and wood manufacturing companies, adopted a resolution calling for a land exchange program with the Forest Service for the purpose of consolidations. The NFPA wanted the land exchanges to be made with future timber production in mind as well as the welfare of communities and industries dependent on forest products. They believed the lands should be exchanged on the basis of their multiple use values and that public lands declared surplus should be sold rather than exchanged. [47]

Unfortunately, the Forest Service had not been encouraging land exchanges. In the mid-1960's a management study team found a huge backlog of proposals for land exchanges piled up in Supervisors' and Regional Offices. The team pointed out that many millions of dollars could be saved in surveying costs alone by an exchange program. The average exchange was taking 2.5 years. Instead of the exchanges being handled by inexperienced Rangers at the District level, the report advocated centralizing the process at the Regional Offices.

An outside review team recommended in 1965 that each National Forest correct its irregular ownership patterns in an accelerated program of land exchanges over a period of five years. [48] The Forest Service concurred in the recommendation and the Chief ordered the National Forest Manual to be revised to provide for land exchange planning. The Chief accepted the idea of a crash program and set one in motion. He also centralized the appraisal and evaluation work in the Regional Offices. [49]

Mineral Rights Problems

The one National Forest in the East which was most extensively developed for mineral purposes was the Allegheny. Titusville, where Edwin Drake drilled the first commercial oil well in the world, is located near the Forest. The Pennsylvania oils taken from this Region have remained the industry standard for high quality motor oils. The eastern two-thirds of the Allegheny National Forest has been heavily developed by oil companies who own most of the mineral rights. It is impossible to walk more than a few hundred yards in this part of the Forest without seeing some sign of past or present oil company development. Old and new oil company roads combined with old logging roads, township, state, and Forest roads make the area easily accessible. [50]

The main problem stemming from mineral rights where the Forest Service does not own them is that the interests who do own them have the right to access. For example, a mineral rights owner may drill an oil well where he chooses. He has a right to build roads for access, to bring in equipment, and to construct tanks and slush pits. The Forest Service monitors these activities and attempts to keep the environmental damage to a minimum, but it cannot stop the process.

Multiple Use Brings Changes

The Forest Service changed dramatically in its management procedures in the 1960's and early 1970's. Many new people were brought into the organization: landscape architects, ecologists, soil scientists, transportation planners, archaeologists, and recreation specialists. This

new diversity of personnel was in response to the interdisciplinary thrust of the new law, the Multiple Use-Sustained Yield Act of 1960. As Public Affairs Specialist, Ned Therrian, explains, "The Forest Service was getting to the point where they couldn't handle the tough questions that people were asking." People were confronting the Forest Service with issues that required specialized expertise to address in forest plans and other public documents. An example is the visual concern of the tourist or hiker in the Forest. The Forest Service began to see the need to call on the expertise of a landscape architect when a timber sale or a ski area was planned. Therrian argues that this is an example where the Forest Service is not given enough credit for its farsightedness. "We were hiring some of the very first landscape architects back in the 1920's even. But it wasn't until the 1960's that we really got into integrating those skills in the management process and making those people part of the management teams and really developing those sciences." Therrian believes that the science of landscape architecture and wildlands management pretty much developed in the Forest Service:

> "The state of the art today has emanated out of a series of hand books that people in the Forest Service have developed. . .There's no organization in the world that I'm aware of that has the knowledge and skills for managing, wildland . . . that the Forest Service has today." [51]

Summary

In the 1960's and 1970's, the Forest Service was brought more into the mainstream of national life. When there were national problems such as unemployment and lack of vocational training for youths and others, the job of operating many of the curative programs was given to the Forest Service. When public pressures grew for greater use of the National Forests and better protection of the environment, the Forest Service responded with emphasis on multiple use.

In the Eastern Region, where half the nation's population lives, the impact of the two decades was profound. The unemployment and social programs received heavy emphasis as long as the appropriations held out. They accomplished much conservation work on the National Forests, but more important they helped thousands of young people to have better lives. The programs were ably run by the Region, and some vestiges of them continue today. In the absence of massive appropriations, today's emphasis is on voluntarism, which has become essential to carrying on the work of the Region.

The advent of multiple use has forever changed the day-to-day operations of the Region. At all levels, there are now experts working in nearly every facet of multiple use. Thinking throughout the Region now encompasses all uses, and while timber management is still important, it is not all-important as it once was.

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CHAPTER XIII

THE NEW EASTERN REGION

Reorganization

The Deckerd Report

In 1965 the Secretary of Agriculture, the Director of the Budget, and the Chairman of the Civil Service Commission set up a joint team to review management policies and practices in the Forest Service. The review was conducted from February 15 to July 2, 1965 as part of President Lyndon Johnson's program for improved management of the federal government.

The survey team headed by Edwin Deckerd of the Bureau of the Budget, had three members from the Department of Agriculture (but not the Forest Service), one from the Civil Service Commission, and two from the Bureau of the Budget. The team spent 5.5 weeks in the field. All of the Regional Offices were visited except Region 10 in Alaska. They also did a good sampling of Forests and Districts in most of the Regions. They concentrated much effort on Region 7, which consisted of the following National Forests and units:

Allegheny National Forest—Warren, Pennsylvania
Cumberland National Forest—Winchester, Kentucky
George Washington National Forest—Harrisonburg, Virginia
Green Mountain National Forest—Rutland, Vermont
Jefferson National Forest—Roanoke, Virginia
Monongahela National Forest—Elkins, West Virginia
White Mountain National Forest—Laconia, New Hampshire
Northern Insect and Disease Control Zone—Amherst, Massachusetts
Southern Insect and Disease Control Zone—Harrisonburg, Virginia
Regional Fiscal Agent, US Forest Service—Upper Darby, Pennsylvania [1]

Region 9

After the field work, the team spent two days conferring with Chief Edward P. Cliff and other Forest Service leaders. Later a two week conference was held in the Washington Office with the Chief and appropriate staff members to have their participation in making the final recommendations. [2]

The study team was impressed with the management and *esprit de corps* of the Forest Service. It commented: "The Service obviously has a proud tradition of excellent achievement which sustains an enthusiastic and dedicated team at all levels in the organization." [3] Throughout its tour of the country, the survey team was struck by the high quality of management of land, timber, water, and wildlife resources by the Forest Service as compared to the neglect seen on similar resources managed

by private and other government agencies. The team concluded that the lands of the Forest Service were in "competent hands" and their value was being enhanced and preserved. [4]

Generally, the Deckerd Report approved of the basic principles of Forest Service management, that is line authority and local decision making. In fact, the Report recommended strengthening line and staff authority at all four levels and establishing of capability at the District level to take final actions.

With regard to the appropriate size of Districts, Forests, and Regions, the Deckerd Report recommended that these be more nearly standardized throughout the Service. Districts should be large enough to warrant a staff to which the Ranger could delegate nearly complete authority and responsibility for management. Thus, Rangers would be converted from working supervisors to managers. [5] In the end, the Forest Service did not accept this idea. Instead, District Rangers were to continue working as they had, which included "managerial work." [6] The Deckerd Report developed a concept called "optimum size districts" which would have enough acres "to support a competent professional staff working under the direction of a managerial Ranger Supervisor". The survey team came up with the following parameters for an optimum size district: between 10 and 90 employees, between 300,000 and 600,000 gross acres, and an operating budget between $150,000 and $400,000 per year.

The Supervisors' Offices of the National Forests were the basic planning units. Therefore they should be staffed, according to the report, with specialists who could make the necessary multiple use and long range plans to develop and manage the National Forests. They should also provide supervisory, administrative, training, and specialist assistance to Ranger units. The study found a great range in the number of Districts on National Forests—from three to 13 and Forests which ranged in size from 211,200 to 3,118,900 acres. It recommended that the number of Forests be reduced by using eight optimum size Districts as the standard measure for determining size.

As for Regional Offices, the Deckerd Report defined their duties as functions at the "implementation and review" level. The Regional Office should provide for adaptation and implementation of the Chief's policies and programs of work. It should actively push new programs and see that they were implemented wisely. It should provide advice and consulting service to the National Forests as needed, but it should not become overly involved in policy and program formulation. It should not be the level at which projects are actually done, but rather should provide the staff support and project evaluation. Indeed, the Regional level should be the primary one for evaluation of programs. [7]

As defined by the Deckerd Report, the role of the Regional Office was such that a larger size was a definite advantage. Larger Regional Offices could implement programs over a wider area, provide more programs for comparison, support specialized consultants, eliminate duplication of directives, and provide a more economical administration. The Report concluded, from studying all of the Regions, that the optimum size ones were those which had a "span of control" over 15 to 19 Forests. This, the Report remarked ominously, "would indicate room for some tightening up of Regional structure. Regional areas should be made to retain a span of control of approximately 18 Forest Supervisors' Offices per Region." [8]

The Deckerd Report looked into Forest Service Regional history, especially the Eastern Regions, (Regions 7, 8, and 9). It described how the North Central Region was formed in Milwaukee in 1929. The Eastern Region was divided in two in 1934 by creating Region 8 with

headquarters in Atlanta and encompassing all of the National Forests south of Kentucky and Virginia. This had left only seven National Forests in Region 7.

The Deckerd Report asked the telling question of whether the "historic Regional structure is valid at the present time in view of advances made through the years in transportation, communication, managerial methods, and administrative procedures." [9] The Report analyzed the great variations between Regions in size and in almost every other category. Employment ranged from 1,421 in Region 7 to 7,414 in Region 6, net acreage from 4,252,722 in Region 7 to 30,800,215 in Region 4, and a "span of control" of 19 reporting Forest Supervisors in Region 6 compared to only seven in Region 7. Within the Regions, the number of Ranger Districts varied from 39 in Region 6 to 120 in Region 4. [10] In this category, Region 7 was not the lowest, but it was next to it. The Deckerd team also prepared a table showing comparative data on the Regional Offices. In every category. Region 7 was the lowest or next to lowest Region. For instance, the annual allowable cut for Region 7 was 421 million board feet. The next lowest was Region 3 with an allowable cut of 597 million board feet, 42% higher. The highest allowable cut was on Region 6—4,300 million board feet or more than 10 times as great as Region 7.

Decision to Reorganize

If the Chief of the Forest Service accepted the "span of control" concept, the next step was inescapable: Region 7 needed to be eliminated. It stood out like a sore thumb. By all the criteria except number of National Forests, it was the smallest. The other candidates for elimination were Regions 8 and 9, both about the same in number of National Forests (11 in each) and size (around 9 million acres). Region 8 had 3,375 employees and Region 9 had 1,802; Region 8 had a larger budget by about 37%. [11]

Looking at this situation, Chief Cliff and his staff could see that the best possibility was to combine Regions 7 and 9. A joining of Region 7 and Region 8 would not have been as advantageous because of the geographical and climatic differences in an area that stretched from Maine to Florida. In terms of employees, such a combination would have left Region 9 with a very small number in comparison to the others.

The Chief and his staff decided that Region 7 would be eliminated and its National Forests divided among Regions 8 and 9. The White Mountain, Green Mountain, Allegheny, and Monongahela National Forests were assigned to Region 9 and the George Washington, Jefferson, and Daniel Boone National Forests went to Region 8. The Region 7 Office at Upper Darby was to be closed and most of the personnel moved to Atlanta or Milwaukee. [12] The new boundaries of Region 9, now called the Eastern Region, stretched from the Midwest to New England. The states involved were Maine, New Hampshire, Vermont, Rhode Island, Connecticut, Massachusetts, New York, New Jersey, Maryland, Delaware, Pennsylvania, West Virginia, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, and Missouri. The National Forests were the White Mountain, Green Mountain, Allegheny, Monongahela, Wayne, Hoosier, Shawnee, Mark Twain, Clark, Chippewa, Chequamegon, Superior, Hiawatha, Ottawa, Nicolet, Huron, and Manistee.

State and Private Forestry Separated

The Deckerd Report also dealt with major problems which existed in State and Private Forestry (S&PF). This branch of the work of the Forest Service was supposed to be one leg of a "three-legged stool," with National Forest Administration (NFA) and Research being the other two. In practice, State and Private Forestry was the weakest of the three in terms of Forest Service attention and resources.

The proper job of S&PF, according to Forest Service Policy, was to work with state and private agencies. It was basically a selling and public relations job, made somewhat easier by the federal funds that came from grants-in-aid. [13] The Deckerd team found that the S&PF programs were weak because they were neglected by the rest of the Forest Service. This was true of the administrators of the National Forests and the Regional Foresters. [14]

The Deckerd team found that Regional Foresters tended to look upon National Forest management as their primary function and S&PF as secondary. The reasons were obvious: management of federal lands was a tangible job for which foresters were trained. It had been unrealistic, the Report concluded, to expect foresters to do otherwise. It was true that S&PF was also a job for foresters, but the big difference was that it was not on National Forest lands and others had the direct responsibility for its management. [15]

The Deckerd team found that in the West, where the work of S&PF was on a small scale, the Regional Foresters had sufficient public stature to make the S&PF system work reasonably well. In the East the work was more difficult. The Regional Foresters were less prominent in public life and there were so many more states to deal with. There needed to be changes. They suggested separation of the S&PF functions from Regional Foresters and setting up of their own offices. [16]

In the East, Region 8 had the largest area and workload and could support a separate S&PF staff. By combining the work of Regions 7 and 9 into one separate office, the Forest Service would have two offices with approximately equal workloads for the Eastern United States. [17]

The Chief and his staff accepted the recommendations of the Deckerd Report and the Chief ordered that new S&PF offices be organized in the East with direct line control under Directors of State and Private Forestry. One of the headquarters was to be at Upper Darby, Pennsylvania close to the Research Station there. Its staff would include the staffs formerly of Regions 7 and 9. [18]

Receiving the News

A "family" meeting of the Region 9 Regional Office personnel was held on September 20th, 1965. Regional Forester George S. James related the changes which would be taking place in the Region as a result of the reorganization of the Forest Service. The National Forests in Regions 7, 8, and 9 would now be administered from two Regional Offices in Milwaukee and Atlanta, with the Allegheny, the White Mountain, the Green Mountain, and the Monongahela of the former Region 7 being assigned to Region 9. State and Private Forestry Programs would be separated at the Regional level from National Forest administrators' offices, the former in Upper Darby and the latter at Atlanta. The State and Private Forestry functions and people in the Milwaukee offices were being assigned to Upper Darby. Research projects served by the Lake States, Central States and Northeastern Stations would be administered by two directors located in St. Paul and Upper Darby. [19]

There were mixed feelings about the merger in the affected National Forests. In New England, the initial reaction was not very positive. Some New England foresters believed that their philosophies, ways of working with the public, and recreation needs, required "a different yardstick" than the one used to measure "some backwoods forest in the Lake States." From the view of the Lake States and Midwest National Forests, the Easterners were often seen to be suffering from a feeling of superiority, particularly the foresters from the White Mountain National Forest. Leavitt Bowie, a retiree from the White Mountain remembered some in the new Region referring to his Forest as the "White Mountain National Forest Service." Another retiree from the WMNF recalled that back in the Region 7 days, other Foresters jocularly called the White Mountain National Forest the "Holy Hills" because they received all the money. 20

"May We Introduce"

As part of the effort to smooth the merger transition during the last month of 1965 and the first months of 1966, the Region 9 weekly newsletter *Contact* featured each of the National Forests in its "May We Introduce" section. Each item was written by someone on the described Forest.

The Chequamegon National Forest was described as having three separate units "with a fairly compact land ownership of hardwood, spruce and pine sites." Fiscal year 1965 receipts were $200,717.

The Clark National Forest reported that their growing stock was 2/3 hardwoods and 1/3 pine. Their annual cut was 25 million board feet, the greatest need was for pole-sized hardwoods. The job-at-hand on the Clark was in assisting and coordinating of the new southeastern Missouri lead district. Future revenues from royalties of $1 million per year were expected. The Forest reported that their lands included many miles of free-flowing streams, but nearly all frontage was in private ownership. Suitable sites were being acquired to meet the demands for water-oriented recreation.

The Hiawatha National Forest noted a great increase in demand for recreational developments. The Forest was also a productive pulpwood area.

The Huron-Manistee National Forest introduced itself as a Forest with timber potential of "second growth hardwood and replanted red pine," Caberfae, near Cadillac, was a widely known winter sports area in the Forest and the Huron-Manistee was also the home of the much publicized Kirkland's Warbler Wildlife Management Area. 21

The Chippewa National Forest, with 499 major lakes within its boundaries, proudly claimed to be the heart of Minnesota's vacation land. The Chippewa waters were bisected by the Continental Divide, nourished the infant Mississippi River as well as the Rainy River which ultimately reaches Hudson Bay. The timber cut on the Chippewa in the preceding year amounted to 43.4 million board feet, and an estimated 1.8 million seedlings were planted on approximately 2,600 acres.

The area of the Mark Twain National Forest was described as stretching across the top of the Ozarks in southern Missouri from Cassville in the west to Doniphan in the east. The primary merchantable timber was oak. An important new job for the Mark Twain was a land inventory program for multiple use based on soil capacity. They also reported that proposed legislation would probably designate the Eleven Point River as a Wild River within the Forest.

The Nicolet National Forest described itself as "one of the finest recreation areas in the Midwest." The timber harvest from the preceding year, had been 50 million board feet.

The most valuable wood species on the Ottawa National Forest was reported to be yellow birch. Their annual allowable timber harvest was 9,720,000 board feet of sawtimber. The Ottawa boasted 733 lakes and ponds on their Forest and an increasing demand for yearlong recreational facilities.

The Shawnee National Forest described itself as "situated in Illinois in the most scenic and historic areas of the state, with one section adjacent to the Ohio River on the east and the other bordering the Mississippi on the west." It was a well diversified Forest with strong programs in recreation, wildlife, and watersheds. Two important projects underway in 1966 were the acquisition of land to close the gap between the two units and the planning of the George Rogers Clark Recreation Road through the Forest linking the Ohio and Mississippi Rivers.

The Superior National Forest, with its northern boundary extending along 200 miles of the Canadian border, was a Forest of white spruce, balsam fir and pine, jack, white and red, with aspen and white birch. One-third of the northern portion contained the Boundary Waters Canoe Area, a part of the National Wilderness System administered under special Secretary's regulations. Visits to the BWCA in 1964 totaled 246,000. The Forest was widely known for its wealth of fish and wildlife, including moose and timber wolves. A fleet of three seaplanes, two with water bombing equipment, provided fire detection, initial attack and administrative use.

The Wayne-Hoosier was described as lying in the central hardwood region with good potential for growing quality hardwood. Some of the Wayne's units were in the coal mining area and presented particular problems in strip mining and reclamation. The largest recreation developments were the Vesuvius near Ironton, Ohio and the German Ridge near Tell City, Indiana. A major recreation project underway was the Monroe Reservoir, a flood control impoundment in the Brownstown Ranger District. Fiscal year receipts on the Wayne-Hoosier amounted to $110,672. [22]

In order to introduce Region 9 to the new National Forests which became part of their "family" in 1965, the *Contact* featured each of four new Forests in its November 10, 1965 issue.

The Allegheny National Forest, supervised by Leroy K. Kelly, administered an acreage of 472,344 acres (gross acreage 726,477). Established in 1923, the Allegheny was described as "a compact forest of good sites, with over 40% of its marketable volume in black cherry timber. Fiscal year 1965 receipts were $1,045,402. The current emphasis was on planning and development of recreational facilities of the Allegheny Reservoir. The current recreation and road construction budget for the Reservoir was over $2 million.

The Green Mountain National Forest, supervised by Paul S. Newcomb, contained 232,479 acres (629,019 gross acreage) and was described as a productive northern National Forest from which 40 cents per acre was returned to the counties under the 25% fund. The Green Mountain foresters kept busy during the winter sports months with six special use winter sports areas and more in growing demand.

The Monongahela National Forest, supervised by Ephe Olliver, contained 806,321 acres (gross acreage 1,641,993) and encompassed the major highlands of West Virginia. They boasted great timber potential with varieties including white pine, red spruce, Appalachian and northern hardwoods. One important new job was the planning and developing of the Spruce Knob-Seneca Rocks National Recreation Area. Fiscal year receipts of $1,119,631 included $701,152 for a gas storage lease.

The White Mountain National Forest, supervised by Gerald S. Wheeler contained in Maine 45,857 acres (gross acreage 81,316) and in New Hampshire 678,476 acres (gross acreage 805,138). This Forest included the spectacular Presidential Range with the highest peaks in the northeast. Recreation was the big business and sightseeing in the mountains the main attraction. Hiking and mountain climbing were popular, and all the winter sports programs were growing. Recreation charge program receipts in 1965 amounted to $30,000. [23]

The Regional Office

Another Move

Over a period of three months in the summer of 1966, the Regional Offices of the Eastern Region moved once again. It was a short distance move, only across the street from their old location to the Greyhound Tower Clark Building, where they occupied the 6th-9th floors and part of the 5th. [24]

Operation of the Regional Office—Accounting

The accounting system of the Forest Service is centralized with each Region maintaining certain accounts and sub-accounts. Funds made available by Congress for operations flow from several appropriation items, and the accounts and sub-accounts of the Regional Office, Supervisor's Offices, and District Offices preserve the multi-fund arrangement. The accounting system allows charges against the several appropriations and controls the outer limits of expenditures. Other accounts exist to allow the Region to be able to respond to requests for information on the costs of various program breakdowns. The net result is a system with more than 100 functional accounts and about 40 sub-accounts.

Until the 1960's, there was much sub-account work carried on at the District level. Accounting work for timber sales, billing and collecting were done at that level. Upon recommendations from the Deckerd Report, this system was changed so that such accounting was done at the Region and Forest levels. This was a relief to many District Rangers, who were not accountants by training, vocation, or preference. [25]

Another reform suggested by the Deckerd Report was centralization of all voucher examination activity at the Regional Office. Voucher examination and certification is a high volume operation best performed at the Regional Office. [26]

Personnel Management

The high level of *esprit de corps* of Region 9 was testimony to a sound personnel management philosophy provided by Harry Halvorson and other dedicated people. Considerable attention was given to training of personnel. There was one problem in the first assignment of college-trained specialists. Often, such persons were assigned to a specialist position at the District level for two or three years. They rarely worked in other capacities to find their niche. The Deckerd Report suggested a mandatory program of planned experience for new professionals in forestry,

engineering, administration, and possibly some of the other professions. The Chief agreed and ordered such a program to be inaugurated as financially feasible. [27]

Workload Analysis and Manpower Control

The Region's workload analysis system was a technique for measuring the financing and staff necessary to carry out function of each field organization. Periodically, the volume of business for each item of work was determined for each organization. The end product was the total man-hours required to carry out each job. This was translated into the dollar requirement to be put into the budget. After funds were appropriated, they were distributed from the Region to the Forests and Districts, using the work plans as a basis with some adjustments for local conditions. Over the years the system became overly complex. In the 1960's the Forest Service began a process of simplification. This too was a relief to District Rangers, who had as many as 200 work projects to analyze each year. [28]

Contracting

By the 1960's the Region was expanding the use of contracting for services to accomplish work on National Forest lands. The reason was that in many instances contracting was more economical than using Forest Service personnel and equipment. Timber stand improvements under contract might cost $20 to $25 per acre as compared to $30 to $35 per acre if done by force account.

One disadvantage of contracting would be the lack of depth of trained and qualified personnel to fight forest fires and to provide administrative skills on units where few Forest Service regulars exist. When temporary employees were hired, they were usually supervised by permanent employees. There was an advantage to this system when emergencies arose, for instance a forest fire. The work crew was already organized and could be quickly dispatched to the fire. When a fire starts on a National Forest, there is not enough time to draw up contracts with fire fighters.

The Region tried to remain pragmatic on the matter of contracting, using contracts for seasonal work or highly technical tasks. In this way, the permanent and many temporary employees were available for the more regular jobs. [29]

The Future of the Eastern Forests

The Conservation Foundation

In 1974 the Conservation Foundation, a private non-profit research and communication organization which focuses its work on conservation and the National Parks and Forests, undertook a broad examination of the eastern Forests. Deputy Regional Forester John A. Sander served as liaison in this significant effort. Their report, titled *The Lands Nobody Wanted*, concluded that the historic role of the eastern National Forests must continue. They must remain working National Forests, continuing to produce in terms of recreation, timber, and minerals. However, said the report, "We must not permit their degeneration into low-grade, disturbed environments lacking in distinction." [30]

The report spoke highly of the accomplishments of the Forest Service in reestablishing the eastern National Forest System, which it described as land "that only recently nobody wanted." Terming this "one of the great conservation achievements of American history" made even more remarkable because it was achieved by a federal agency at a time when there was widespread debate about the efficacy of the federal government. To preserve and protect that achievement, the report recommended that the future management of the National Forests for a long time be based on two principles: one, provide public benefits that cannot be supplied by private lands because they are not available or because an economic incentive is absent; two, restore the forests as natural environments distinct from man-made environments otherwise dominant in the East. To make the two principles compatible, the report recommended that the Forests and their products should be used only to the extent that the continuing process of restoration was not interrupted.

The report recommended several management prescriptions: first, that the eastern National Forests be used only to augment the national production of hardwoods and that private forests in the East become the main source; second, that since the market for softwood products was growing, a greater portion of these woods should also be grown on private lands; and third, that the National Forests should concentrate on producing sawlogs from superior hardwood and softwood species with long growing cycles.

There were practical and long-range considerations in the recommendations of the Conservation Foundation. The emphasis on the long growing cycles for the Forest Service was reasonable because the Service could afford to wait out such cycles while private forest owners could not. Also, such a policy would ensure future generations of hardwoods for furniture and veneer. The report considered the hardwood National Forests of the East a "national treasure" which the federal government alone could protect and preserve.

For recreation, the Conservation Foundation recommended that the eastern National Forests specialize in those dispersed, low intensity types of activities which required large areas of relatively natural terrain. High intensity uses or those likely to be commercially profitable should be left to private lands. Public lands should provide the wild rivers, the rugged mountains, and the wildlife habitats, while private lands should offer developed facilities at a fair price.

Principally to "demonstrate to decision-makers the intensity of the demand for high quality recreation," the report advocated modest user fees be collected on recreation sites. To encourage private landowners to manage their forests profitably for recreation and timber, the report suggested certain financial incentives. This, it was hoped, would reduce the demands on the National Forests.

In keeping with their principle of restoring the National Forest as natural environment, the Foundation recommended what might be considered temporary wilderness. These would be relatively remote areas where timber could be managed much like wilderness on very long rotations and cut at the end of the cycle. In the case of hardwoods, it could be more than a century during which there would be no cutting. Such areas would be established in addition to and not as a substitute for truly designated wilderness. Nevertheless, they would satisfy many of the needs of people who desire scenic or wilderness experiences and who would accept something less than true wilderness. [31]

Reaction Within Region 9

Naturally, there was a mixed reaction from the Forest Service and throughout the Eastern Region to the Conservation Foundation's far reaching recommendations. Many of the ideas were well received, while others seemed hopelessly visionary. Regional Forester Jay H. Cravens reacted to the recommendations in relatively conservative but nonetheless positive terms. He moved to improve the quality of National Forest management and multiple use coordination in order that the needs of more diverse publics might be met. Cravens coined a phrase for the kind of management he wanted to emphasize—"sophisticated under-development." The idea was to show the new environmental sensitivity of the Forest Service and, to use Cravens' words, "to design and lay our roads gently on the land consistent with resource and aesthetic needs." [32] Regional Engineer Floyd Curfman helped implement this philosophy in road designs and construction.

In line with Cravens' new management initiatives, the Region played an important role in developing a multiple use plan for the Monongahela National Forest which would answer many of the protests about clearcutting there. Then in conjunction with Region 8, the Eastern Region developed a land use planning process for all of the National Forests of Appalachia. The two Regions did pioneer work in land use planning on the Appalachian National Forests project, and the basic principles two Regional staffs developed were incorporated into the Resources Planning Act and the National Forest Management Act. [33]

Changes Experienced at the Forest Level

Implementing the new directions meant profound changes in National Forest planning. In the past, management plans had emphasized timber production. For instance, using aerial photos to survey the entire forest in 1938, foresters made the first real comprehensive timber management plans for the Nicolet National Forest. A much improved second plan was devised for the years 1953-63 which gave consideration to timber types, size classes, growth, planting needs, recreation possibilities, resident population, forest protection, land surveys and forest industries. A third management plan was developed to cover 1964-75. Added to the previous considerations were road and waterfront zones, wild and scenic areas, and necessary wildlife openings. [34]

The emphasis on timber in planning affected budgets. Prior to the 1970's, 50% of the Green Mountain National Forest budget went toward timber management. But in the 1970's attention began to shift; the timber program received only about 31% of the budget. Recreation and wilderness, wildlife habitats, and acquisitions have assumed larger roles of the Green Mountain picture. [35]

Steve Harper, current Supervisor of the Green Mountain National Forest, recently made the following comments on the present day diversity of National Forest management:

> "Each year we get a budget and certain basic targets that come down to us ultimately from Congress, through the Chief's Office and the Regional Office. Our budget is in twenty different pots and we have to maintain the integrity between those. We get a certain amount of money for timber management and a certain amount for wildlife and for recreation manage-

ment. We have to maintain integrity between those and we're expected to do so many things—so many acres of wildlife improvement habitat and keep our campgrounds open for a period of time . . . " [36]

Resource Protection

The Biggest Threat—Fire

When Region 9 acquired its southern forests in the 1930's, it inherited what was for the Region a new kind of forest fire problem. The Region, by nature opposed to forest fires of any kind, now had to try to stop the practice of setting fires in the southern forests. It was a monumental project. Local wisdom, perpetuated by generations of practice, told the people of Appalachia, southern Indiana, and the Illinois and Missouri Ozarks that burning was the thing to do every year or so. They were accustomed to days and even weeks in the burning season when a pall of smoke hung over their whole region.

The job of the Rangers and others of the Forest Service was to convince the local people that what they had always done was wrong. It was made more difficult because they were themselves usually not local people but outsiders who were viewed with suspicion.

In the 1930's the Rangers could not control all of the fires; "We just went out and talked a lot," says a former Ranger. [37] They made talks and did slide shows on fire prevention in school houses and churches, sometimes three or four times a week. In areas where there was little other entertainment, the foresters' traveling show often drew good crowds. There were even those residents who came to believe that fire prevention "wasn't so bad." But, there was more to the job than that. During the fire season, Forest Service employees often spent their entire days fighting fires. "We'd go out in the morning, look for a fire and work on it; next day if it hadn't rained, we'd go out again." [38]

In reality, the fire prevention program made little progress in the 1930's. Even when there were hundreds of CCC men to fight the fires, the burning continued. There are even stories of local boys setting fires on Fridays and Saturdays so they would not have to compete with the CCC boys for the local girls on the weekends. [39] But the fire situation improved greatly during World War II when many young men, the ones who set fires, were away in the Armed Forces and other local people moved to the cities to work in War industries. After the War, many of these people did not return to the rural areas. Also, improved roads, especially in the Missouri Ozarks, made it easier to prevent fires from spreading. [40]

One of the leading figures in forest fire prevention and suppression in Region 9 was Bill Emerson. In a career that spanned 35 years in the Forest Service (with four years out for Army service in World War II) Emerson had many assignments of which one was supervisor of fire control on the Superior National Forest. After that he had the tag of "fire fighter" hung on him. The Superior National Forest was a good place to learn about fires. It is the largest National Forest in the Eastern Region, and it had few roads for fire fighting equipment to use. When Emerson first came to the Forest, there were as many as 50 manned fire towers. Some of the towermen (or women) had to be flown in to their stations and often had to walk miles carrying their supplies after the plane landed them on a lake. When it rained and there was no danger of fire, the towermen could not be relieved, so they sat for days with little to do and nothing to look at but soggy wilderness.

In the 1930's spotter aircraft were introduced on the Superior, and the need for so many fire towers declined. Today, there are no manned towers left. When weather conditions indicate the fire danger, the Forest sends out two flights of spotter planes per day across the Forest. [41]

During several tours of duty on the Superior in the postwar period, Emerson made many contributions to improve fire fighting. The patrol flights had to be carefully planned and coordinated to insure that the huge Forest was adequately, covered. [42] If a fire was spotted, the task of getting fire fighters to it was greatly complicated by the dense forest cover and lack of roads. Over the years techniques were developed to deliver teams of fire fighters with their equipment to the scene of the fire by airplane which landed on the nearest lake. [43] Emerson was instrumental in introducing the fire fighting technique of using aircraft equipped with water scoops. The crafts are able to swoop down over the surface of a lake and scoop up hundreds of gallons of water. Then they fly to the fire and dump the water on it. In all of Emerson's assignments after his experience on the Superior, he worked with fire. He ended up in the Regional Office as Branch Chief of Fire Control under Assistant Regional Forester Bunky Parker. [44]

Fire Prevention and Suppression Since 1965

Forest Fires in the Eastern Region

Since Forest Service and State and Private fire prevention programs have been established in the Eastern Region, there have been no holocausts and fires involving thousands of acres are no longer frequent. However, when private property, amenities, and improvements are mixed in with National Forest lands as they are in the Eastern Region, a fire of several hundred acres can be costly.

Responsibilities

Under the federal system of the United States, the states have responsibility for fire protection in rural areas. When there is a mixture of state, private, and federal lands within the boundaries of a National Forest, fire protection responsibilities become complex. Naturally, the Forest Service has a primary interest in fire protection on National Forest land, referred to as "greenlands" because federal land is indicated on Forest Service maps with the color green. Both state and private land on maps are shown in white. "Whitelands" would normally come under state or local jurisdiction for fire protection. Because of the problems of divided, responsibilities and the need for improved fire protection on state and private forest lands, the Forest Service's office of State and Private Forestry has carried on programs for decades to assist the states and local fire departments in forest fire prevention and suppression.

For control of fire within the boundaries of National Forests, various arrangements have been made. Sometimes the Forest Service provides the protection for "whitelands" as well as "greenlands." In turn, where state facilities are available, both types of lands are protected by state fire fighting organizations. Balancing the fire protection work load in this manner provides the most efficient and effective use of the available fire fighting resources. Until recently, the State of Illinois paid the Forest Service to protect its lands in or near the Shawnee National Forest. However, the funds have been reduced and the Forest Service no longer protects State of Illinois lands.

Nearly all Ranger Districts throughout the Eastern Region have their own fire fighting equipment and personnel. One exception is the Medford District of the Chequamegon National Forest which, even with large blocks of "greenland," has surrendered all fire fighting responsibility to state agencies. An equivalent amount of "whiteland" is protected by other Districts of the Chequamegon to balance State of Wisconsin and National Forest fire protection responsibilities.

Cooperation with Rural Fire Protection Districts

There is one other way that fire protection can be provided to National Forest lands. The Clarke-McNary Act of 1924 provided for a cooperative program with rural fire protection districts, many of them small town and township fire departments located near enough to National Forests to provide fire protection on call. Under cooperative agreements the Forest Service agrees to reimburse these fire protection units for their response to fire calls to protect National Forest land. The agreements also provide for the Forest Service to assist the states in protecting state and private lands in a similar manner. The Rural Community Fire Protection Program, Title IV of the Rural Development Act of 1972, authorized the Secretary of Agriculture to provide financial, technical, and other assistance to state foresters to organize, train, and equip fire departments in local areas to prevent and suppress fires. Surplus property from many federal agencies was made available. [45]

The Shawnee National Forest announced in March of 1987 that responsibility for frontline fire fighting within the boundaries of the Shawnee in three counties would be assumed by six local fire departments under a contractual agreement with the Forest Service. Such protection had formerly been provided by the Shawnee National Forest. According to the Forest Assistant Fire Management Officer Dennis Gillen, "It's been the gradual strengthening of the rural fire protection districts that allowed us to make this switch." In areas where the local fire departments were not deemed ready to assume the responsibilities, the switch was not being made. The change was necessitated by budget cuts imposed by the Gramm-Rudman Deficit Reduction Act and the lack of State of Illinois funds to pay the Forest Service for protection of state of private lands. By shifting responsibility to local departments, the Shawnee National Forest would be able to reduce its fire protection forces and expenditures.

Under the new local system, forest fires, whether on private, state, or National Forest land, are to be reported to the local fire departments, who will handle the fires initially and, if necessary, call for back-up from the Shawnee National Forest if the fires are on National Forest land. [46]

Typically, the fire departments involved in the contract program throughout the Region are small town or rural volunteer departments supported by taxes from town or township government. Most states also allow the formation of local fire districts in rural areas where no other fire service is available. The fire departments of small towns, townships, and rural fire districts are likely to be under-financed and have aging and sporadically maintained equipment. They are usually staffed by volunteer firefighters who are rarely trained in forest fire fighting. On the other hand, the volunteers are usually willing and dedicated fire fighters who volunteer because they want to serve their communities and protect their and their neighbors' homes. [47]

Aerial Detection

Another cost-cutting measure in fire prevention has been the replacement of fire lookout towers by aerial detection throughout Region 9. Fire experts have learned to recognize when and where there is high risk and that is when flights are ordered. For instance, flights are ordered after a thunderstorm which has severe lightning. On some National Forests, the aerial detection is done by state aircraft.

The National Interagency Incident Management System

Since about 1982, a new concept in fire fighting has developed. The National Interagency Incident Management System (NIIMS) was developed to manage natural disasters including forest fires. NIIMS allows local, state, and federal agencies to develop cooperative agreements and identify the resources, skills, and equipment they have available. When an incident occurs in any of the indicated jurisdictions, the NIIMS system activates to make efficient use of available resources with common communications between all agencies involved.

If the Forest Service has a "bust", loses control of a fire and needs the help of a large organization, it feels comfortable under the NIIMS System in calling on local sheriffs for traffic control, on Civil Defense for equipment and evacuation of people, and on the state for fire fighting forces. Some agencies may have aircraft that can be used. All the agencies can work together secure in the knowledge that a joint effort is being made and that it is being coordinated.

NIIMS has not eliminated the fire compacts among states which began in the 1950's. The Middle Atlantic Compact, the Northeast Compact, and a new Lake States Compact still exist as organizations dedicated to organizing joint efforts to prevent and fight forest fires. State and Private Forestry works with these programs.

Major Fires

In recent years Region 9 has had several major fires. In 1986 there was the Spring Lake Fire on the Nicolet National Forest. The fire was the result of a prescribed burn by the Forest Service. The burn was executed and declared to be out, but the next day an unpredicted 85 m.p.h. wind swept through the area, probably a jet stream touchdown. The high wind rekindled the fire and spread it, creating a fire that eventually burned nearly 1,200 acres. Power lines blew down causing a multitude of new fires not only on National Forest land, but also on State of Wisconsin lands. The combined fire fighting force of several hundred from other states and other National Forests fought the fires several days before getting them under control.

The Mack Lake Fire

The Mack Lake Fire of May 5-9, 1980 according to Fred Lintelmann, Regional Fire Prevention and Training Officer, has been used as an example in many different training sessions. Lintelmann considers the fire one that "identified some problems in our preparedness." According to Jack Godden the lack of experienced leadership and understanding of fire danger and potential

for extreme fire behavior were serious problems. The fire took place on the Huron National Forest. Like the Spring Lake Fire, the Mack Lake Fire originated with a prescribed burn. In this case, the fire escaped and burned out of control in jack pine, which can be a very volatile fuel. The trees characteristically have many low branches and contain resin which creates a fire problem when they become very dry. Jack pine leaves much pine litter on the forest floor and when fire catches there it can spread quickly up dead branches into the crowns and then really takes off. While the prescribed burn was taking place, an unexpected high wind blew the fire into the jack pine and out of control. The District team was not prepared for what happened. The fire burned a large area, including lakeside homes on Mack Lake. One person died in the fire. Because the fire stemmed from the prescribed burn, there have been numerous lawsuits and claims for damages against the Forest Service. [48]

Why Prescribed Burns?

When prescribed burns lead to major fires like the Spring Lake and Mack Lake Fires, the natural question is why is the Forest Service setting fires? In 1978, the Eastern Region published a brochure titled "Life by Fire" which explained its position on prescribed burning. The brochure explained that fire has always been a factor in the natural forest. Most of the common trees, shrubs, and herbs have developed through the centuries of natural evolution the ability to reproduce following fire. The jack pine, for example, has cones that will open and release seed only under intense heat.

Today's forest managers, according to the brochure, recognize the importance of fire in the forest life cycle. In the eastern National Forests, there are seven basic reasons to plan for fire: fuel reduction, prepare sites for tree planting, insect and disease control, timber species control, wildlife habitat improvement, rangeland management, and maintenance of natural conditions.

Even if all possible precautions are taken, a prescribed burn is a calculated risk. Not everything can be predicted, and even things that are predicted can go wrong. The process has become much more sophisticated in recent years, and the experts continue to work on improving it, but it will probably never be perfect. Today's calculations and plans are based on computerized data collected over years. This is a far cry from the old days when a forester would check the dryness of the fuel, listen to the weathercast on the local radio station, and say, "Hey, I think we can have a burn today." [49] The "Life by Fire" brochure was designed to convince the public that the Forest Service was capable of managing fire for the benefit of the National Forests. It was also a declaration that fire was now a part of the management process. Regional Forester Steve Yurich stated that the Region had always been proud of keeping fire generally out of its 14 National Forests, but in recent years foresters had begun to notice "unnatural changes in the environment." Many areas were covered with older trees which had quit growing, suffered from disease and were no longer able to reproduce. In its compulsion to prevent fire, the Forest Service had robbed the forest of the natural forces that give it life. But now the Region had altered its thinking. Said Yurich, "We are seeking to work with nature, through fire, to give life to future forests and the many gifts they give to us."

Fire in the Wilderness

Since the establishment of many wilderness areas in the National Forests of the Eastern Region, a controversial issue has become the question of what is to be done about fire in these areas. When there is a wildfire, is it to be fought? And can prescribed burns be used in wilderness areas? To illustrate the intriguing aspects of these questions, one has only to look at the Hercules Glades in the Mark Twain National Forest. The Glades are a picturesque mixture of hardwood ridges and prairie valleys. They were created by extensive fires which occurred over the centuries, not only natural fires but fires set by prehistoric Indians and by early settlers.

The Hercules Glades are located in the foothills of the Ozark Mountains, near Ava, Missouri, and have been designated as a National Wilderness. The Glades themselves are prairies, covered with native grasses and are very good for grazing. However, as fire has been kept out by Forest Service protection, pioneer species of native trees and shrubs have come in, particularly cedar. The Glades are losing their ecological character and becoming something else. Eventually they will become forests if the situation continues.

Many people, including some wilderness proponents, in Missouri want to use prescribed burns in the Hercules Glades to return them to the conditions for which they were made wilderness. On the other hand, as a matter of principle, wilderness proponents such as the Sierra Club, the Wilderness Society, and other activist organizations, oppose prescribed burns in any wilderness. Lightning caused fires are uncommon in the area, so for years the Forest Service maintained the ecological system of the Hercules Glades by prescribed fire. Now that the area has been declared a Wilderness some proponents of wilderness oppose any use of fire, other than naturally caused, even though the ecosystem is fire dependent.

If there is a natural fire in any wilderness area, the present policy is to allow it to burn within pre-set criteria only if it has an approved plan, as long as it does not exceed these limits or does not threaten to destroy other values in the area. The Forest Service has the authority to contain fires in wilderness areas, but they do not necessarily put them out immediately. It is not a "let it burn" policy so much as it is a wilderness management policy which lets nature take its course. 50

Administrative & Forest Fire Information Retrieval Management System

Outside nearly every Forest Service Ranger Station is a Smokey Bear sign which reports the degree of forest fire hazard that day. This information comes from the Administrative and Forest Fire Information Retrieval Management System (AFFIRMS). This is a computer network which collects, stores, and compiles data on weather and fuel conditions, and together with the National Fire Danger Rating System (NFDRS) produces indices which provide guidance in planning what fire fighting resources will be needed that day. The information may be released to the public news media and posted on the Smokey Bear signs, but it is used primarily by Forest Service in being prepared for fires.

Will Smokey Put You in Jail?

For many years Smokey Bear has had the image of a friendly guardian of the forests, but in recent years the fire prevention campaigns of the Forest Service have taken a different tack. Television spots produced by the Washington Office and the National Advertising Council and broadcast by stations in National Forest areas are taking a hard-line approach. One ad depicts a average middle-aged family man being booked and locked in jail for unintentionally starting a forest fire. The ad depicts Smokey in a way that changes his image. Many people believe that the traditional approach of Smokey Bear is much better. After all Smokey is not a bad guy. He is there to be your friend and help you prevent forest fires. You are a bad guy if you start a forest fire, but Smokey is not going to punish you for it.

However, Forest Service fire prevention officials now have a different idea. The point they wanted to make with the new approach was that even a person who inadvertently starts a forest fire, has committed a crime. The ad wakes people up and that is what it was designed to do. It won a national award for effectiveness.

Another ad featuring Smokey Bear is on tapes which are distributed to radio and television stations by the Regional Office under a cooperative program between the Forest Service, the Ad Council, and the state conservation departments. The tapes present a different, more potent image of Smokey Bear and contains the following lyrics to a song:

> I'd gladly pay the fine,
> but I didn't count on doin' no time,
> That's until Smokey slammed the door
> and threw away the keys!

Studies have shown that the bear with the ranger hat is recognized by 95% of people in the country and an even higher percentage of children. "0nly you can prevent forest fires" is generally recognized as the most popular saying in advertising history. One can point a finger at almost any American child and say the first two words and the child will supply the last four. The Smokey Bear image can be quite effective in convincing people that they could get in trouble if they are not careful with fire in the forest. 51

Interregional Fire Fighting Coordination

Coordination at the Regional Level

Each National Forest is prepared to fight its own fires, but occasionally fires spread so fast that outside help is needed. When such help is needed, the call goes to the Interagency Fire Coordinating Center in Milwaukee. It is headed by Len Mason. The Center maintains a current inventory of the agencies or jurisdictions in the Northeast Area that are able to supply fire fighters. It also coordinates the efficient mobilization of fire fighting resources. When requests for assistance come from other Regions, the Center follows much the same procedures.

Assistance to Other Regions

Participation by the Eastern Region in fire fighting in other Regions began in 1960 when selected overhead personnel were sent to five fires in Region 1. The first use of Region 9 fire fighting crews in another Region was in 1970 when 690 fire fighters were sent to fires in Region 6. State crews joined National Forest crews for the first time in 1973 when both were dispatched to fires in Regions 1, 4, 5 and 6.

The help to other Regions was returned in 1976 when the Walsh Ditch (Seney) Fire on the Hiawatha National Forest required 28 crews from other Regions as well as 91 overhead personnel and specialists. Almost as much support came from other National Forests within the Eastern Region.

Since 1979 there has been an exchange every year of fire fighting crews, overhead and specialists with other Regions. The magnitude of the effort depends on the severity of the fires. In 1985 and 1987 came the largest mobilization and dispatch of eastern resources, including Forest Service, National Park Service, Bureau of Indian Affairs, and state crews. [52]

The 1985 Fire Mobilization

In the summer of 1985, forest fires in the southeast and West created what was to that date "the worst fire situation in Forest Service history for those areas." Hot and dry conditions in the southeast caused by an extended drought and summer temperatures in excess of 100 degrees made forests potential tinder boxes and made fire fighting conditions almost unbearable.

Region 9 involvement began in early April. Regional Fire Coordinator Len Mason was awakened at his home in Milwaukee by a call from the National Interagency Fire Coordination Center (NIFCC) in Boise, Idaho. A serious fire known as the School House Ridge Fire was burning on National Forest land in North Carolina in Region 8. Mason immediately dispatched five crews, 100 men and women, to the fire. Other assistance followed during what came to be known as "the twelve days in April" when wildfires swept across lands in North Carolina and South Carolina, destroying hundreds of thousands of acres of timber, claiming lives, and leaving many homeless. In May more fires broke out in Florida and more crews were sent. In early July a plane loaded with fire fighting crews and their equipment departed from Rhinelander, Wisconsin to fight the Wheeler Fire in Los Padres National Forest in California. Bill Menke, District Ranger at Cass Lake on the Chippewa National Forest was Regional Liaison Officer in charge of the five crews that went to the Wheeler Fire.

The work was difficult, dangerous, and dirty, but according to Menke, the crews were eager to defeat the fire. "Once you've been to some fires, you get fire fighting in your blood and you don't like to be left behind," he said. Barb Soderberg, Recreation Technician of the Superior National Forest, was so excited when she stepped from the plane returning from fire fighting that she said, "You just give me two days to do my laundry and I'll be ready to go again!" After a second tour of fire fighting, Soderberg was no longer concerned about laundry; she simply "threw the clothes away." [53]

Local Appreciation

The fire fighters received frequent signs of how much their efforts were appreciated by local people. One California lady baked the fire fighters a pie with apples from a tree they had saved. The people of Ojai, California, whose town was threatened by the Wheeler Fire, put banners all over town welcoming the fire fighters and thanking them. Home owners offered off-duty fire fighters the use of their swimming pools. People brought home baked pies and other goodies to the fire camps. When the weary fire fighters returned to their homes, citizens often gathered at airports and bus stations to welcome them home. [54]

Fire Fighting at the Regional Level

Modern Forest Fire Fighting Techniques

According to Jack Godden, Regional Office Director of Aviation and Fire Management, there are two steps in extinguishing a forest fire. First is to establish a fire line by digging a trench deep enough to reach bare earth around the perimeter of the fire. The second step of fire fighting, according to Godden, is the "mop-up." During this operation, a fire is made safe after it is brought under control. This is done by removing burning material along or near the control line, felling snags, trenching logs to prevent rolling, and eventually putting the fire "dead out."

The worst time of day for fire fighting is from 10 a.m. to 6 p.m. During those hours, ambient temperatures are highest and fires burn hotter. Winds also tend to be stronger during these hours. Often, the most effective time to fight a fire is at night, although night fire fighting is not as safe for the fire fighters.

Safety

Naturally, the prime consideration in forest fire fighting is safety. Not only is there the threat of the fire, but fire fighters can be injured because of poor footing, rough terrain, rolling rocks, and poisonous plants and snakes. Heat exhaustion and dehydration are also severe threats.

Today's fire fighters wear hard hats, leather gloves, boots, goggles, fire resistant pants and shirts, and carry their own fire shelters. They are organized, trained, equipped and dispatched as crews under qualified overhead (supervisory and coordinating teams), and all crews operate on the fire line in communication by radio.

Qualifying to be a Fire Fighter

Fire fighting requires physical strength and endurance. To qualify, personnel must pass a physical fitness test. The test requires each potential trainee to step up and down at a regulated pace for five minutes. The person's pulse is then taken to determine the heart rate. This is applied to a formula which takes into account weight and age and indicates relative physical fitness. The minimum score for fire fighting is 45 points, which would theoretically qualify the person for strenuous and extended work on the fire line.

Once physically qualified, the fire fighters are given 32 hours of instruction and practical training. When that is successfully completed, the trainees get a "red card" which identifies them as qualified fire fighters. Fire bosses will not admit an individual to the fire line without a "red card."

In recent years, more and more women have become fire fighters. The requirements are the same for men and women, and although there may have been doubts about the first women's physical strength and endurance, these have largely been dispelled and women fight fires on line side by side with men. [55]

The End of the Towermen

Fire towers began to be phased out in the late 1960's and were removed. Their place was taken by airplane observers. This system worked better at less cost. Blind spots between towers were eliminated, and ground crews were not necessary to check every little brush fire. Air surveillance proved to be less expensive, faster, and capable of better control in an actual fire. Also, to prevent forest fires, a rolling chopper purchased on the Hiawatha National Forest was used to reduce the large accumulation of pine slash into small pieces that are ground into the soil. "The 1950's and 1960's were the days of the fire towers, the 1970's were years of air detection and decreased costs." A safe prediction is that the 1980's will see a trend toward citizen detection because so many more homes are being built within National Forest boundaries. [56]

New Thinking in Forest Fire Management

Recent thinking in the Forest Service, influenced by economic analysis has come to question whether every forest fire on National Forest land should be put out as quickly as possible. In some cases it might be more cost efficient to let a few more acres burn than to expend a great amount of effort and money to save them. Obviously, this is a procedure which must be applied in specific instances and only after carefully evaluating the situation. When lives and private property are threatened, such a policy could not be considered. However, pressures to move toward such policies are mounting because of rising costs of fighting fires. Another factor is increased difficulty in finding competent fire wardens. In the past, the Forest Service has been able to engage local people, living on or near the National Forests, to serve as fire wardens for modest pay. The use of such fire wardens provided quicker reaction to fires and made it possible to put them out before they become large and unmanageable. However, this system died out in the 1960's. In 1971 physical fitness standards all but eliminated the warden system, relegating them to fire prevention tasks. The kind of person who will make a good fire warden is becoming increasingly difficult to find. [57]

Development of Facilities

Roads

There were few roads into the forests in the early days. Sometimes a narrow gauge railroad went into old logging areas. The first roads built were called "fire lanes" because they provided access to the fire towers and served as firebreaks. As the timber grew to harvestable size, the road

system was expanded, and Congress appropriated money expressly for construction of forest roads and trails. Later Congress provided a means by which the purchaser of the timber paid for the road. The builder recovered the cost by paying less stumpage for the harvested timber. Because the size of logging trucks has increased in recent years, larger roads and sturdier bridges are necessary in some National Forests. Maintenance of many roads that are part of larger systems are a cooperative effort between the Forest Service and the counties and local towns. Trails are cooperatively groomed by the District staff and snowmobile, hiking, or skiing clubs. [58]

In the early days on the Monongahela National Forest very little money was appropriated for road construction and maintenance ($1,126 in 1921 and $2,340 in 1923). In the days before tractors, grade was broken by a horse-drawn plow. Bulldozers were used in the early 1930's. [59]

In the postwar years many miles of timber access roads were built. The location and construction of which was left largely to the discretion of the timber operators. Their interest in the roads ceased with the completion of logging operations on the sale area. Many of these roads became impassable for future use.

Trails

In 1965 President Lyndon Johnson requested the establishment of hiking and horseback riding trails in various parts of the country, including the Lake States. In November of 1965 the *Contact* newsletter reported a meeting of Forest Service people from the Chequamegon, Chippewa, Ottawa, and the Superior National Forests with representatives from the Bureau of Outdoor Recreation and the Michigan Conservation Department to discuss the proposed extension of the Gitchagumi Horseback Riding Trail from Minnesota through upper Michigan. The trail had been renamed the North Country National Scenic Trail and would eventually extend from New York to Montana. The Hiawatha National Forest was assigned to be coordinator for all preliminary planning for that part of the trail which would traverse the Upper Peninsula of Michigan. [60]

The Long Trail, a hiking trail, runs from Canada to Massachusetts. The Green Mountain National Forest staff shares maintenance of the trails running through Vermont with the Green Mountain Club, which works strictly with volunteers. There are shelters every five miles or so. The Forest Service does the heavy maintenance on shelters, leaving the light maintenance for the volunteers. The shelters are lean-tos with a floor and three sides; each looks out over a view and has a fireplace. The shelters can accommodate about eight people in sleeping bags, an alternative to tenting. [61]

There are 462 miles of forest trails including the Long Trail on the Green Mountain National Forest and the Appalachian National Scenic Trail on the Green Mountain, White Mountain, George Washington and Jefferson National Forests. The Chippewa National Forest supports more than 200 miles of trails and 30 campgrounds.

In the summer of 1986 Hiawatha National Forest entered into a voluntary "Adopt-a-Trail" agreement with a horse-riding club, the U.P. Distance Riders, to maintain the Bay de Noc Grand Island National Recreation Trail. The Forest Service provided the club with tools, materials and incidental expenses while the club provided the labor for clearing and repairing the trails. [62]

The Ottawa National Forest has an extensive trail network. As of 1981 it had 106 miles of hiking trails, 215 miles of snowmobile trails, 25 miles of cross-country ski trail and 68 miles of canoe trails. Some 45 miles of the hiking trail are part of the North Country National Scenic Trail. 63

Under an agreement between the Sierra Club and the Monongahela National Forest, volunteers have worked thousands of hours on hundreds of miles of trails. In 1986, for the second straight year, 12 volunteers of the American Hiking Society spent two weeks extending the North Country Trail through the steep and wooded country of the Manistee District. Some 164 miles of the 3,200 trail are on the Manistee National Forest. 64

Ski Development

Large scale skiing on the White Mountain National Forest has been going on so long that it is difficult even for retirees, to remember when it did not exist. Development of the Wildcat Ski area was started in the late 1950's and early 1960's. Ski areas were established early at Waterville Valley and Cannon Mountain. Expansion took place at Mittersill, then Waterville Valley and Loon Mountain. Ken Sutherland recalls attending a winter sports Forest Service workshop in Montana in 1966. It was held because of the increase in the need for ski developments out West: "They were talking about this big wave of recreationists that was going to come along, thousands of people descending on them someday soon, and it took me three days to figure out what was going on." The anomaly was that while Sutherland, as a recreation expert on the White Mountain, had been "born and brought up with the people in recreation," the National Forests out West had never experienced heavy recreation pressures before. What surprised Sutherland was that the conference—was talking about "throwing out a net" to get more skiers and other recreationists. Back on the White Mountain National Forest they were already being forced to place restrictions on such uses." 65

Human Resources Programs

All of the Forest Service employment programs such as the Job Corps which are exempt from federal personnel regulations and are designed for special segments of the population are called Human Resource Programs (HRP). This, it would seem, is to distinguish such efforts from natural resource programs.

Within the Regional Office the HRP staff manages the various programs. The purposes of which have been, as the staff puts it, "to accomplish natural resource work while relieving the effects of unemployment on individuals and society." 66

In terms of funding of the Human Resources Programs since 1977, the trends have been for the Job Corps to grow slightly and for the Senior Community Service Employment Program to grow more rapidly. The Youth Conservation Corps and the YACC were funded at relatively high levels during the President Jimmy Carter years. But the Reagan Administration virtually terminated both programs by cutting off funds. 67

All of the benefits of the HRP programs have not been to the target groups. The Region and each National Forest have gained from the programs, not only in the considerable resource work done by the programs but in the flexibility they have forced on the Region. Massive employment and training programs have had to be set up in amazingly short times. Gearing up for such programs

has included providing living facilities and recruiting staff and enrollees. The flexibility of the Forest Service staffs at the Regional and Forest levels has been tested, not only when the programs were set up but when they were reduced. [68]

Volunteers and Seniors Programs

After commenting on the recent budget cuts in trail maintenance and recreation development, Supervisor Steve Harper of the Green Mountain National Forest exclaimed, "Thank God for volunteers." Virtually every one of the Green Mountain's campgrounds has a volunteer host, usually a retired person who goes up to stay at the campground during the summer and help out doing minor maintenance and greeting visitors. The local Audubon Chapter usually does some sort of wildlife work. The Districts coordinate the volunteer activities. The Forest Service has just started to work with cross-country ski groups wanting to establish trails and build shelters. [69]

There are, however, inherent problems with the use of volunteers. Camper groups which have taken responsibility as volunteers for certain National Forest areas may become extremely proprietary. According to Billie Hoornbeek, Historian/Archaeologist of the White Mountain National Forest, the Forest Service has to be careful that the volunteers "don't get so entrenched that they are the tail wagging the dog. We're not supposed to cater to special interest groups, but be there for all." [70] On the Chippewa National Forest, the Human Resources Programs include: Senior Community Service Employment Program (SCSEP), Youth Conservation Corps, Concentrated Employment Program, Iron Range Resources and Rehabilitation Board, Minnesota Emergency Employment Development Program, and volunteers.

The Huron-Manistee National Forest made use of the SCSEP to do office work, maintain recreation sites, host campgrounds, and other appropriate activities. The YCC assisted with the river permit system, construction of North Country Trail, campground maintenance, wildlife improvements, and erosion control. Volunteers, such as the Michigan Trail Riders Association installed a new pump at McKinley Trail Camp, and high school classes in the Touch American Project picked up trash, inspected and cleaned bluebird boxes, and constructed wood duck boxes which they placed in the field.

Finger Lakes National Forest

During the 1930's the federal government through various programs and agencies acquired lands in New York, Connecticut and Massachusetts, all states with no National Forests. Most of these tracts of land were administered by the Soil Conservation Service until 1954, when the lands were offered to the states. The State of New York did not want one large tract of about 13,000 acres called the Hector Land Use Area. Located near Ithaca and between Lakes Seneca and Cayuga, the tract was an area of beautiful forests and lakes which would lend itself well to multiple use management. The logical thing to do was turn it over to the Forest Service, and this was done. To the Region 7 Regional Office this was the "land nobody wanted." One consideration was to have the Allegheny National Forest administer it.

The area became the Hector Ranger District of the Green Mountain National Forest and resulted in upgrading the Forest to a GS-13 National Forest. With its Ranger Station located at

Montour Falls, New York, the Hector District developed what Green Mountain Supervisor Steve Harper describes as "a real neat program." There are hiking and horse trails, picnic and campgrounds, and fishing. The District has issued permits for about 2,000 cattle to graze in the summer, and it harvests about 400,000 board feet of timber each year. A new emphasis has been placed on environmental education, handled through cooperative programs with Cornell and Syracuse Universities. Both schools are located nearby.

During 1983, the Reagan Administration launched an Assets Management Program under which certain blocks of federal lands would be sold. Local people in New York became incensed when they learned that the Hector District was on the list of assets to be sold. Congressman Frank J. Horton of New York, responding to pressures from his district, rallied the entire New York delegation in Congress, the second largest, to support a measure to create a new National Forest of the Hector District. With that kind of broad based support, the bill passed Congress and the Finger Lakes National Forest was established in 1986.

With District Ranger Hilary Dustin in charge and with three other employees, a forestry technician, a range technician, and a business management assistant, the newest National Forest began to operate. Much of its staff and administrative support is still provided by the Green Mountain National Forest. Even though the operation still resembles a Ranger District, it is legally a National Forest and it continues to expand its already diverse programs. 71

Summary

Since the major reorganization in 1965, the Eastern Region has consolidated the functions of the two former Regions into one truly functional Region. Other recommendations of the Deckerd Report were more gradually implemented. Recommended changes in accounting, personnel and contracting were accomplished in time. Several of the reforms suggested by the report of the Conservation Foundation in *The Lands Nobody Wanted* were also adopted over a period of years. Some changes in recreation, for instance, had to wait until the 1980's. These will be discussed in the next Chapter, which takes up the "Management of Resources." Many of the issues raised by the report of the Conservation Foundation surfaced in the forest planning process and ultimately in the forest plans of the 1980's. These plans will also be examined in a later Chapter.

Great progress was made in improving the techniques and coordination of fire suppression on a Regional scale. At the same time, the road and trail systems were improved and facilities for skiing developed. The Human Resources Programs continued and were expanded to include volunteers and senior citizens. In 1986, a new National Forest was added to the Region.

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CHAPTER XIV

MANAGEMENT OF RESOURCES

This Chapter addresses the coordination and supervision of resource management by the leadership and staff of the Eastern Region and the management of major resources by the National Forests in the period since reorganization in 1966.

Soil and Water

Water is generally regarded by Forest Service personnel as the world's most valuable and necessary resource. Water is protected for its use to drink, for power, and as an asset for fishing and certain water sports. The establishment of municipal watersheds, barometer watershed studies, stream and river bank stabilization was the beginning of watershed management on the White Mountain National Forest.

Soil inventory work began on the Monongahela National Forest in cooperation with the Soil Conservation Service in 1959. On the Ottawa National Forest soil inventories were completed on 50,000 acres in 1981. Such inventories provide information needed for management planning and erosion assessment. Soil scientists assist in locating trails, planning timber sales and developing prescriptions for tree planting. In 1981 the Ottawa operated 60 water quality surveillance and monitoring stations and completed watershed surveys and erosion inventories on 327,400 acres. The information obtained assured that public water supplies and swimming areas were safe and allowed for planning of management activities. [1]

The Nicolet National Forest has a similar story. The foresters there maintain regular monitoring of the 235 miles of streams, 607 miles of rivers, 34,613 acres of lakes, and 652,000 acres of land to prevent damage of the water resources. [2] Indeed, all National Forests of the Eastern Region carry on equivalent programs.

Timber Management Policies

Below-Cost Timber Sales

One consistent reaction to the timber management aspects of the 1986-7 generation of forest plans has been criticism from environmentalist groups of below-cost timber sales. The groups have charged that hundreds of millions of dollars will be lost by timber sales under the forest plans and that the plans authorize doubling or even tripling timber harvest. However, according to Assistant Secretary of Agriculture Peter C. Myers, these charges are not true. A Service wide summary made in early 1986 based on 23 final forest plans and 57 draft plans showed that the average proposed sale level for the first decade was only 11% of the total Forest's harvest. But even so, the charges have put the Forest Service in the unenviable position of explaining and defending below-cost sales, a practice it has always done. Below-cost sales are the selling of timber where the cost to the

Government in preparing and administering the sale, plus the cost of road construction and reforestation exceeds the cash revenues from the sale. Some critics have said that the Forest Service ought never to make such sales, and some believe that Congress should prohibit them.

The position of the Forest Service and the USDA on below-cost sales is that such sales must be judged in terms of costs versus public benefits, not simply in terms of costs versus revenues. What are some of the public benefits from a timber sale? An obvious one is the stimulation of local economies, especially to timber related enterprises and to employment. Another benefit is meeting national needs for wood. A fundamental concept behind sustained yield forestry is to provide a dependable and consistent supply of wood products for local industry and to the nation.

For years, the Forest Service (and the USDA) have maintained that below-cost sales are not always costly. Assistant Secretary Myers has pointed out that when looked at on a national scale, the sale of timber by the Forest Service generated more cash than it cost in the years 1978 to 1983. [3]

Environmental groups may not agree that the cost of sales was less than the revenues, for much depends on how costs are determined. There is no consensus on how to do this. The Forest Service maintains that some costs which are often counted against sale revenues are in fact capital costs. A road constructed to provide access to a harvest area may be used for the next 20 or more years by recreationists and other forest users and it may enhance fire protection. Often the Forest Service builds logging roads to higher standards than needed by logging trucks so they can be put to other uses. So the roads built for timber may be a benefit to be counted against the cost of a timber sale.

Other benefits which go beyond the actual cash generated by a timber sale are improvements in wildlife habitat diversity, reduced risk of epidemic insect or disease attacks, local community stability and employment. These may seem rationalizations for timber sales, but they make good sense to most foresters. Studies have shown that certain desirable species of animals, deer and turkey, for instance, do better in new growth areas.

Current thinking in the Forest Service is that their job is to provide an optimal level and mix of multiple uses now and for the future. Timber production is only one of those uses. The multiple use mandate demands that timber production be considered in a broad multi-resource context and not from a narrow, cash-flow view alone. In an effort to broaden the context for considering timber sales, the Forest Service issued in 1983 a procedural guide to carry out economic analysis which took into account the relative value of all uses and outputs. Later, to illustrate the point, the Chief's Office remanded to the National Forests for recomputation of costs two forest plans which showed excessive timber sales costs and which had been appealed on that basis.

In 1985 the Chief directed Regional Foresters to manage the timber sale program so that total benefits equaled or exceeded costs over time. They were to do this in an economically efficient manner consistent with multiple use principles, and they were to use the forest plans to adjust timber sale programs on individual National Forests to reflect present and future anticipated market conditions.

For the timber sales program to fit in with multiple use goals it is sometimes necessary to operate it in less efficient and more costly ways. Smaller clearcuts and wider spacing between harvest units are used even though they are less efficient, because forest managers are convinced these practices are necessary to achieve non-timber objectives, such as wildlife habitat diversity and visual scenic quality. [4]

Dedicated Timber Production Areas

Under the multiple use concept, there are already areas dedicated to specific uses—Wilderness, National Recreation Areas, Research Natural Areas, and Wild and Scenic Rivers. In view of this, a question arises which would have been ridiculous in the old days of the Forest Service—shouldn't there be areas dedicated to timber production? The answer from the highest levels of the Forest Service and the USDA is, yes. Certain prescriptions for managing areas under the forest plans provide for management for timber production—whatever the forest is best able to produce. The concept has several advantages. It will probably be more efficient for timber production in years to come. and it will free other areas to be managed for other uses.

Areas selected for timber production would obviously be those where that is the highest and best use. These would be lands capable of efficient, high quality timber production but of relatively lower value for other uses. Even so, uses such as hunting, fishing, hiking, and motorized recreation would be permitted. Top level thinking was that areas dedicated to timber production would not be a large proportion of any National Forest. 5

When it came to converting the theory of dedicated timber production to practice at the Regional and Forest level, there were problems. Principles of multiple use and integrated resource management get in the way of managing any piece of land solely for timber. According to Don L. Meyer, Regional Director of Planning, Programming, and Budgeting, "Prescriptions are multiple use prescriptions, and I know of none, with the possible exception of seed orchards, where timber is the sole beneficiary. 6

Harvest Flow, Harvest Level and Timber Sale Economics

In some cases, a below-cost timber sale helps to fill in and contributes to the age diversity of the forest. It will improve the overall economic efficiency of forest management. However, good forestry theory dictates that timber sales should not exceed the productivity of the forest. This is called a nondeclining yield or "harvest flow". Nondeclining yield was an important constraint used in making the forest plans. All of the forest plans of Region 9 follow the nondeclining yield principle. But even more important in forest planning were harvest level constraints. These are multiple planning factors taken into consideration in fixing harvest levels. A nondeclining yield could be one of the factors, but there could be many others.

If the principle of nondeclining yield was used rigidly, it would be the least efficient way to manage the forest economically simply because it would be dedicated to producing the same level of every species every year. Flexibility in adjusting harvest schedules from decade to decade was considered much more desirable. In the future, when a new market is perceived, the forest plan will allow adjustment to take advantage of it. Emphasis on aspen growth in the Chippewa National Forest plan and the abandonment of pine in favor of high-quality hardwoods in the Shawnee National Forest plan illustrate the kind of flexibility that was hoped for.

Market anticipation, especially with hardwoods which take three or four human generations to reach the sawlog stage, can never be more than an educated guess. But that is the challenge the Forest Service faces when it comes to predicting timber sales. It must be added that although the

forest plans are projected for 50 years, they will be reviewed and modified as needed every 10 or 15 years. [7]

Timber Management at the Regional Level

Like so many other functions within the Forest Service, timber management decisions are made at the grassroots, or treeroots in this case. Decisions on when and what to harvest and how to do it are made at the National Forest and District level. The function of the timber management staff within the Regional Office is to advise and coordinate timber management operations.

Program Advanced Silviculture Studies

In 1981 the Regional Office inaugurated a program to certify silviculturists in the Region. Operated by the Region's timber management staff, Program Advanced Silviculture Studies (PASS) was designed to improve expertise in silviculture at the National Forest level. PASS provides instruction, dissemination of information, and testing for certification. This program, like several others, has become a combined effort with Region 8, the Southern Region, thereby adding to the knowledge of those who are doing the basic silviculture work of the eastern National Forests.

Timber Resource Plans

Years before various federal laws required environmental impact statements and forest plans, the Timber Management Branch of the Regional Office prepared timber resource plans for the National Forests. The plans were coordinated with Forest Service Research and, based on field inventories conducted by teams from the Regional Office, data was processed with a crude mainframe computer programmed by Virgil Pendow in the Regional Office.

Timber was "King" in those days and there was great pride in the job done by the Inventories and Plans branch. Many young foresters, fresh out of forestry schools, worked on the inventories and resource plans. It was traditional that they worked until the job was done and hardly knew the meaning of "8 to 5." If the schedule called for an inventory of the Superior National Forest in mid-winter with snow up to your hips, that was when it was done. Today, many of those foresters are in positions of management.

Managing Wilderness

One possible management prescription of current National Forest plans is wilderness. Unfortunately, there is not enough untouched wilderness to meet the perceived need, so some of the areas selected for wilderness management are lands which were logged many years ago but today have recognizable wilderness qualities. To some old foresters, the idea of saying that an old cut-over area is a wilderness is absurd, but if Congress designates such an area as wilderness or if the forest planners select it to recommend for wilderness, it must be managed as such. [8]

The policy set by federal legislation for managing designated wildernesses and for areas recommended for wilderness calls for no harvesting, no planting, no improvements, no new roads,

no off-road vehicle use, pesticide use only when the resource is threatened, and fire control only in accordance with an approved fire plan. [9] Behind this policy lies the philosophy that over time, real wilderness can be made out of areas once cut-over or even once farmed.

The people in timber management and forest planning have learned to deal with the special problems involving wilderness in the East. They know they have to work within the political realities of Congressionally designated wildernesses, but they are dedicated to the principle that in the end, there is no such thing as "Eastern Wilderness" as distinguished from "Western Wilderness." For them, the quality of wilderness is a definable management goal which is the same nationwide.

The timber managers and planners have also come to understand that areas once considered suitable only for timber production might be put to better use as wilderness, wild and scenic rivers, wildlife management areas, natural areas, historical areas, recreation areas, and research areas. In effect, in Region 9, timber is no longer "King" and public use is.

Importance of Management Prescriptions

Once the forest plans are finalized, the prescription for managing a given area cannot be changed except by starting the process anew. Forest managers cannot unilaterally decide to superimpose activities allowed under one management goal on an area with another management goal. The new procedure locks in the work accomplished by the National Forest plans. Without it, the years and millions of dollars expended on the forest plans might be wiped out by unilateral decisions at the National Forest and District levels.

Unresolved Issues In Silviculture

Regional silviculturalists are concerned that forest managers have been getting mixed signals from current research on silviculture. The result may be confused on how to manage the forests. In the 1960's the best research seemed to indicate that even-aged management was the best method of silviculture. However, when forest managers look at current Forest Service standards and guidelines for managing certain areas, selection or uneven-aged management was being re-emphasized. This was especially true for areas where wildlife or recreational uses were indicated. There was no research to support a re-emphasis on uneven-aged management, but there were practical advantages to it having to do with diverse public uses. Even so, people trying to decide which method to use may become confused. Says Ken Shalda, Timber Sales Group Leader of the Region staff:

> "I think we are going to have a lot of frustrated people out on the ground, trying to figure out what is going to work. They have been dealing primarily with even-aged stands, and now someone says they have to manage them in an uneven-aged manner! They want to know, how are we going to do that?" [10]

On Clearcutting

Probably no single issue is more controversial since 1966 than clearcutting. The Monongahela National Forest Controversy, which focused on clearcutting, will be described in Chapter XV. When the Controversy occurred, it caught the Regional Office by surprise. The Regional Office did not become involved in the matter until late because it seemed to be a local problem. Today, the Regional Office would probably move quickly to head off an emerging issue such as that before it got out of hand. But the Monongahela Controversy was the first major challenge to the standard Forest Service policy of clearcutting.

The Monongahela Controversy and other protests against clearcutting did not immediately change Region 9 timber management thinking on clearcutting. What changed was the method of presenting clearcutting to the public and the ways to handle objections. For years few people in the Regional Office thought the Monongahela National Forest did anything wrong in clearcutting. The best Forest Service research indicates clearcutting is a good way to harvest, not only from the standpoint of efficiency, but for the sake of the forest and wildlife. For one thing, clearcutting more nearly approximates the effects of natural fire than selective cutting.

The Region experts are convinced that the principal mistake in the Monongahela situation was not the size of the clearcuts or even the fact that clearcuts were used. They believe the problem was the unsightly, unutilized materials that were left on the ground. It is a common saying around timber management offices that if no one could see clearcuts for five years, there would be no problem. There would be enough restorative growth in five years to make the site visually acceptable.

For some, proof of the theory came in 1981, when the Monongahela National Forest hosted the National Tourism Plan Meeting. Many in attendance went to visit the very sites which had been so highly publicized in the Monongahela Controversy. Since it was only a few years since the Controversy, there were no tall trees, but there were impressive growths of Appalachian hardwoods, a good diversity of species, and a healthy forest situation.

Timber management people have also become more sophisticated at making clearcuts palatable to the public. In the 1960's, they tried to hide clearcuts with what were euphemistically called travel influence zones and water influence zones. These were strips of uncut trees left along highways and waterways which screened from view large clearcuts. Today, such strips have largely been abandoned in favor of integrated planning involving landscape management experts, foresters, and others.

Managing for Desirable Species

Part of the work of Regional timber management people is to assist the individual National Forests in managing for desirable species. Black cherry on the Allegheny National Forest, aspen on the Minnesota and Wisconsin Forests, Appalachian hardwoods on the Monongahela National Forest, yellow birch in the Upper Peninsula of Michigan, paper birch in the Lake States, walnut and white ash in the southern National Forests of the Region, and pine where it has markets or is needed for visual qualities are all examples of desirable species. They are considered desirable in those instances not only because they are valuable trees or have good markets, but because they make good

wildlife habitat or are needed to improve scenic values. However, there are no fixed rules about desirable species. White pine, which is desirable for timber, may be a detriment for wildlife. Scrub oak which is desirable for wildlife, may be worthless for timber. All of these factors were built into the forest plans and were carefully reviewed by the Regional timber management staff.

Despite its interest in encouraging desirable species, the Region has no master plan or agenda for meeting national or even Regional timber needs in these species. They would not, for example, tell a National Forest it should be growing pine because there is a national need for it. However, they will recommend actions which seem in the best interests of the Forest. 11

Oxboard, A Replacement for Plywood

A new product of the Potlatch Company called Oxboard promises to create significant new markets for low demand timber such as aspen. Oxboard is produced by new technology whereby aspen logs are flaked into two-inch, paper thin strands and dried in a tumbler. The strands are mixed with phenolic resin and petroleum based wax in a large caldron. Then, a machine, aligns the strands in layers of different directions. Twenty-two sheets of five layers each are then placed on a hydraulic press and compressed under heat. Then the slabs are trimmed and readied for shipping. Panels of 4 x 8 feet, one-half inch thick were selling in 1982 for $7.95 each when plywood panels were at $8.50 each. The Potlatch Company was convinced that plywood would become more and more expensive and was confident that Oxboard would replace it in many uses.

The Potlatch Company constructed a new Oxboard plant at Cook, Minnesota in 1982. The $40 million plant required three years to complete. Unfortunately, the housing industry was so depressed that it was 1987 before the plant was put in operation. 12

Wood Products as Fuel

Because of high heating costs in the Lake States, wood products were increasingly being used as fuel in the 1980's. Wood chips, which could be bought at $16 to $30 per ton were the principal fuel type. In recent years wood pellets have emerged as a new product. The pellets are made from wood chips by grinding them into a powder, drying the powder, and compressing it into pellets. In this form, they are easier to store, burn better, and leave less residue, ash, and creosote. Pellets are presently being used to heat schools, public buildings and some businesses in northern Minnesota. Some large buildings such as hotels which once burned coal have converted to pellets or wood chips. 13

Another wood product in use is the wood briquette. These are produced in much the same way as pellets. A wood briquette, about 3.5 inches in diameter, burns like regular fuel wood. One disadvantage to both pellets and briquettes is that they are held together only by compression and will deteriorate quickly if exposed to water or excessive moisture. Installation costs for converting to burning wood products for furnaces is high, but the fuel costs, as compared to coal, natural gas, or electric heating, is much less. 14

In 1982, the Blackduck Development Corporation of Bemidji, Minnesota, sought a city permit to build a wood briquette plant for the purpose of providing fuel for heating Bemidji High School. A side benefit to the briquette plant was that the briquettes would be made from waste wood produced by local sawmills which had previously been dumped around the area. 15

A new steam generating plant at the Flambeau Paper Company near Ironwood, Michigan and the Ottawa National Forest uses the wood refuse from the plant to generate more than five megawatts of electric power and 150,000 pounds per hour of high pressure steam. This operation saves 300,000 barrels of oil per year which would have been used to fuel the plant. [16]

Timber Management on Recreation Oriented Forests

Certain National Forests of the Eastern Region are not large timber producers. Rather, they focus their management on recreation, water, wildlife habitat, and scenic qualities. The Green Mountain is such a National Forest. The Green Mountain timber staff plants very little, only when they are trying to convert from a hardwood forest to a softwood forest and that is just for deer herd purposes. Wayne Kingsley, Forester on the Green Mountain, explains that in a pine woods, the softwoods intercept the snow, holding up some of it, so the deer have easier traveling and are a little warmer. The deer population in the Green Mountain peaked in 1969 or 1970 when there was an abundance of low vegetation for them to eat, but the population has dropped off since then.

In recent years, timber cutting on the Green Mountain has been minimal. The maximum allowable cut in one year is 28 million board feet. Kingsley says that the most he can remember having cut in one year was 20 million board feet, and in 1986 only about 11 million was harvested. [17] Supervisor Steve Harper describes his forest as a second growth forest, primarily hardwoods, with only about 9% in softwoods. His staff is managing timber on about 130,000 acres of the total 300,000 plus. [18]

What has evolved over time on the Green Mountain National Forest, according to Supervisor Harper, is that the lands along the roads, in accessible areas, are more intensively managed, leaving the least accessible areas to follow their natural courses. "Since we're the playground for a lot of people," said Kingsley, "we have to be very sensitive on how we manage the Forest. There's somebody watching us all the time." The forest management has to be integrated with the timber management with the water resources, and with the visual resources. [19]

Wildlife and Fish Management

Cooperative Programs

By law, wildlife and fish belong to the states. The Forest Service provides the habitat but management is a joint effort between the Forest Service and the state departments of conservation. In the 1930's the Regional Foresters of both Regions 7 and 9 signed memoranda of agreement with Directors of Conservation in all of the states of the Regions which gave to the states authority over wildlife management and left to the Forest Service the management of habitat. This arrangement opened the way for a variety of cooperative wildlife programs.

Some of the early programs were aimed at bringing back native species to the re-established forests. Federal fish hatcheries were established in the 1930's on the Monongahela and White Mountain National Forests. Other examples would be programs in Illinois and Missouri to return the deer, turkey, and squirrel which had virtually disappeared from many cut-over areas. Buck Horngold, a Region 9 biologist, working with the St. Louis Zoological Society, captured large

numbers of deer in Wisconsin and released them in the Clark and Mark Twain National Forests. Also, as mentioned earlier in this report, there were cooperative efforts to raise and release wild turkeys in Missouri during the 1930's. Today deer and turkey abound in the Missouri Ozarks, largely as a result of these programs.

Today's Programs

Many of the memoranda of agreement signed in the 1930's have been amended several times. Joint fish hatcheries have been established and cooperative waterfowl impoundments have been constructed in the Lake States. The State of Illinois has a joint program with Region 9 whereby it deposits $250,000 a year into an account which the Region uses for habitat improvement in Illinois.

Joint programs have also returned marten and fisher to the north woods. The fisher had disappeared when the large northern hardwoods were cut early in the century. Fishers lived deep in the mature forests. Their habitat was destroyed when the woods were cut, and they were trapped to near extinction. The marten has a similar history. It is much smaller—only about 15 inches long and weighing three to four pounds. Both animals have extremely valuable pelts; the fisher in recent years has been worth about $200 per pelt and the marten about $100. The marten is equivalent to the Russian sable. According to Jack Godden the introduction of the fisher was completed by the White Mountain National Forest by 1960. This was accomplished with New Hampshire Fish and Game and U.S. Fish and Wildlife Service cooperation and support. With the cooperation of the Canadian government, Regional wildlife experts worked out programs to introduce fishers from Canada onto the Ottawa and Nicolet National Forests. Plans are under way to release fisher and marten in the Hiawatha National Forest as well. [20]

Knutson-Vandenberg Act Applied to Wildlife

The 1930 Knutson-Vandenberg Act set up a fund administered by the Forest Service to which those who purchased timber from National Forests were required to make contributions for reforestation and timber stand improvement. This was called the KV Fund, and although the original Act authorized the use of such funds for "wildlife habitat management," they were never widely used for that purpose until the National Forest Management Act of 1976 made the KV Fund more available. The same Act authorized the Forest Service to use money collected from timber stumpage sales for wildlife habitat improvements. Today the Region spends about $1 million a year of KV funds on wildlife management. [21]

Funds for Wildlife in Wisconsin

Federal gun control laws provide that revenues generated by the sale of firearms and ammunition may be allotted to wildlife management. In 1975, a jointly developed wildlife plan was set in motion by the Forest Service and the Wisconsin Department of Natural Resources to utilize the designated revenues. Since then, the moneys spent on wildlife on the National Forests in Wisconsin have approached the proportion allocated to other Forest activities. [22]

Goals of Wildlife Management

The goal of wildlife management in Region 9 is to restore and maintain the animals which were historically part of the wildlife ecology of the National Forests. There is a practical side to this effort. The policy is more than simply to create an historically authentic zoological garden. There can be real economic and other benefits. Besides being extremely effective in porcupine control, fishers are already being trapped by commercial trappers in Minnesota. The value of the pelt harvest in Minnesota in 1986 was estimated by Wildlife Biologist Robert Radtke at $250,000. Hundreds of people are involved in trapping in the Lake States. The beaver, which was nearly trapped out by the turn of the century, have also made a comeback under Forest Service management and is once again now being trapped.

Certain game birds have been restored to the National Forests, thus appreciably enhancing the attraction to hunters. Ruffed grouse, which once flourished throughout the central part of Region 9 but had disappeared by 1930, have been restored by cooperative programs. Quail have been restored to the Wayne-Hoosier, Shawnee, and Mark Twain National Forests.

The policies toward game animals and birds have changed since the 1930's when the main thrust was restoring game to the National Forests. Today's objective is habitat diversity which provides for all species. There are about 960 species of vertebrates in the Forests of the Region and the idea is to try to manage the Forests to accommodate all 960. However, emphasis is put on endangered and threatened species. The sand hill crane and the whooping crane, for example, are being studied for return to the Michigan forests. [23]

The Kirkland's warbler is a song bird found only in Michigan. The warbler is protected in a large set aside area of the Huron National Forest. No harvesting is allowed in the jack pine where the birds nest. Over 95% of the Kirkland's warblers in the world are found in the management area on the Huron. [24]

Current policy is to manage against animals such as feral cats, wild dogs, wild boars, and others which now live in the National Forests but which were not there originally. By the same token, any attempt to introduce a non-native specie would have to be approved by the Chief after an intensive process of review. There is no desire to repeat mistakes of the past such as the English sparrow and starling.

Adverse influences on wildlife may be the object of control measures. Cowbirds, which lay their eggs in the nests of other birds, are live trapped on the Michigan National Forests. Trout streams are protected from beaver dams by stream bed improvements, especially in northern Wisconsin.

There are many experiments in introducing new species of fish in lakes and streams in the Midwest. Chinese grass carp, threadfin shad, Atlantic stripers, and several other species offer apparent advantages, and have been tried in many places. But the Region is extremely reluctant to allow non-native species in waters of the National Forests.

Wildlife Considerations in Forest Planning

The two dominant themes in the public reaction to the draft forest plans in the Eastern Region were the desires for protection of wildlife and improved recreation. Wildlife experts in the Regional

Office carefully reviewed the forest plans to see that they met wildlife needs. Sometimes no changes were needed because the forest biologists had already had their say and had been heard. Examples are the forest plans of several National Forests of the northern Lake States which emphasized management to increase aspen because aspen forests make excellent habitat for deer, ruffed grouse, turkey, and 70 or so other species.

There were other times when the Regional Office biologists became involved in forest plans. This was the case with the Shawnee National Forest draft plan. The Shawnee is a middle-aged forest with most trees about the same age. One of the most important goals of wildlife management is to obtain a better distribution of age classes so that species which live in young, middle-aged, and mature forests can all prosper. When the Shawnee draft plan reached the Regional Office, it had no standards and guidelines which set specific objectives for age class distribution. However, age diversity objectives were added to the final Shawnee Forest Plan as a result of comments from Regional Office and Illinois Department of Conservation wildlife biologists and other interested members of the public. In much the same way, the Superior National Forest Plan was changed to provide fewer roads to improve the habitat of the eastern timber wolf.

Working with Private Agencies

Under federal legislation known as the Challenge Grant Program, Region 9 carries on wildlife programs with private agencies such as the Izaak Walton League and the National Wildlife Federation. The costs of such programs are shared equally by the Forest Service and the agencies. Considerable work has been done with Ducks Unlimited, for instance, in creating wetlands areas such as the Oakwood Bottoms of the Shawnee National Forest. Similar improvements in habitat have been made in conjunction with Trout Unlimited, Delta County Conservation Sportsmen, and other conservation organizations.

Wildlife Management in Wilderness

If areas which were once cut-over were left for nature to take its course, the eventual result would be a return to wilderness, but the process would take many decades, perhaps centuries. It is necessary for wilderness areas to be managed. However, wilderness management must be approached very carefully. There may be some fish stocking to return native species. Prescribed burning may be used to emulate the natural ecological role of fire. Chemical treatment might be used to prevent exotics from taking over. Some of these measures require plans and approval of the Chief when applied to wilderness.

The prescriptions for protecting and maintaining wilderness wildlife conditions are contained in the forest plans. The Region wildlife people are convinced that the means to obtain effective wildlife management have been written into the forest plans because of the integrated resource management approach. When Robert Radtke became the first forest biologist in Region 9, no one listened much to biologists. Today, with 100 wildlife biologists in the Region, they have an equal voice. Moreover, annual budgets for wildlife programs have gone in the past 30 years from $30,000 to more than $6 million. [25]

Deer Problems

The National Forest in the Eastern Region with the most severe deer problem is the Allegheny. Deer were once threatened with extinction in parts of the northeast, but with the return of the forests, they are flourishing. Indeed, deer have become such a menace on the Allegheny that management of the situation is difficult. The deer browse line can be seen throughout the Forest. All edible vegetation has been stripped by the browsing deer up to about five feet. Plantings of the valuable black cherry and white ash are quickly devoured by the deer. Forest managers have sprayed fertilizer on plantations to make them grow quickly enough to be above the browse line before the deer ruin them. Hunting seasons and rules are liberal on the Allegheny, but the deer problem persists. [26]

Recreation

The philosophy of the Eastern Region is that the quality of recreation depends on the integrity of the environments and not on the luxury of the accommodations. Due to the fragmented ownership pattern of its National Forests, the Region has taken special care to prevent degeneration of the environments such as has taken place on neighboring private lands. The goal is to provide the public with access to lands unencumbered by "No Trespass" signs, allowing unrestricted movement for outdoor recreational activities. The National Forests are virtually the only place in the East where such outdoor freedom can be found.

In the past, the Region has attempted to make available to the public what it wanted in recreation, even when that meant high priced facilities with costly operations and maintenance. Amenities such as bath houses, flush toilets, developed campgrounds, and boat launch ramps were common. But eventually, the Region found itself with too many developed sites, many of them seriously under-utilized and costly to maintain.

Recent Trends

For reasons that are not completely understood, recreation use within the Eastern Region has declined in recent years. Some activities such as cross-country skiing have increased, but hunting, fishing, auto touring, hiking, snowmobiling and camping show a decline. Recreation fees collected in the Region in 1984 totaled $1,386,998, down 9.5% from the previous year. In 1984, there were 1,707 developed camp, picnic, swim, winter sports, and other sites in the Region. There were 286 fee sites, mostly campgrounds. Of the 846 swim, campground and picnic sites, 95% had less than 50% occupancy and 57% had less than 20% occupancy.

Another trend is that recreation use is not taking place in acceptable proportion to where recreation dollars are being spent. Dispersed use, that is those recreational activities not involving developed sites, accounts for 65 to 70% of all recreational use. However, about 80% of all recreation dollars have gone to developed sites. [27]

In view of these trends, the Regional Office has undertaken some new policy initiatives. Since the first Resources Planning Act in 1975, national policy has been to emphasize dispersed rather than developed recreation. In line with that policy, the Region has urged the National Forests

to take a hard look at their overabundance of developed recreation sites, to eliminate those which are not efficient, and to seriously consider not replacing the more highly developed facilities when they wear out.

Recreation facility management in the future is to be keyed to "more primitive outdoor recreation." [28] Luxuries such as flush toilets, electricity, and hot showers are to be eliminated. If these are to be provided to National Forest users, it should be done by private enterprise. The new emphasis is on quality outdoor recreation, which should not be confused with convenience or luxury.

Using integrated resource management, the Region intends to maintain the environments so that a high quality recreational experience is available. To do this there must be continuing professional training for the people working in recreation and comprehensible planning which encompasses multiple use precepts.

In addition, the Region recognizes that Forest and District administrators will have to adjust their attitudes. Closing sites and down-scaling amenities will not come easy to some managers. However, such adjustments will be necessary if the new policy is to be implemented. Overall, the Region expects recreational use to "grow modestly" over the next 20 years. This probably reflects a realization that primitive recreation is not for everyone. [29]

Enforcement

The job of enforcing Forest Service rules for the use of the National Forests falls to the Ranger Districts. Their personnel are the ones who must apprehend abusers and see that they are punished. They receive training in enforcement and understand that it is part of their job. However, there are several factors which complicate enforcement. One is the way it is budgeted. The cost of enforcement must come out of the District's recreation budget. It is not a fixed cost, and since Districts have many other uses for recreation money, there is often little left for enforcement.

Another factor in lack of enforcement is the attitude toward it throughout the Region. Many Forest Service employees at the District and Forest levels do not look upon themselves as law enforcement officers. Forest Service people have seldom carried arms in the Eastern Region. But in view of the fact that some individuals who use the National Forests do carry arms, people charged with enforcement are concerned about doing so without being armed themselves. The result is that Forest Service rules are sometimes violated. The majority of people who go into the National Forests are law-abiding citizens, but unfortunately some are not. [30] Enforcement is further complicated by the judicial system. Offenders must be taken into local courts where the power of the local magistrate to try cases involving violations of Forest Service rules may or may not be established.

The complexities of enforcement can be illustrated by the following story. Several years ago there was a designated nature trail in the LaRue-Pine Hills Ecological Area of the Shawnee National Forest. The trail was clearly marked for walking only. Motorized vehicles were prohibited by authority of the Forest Supervisor according to a sign posted at the entrance to the trail. Despite the sign, the trail had become a favorite of off-road vehicle (ORV) riders. Many of them hauled in their vehicles from great distances and even other states. A person could hardly walk on this trail without being run over by three-wheelers and motorcycles. The noise and exhaust fumes completely ruined the experience for anyone looking for a quiet walk on a nature trail. The knobby tires of the ORV's

cut deeply into the trail and contoured the shoulders on curves so that the trail looked like a race track. It was obvious that the Supervisor's order was not being enforced.

A visit to the same trail in October 1987 revealed that there was no longer a sign on the entrance and that there had been recent use by ORV's. The vehicles had cut ruts 14 inches deep and gouged out large bog holes. On one hillside, the trail had been worn down by the tires and erosion was at least three feet deep.

But even though the sign has been taken down, one cannot assume that the District has completely given up on enforcement. The problems of ORV enforcement are not that simple. A recent lawsuit against the Shawnee National Forest by an ORV user has caused the Forest Supervisor to suspend temporarily all efforts to prevent ORV use until the suit is settled. Presently, the trail is wide open for ORV use. It can still be used for nature walks, but the user must choose a day when the ORV's are not present and must walk around deep ruts and bog holes. [31]

The ORV Problem

Enforcement problems are not confined to ORV use. However, ORV's have become a major problem on many National Forests. ORV's became a major form of recreation in the National Forests in the 1970's. Motorcycles have been ridden in the Forests since most of the National Forests of the Eastern Region were established. In the 1960's, two new developments, the trail bike and the snowmobile, opened a whole new aspect of recreation. Made mostly in Japan, these light and durable vehicles were designed for difficult terrain. Part of the joy of riding one was to take it down a forest path or across country where no street vehicle could go. Unfortunately for the environment and for their own safety, some riders wanted to push the vehicles to the limit, jumping over obstacles or speeding recklessly down forest trails.

The impact of trail bikes and snowmobiles on the National Forest environment was sometimes harmful. Forest trails were worn and damaged to the point that they became gullies of erosion after rains or the snow melted. Quiet nature trails were ruined for others by the roar of engines and smell of exhaust fumes.

Then in the 1970's came new ORV's, the all-terrain vehicles (ATV's). These three- and four-wheeled motorcycle-like vehicles have wide, balloon tires with coarse tread and are designed to go many places even the trail bikes cannot go. On dry terrain, the wide tires do little damage, but in wet conditions the wide tires displace much muddy soil.

The riding of ORV's has become a popular sport, practiced sometimes by families, even small children, for whom tiny vehicles are made. There are organized riders' clubs, some of which have been compared to motorcycle gangs. Hunters and fishermen use the ORV's, and people who live in or near the National Forests have adopted riding the vehicles as a convenient form of transportation. Increased uses of National Forest lands have brought ORV's into direct conflict with more traditional recreation, resulting in frictions between people, incidents, protests, and even law suits.

Dealing with ORV's

In 1972 Presidential Executive Order 11644 established policies and procedures to insure that the use of ORV's would be controlled. The Order was the result of concurring reports from

forest biologists that ORV's were a threat to the environment. The position of the Regional Office was and is that ORV's are a legitimate use, only if they do not do serious damage to the resources. However, decisions on how to handle the ORV problem on the National Forests were left to the Forest Supervisors. The result was a wide range of policies. On the White and Green Mountain National Forests, where there was little demand for ORV use and few acres that are suitable, ORV's were prohibited. The Wayne National Forest was opened completely to ORV's. Some of the National Forests developed designated ORV trails. The best known of these is the Chadwick Trail in Missouri. Several National Forests attempted to exclude the ORV's from certain areas, which led to a spate of lawsuits, both from ORV users and their opponents. To complicate matters, the Chequamegon National Forest adopted its own signing policy.

Regional Policy Formulated

Recognizing that the public probably expected a more consistent policy concerning ORV's, the Regional Office took advantage of the opportunity presented by the forest planning process of the mid-1980's to make its position clear. The Region wanted a more uniform policy and better enforcement. A staff study had found enforcement of ORV controls to be "sporadic and inconsistent" throughout the Region. In a blunt letter to the Forest Supervisors, Regional Forester Larry Henson attributed some of the inadequate enforcement to a lack of awareness of the problem or indifference to it on the part of some National Forest managers. Recognizing that "management of ORV's is viewed by some to be of low priority," Henson was also concerned that the problems of ORV's were not being adequately addressed in some of the forest plans. He forwarded to the Supervisors four recommendations made by the Regional Office Recreation, Range, Wildlife, and Landscape Management (RRWL) staff: [32]

1. Ways should be found to accommodate ORV uses compatible with other uses and without unacceptable environmental damage. This would be facilitated by working with user groups, by providing separate areas, and by effective use of signs.
2. The Regional signing policy should be followed without deviations. Failure to do so would be confusing to all forest user and "cause increased non-motorized user concern with Forest Service management." Failure would also present problems in enforcement and create new and unwanted trails in the Forest.
3. Planning ATV facilities should be tailored to fit demand. Where heavy demand existed for use by wider vehicles, all other vehicles and uses should be kept off the trails for safety's sake.
4. Current ORV plans should be reviewed, changed if needed, and tied in with the forest plans. [33]

As a result of the Region's recommendations, ORV plans were developed by each National Forest in the Eastern Region except the Wayne National Forest, which is joined administratively with the Hoosier National Forest. The Hoosier prepared a plan but it was barred from execution by

a federal court order based on a case before the court. The Supervisor of the Wayne-Hoosier withdrew the Hoosier plan and EIS, closed the Forest to all motorized travel off roads, and directed that the Wayne plan not be completed. The Hoosier remains closed to ORV's to date. All other Forests' ORV plans were implemented. [34]

ORV Use

A Regional study of the ORV situation published in 1985 revealed that the use of motorcycles and ATV's had risen steadily since 1976 on the Huron-Manistee, Ottawa, and Shawnee National Forests. On the Monongahela, White Mountain, Nicolet, Green Mountain, and Chequamegon National Forests there was relatively little use by ORV's of any type. Snowmobile use was heaviest on the Hiawatha and Huron-Manistee National Forests, although the use had declined sharply during the period studied. The Shawnee, Mark Twain, and Wayne-Hoosier National Forests reported virtually no snowmobile use, undoubtedly because there is very little snow. [35]

Cultural Resources Management

Cultural resources constitute a fragile, limited, nonrenewable portion of the total environment. Because they are the physical legacy of various stages of past human life ways, they are illustrative of human cultural development. Cultural resources include prehistoric and historic archaeological resources and historic architectural resources. These resources are represented by sites, buildings, districts, and objects. [36]

The types of resources recorded in the Eastern Region include prehistoric Indian sites ranging in time from 10,000 years ago to just before European contact. On several of the northern National Forests, there are Proto-historic Indian Villages which indicate early trading contacts (17th and early 18th centuries) with Europeans as well as contemporary Indian villages and ceremonial sites. Historic archaeological resources are very numerous and include logging camps, farmsteads, log driving dams, and CCC camps. Historic architectural features include the administrative headquarters of the Chippewa National Forest, lookout towers, historic houses and farmsteads, early iron smelting furnaces, and logging camps.

Cultural resources management is tied inextricably to a body of federal legislation. The Antiquities Act was passed in 1906 in recognition that cultural resources (archaeological sites only at that time) required protection from destruction. The Historic Sites Act of 1935 provided for the preservation of historic American sites, buildings, objects, and antiquities of national significance. More recently, the passage of the National Historic Preservation Act (1966), the National Environmental Policy Act (1969), the Archaeological and Historic Preservation Act (1974), and the Archaeological Resources Act (1979) have expanded greatly the role of the federal government in the area of cultural resources management.

With the passage of the Archaeological and Historic Preservation Act of 1974, federal agencies like the Forest Service are required to evaluate the potential adverse impacts of all land altering activities to cultural resources. This expanded legislation put the Forest Service in the business of archaeology and history in a big way and required yet another management responsibility for Region 9.

All cultural resources subject to destruction or alteration are evaluated with regard to the National Register of Historic Places (NRHP) criteria for significance. The NRHP is an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment. The NRHP was designed to be and is administered as a planning tool. The criteria are:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
> b. that are associated with the lives of persons significant in our past; or
> c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

The investigator's conclusion regarding the eligibility of a particular property for nomination to the NRHP is reviewed by the State Historic Preservation Officer (SHPO) in consultation with the Forest Service. If the properties do not meet any of the criteria, no further action is required. If the property is determined eligible, then appropriate preservation measures are developed by the responsible agencies.

Following the identification and assessment of the cultural resources, land use limitations are offered which are designed to protect and preserve the resource. As indicated earlier, cultural resources are fragile, limited, nonrenewable portions of the natural and cultural environment; any direct land altering activities (i.e., roads, reservoirs, logging) or indirect impacts (i.e., increased public use of an area containing sites) may threaten the preservation of the site. These potential impacts or adverse effects are evaluated, and appropriate mitigative alternatives are offered. Mitigation may include avoidance, data recovery through excavation, or other means of preservation.

Responding to the body of federal legislation indicated above, Region 9 moved to meet its new historic preservation responsibilities. In 1976, Judith G. Propper was hired as the first Regional Archaeologist. Realizing that professional archaeologists and historians could not he placed immediately on each Forest, a cultural resource paraprofessional program was established in 1977. This program utilized archaeologists and historians from universities and museums to conduct cultural resource training workshops for foresters and forest technicians. Many of the Region 9 National Forests use the paraprofessionals to conduct small-scale surveys and assessments which are more conveniently conducted in-house rather than by contract.

By 1978, two archaeologists were hired to oversee cultural resources on more than one Forest. Janet G. Brashler was shared by the Michigan National Forests and Dick T. Malouf handled the Mark Twain and Shawnee National Forests for a short time. Today there are archaeologists on each of the Forests in Region 9, and a few Forests have more than one cultural resource specialist.

As indicated earlier, cultural resource surveys and assessments must be conducted ahead of activities which constitute potential adverse impacts to cultural resources. Projects conducted by the Forest Service typically requiring assessments include mineral exploration, logging, road construction, recreation developments, and land exchanges. Through 1986 the Mark Twain National Forest has conducted, either in-house or by contract, approximately 180 such assessments. [37]

Thousands of archaeological and historical sites have already been identified on the Forests of the Eastern Region. At this writing, approximately 1,800 sites have been recorded on the Shawnee National Forest, with only 20% of the Forest surveyed. [38] The Nicolet National Forest has located over 150 prehistoric Indian occupation sites and over 350 Euro-American sites such as logging camps, homesteads, and fur trade posts. Archaeologists have learned from their findings that the prehistoric population peaked after A.D. 800 and for reasons unknown abandoned the Nicolet area around A.D. 1400. [39] As part of their long-term planning objective to preserve a representative sample of the Forest's cultural resources for future research and public enjoyment, the Chippewa National Forest has five sites on the National Register:

1. The Supervisor's Office at Cass Lake, which is a large log structure constructed in 1935 by the CCC.
2. The first Ranger Station on the Chippewa National Forest, built in 1904, located near the Cut Foot Sioux Area. This building is also the first Ranger Station built in Region 9.
3. The Turtle Mound, also in the Cut Foot Sioux Area. This is a large, turtle-shaped mound that held religious significance for the Chippewa and Sioux during their intertribal wars.
4. The Camp Rabideau Civilian Conservation Corps Camp. This site is the only one remaining in this area with the original structures that housed the CCC during their work on the Chippewa constructing roads, trails, campground, etc.
5. Lake Winnibigosh Dam Archaeological Site located on the Deer River District.

Some innovative cultural resource projects either completed or under way in the Eastern Region include an oral history of Odie and Florence Bridgeman, Shawnee National Forest [40], a living history interpretive site on the White Mountain National Forest, a history of the CCC camp sites on several Forests, interpretive exhibits of social history on the Monongahela, and oral history projects on the Monongahela and White Mountain National Forests.

At this writing, most all of the Forests of Region 9 have cultural resources listed or eligible for listing on the National Register of Historic Places.

Minerals and Energy

The National Forests in Region 9 with known significant oil deposits are the Allegheny, Monongahela, and Wayne. There is coal in several, with commercial quantities on the Monongahela. But even at the height of the oil crisis of the mid-1970's, environmentalists outside and within the Forest Service wanted to go slow on exploiting energy resources in the National Forests for fear of environmental damage.

A serious problem in any use of mineral resources in the National Forests of the Eastern Region arises from the fact that most of the lands in the system were purchased from private owners. On some of these lands, the mineral rights had previously been separated from the surface rights. Sometimes there were even different owners of mineral rights since speculators and oil and coal companies had bought them without acquiring the surface. When such lands were sold to the government, many owners of mineral rights refused to sell. In areas where separate mineral rights were common, the only way government land acquisition agents could put together reasonable purchase units was by excluding mineral rights from the dealings. The result was that some private owners were left holding mineral rights to National Forest land and the Forest Service had only limited power to oversee the use of minerals on these lands.

The best solution to the problem of private mineral rights owners on National Forest land would be for the Forest Service to purchase all such mineral rights. Unfortunately, no funds have been available for such a sweeping program. However, Congress has funded purchase of some "highly sensitive and significant" areas where mineral activity would be completely intolerable. [41]

When mineral rights are left in the possession of third parties due to separation from the surface prior to federal acquisition, the mineral owners or those who lease the mineral rights have the right to do whatever is necessary to exploit their minerals. The Forest Service must allow reasonable drilling and mining activities even if damage is done to the surface environment.

The policy of the Eastern Region has been to supervise any mineral use on National Forest land so that the least possible damage is done to the environment and to the other resources. For instance, oil and gas drilling on the Allegheny, Wayne, and Monongahela National Forests and underground coal mining on the Monongahela have been carefully planned and inspected so that the environmental impact has been minimal. [42] Permanent damage to the environment is not permitted. Since strip mining of coal is virtually impossible without causing permanent damage, an Act of Congress in 1977 made strip mining illegal on eastern National Forests. [43]

Until 1946, the Forest Service had full responsibility for government owned minerals on National Forest land and complete management authority. That year, the President's Reorganization Plan Number Three transferred authority for all but common minerals such as stone, sand, gravel, etc., to the U.S. Department of Interior, Bureau of Land Management. Since that time, management decisions concerning oil and gas, coal, and other valuable minerals have been made by various agencies of the Department of Interior. [44]

The policy of the Eastern Region is to encourage mineral development on the National Forests. It is deemed in the national interests to make these resources available to meet national needs for energy and minerals. There are already more than 100,000 oil wells within the National Forests of the Region as well as coal, lead, iron, copper, and zinc mines. The only significant

production of fluorspar and tripoli in the country takes place on and near the Shawnee National Forest in extreme southeastern Illinois.

However, because of declines in mineral prices and depressions in the mineral industries, mineral activity in the Region is waning. An example of this is the town of Ironwood, Michigan, headquarters for the Ottawa National Forest and part of an important copper mining area. The community once had a population of 20,000 but today has less than 7,000. The Iron Range region of Minnesota, one of the world's leading producers of iron ore and other heavy metals, has fallen into a deep depression. This affects the National Forests of the Region such as the Nicolet, Ottawa, and Superior. A $540 million zinc mine planned by Exxon Corporation to be placed adjacent to the Nicolet National Forest was recently abandoned because of economic conditions. The lead industry in southeastern Missouri, which goes back to French miners in the early 18th century, has been depressed by low lead prices. Mining activity on and near the Mark Twain National Forest has declined correspondingly.

On the other hand, there has been extensive oil and gas development in the lower part of Michigan on and near the Huron-Manistee National Forests. Fluorspar and tripoli mining continues on the Shawnee. And extensive exploration and prospecting activities are taking place on several National Forests, particularly the Monongahela, Allegheny, and Chequamegon. But until the prices of oil, gas, and heavy metals rise substantially there will probably be a continued decline of mineral development in the Region.

The lack of mineral activity does have a good side to it. It eliminates many of the conflicts with environmentalists which would undoubtedly arise from proposals to mine and drill on National Forest lands. The Superior National Forest is known to be heavily mineralized, including the BWCA. If these minerals ever again become the target for development, a fight of heroic proportions can be expected.

Land Management

Completing the National Forests

All of the Regional Foresters of the Eastern Region have been concerned about the incomplete land ownership patterns of the Region's National Forests. In the early 1970's the Region was able to make considerable headway on this problem. According to Jay H. Cravens, the Regional Forester during those years, rising public interest in outdoor recreation and the environment along with cooperation from the Bureau of Outdoor Recreation facilitated the acquisition of significant new lands. [45] One example, the Green Mountain National Forest has acquired nearly 40,000 acres since 1970. The Forest received $10 million dollars in 1985 and 1986 for land acquisitions. Green Mountain Forest Supervisor Steve Harper states unequivocally, "We're still building a National Forest here." [46]

New Land Acquisition Laws

The means to continue building National Forests was provided in 1965 when Congress passed a new kind of land acquisition law. Under the Weeks and Clarke-McNary Acts, the only types of land which could be purchased were watershed and cut-over timber lands. Because of

decreased appropriations from Congress and rapidly rising land prices, purchases under these programs declined to practically nothing after World War II. As a result, the Eastern Region could not complete the purchase units of many of its newer Forests. The Wayne, Hoosier, Shawnee, and several other National Forests remained less than half completed. According to Gordon Small, Director of Lands, Watershed and Minerals Management, who began working in land acquisition in the mid-1960's, "We had some real fragmented Forests and some real ownership problems." [47]

The new land acquisition law which brought about a big change was the Land and Water Conservation Fund Act of 1965. This Act, described in more detail in Chapter XI, provided a means whereby land could be purchased for recreational purposes. The Act set up the Land and Water Conservation Fund (L&WCF) which received moneys from the sale of surplus property, admission fees to federal recreation areas, and motorboat fuel taxes. The Fund could be used to purchase land for the National Forest, National Park, and National Wildlife Refuge Systems.

Lands purchased for the National Forest System were to have recreational or wilderness values and had to be located within or adjacent to existing National Forest boundaries. A special provision recognized the prevailing need for additional recreation in the East by directing that no more than 15% of the land purchases would be made in areas west of the 100th meridian. This meant that 85% of the purchases would have to be made in Regions 8 and 9. [48]

Subsequent legislation expanded the types of the land which could be acquired. While the L&WCF Act emphasized recreation, the Wild and Scenic Rivers Act added the broader conservation aspects of preserving an ecological system. Another new dimension came with laws which protected endangered species of wildlife and which authorized the purchase of habitat lands.

Implementing the New Laws

Region 9 made good use of the new laws to resume its land acquisition and continue building its National Forests. One of the first major L&WCF acquisitions was the Sylvania Tract, a potential wilderness area, which was incorporated into the Ottawa National Forest. The beautiful Eleven Point River in southern Missouri was added to the Mark Twain National Forest under the Wild and Scenic Rivers Act. Summarizing the program, Gordon Small has said:

> "There have been some very substantive additions to the National Forest System where the emphasis has been on what the recreation or wildlife benefits might be". [49]

The areas acquired include not only recreation and wildlife habitat lands, wilderness, and wild and scenic rivers, but also National Recreation Areas and what are called Recreational Composite Areas. The latter are areas which were once administered by the now defunct Bureau of Outdoor Recreation. Much of the Region's purchase effort was directed toward filling in the Wayne National Forest, the most incomplete Forest in the Eastern Region. Today, the Wayne, Hoosier, Shawnee, and other National Forests of the Region still have scattered government ownership, but substantial progress has been made. [50]

A curious feature about land acquisition in the Eastern Region is that land is relatively inexpensive. In parts of northern Minnesota, the Upper Peninsula of Michigan, and even in New

England, land can still be purchased in large tracts for $200 to $400 per acre. The Region seldom has to pay over $500 to $600 per acre except for lake and river frontage. In contrast, barren and rocky land in the West often sells for more than $1,000 per acre. It would seem that in the Region which has the most population and the most cities, land prices would be higher, but it is not true. Wooded uplands, unmanaged forests hundreds of miles from cities, and isolated wetlands in the Eastern Region do not command high prices. This situation, combined with a growing public interest in public lands in the Region has helped in the effort to acquire land. It must be added that because there are so many states and so much population in the Region, considerable political pressure can be exerted on Congress to appropriate money for land purchases. [51]

Land Acquisitions in the Eighties

In recent years, the job of completing the Forests in the Eastern Region has been one of finding ways to keep the program alive by adapting to current trends. Under the Carter Administration, the emphasis was on land acquisition and millions of dollars were made available. Often, the Forest Service was seen as land grabbers. The Reagan Administration shifted to land exchanges and the flow of money dwindled. Most land purchases were of a new type. They were the product of pressures put by local citizens or groups to have the Forest Service buy a tract of land in which there was special interest. The pressure was put on members of Congress to secure the necessary appropriation. In this situation, the Forest Service was little more than a passive bystander who was asked in the end to buy the land.

In the 1980's the Eastern Region has put increasing emphasis on land exchanges. The Region has exchanged from 10,000 to 25,000 acres per year. It is a viable alternative to purchases when little money is available. The exchanges are made when it is in the best interests of the National Forests. They are done to rearrange the ownership patterns to make them more manageable or to better match the resources. In the past, exchanges were initiated largely by inholders, but currently the Region is making a coordinated effort in conjunction with the forest planning process to identify those areas where they would be willing to make exchanges.

A new innovation in the exchange process has been the role of third parties. These are often non-profit environmental groups such as The Nature Conservancy, an organization which specializes in rescuing threatened natural and wildlife areas. An example of a creative land exchange involved the Dixon Springs area in southern Illinois. The State of Illinois operated a Agricultural Station on the Dixon Springs area under a permit from the Forest Service. The State wanted to make extensive, improvements at Dixon Springs but was not willing to do so on National Forest land. Since the State had no lands within the Shawnee National Forest it could exchange for the Dixon Springs area, the Region encouraged The Nature Conservancy to work out a three-way deal involving an office building in Chicago. In the deal, The Nature Conservancy purchased inholdings within the Shawnee National Forest and gave them to the Shawnee in exchange for the Dixon Springs area. The exchange was value for value, but the Shawnee received lands which were much more useful to it, and the State gained control of Dixon Springs so it could proceed with its improvements.

Such machinations as the Dixon Springs deal may become more common in the future. After 1989 all funds for new land purchases may end completely because that is when the L&WCF is due

to expire. However, there is reason for hope. President Reagan has put together the President's Commission on the Outdoors to review the situation. Perhaps the work of this Commission will lead to a renewal of the L&WCF or a new source of funds for acquisitions. If not, the Eastern Region will look for other ways to continue building its National Forests. [52]

Although the goal of land acquisition is completion of all National Forests, the Region has to be realistic. Certain purchase units were started too late to ever be completed. There is a large purchase unit of the Wayne National Forest in which only 160 acres has been acquired by the government. Rather than nurse the false hope that this unit can someday be finished, the Region is ready to exchange its 160 acres and close the unit.

The Marietta Unit of the Wayne National Forest is a different case. The Unit has very low percentage of government lands and heavy development along the roads. It does not look like a part of a National Forest. [53] Even so, there is no thought of giving up on it. The plan for the Unit is to keep building—to acquire as much land as possible in order to protect special features and establish reasonable and manageable forest areas away from the roads. However, in the words of Gordon Small, "The Marietta is probably the biggest challenge around to get that done." [54]

On other Forests such as the Shawnee where there are ownership problems, most of the incomplete units have resources on which to focus. Such units will be completed to reasonable levels of government ownership someday. [55]

The Small Tracts Act

There are land management problems originating with inholders on most National Forests. This is true even on a Forest like the Chequamegon, where government ownership is 81%. Some people who own land adjacent to National Forest land deliberately trespass on it and use it for their own benefit. They know it may be years before the Forest Service discovers it. Others mistakenly believe, based on erroneous surveys or titles, that land is theirs when it is not. It is impossible for the Rangers to patrol every property line. Indeed, they do not know exactly where some of the lines are because they may have not been surveyed.

The policy of most National Forests is to try to settle issues of trespass or improper use by inholders through the Small Tracts Act. [56] This Law, passed in 1983, allows the Forest Service to sell small tracts of land an inholder has been using in honest error or strips of government owned rights-of-way surrounded by private lands. [57] Using the Small Tracts Act, the Forest Service can sell land in question to the individual who has been using it and thereby eliminate a troublesome problem.[58]

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CHAPTER XV

THE MONONGAHELA CONTROVERSY

In 1964, the Forest Service unwittingly provoked a major national controversy over clearcutting which cast a shadow over its national image. The affair has come to be known as the Monongahela Controversy. It started when the Forest Service changed its method of harvesting timber in Eastern hardwood forests from partial to clearcuts. The change was based on extensive research which indicated that clearcutting was more productive in wood volume, produced trees which were more desirable, and yielded better wildlife habitat.

Unfortunately, the decision to adopt clearcutting was made without public involvement and with little explanation. Moreover, it was contrary to common practices of the timber industry in the East, and it was foreign to the management of eastern National Forests.

Apparently, the Forest Service had no idea that the policy of clearcutting might generate a dramatic public controversy. Clearcutting was common practice in the West where the clear-cut areas were usually separated by miles from highways and areas of habitation. However, people in the East were deeply shocked at the ugly sight of fresh clearcuts.

The common fear was that the land had been severely damaged, the biotic balance disturbed, and the wildlife habitat destroyed. The reasoning was often simplistic: What was once a stand of trees was there no more. Where was there a home for forest animals? Hunters who had used certain woods for years to hunt deer or squirrel were shocked to see their favorite places cut-over. The Forest Service Research on clearcutting had failed to take into account the human element—the public reaction. Nor did it fully reckon with the differences between eastern and western forests.

Beginnings of the Controversy

On one eastern National Forest, the Monongahela, the zeal to implement the new policy meant large clearcut units and even large cuts next to each other. Then, to make matters worse, the Monongahela management decided to go to areas where heavy cutting had already taken place and remove the remaining trees. The Forest Service considered this to be nothing more than "an over-story removal operation," but to most people it looked like more clearcuts. In reality , it was.

Clearly, the managers of the Monongahela lacked sensitivity to what the public might think of the way the new clearcutting policy was implemented. Some of the clearcuts were made in very visible places and utilization of felled trees in some areas was extremely poor or not done. The Monongahela is like most Eastern Region Forests in that private lands are interspersed with National Forest lands and many roads run through the Forest areas. The effect of this situation on the Monongahela was that residents were able to see clearcuts out their kitchen windows. Sunday drivers in the National Forest received the impression that the Forest was being destroyed.

One aspect of the problem in the East was that the specter of clearcutting raised many old fears. There was deep concern by many people that a return to clearcutting in the East would bring again the disastrous events caused by clearcutting in the late 19th century. Floods like the

Johnstown Flood and forest fires like the holocaust at Peshtigo came to mind. The Conservation Movement of several generations earlier had done such a good job of convincing the American public of the value of forests that most Americans believed any kind of clearcutting was a terrible mistake.

There was a general negative reaction to the new Forest Service policy and expressions of protest began to surface. The controversy assumed serious proportions in Maine, Texas, Idaho, and the Bitteroot National Forest in Montana, but it focused most sharply on the Monongahela National Forest. The reason was the aggressive leadership of local citizen groups by men such as Kermit Moore of Lewisburg, Howard and Lawrence Deitz at Richwood, and Don Good of Parsons. These men were neither professional environmentalists nor wilderness advocates. They supported multiple use and timber cutting, but they flatly opposed clearcutting. They and their groups received no direction from outside organizations such as the Sierra Club or the Wilderness Society. However, Moore and the Deitzs were members of the Izaak Walton League, and they used the local chapters of that organization as their forum.

When the local groups appealed to the Forest Service to stop the clearcutting, they were told in effect, that the Forest Service knew what it was doing; it had solid research to back up the decision. The groups went next to the West Virginia Legislature, where they received a more positive reception. The Legislature created a Forest Practices Commission which studied the problem and concluded that clearcutting was wrong. The controversy also reached the U.S. Congress when West Virginia Senator Jennings Randolph, feeling pressure from his constituents, began raising questions about clearcutting on the floor of the Senate.

The Monongahela staff and line officers tried to counteract the unfavorable public reaction by hosting many open houses and tours. They tried to show the benefits of the new policy and to educate the public in the values of clearcutting, but they made little headway.

The Izaak Walton League Case

In the early 1970's, the U.S. Congress passed guidelines for clearcutting proposed by Senator Frank F. Church of Idaho. But before these could be implemented the whole affair reached a climax in 1972 when the Izaak Walton League and others sued the USDA and the Forest Service. The suit claimed that clearcutting violated the Organic Act of 1897. This Law required that only individually marked, mature or dead and dying trees could be cut. The trial was held in federal court in Elkins, West Virginia, the headquarters of the Monongahela. Judge Robert Maxwell found that the Forest Service was violating the Organic Act by clearcutting and set up some guidelines on how timber would be offered for sale by the Forest Service. Generally, sales were to be according to the Organic Act's provision that only mature trees could be cut. The problem with this was that there were virtually no mature hardwood trees on the Monongahela. Widespread logging around the turn of the century had taken the mature hardwoods. Second-growth trees of the Monongahela would not be fully mature for many years. The Forest tried to make some timber sales under the court guidelines, but the lumber industry virtually laughed at the offers. They simply were not marketable.

Realizing that the court guidelines were impossible to follow, not only on the Monongahela National Forest, but also on all other National Forests, the Forest Service decided to appeal Judge Maxwell's decision. They took the case to the Fourth Circuit Court which covers Virginia, West

Virginia, North Carolina, and South Carolina. That court upheld Judge Maxwell' s decision, saying that no other interpretation could be put on the existing laws. In effect, this decision put the Forest Service out of the timber sales business in those four states, but, even worse, it opened the door for similar cases in other federal courts. The Forest Service faced the prospect of the end of clearcutting nation-wide.

Congress Takes Action

The crux of the problem was that the Organic Act was written before modern forestry and before creation of the National Forest System. It was obviously time for Congress to take up the problem, which it did in 1973. There were two possible courses of action: prescriptive legislation which would tell the Forest Service exactly how to cut timber, or a planning approach which would require the Forest Service to determine the issues, involve all of the interested publics, develop a balanced plan, and follow the plan. Senator Jennings Randolph of West Virginia was the leading proponent of the prescriptive approach and Senator Hubert H. Humphrey of Minnesota led the planning advocates.

RPA and NFMA

Humphrey and the planning approach won out, and Congress passed the Resources Planning Act (RPA) of 1975. This Act led the way to the National Forest Management Act (NFMA) of 1976, which mandated the development of forest management plans for all National Forests. These laws permitted clearcutting on National Forests only where it had been shown to be the best forestry practice and only after all interested parties had been given an opportunity to react.

The local controversy over clearcutting which had begun on the Monongahela had grown to be a national issue and had brought about a major change in the Forest Service. It is also clear that the Service learned some valuable lessons from the Monongahela Controversy. The old days when the Service managed the forests as it saw fit—almost like a private corporation—were gone forever. The American public of the 1970's and 1980's was vitally interested in what was done with their National Forests, and the Forest Service would have to let them in on the decision making process.

The RPA and the forest planning process which followed it did not end the clearcutting controversy. There remained various vocal and active groups and individuals who were adamantly opposed to clearcutting anywhere and under any conditions. By now the Forest Service has found ways to return to carefully planned clearcutting, even though they expect protests from certain predictable groups and organizations every time it is done.

Life After Controversy

As for the Monongahela, it was back in the timber sales business by 1978. Under the RPA, the Forest prepared an Environmental Impact Statement, presented it to the public, and resumed cutting according to the approved plan. This time, however, the Forest Service learned its lesson. Under the new guidelines, clearcuts were limited to 25 acres in size. They had to be separated by at least an eighth of a mile. They would have an irregular perimeter which followed the landscape.

And before a cutting unit could be made next to an older one, the older cut had to be regenerated to the point that the trees were 20% of the height of the surrounding forest. These rules which have been used since 1978 have been generally well received, not only by people in West Virginia but by many in the forest products industry. They have been written into the Monongahela Forest Plan, which was implemented in August 1986.

Today, the Monongahela harvests about 1,300 acres of forest per year by clearcutting. There has been no recent organized protest. Some complaints have been received, but these are about a particular clearcut which has ruined a favorite hunting place or affected the view from a summer home. The lessons learned in the Monongahela Controversy have been disseminated throughout the Forest Service. All other forest plans are presented to the public in the planning and implementation stages. Clearcutting may be included in any of them, but it is carefully regulated. The Forests expect protests from wilderness and anti-clearcutting groups but they are now able to deal with them as a result of the Monongahela Controversy and the legislation which came out of it. 1

The Monongahela has received only one formal appeal to its Forest Plan as of July 30, 1986. It was from John R. Swanson of Minneapolis, Minnesota, and it protested that insufficient areas had been allocated for wilderness purposes. Swanson filed the same kind of appeal to every forest plan in the Region. Unofficially, the timber industry let the Forest know that it was not happy with the low levels of harvest and that too much land had been taken out of production by placing it into categories where habitat or recreation would be emphasized. This was not a protest for or against clearcutting, but rather a move on the part of the industry to be allowed to harvest more timber throughout the Forest.

The Monongahela is not likely to yield to the timber industry and allow more cutting on the Forest than has been put in the Forest Plan. The Forest managers are now quite sensitive to the desires of the various publics. The Forest had a heavy response from the public to the draft forest plan—3,597 letters signed by about 17,000 people and containing about 35,000 ideas. Basically the respondents wanted less emphasis on commodities, less road construction, no leasing for coal, better habitat for bear and turkey, dispersed recreational opportunities, protection of scenery, and conifers managed for habitat rather than for lumber. The Forest staff carefully analyzed these responses and tried faithfully to incorporate the basic ideas into the Forest Plan. In its final form, the Plan contained 80,000 acres of wilderness, (about 9% of the Forest), 125,000 acres without harvest for recreation use (about 15% of the Forest), and about 75% of the Forest in remote habitat where there would be carefully controlled harvesting and very few roads.

The protest of the timber industry about so much being given to wilderness and recreation was seriously blunted by the fact that the Monongahela supplies only 10% of the Forest stock for harvesting in West Virginia. Obviously, the short range economic impact on the industry would be minimal. During the years when the Monongahela was literally out of the timber business in the mid-1970's because of the clearcutting Controversy, the West Virginia timber industry continued operating normally, and avoided becoming involved in the Controversy.

The main concern of the timber industry, as expressed to the staff of the Monongahela, was that the restrictions placed on timber cutting by the Forest Plan might threaten their ability to expand in the future. However, these fears were probably unwarranted. The Forest, which presently produces approximately 40 million board feet of wood per year, has the potential to produce 400 million board feet sustained yield. However the public reaction to the draft forest plan, as interpreted

by the Forest staff, clearly showed that the public did not want that kind of production; therefore it was not written into the Plan. If the need for more timber should arise someday, the Forest Plan could be revised by the same processes as the original Forest Plan, including obtaining public reaction.

The stories are much the same on all National Forests, and this is part of the beauty of the forest planning process. The Forest Service is now in the position of acting as arbitrator for all the various interest groups but always with the idea that the general interests of the public must be served. No longer is it valid to charge that the Forest Service serves only the interest of the government or the timber industry. By the same token, it is not unduly influenced by the wilderness advocates. [2]

The Regional Office in the Controversy

The reaction to the Monongahela Controversy in the Regional Office was slow at first and then, when the matter gained national importance, it seemed that in the Regional Office they had no time for anything else. Regional Forester Jay H. Cravens remembers that when he and new Forest Supervisor Tony Dorrell came to the Region in 1969 the Monongahela Controversy "was waiting" for them. From a Forest Service policy standpoint, it was probably something which could not have been avoided. Clearcutting was a well established practice. The older practice of selective cutting had fallen into disfavor because it had become a process of high-grading the Forest, that is, cutting only the most valuable trees. The high-grading had reached the point that the regeneration of desired species was not always taking place.

In the instance of the Monongahela National Forest, multiple use planning had not been done and there was little experience in timber marketing, especially pulpwood. To make matters worse, there was also little awareness of the effect that clearcutting might have on the local population. Forest Service Research clearly supported even-aged management including clearcutting and while some of the clearcuts made on the Monongahela were large and executed in sensitive areas, and had poor utilization of pulpwood that was cut, they were generally biologically sound. The problem was that they were not politically sound or acceptable in the new environmental climate.

When the public protest against the Monongahela clearcuts began to appear, the reaction in the Regional Office was much the same as that of the Forest. The attitude was "we know what is best since we are looking at the long range results." Then, when the criticism accelerated, the Region encouraged the Forest to make changes which would answer some of the criticism. By this time, however, the matter had become a national issue and could not be quieted by half-measures.

Regional Forester Cravens remembers a conversation he had at this time with Michael Frome, a leading critic of the Forest Service. Frome told Cravens that he fully realized that the Region, the Monongahela, and the Forest Service had made changes in response to the Monongahela Controversy and that they were clearly demonstrating their sensitivity to the need for change, but it did not suit his purposes to write about it at that time. Says Cravens, "That hurt!" He realized, however, that the Forest Service was on the defensive and would probably have to do much more changing before the criticism would be silenced. [3]

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3. Jay H. Cravens to David E. Conrad, 1987.

CHAPTER XVI

WILDERNESS IN THE EASTERN REGION

The preservation of wilderness began as a part of the earliest efforts to preserve the natural wonders of the West such as Yellowstone National Park. Since the Forest Service was made the proprietor of much of the forest land in the West, it was involved from the beginning in wilderness management. However, an apparent paradox was caused by the dedication of the Forest Service to the multiple use concept. Obviously an area cannot long be considered a wilderness if its timber, water, and mineral resources are being utilized through development.

In the 1920's and 30's, the Forest Service developed greater interest in the wilderness. This was partly a result of competition with the National Park Service for recreation dollars and partly because of genuine wilderness movement developed within the Forest Service. In fact, much of the intellectual leadership of the national wilderness movement came from the Forest Service. Three Forest Service men, Aldo Leopold, Arthur Carhart, and Bob Marshall, played crucial roles.

Aldo Leopold

Aldo Leopold has become a near-legendary figure among environmentalists. His philosophy best expressed in his poetic *Sand County Almanac*, is one of harmony, balance, and inter-dependence within the ecosystem. Wilderness, he believed, was crucial to the national heritage. As an Assistant District Forester in New Mexico, he conceived and received approval for a wildland area on the headwaters of the Gila River. The Gila National Forest area set the pattern for the Forest Service's emerging wilderness policy. 1

Leopold's work led the Forest Service toward a more sympathetic view of wilderness. After his departure from the Service he taught as a professor at the University of Wisconsin. There he helped train a generation of conservation and wildlife leaders. Through his writings he became one of the principal intellectual forces in the environmental movement.

Arthur Carhart

Arthur Carhart was a Forest Service landscape architect. He was commissioned in 1919 to survey planned home sites in the Trapper's Lake area of Colorado's White River National Forest. Even though the assignment was to locate home sites, Carhart became convinced that building summer homes in the area was a mistake. The pristine grandeur of Trapper's Lake should not be marred by cabins and boat docks. He was able to convince Forest Service officials to cancel the summer homes and allow him to make a recreational plan for the area. The fact that Carhart was able to sell his plan indicates the existence of a latent wilderness sympathy in the Forest Service. 2

In the 1920's, Carhart joined forces with Leopold to sell the Forest Service on the idea of creating a primitive canoe travel area within the Superior National Forest. Their work came to fruition in 1926 when Secretary of Agriculture William H. Jardine authorized the creation of the

Caribou Roadless Area which became in 1964 the Boundary Waters Canoe Area. These actions represented an extremely important shift by the Forest Service toward wilderness preservation. [3]

Bob Marshall

Bob Marshall was Chief Forester for the Bureau of Indian Affairs (BIA) where he established a system of wilderness on Indian lands. When he met with resistance from the National Park Service he left the BIA and joined the Forest Service. In 1937, he became head of the Forest Service's Recreation Division. There he received the attention of Chief Ferdinand A. Silcox. Marshall's wilderness advocacy led to important new regulations and were a large step toward a comprehensive wilderness policy.

Changing Attitudes

It is significant to note that in those pre-World War II years, there was little pressure from groups or elements outside the Forest Service to take actions such as those promoted by Leopold, Carhart, and Marshall. Most of the motivation and original thinking concerning wilderness, in those years came from within the Forest Service as, indeed, did the specific proposals. Much credit should go to the Forest Service for listening to such men as Leopold, Carhart and Marshall and for making the first concrete moves to protect American wilderness. [4]

New Concerns

In 1970, Chief Edward P. Cliff told the Forest Service, "Our direction must be and is being changed." He referred to the necessity that the Service adapt its thinking to the new wilderness and environmental concerns that had become a public reality in the 1960's. Adapting would not be easy for many older foresters. They had considered themselves to be the experts on efficient management of the National Forests. Now they had to be concerned about the long-range social and ecological impacts of their actions. They had to cope with an institutionalized concept of wilderness. And they had to deal with a whole new generation of environmental experts within the Forest Service—biologists, hydrologists, soil scientists, landscape architects, recreation planners, and archaeologists.

To further complicate matters, the Forest Service found itself besieged by the forest products industry to increase planned cutting on the National Forests. There was a growing demand for softwoods for home construction. The situation built up until President Jimmy Carter ordered the Forest Service to speed up plans to increase cutting on selected National Forests. The Carter Administration said specifically it was time to depart from the old nondeclining, even-flow policy. In compliance, the Forest Service gave to Congress, in 1980 a list of 16 National Forests which had large inventories of "old-growth softwood suitable for home construction." Pending Congressional approval, the National Forests would be used for accelerated cutting. [5]

The pressures for more timber cutting in the Eastern Region had begun much earlier, when the maturing eastern Forests began to be commercially productive. However, it was not until the wilderness and environmental movements surfaced in the 1960's that strong voices were raised

against the general principle of harvesting in the National Forest System. Timber sales on the National Forests had always been limited and controlled, but the motives, except in time of war, had usually been for reasons of good forest management. Now, new considerations were being presented, mainly involving environmental concerns.

Many environmentalists believed that a National Wilderness System was needed to protect wilderness areas of the National Forests from any kind of cutting. Because of isolation and economic factors, the western National Forests have been more or less immune to cutting while the Forests of the East were being harvested.

Throughout the 1950's and 1960's, the Wilderness Society, spearheaded by its leader, Howard Zahniser, along with the Sierra Club and the National Wildlife Federation had lobbied incessantly for passage of a federal wilderness act. Zahniser had a plan for a National Wilderness System where incompatible uses would be prohibited and where areas under consideration for inclusion would be protected. Zahniser wanted the System to be administered by existing federal agencies, but an appointed wilderness commission was to recommend action to Congress. [6]

The Wilderness Act of 1964

The work of Zahniser and other wilderness advocates came to fruition in 1964 with the passage of the Wilderness Act of that year. The Act provided that national wilderness areas could be designated by Congress if the lands fitted the definition of wilderness set by the Act. The Act defined wilderness for administrative purposes as an area "untrammeled by man, where man himself is a visitor." Wilderness was an area which retained its "primeval character" and was "without permanent improvements or human habitation". Such areas, when designated as wilderness, were to be protected and managed so as to preserve natural conditions. They could show some imprint-of man, but the general appearance would have to be natural and man's work would have to be "substantially unnoticeable."

In the Wilderness Act, Congress went beyond the purpose of simply protecting wilderness. The National Wilderness Preservation System, which the Act authorized, was to be used also to meet public needs for recreation. The Wilderness Act required that in order to be designated as wilderness, areas should have "outstanding opportunities for solitude or a primitive and unconfined type of recreation." [7]

The Wilderness Act was to be a sweeping program to standardize wilderness practices in all government agencies and to shift the power to designate wilderness to Congress. However, concessions had been made to powerful pressure groups. Grazing was to be permitted in wilderness areas. Reservoirs and waterworks were possible. Mining would be permitted until 1984. But in the important and increasingly sensitive area of timber harvesting, there would be none in designated wilderness areas. Basically, the Act allowed continuation of Forest Service policies toward wilderness which had protected wild and primitive areas reasonably well for a quarter of a century. [8]

A Burning Issue—The BWCA

In the 1970's the 1 million acre Boundary Waters Canoe Area in the Superior National Forest remained a burning issue in the Eastern Region. Because of pressures from conservationists, wildlife

organizations, canoeist groups, forest products interests, and others, the BWCA was a constant concern to key people in the Regional Office. Regional Forester Jay H. Cravens and the staff had to keep reminding themselves that there were other issues, programs, and users of the other 2 million acres of the Superior National Forest. The Region was proud of the achievements in the BWCA, especially the fact that there was heavy use by canoeists while at the same time there was effective and sensitive timber management. But timber management was a big part of the BWCA problem. Pressure groups either, violently opposed or favored timber sales. There had also been improvements in other aspects of BWCA management—better wildlife habitat and greater numbers of timber wolves. But such achievements failed to impress many of the critics.

The BWCA had been a resource manager's nightmare for a long time. Many people, including Jay H. Cravens, had thought for years that the area should be designated a Wilderness and put into the National Wilderness Preservation System. It was done in 1964, but in doing so Congress allowed timber cutting and the use of motor boats in the BWCA. Any resource manager trying to manage a wilderness where timber cutting and motor boats were allowed was in line for a heavy dose of trouble from the conservation and wilderness advocates. As Cravens phrased it—"the BWCA was a design for disaster for Forest Service administrators!"

Some environmentalists considered the Forest Service's efforts at effective management to be bureaucratic stalling. They wanted a single use, canoe wilderness created at once. With that goal in mind, they took the matter into federal court, claiming multiple use activities violated a portion of the Wilderness Act under which the BWCA operated.

In two cases, *Izaak Walton League of America v. St. Clair* and *Minnesota Public Interest Research Group (MPIRG) v. Butz*, the conservationists sought to end multiple uses on the BWCA. In the first case, the Izaak Walton League stopped a mine operator from mining in the BWCA. In the second, the MPIRG, a statewide student organization, filed a suit against the Secretary of Agriculture to stop planned timber cutting. [9]

The MPIRG case was tried in Federal District Court in Minneapolis. The stage was set for a confrontation between wilderness advocates and canoeists and an array of federal and private agencies, including the Forest Service, the Department of Agriculture, the Office of General Counsel, the U.S. Attorney's Office, the timber industry, the Fish and Wildlife Service wolf experts, and others. Towards the end of the 30-day trial, Regional Forester Cravens took the stand for five days. As the responsible federal official he defended the Forest Service programs in the BWCA, the people involved, the management, the decisions, and the Environmental Impact Study then under way. Under what Cravens and others considered ruthless and antagonistic questioning from Federal District Judge Miles Lord, Cravens held his own. "I had the support of the entire Forest Service and we were on sound ground biologically and legally," he said later. When it was all over, Cravens quipped, "I can sincerely say that I was glad to be delivered from the right hand of that Lord!" [10] To no one's surprise, the Forest Service lost the MPIRG case in Judge Lord's court. The Judge said:

> "The language used [in federal law] makes it clear that the Secretary of Agriculture is to enunciate and enforce any and all restrictions which are necessary to maintain the primitive character of the BWCA . . . . When there is a conflict between maintaining the primitive character of the BWCA and allowing logging or other uses, the former must be supreme." [11]

A Superior Court later reversed Judge Lord's decision, which left matters still up in the air. About this time the management plan for the BWCA was made public, but the plan did little to settle matters. The goals outlined in the plan, which included continued harvesting and mechanized travel, seemed to many wilderness advocates and conservationists to be in conflict with maintaining the primitive character of the BWCA required by federal law. [12] One critic asked: "Is virgin forest wilderness to be managed . . . like a suburban lawn or a game park?" [13]

From another quarter came complaints about limitations on timber cutting. The local timber industry maintained that the Wilderness Act allowed logging in all areas of the BWCA. Local residents, fearing unemployment, wished to see logging continue. The local public also wanted continued use of motorboats and snowmobiles. [14]

Logging on the BWCA

Since its inception, the Boundary Waters Canoe Area has been a battlefield over logging. It is the usual confrontation—environmentalists versus forest products industry and local economic interests. There was also the added dimension of canoeists. The BWCA is the most important government owned one-of-a-kind, canoe recreation area in the country.

To understand the problem, it is necessary to know that the BWCA was divided into Northern and Southern Zones in 1948. The Northern Zone, was 362,000 acres of lakes, waterways, and rugged terrain with the most attractive canoe routes. In this Zone there was to be absolutely no logging. The other Zone, the Southern, was 677,000 acres of primarily forest with large areas five to ten square miles in size separating the canoe routes. Logging was allowed in this area, and indeed was considered of great economic benefit to the local communities and to the forest products industry of Minnesota and Wisconsin.

Since the rise of the environmental and wilderness movements, the arguments had grown more heated on how the BWCA should be managed. They have evolved into several basic plans. Generally, the canoeists and wilderness advocates wanted no cutting and no fire protection. The commercial interests wanted cutting in the Southern Zone and aerial water drops to prevent the spread of big fires. Some opposed logging, but favored prescribed burning as a management tool.

The adopted plan, a compromise, consisted of fire protection in both zones, no logging in the Northern Zone, and logging in the Southern Zone with the usual Forest Service forest restoration programs. While this plan did not wholly please canoeists and wilderness advocates or the forest products industry, it was clearly the most effective management policy. Through proper forest management, the harvested forests would eventually be restored healthier and more resistant to insects. White pine could be restored in the forest so that it would someday resemble the original forest. In the meantime, creating an uneven-aged forest benefited wildlife, especially moose, deer, and grouse.

Human Use

Perhaps as great a threat to the BWCA as logging and fire was the damage done by recreation. Erosion of campsite ground, vandalism, littering, disposal of human waste, and water contamination by campers were only part of the story. Use of boats, snowmobiles, and all-terrain vehicles damaged the environment. And facilities such as lodges and truck portages for canoes

detracted from the wilderness image although such amenities facilitated public use. A fundamental question remained unsettled—how to provide facilities for canoeists and other users of the BWCA without spoiling the wilderness setting? [15]

New Legislation

In 1978 a series of bills were presented in Congress to change the uses of the BWCA. Two bills proposed to allow greater use of motorboats. One of these included reintroduction of snowmobiles. Another bill called for creating wilderness status for the BWCA, decreasing logging and motor use, and prohibition of mining and snowmobiles.

These bills were in part responses to surveys which showed that 60% of the visitors to the BWCA were canoeists. The canoeists overwhelmingly resented motorboats on the waters of the area because they detracted from the wilderness experience. Their attitudes regarding snowmobiles were much the same. On the other side, motorboat and snowmobile owners argued forcibly that they had a right to use their conveyances on public land. The arguments became so heated in 1977 that the town of Ely, Minnesota, the leading jumping-off place for the BWCA, looked like an armed camp.[16]

Late in 1978, Congress passed a bill to give wilderness status to the BWCA. It was a modified victory for the environmentalists and canoeists. The new law established 1.08 million acres of wilderness, adding 45,000 acres to the BWCA from the Superior National Forest. It banned logging in the entire area, restricted mining, and reduced motorboat use by one-half. Motor use could continue on peripheral lakes, and snowmobile routes would stay open until 1984. [17]

Some local people in northern Minnesota were violently opposed to the creation of the BWCA as a wilderness. They charged that homes and resorts had been destroyed and livelihoods ruined as a result. The editor of the *Western Itasca Review* condemned the whole BWCA concept. He claimed the BWCA had proven unworkable and had caused "untold mental anguish, physical suffering, and economic hardship to families which had lived in the area for five generations." [18] Such reactions were expected and clearly illustrate the trade-offs that are inevitably involved in designating wilderness areas.

Wilderness in the East

As the wilderness movement grew so did the concept of smaller wilderness and even wilderness which had once been cut-over or otherwise exploited by man. The commonly held image of wilderness as a vast, untouched area really applied mostly to the West. Wilderness had also been thought of largely as a recreational and mental restorative. But the thinkers and writers who led the wilderness movement broadened the concept so that areas of the East could be considered. Aldo Leopold, writing about the scientific importance of wilderness in 1941 said:

> "All wilderness areas, no matter how small or imperfect, have a large value to land-science. The important thing is to realize that recreation is not their only or even their principal utility. In fact, the boundary between recreation and science, like the boundaries between park and forest, animal and plant, tame and wild, exists only in the imperfections of the human mind." [19]

According to Jack Godden, by 1961 Forest Supervisor Gerald S.Wheeler had established six Scenic Areas on the White Mountain National Forest under the Secretary of Agriculture Rules and Regulations. It was Wheeler's way and leadership in protecting quality environments.

The federal courts became involved in the wilderness issue in 1968 when a judge ruled that the Forest Service's judgment about what was wilderness was not the last word. In a suit brought by the Sierra Club and others, the plans of the Forest Service to sell timber from an area near the Gore Range-Eagle's Nest Primitive Area in Colorado were blocked by the court, even though the area in question had an abandoned access road. The court said that while the President had the power under the Wilderness Act to include contiguous areas in wilderness, the Forest Service did not have "absolute discretion" in such matters. From then on, roadless areas contiguous to wilderness, wild, or primitive areas were protected from any use until fully reviewed.

Roadless Area Review and Evaluation

In 1971 the Forest Service began a broad study of roadless areas, many of which were vast in size and really "de facto" wildernesses. Such areas were to be studied by an accelerated program called Roadless Area Review and Evaluation (RARE I, and later RARE II). The report of the RARE I was made public in 1973. A total of 235 areas, termed wilderness study areas, covering 11 million acres was chosen to be studied for possible wilderness classification in the next 10 to 20 years. In the meantime, the areas would be managed to protect their existing character.

Areas not chosen for wilderness study were available for immediate environmental impact studies leading to road building, logging, and other developments. Many millions of acres were eliminated from wilderness study because they had "other resource values which might be lost or diminished if the area were classified as wilderness." Naturally, this raised a clamor from environmentalist and wilderness quarters who would never accept the Forest Service's cherished idea that some areas ought to be managed for production.

By 1977, the Forest Service admitted there were defects in RARE I. The inventory standards were too general, often resulting in inconsistencies in the way areas were selected and overlooking areas from Region to Region. Social and economic factors had not been considered, the public had been little involved, and eastern Forests did not meet the RARE I criteria. [20]

While RARE I was taking place, the organized wilderness advocates, especially The Wilderness Society, were working avidly to obtain broader wilderness legislation aimed at the East. RARE I represented an attempt by the Forest Service to retain control of the wilderness making process, but by not including the eastern National Forests in RARE I the Service had left the door open for the wilderness advocates to shift control of the process to Congress. Behind this was the big question of whether national needs were to be met by creating a vast wilderness system or by putting most of the same lands to multiple use.

In 1977 President Jimmy Carter told the Congress:

> "When the Congress passed the Wilderness Act in 1964, it established a landmark of American conservation policy. The National Wilderness Preservation System established by this Act must be expanded promptly, before the most deserving of federal lands are opened to other uses and lost to wilderness forever. " [21]

RARE II

Carter seemed to have come down on the side of the wilderness advocates, but the operative words in the message are "the most deserving of federal lands." To determine which these were, the Carter Administration initiated another Roadless Area Review. Called RARE II, it was designed to be an improvement on RARE I by including social and economic factors and massive public involvement. Most importantly, it was to include eastern areas. The ultimate purpose of RARE I I was to identify those roadless areas deserving to be recommended to Congress to be made wildness.[22]

In calling for massive public involvement Congress had opened a "can of worms" for the Forest Service. Formerly, the questions of wilderness had been largely a dialogue between the agency and organized wilderness groups. Now local groups and individuals concerned with specific wilderness proposals were asked repeatedly for their reaction. In the West wilderness was, almost by definition, a vast and isolated area seldom visited by anyone. A new definition of wilderness was emerging which allowed RARE II to consider for wilderness much smaller areas near to population centers and perhaps used frequently for recreation and other resource uses. The prospect of restricting such uses excited many local user groups and individuals and generated a series of grass-roots protests during the public involvement phase of RARE II.

RARE II in the Eastern Region

In certain sensitive areas of the Eastern Region, the concerns over RARE II reached heroic proportions. The clear intent of wilderness advocates and organizations was to have much more wilderness in the Eastern Region in order to meet the recreational need of the populous East. However, such a goal was not included in the criteria worked out for RARE II by the Washington Office of the Forest Service. Their instructions were for the Region to systematically and scientifically select areas to be studied which would fit the criteria. The criteria spoke of a "wilderness system of high quality" and of protecting endangered species, but they said nothing of making enough wilderness to meet massive recreational needs.

When the RARE II study areas had been selected, they were announced to the public. Initially, there was little reaction from local people except in a few places. The Region was prepared for some local opposition to closing roads and limiting uses in study areas. They also realized that there was a "national audience" for what they were doing and that local concerns were only part of that audience.

Each National Forest was assigned the task of holding what were called workshops where Forest Service spokesmen explained the plan and the public could express its opinion. [23] On some National Forests, the process took on great meaning. Supervisor Mike Hathaway of the White Mountain National Forest recalls there were 20 potential wildernesses that were evaluated on the White Mountain:

> "When the New England people sat down and reached consensus, they wanted 77,000 acres of new wilderness added to the existing wilderness. The Wilderness Society wanted more and there were a couple of areas that were omitted. The Wilderness Society appealed the plan over those few areas because they wanted the lumber interests to stay out of those areas". [24]

To publicize RARE II, Gaylord Yost and John Pager of the Regional Office went out on trips to hold workshops in 14 major cities of the Region. The purpose was to familiarize the public with the proposed roadless areas. The Region wanted to know which areas had public support to be made roadless and which did not, and they wanted input from both rural and urban people. Generally, the city workshops went well—"quiet and reasonable" according to Yost. But some of the rural workshops held near or on the Forests became shouting matches. One on the Chippewa National Forest went on for six hours. [25]

An analysis of the public reaction followed the workshops. The data from this became part of the environmental impact statements prepared for each Forest. These statements were then transmitted to a Forest Service public reaction clearing house center in Salt Lake City, Utah. The center was programmed to process the input from all over the nation and prepare a national environmental impact statement. This was broken down for each Region and Forest. [26]

In early October of 1977, Regional Forester Steve Yurich announced that he had submitted a list of 117 areas totaling 914,000 acres on the 14 National Forests of the Eastern Region for consideration for wilderness designation or available for other resource management. Yurich described the process of obtaining public reaction to the proposed designations. There had been 35 workshops held in the Region, and more than 4,000 suggestions had been received from individuals and groups. The public had been asked to nominate areas for inclusion or deletion from the list, and the nominations received had been carefully considered.

The public had also been asked to suggest the criteria to be used in considering which areas should be designated as wilderness or for other uses. Based on this and the basic criteria for eastern National Forest wilderness developed by the Forest Service, the selections were made. The criteria recognized special conditions in the eastern National Forests including limited evidence of timber harvesting and planting. Yurich made it clear that RARE II and wilderness designation were integral parts of the overall resource planning and management process and would be up-dated regularly. Yurich's statement was distributed by information officers throughout the Region and appeared in many local newspapers. Information officers on each National Forest added information on the areas in their Forests which were included on the list. [27]

Meanwhile, during 1976 and 1977 the Eastern Regional Office people engaged in RARE II worked on applying the Chief's criteria to the areas to determine economic and social impacts of the proposed roadless areas. Contracts were let to involve sociologists and economists in this process. Finally, in 1978, the Regional Forester called all Forest Supervisors to his office and conferred with them. They reviewed all of the available information and decided whether to recommend each area for wilderness, non-wilderness, or further planning.

The recommendations of the Regional Foresters went to the Chief, who put the national package together and gave it to the Secretary of Agriculture. The Secretary made a few changes based on political pressures, and then presented it to the President in 1979. President Jimmy Carter sent the package to Congress. After several months of inaction, the political pot started to boil and Congressional leaders decided to handle the matter state by state. Where there was little local and state opposition, the wildernesses were designated. Sometimes, the Congress, acting on the desires of state delegations, did some strange things, even to the point of accepting the whole list as wilderness, whether areas were recommended for wilderness, nonwilderness, or further planning.

National Forests in the following states had bills passed creating wildernesses: New Hampshire, Vermont, Indiana, Wisconsin, Pennsylvania, Missouri and West Virginia. At the time of this writing, a bill is pending for Michigan. There were no bills for Illinois or Minnesota, but there may be in the future. Neither New York nor Ohio have areas eligible for wilderness consideration. [28]

The Anti-RARE II Reaction

There was an immediate reaction when public announcement was made of the wildernesses recommended by RARE II. The Regional Office has a thick file of newspaper clippings from all over the Region heralding the event. Most of the newspapers simply reported the proposal to designate wildernesses in their area, but some editorialized against wilderness. One such editorial appeared in the *Western Itasca Review* in Minnesota. In what must have been the boldest print available, the editor stated "THE WILDERNESS PROPONENTS HAVE STRUCK AGAIN—WE ARE THE TARGET." He explained that the Forest Service had included two areas in the Chippewa National Forest in the list to be studied for inclusion in the Wilderness System. "We protest vehemently," the editor wrote. He presented a scenario of horror stories about how homes and resorts in the BWCA would be bulldozed and burned. In an open letter addressed to Chippewa Forest Supervisor Jim Brewer, the editor asserted:

> "Nothing can be done here with a wilderness designation that cannot be done without it. But we would lose our lands, our homes, our livelihoods . . . . Who knows why the USDA feels that Northern Minnesota must be all wilderness, sacrificed at the whim of some bureaucrat." [29]

In Vermont, nearly 2,000 people attended a public information meeting in Rutland to protest the Forest Service proposal for six new roadless areas in the Green Mountain National Forest. Most of those attending complained that such a small state as Vermont already had enough designated wilderness in the Lye Brook and Bristol Cliffs Wildernesses. They said that more wildernesses would unnecessarily limit already limited recreation and would remove timber management. Others argued that ending timber harvesting in wilderness areas would undermine tax bases in adjoining towns. The public information session, which was presented by foresters of the Green Mountain National Forest, began in mid-afternoon and went on for six hours with the foresters fielding questions from disgruntled Vermonters. [30]

Various environmentalists groups were so opposed to the RARE II process that they challenged it in court. A crucial case was *Southern Appalachian Council, Inc. v. Bergland* in the U.S. District Court in the Western District of North Carolina. The Court ruled that designations of wilderness study areas in National Forest east of the 100th meridian by the RARE II process violated the Wilderness Act of 1975 because that power was now reserved to Congress. [31]

The End of RARE II in the East

Soon after the Southern Appalachian Case, the Regional Foresters received a message from Deputy Chief Raymond M. Housley, "We have decided to change procedure for handling areas

allocated to further planning by RARE II east of the 100th meridian." Any further planning for wilderness would have to be done, as part of the National Forest Management Act. If it was done, one of two broad decisions would have to be made: either the area would be managed for multiple use, or it would be recommended to Congress for designation as a wilderness study area. [32]

It was now back to the drawing board for the whole wilderness study process. This time it was to be built into the forest plans. Using the same criteria as for RARE II, forest planners were to include areas suitable for wilderness study in one of the planning goals of the forest plans. Areas suitable for wilderness were to be recommended to Congress for wilderness designation. Areas so nominated would be managed to protect their wilderness character under the forest plans until final disposition by Congress. It would be up to Congress when to consider them.

Did RARE II Fail?

RARE II may have fallen short of identifying as many areas for wilderness designation as it should have. There may have been some lack of sympathy for the process on the part of some management teams at the Forest and Region levels. Only time will tell whether the proper prescriptions were selected. Unfortunately, if an area which really should have been selected for wilderness study was passed over by RARE II, the dynamics of the current situation will make it much more difficult for such an area to be designated wilderness in the future.

The reasons for the reluctance of National Forest management teams to recommend wilderness areas revolve around three considerations: First, local opposition to wilderness as expressed in reaction to RARE II or in the public involvement in the forest plan, may have indicated that the larger public simply did not want wilderness. Second, the Forest managers may have believed that they would have too few management options in wildernesses. Third, the wilderness designation is permanent. As a practical matter, it would be next to impossible to get a wilderness declassified by Congress.

There is also the possibility that some wildernesses proposed by RARE II but not yet designated wilderness by Congress will be given that status in the future. In the Shawnee National Forest Plan there are four such areas, carry-overs from RARE II which are recommended to Congress for wilderness designation. [33] In the same way, many of the National Forest plans contain recommendations for wildernesses which originated with the work done by RARE II. If some of these areas are someday taken into the System, RARE II will not have been wasted. But even if many areas are never acted upon, the Eastern Region now has a far better picture of the potential for wilderness in its National Forests as a result of RARE II.

Another Route to Wilderness?

One of the management unit designations of the forest plans is to provide "semi-primitive, non-motorized" (SPNM) areas for recreation. Such areas come close to being wilderness, but they are not synonymous. The intent of SPNM is active management of a different recreation experience as an alternative to wilderness. Some National Forest management teams have purposely avoided SPNM out of fear that the existence of such areas will tempt someone to ask Congress to designate them as wilderness. Other National Forests have used the semi-primitive, non-motorized designation

freely. The White Mountain National Forest has about 400,000 acres of it. This is because the public wants that kind of use on the White Mountain, and the Supervisor agrees with them. [34]

If the National Forest management wants to do so, semi-primitive, non-motorized recreation areas can be used as "wilderness-in-waiting". In the meantime, they can be managed so as to maintain their wilderness qualities. This has the advantage of being a potential wilderness which the Forest Service controls.

Managing Recommended Wilderness

The forest plans provide prescriptions for managing all types of areas, including recommended wilderness. Basically, the prescription for recommended wilderness provides management which will not damage the wilderness qualities. It is essentially the same management that semi--primitive, non-motorized recreation areas will receive. Motorized vehicle use is not allowed. However, some recommended wilderness areas are highly attractive to ORV users as they are to other recreationists. The administrative problems of closing such areas to users who have traditionally used them are, to say the least, challenging. The problems involve not only enforcement but putting the word out to all users and defining and marking the areas where certain uses are no longer permitted. [35]

Legislating Wilderness in East

While the RARE II process was running its course, the wilderness advocate groups in the East attempted to extend the definition of wilderness so that areas that had once been farmed or cut-over and abandoned by man could be included. Originally, the Forest Service resisted such a liberal definition. Back in 1967, Chief Edward P. Cliff warned a Sierra Club gathering not to push the definition of wilderness to the extent of accepting man-made intrusions or defects of other kinds "simply for the sake of adding acreage." [36]

The question of pushing the definition of wilderness went to the heart of the matter in the Eastern Region. Already there was the million-acre BWCA and three other wild areas, including the 5,400 acre Great Gulf area of the White Mountain National Forest. But the Eastern Region was determined that other less pristine areas not be considered de facto wildernesses if they had once been used by man before being purchased by the Forest Service. This would include most of the land in the Eastern Region.

Wilderness advocates took a different view. They argued that because of the fertile soil, heavy rainfall and moderate growing seasons, eastern forests could reasonably be expected to regenerate in time and regain the scenic beauty of wilderness. [37] Then, in the early 1970's support came from a seemingly unexpected quarter; eastern timber interests proposed that certain cut-over areas be classified as wilderness and that these wilderness areas be opened for cutting. This somewhat contradictory proposal stemmed from a "lumber shortage" which was forcing the timber companies to look for new acres to harvest. The proposal was based on the theory that wilderness could regenerate itself if left alone over the years. Even areas subsequently cut-over by the timber companies would eventually return to wilderness. Both the Forest Service and wilderness advocates strongly resisted the proposal, but neither could deny the loggers' point that there really were no

pristine areas left anywhere. Every area in the country had been touched in some way by man. Once the issue was raised, the attention of wilderness advocates turned to the cut-over forests of the East and Congress began considering an Eastern Wilderness bill. [38]

The Wilderness Act of 1975

It is an indication of the growing strength of the wilderness movement that the Congress passed the Wilderness Act of 1975. The Act applied only to areas east of the 100th Meridian, and it spoke of the urgent need to protect wildernesses in the East which were threatened by "the pressures of a growing and more mobile population [and] large scale economic growth, and development." The Act designated 16 eastern National Forest wilderness areas containing 207,000 acres of land. It also named an additional 17 areas as potential wilderness to be studied and reported on by 1980. The areas under study were to be treated as wilderness until the study was completed. [39]

Significantly, the Act did not attempt to define wilderness. Nor did it distinguish between eastern and western wilderness except to recognize the threat to eastern wilderness and wilderness recreation in the East. It can be assumed, however, that by mandating so many eastern wildernesses, Congress had accepted the theory of regenerative wilderness. [40]

Before passage of the Act of 1975, only four wildernesses existed in the Eastern Region. The Wilderness Act of 1975 specifically designated six new areas in the Region:

The Otter Creek Wilderness. This is a 20,000 acre area of the Monongahela National Forest of hardwood and hemlock forests in a bowl shaped basin drained by Otter Creek. The area is so remote that it is one of the few remaining West Virginia mountain areas where the black bear still breeds. Between 1905 to 1915 the area was cut-over by loggers, but all that remains of man's imprint are a few trails and a railroad bed which has been converted to a hiking trail. [41]

The Rainbow Lake Wilderness. This Wilderness is located on the Chequamegon National Forest. [42]

The Bristol Cliffs and Lye Brook Wildernesses. A 1969 Multiple Use Plan on the Green Mountain National Forest led to the designation of these two Wildernesses. The Bristol Cliffs Area has 6,000 acres and Lye Brook has 14,000 acres.

The Presidential Range-Dry River Wilderness. This Wilderness is in the White Mountain National Forest.

The Dolly Sods Wilderness. This area is located in the Monongahela National Forest.

The Act of 1975 also designated five Wilderness Study Areas in the Eastern Region. In 1978, Congress established three more Wildernesses. The Charles C. Deam Wilderness in the Hoosier National Forest consists of 12,953 acres commemorating a famed Indiana botanist who later became the first State Forester. [43] In the Nicolet National Forest there are two Wilderness Areas: Blackjack Springs, with 5,886 acres has a variety of plant and animal life and several springs; and Whisker Lake Wilderness, with 7,428 acres contains several lakes scattered within it. Common uses of the two areas are hiking, backpacking, fishing, hunting, and cross-country skiing. [44]

Attitudes Toward the Wilderness System in the East

The passage of the Wilderness Act of 1975 brought the Eastern Region squarely into the National Wilderness Preservation System. Jay H. Cravens, Regional Forester at the time, took pride in, what had been done. Cravens said later, "I am pleased that we helped identify and evolve the . . . System, but", he quickly added, "I will continue to raise the question of how much do we need and what can we better achieve for the greatest number in the long run through multiple use management?" [45]

Cravens, like many Forest Service leaders, believed devoutly that the best way to preserve forests was to manage them effectively. To professional foresters like Cravens, an over-crowded natural forest where brush and under story grow unchecked, with dead trees lying about, and where fire is a constant danger, is an anathema. He coined the phrase—"the greatest enemy of the forest is neglect." This view is not shared by all professionals, but it is quite commonly held, especially in Europe where forests are more like parks than natural environment. Foresters like Cravens believe that carefully planned and executed timber harvests can not only improve the health and appearance of a forest but will benefit the public now and in the future. [46] Consequently, while recognizing the value of wilderness, foresters like Cravens believe that there can easily be too much of it. They look upon the National Forest System as something which must be managed in the general public interest. To make as many areas as possible into wilderness would be in the interest of only a small segment of the public, and would prevent the use of many of the resources. Belief in the scientific value of multiple use runs so deep in the Forest Service that few people rise to high positions who do not adhere to the concept. Cravens went on to the Washington Office to become Associate Deputy Chief for National Forest System Resources and Acting Chief of the Forest Service before retiring in 1976 to become a Professor at the University of Wisconsin—Stevens Point. [47]

The thinking of foresters and supervisors like Cravens has been modified in recent years. The new concept is to emphasize that wilderness and multiple use are not mutually exclusive. In fact, it is common to say that wilderness is multiple use. Along with this goes the imperative that wilderness must be managed to insure multiple use. The types of multiple use referred to in this context are not the ones which usually spring to mind. There will be no harvesting of timber, no surface mining, and no road building in wildernesses. But there are many types of recreational and other uses which may be taking place. In this way, the Forest Service continues its role of actively managing its wilderness lands. Some wilderness advocates may have dreamed of wildernesses which were left completely alone and not managed by anyone, but on the National Forests that would be unthinkable. The Forest Service considers its mission to be managing all of its lands in the public interest.

Summary

There have been two approaches, Forest Service and Congressional, to the selection and designation of wildernesses in the Eastern Region. The Forest Service approach, characterized by RARE II and the forest planning process, was systematic and scientific. The legislative approach allowed Congress to select and designate wilderness through political processes. The Forest Service aimed at a high quality wilderness system which would fit into the general National Forest management picture. The legislative approach had as its goal a wilderness system sufficient to meet

the recreation needs of the populous northeast. One way was qualitative and the other quantitative; both wanted to protect and preserve wilderness.

The solution to the two approaches was a compromise in which wilderness can be designated by the political processes if there is enough public support to prevail in Congress. Otherwise, the Forest Service will use the same systematic way of selecting and recommending wilderness as in the past.

When Congress became involved in the wilderness selection process, the Forest Service had no choice but to accept the situation. However, this may not be the best way to carry on the process. There may be many areas in the National Forests of the Eastern Region which would benefit more from the professional management of the Forest Service than from prescriptions dictated by Congress, political pressures, and wilderness organizations. One has only to look at the history of early wilderness preservation to know that the Forest Service led the way and can be trusted in this matter. In fact, there would be no wilderness to consider in the Eastern Region if it had not been for the return of the forests achieved by the Forest Service, through protection and management.

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CHAPTER XVII

THE FOREST PLANS

A massive planning effort took place in the Eastern Region during the 1980's. It was mandated by an act of Congress, but the scope and complexity of it were dictated by a number of other factors. There was the need to better integrate clearcutting into the overall scheme of forest management in the East and to have public involvement in the process. These were the lessons learned in the Monongahela Controversy. Another factor was the decision of the leaders of the Forest Service to use National Forest planning as the vehicle to replace RARE II in the wilderness selection and recommendation process. Still another factor was the growing emphasis on multiple uses of National Forests stimulated by greater environmental awareness. Along with this, there was now a wide variety of specialists within the Forest Service with expertise which needed to be better utilized. One final factor was the advent of computer technology. This allowed a more comprehensive management of great masses of data than had ever been possible before.

Federal Legislation

The Forest Service was directed to prepare a land and resource management plan, known as a forest plan, for each National Forest by the Resource Planning Act (RPA) of 1974 as amended by the National Forest Management Act (NFMA) of 1976. These acts required the Forest Service to investigate management alternatives involving many combinations of activities and levels of production of goods, services, and uses. The environmental impact of every possible combination was also to be determined. Environmental impact was to be assessed under guidelines laid down by the National Environmental Policy Act of 1969 (NEPA). Taken together, these laws provided for a nationwide assessment every ten years of forest and rangeland resources. These findings, called the RPA Assessment, would dictate future Forest Service programs. 1

The end result of the entire forest planning process was to be the Final Statement of Policy and Program which would become the guide for Forest Service budget proposals. The budgets as finally passed would determine the actual implementation of the program. 2

In the Eastern Region, the schedule for completion of individual forest plans called for all National Forests to have their plans done by December 1985. However, the task was so monumental and complex that some were not ready until well into 1986. 3

New Approaches

In the past there had been timber management plans, and recreation plans and many others. These were separate plans for only one resource. There had also been forest plans but in these, timber production was invariably the dominant use. In the new forest plans, each resource was "co-dominant" and all are integrated into the master plan.

The guidance for forest planning in the Eastern Region was contained in what later became known as Integrated Resource Management (IRM). Strictly speaking, IRM was a procedure for implementing the forest plans. It was not really formalized until after some of the forest plans were written. But the basic principles of IRM came into play from the beginning. (Parenthetically, IRM is now being emulated by other Regions and is likely to become the paradigm for the entire Forest Service.) IRM has been defined as "putting our heads together, combining all of our collective knowledge, skills and talents—integrating all of our resources—to do the best job we possibly can." [4]

IRM was based on the hallowed principle of multiple use, but Regional Forester Larry Henson and his staff recognized that in the past the natural inclination of the Forest Service had been to emphasize those uses which produced income and to make other uses ancillary. When past forest plans were made it was often a process of writing the timber management plan and little more. Such matters as wildlife management and scenic quality were pushed to the back burner.

Henson and his staff did not want a repeat of the old style forest plans. Nor did they want an unintegrated collection of separate plans. The problem with separate plans for single resources was that they were indeed separate. Henson sought planning which would lead toward collective goals in an integrated manner and which would achieve a "balance in multiple uses." It would take more teamwork than in the past and more personal initiative from those involved to make it work. What was wanted was "a uniform, region wide understanding of our roles and our mission . . . of managing the land and resources." [5]

To attain a Regionwide understanding of IRM the Regional Office published an attractive 28 page booklet, complete with photographs, charts, and art work, aimed primarily at forest planners, and managers. Titled "Working Together for Multiple Use," the booklet, called for less parochialism in the Region—"We can and must trust the integrity of our associates," treat them as "good neighbors," and "work together as a team." [6] With new open mindedness and respect for the opinions of others, the forest planning process and its execution would help the Region evaluate its work, learn from mistakes, make changes where needed, and recognize successes.

While "Working Together for Multiple Use" may have sounded like a standard pep talk to outsiders, to perceptive people in the Eastern Region it had deeper meaning. Management was saying that the days of forester rule were over. Now wildlife, recreation, wilderness, environmental protection, scenic quality, human resources, public interest, and many other factors would take their places along with forestry in forest management. The booklet was probably received with silent rejoicing in many "shops" throughout the Region, other than the timber management professionals.

FORPLAN: A Computer Model

What processes were used in selecting the areas to be studied and the factors to be considered in making the forest plans? As one might imagine, the decisions were made by qualified experts but the actual sorting and sifting through all of the data was done by a giant computer. To do the job, a computer model called FORPLAN was programmed and maintained for all of the Regions at the Forest Service Computer Center at Fort Collins, Colorado.

FORPLAN is a series of computer programs which utilizes linear programming. It can evaluate a large number of management options for specific units of land. It selects the combination of prescriptions which optimizes a chosen objective. Prescriptions are assigned by FORPLAN to

land areas, and FORPLAN also schedules practices to achieve resource outputs. The work of FORPLAN begins by putting into the model the existing and potential condition of each analysis area. The analysis areas are relatively homogeneous in respect to productivity, cost of treatment, and response to treatment within each area. The practices and activities which can take place are also modeled to the use of management prescriptions.

Prescriptions and Restraints

Management prescriptions, the practices and activities necessary to achieve desired future conditions on selected planning areas, were all included in the computer model. Also put into the program were quantitative effects of applying the prescriptions to the analysis areas considering resource yields and economic conditions.

To illustrate the interplay of the different types of factors, a management prescription might be a nondeclining hardwood and pine yield, a FORPLAN prescription might be a level of harvesting which will maintain a nondeclining yield, and a quantitative effect might be the dollar value of the timber left unharvested. FORPLAN, of course, is able to process many different combinations of prescriptions and effects at once and to determine the mix which will optimize the desired objectives. One final aspect of analysis is to identify the constraints needed to achieve recognized goals. As the word indicates, constraints are those limiting prescriptions which will bring about the desired effect, for instance scheduling practices. [7]

Before the FORPLAN model was constructed, there were numerous assumptions, analyses, and decisions which had to be made in order to define analysis areas, prescriptions, standards, and guidelines. Without such management input, the computer program would have been of little value. The following are some examples of the kind of decisions which were made on one National Forest in the Eastern Region: the size of analysis areas was set at no less than 500 acres in most cases, 104 analysis areas were selected, and the number of prescriptions was kept small by deleting those which were obviously unworkable or absurd. In the end, there were 1,500 FORPLAN prescriptions and 56 regenerated prescriptions. This was a relatively small model, which allowed many benchmark and alternative runs through the program at moderate cost and in a form simpler to understand. [8]

Regional Guidance

The role of the Regional Forester and his staff in forest planning was to provide the goals for planning. Like other Regions, Region 9 published a Regional Guide for the planning process, but unlike all the other Regions, Region 9 listed specific management goals toward which the National Forests were to work. There were nine of these goals, including management primarily for timber and wildlife, research areas, wild and scenic rivers, recreation, wilderness, and semi-primitive non-motorized areas. Each Forest could construct its own alternatives for managing each of its areas using any of the management goals. The numbers 1 through 9 were used uniformly throughout the Region so each forest plan could be easily understood by others. There were also sub-goals. For instance, Goal 6 provided for semi-primitive, non-motorized recreational experience. Under 6.1 there would also be reduced potential for life threatening and property damaging fire. Sub-goal 6.2 would emphasize wildlife diversity, and sub-goal would support a wide variety of fish and wildlife

species by improving habitats. The sub-goals were not standard throughout the Region and could vary considerably from Forest to Forest, depending on local situations.

A unique aspect to Region 9's planning process lay in its generation of the "problem statement." Each National Forest had to make one. It was a determination of what issues and concerns were present and how the Forest should be managed. The public had to be consulted in this. Next came the Analysis of the Management Situation, which consisted of looking at the potential of the Forest to produce timber, wildlife, recreation, and other factors. In effect, it was a determination of the decision space within which the Forest had to operate. In other words, could they really accomplish the goals they had set for themselves in their plan?

Making the Plans

The heaviest burden of National Forest planning fell on the Forest Supervisors and their staffs. To begin with, the directions were appallingly complex. The original legislation had set up a committee of scientists to develop the regulations governing forest planning. There were 2,200 lines of directions in those regulations—directions on how to handle timber, wildlife, recreation, minerals, and many others factors. For most planners it was an extremely difficult task to try to consider so many regulations at one time. In past planning, things were done separately, but in this round it was all to be done at once and integrated. Moreover, economic impact on the Forest and the local economy had to be considered in the process. Plans had to be kept simple but detailed enough to guarantee that specific interests were adequately analyzed.

The linear model for the analysis, FORPLAN, was one of the most complex ever put together, but the Forest Service was convinced that only with such a thorough programming model could the planning requirements be met. The whole process took great amounts of budgeted money, but the hidden costs were probably even greater. The planning process preoccupied District and Forest personnel for six years, requiring much of their time and taking them away from other work. Endless meetings, countless days spent compiling data, thousands of miles of travel, nearly full utilization of secretarial staff plus the necessary use of computers and office machines all contributed to the hidden costs. But the Forest Service and particularly the Regional planning staff believed that the money and effort were not wasted. They reasoned that having made their forest plans, the District and all the National Forest people would know where they were headed.

There was a perceptible change in attitudes by field people toward the planning process during the six years of intensive planning activity. Personnel progressed past the point of saying "this too will pass." District and Forest employees realized that it would not pass, that it was the direction of the future, and that they were the ones who had to make it work. It was the goal of the Regional Forester and his staff to use the Integrated Resource Management approach to involve everyone in the planning process. According to one key planner, Don Meyer, "there are still skeptics out there, [but] it's the best direction we've ever had, and that's gotten people on the bandwagon." [9]

Regional Review of Plans

After the National Forests had developed their individual Analysis of the Management Situation, these were sent for review to the Regional Office. The purpose of looking at them at an

early stage was for the Region to see how the plan was going and to have some influence on how the draft forest plans were put together.

When the draft management plans and environmental impact statements were finished, these too came to the Regional Office where they were reviewed by the Technical Review Team. The Team provided quality control and saw to it that the plans met the standards set by the Regional Guide with some uniformity.

One of the first draft plans to arrive in the Regional Office was that of the Nicolet National Forest. It was accompanied by relatively few public comments. Months later the Chequamegon Plan arrived with many more public comments. Part of the reason for this was that people in Wisconsin were becoming more aware of the forest planning process. When the Ottawa Plan came to the RO there were literally thousands of public comments. The Ottawa had solicited public reaction in local newspapers. There was also another factor involved in the outpourings of public comments. The Wilderness Society had selected two Forests in the Eastern Region for in-depth reviews of their forest plans—the Ottawa and the White Mountain. This, in turn provoked more comments from what might be called the commodity side, that is timber and mineral interests. In addition, many people in the Upper Peninsula of Michigan who resented outside interference in the management of "their" National Forest also made comments. Much of the same sort of public reaction occurred concerning the White Mountain Plan. The reasons were much the same—special attention from the Wilderness Society and resentment of outside interference.

The National Forest Plan with the least public reaction and with the least number of appeals was the Allegheny Plan. The people of northwestern Pennsylvania are also interested in their National Forest, but they do not seem to have the extremes of viewpoint that other areas have. Additionally, the staff of the Allegheny did an admirable job of soliciting input from local publics when writing the Forest Plan. Apparently, most interest groups and individuals believed they had already had their say when the draft Plan was completed.

The Allegheny had the potential for real controversy in its Plan. The Plan generated some serious questions and comments from the Natural Resources Defense Council (NRDC), a respected group of environmental law attorneys. People from the Allegheny met with representatives of the NRDC for two days and listened to their concerns. The final version of the Plan contained some provisions which still bothered the NRDC. Cognizance of this encouraged the Supervisor and some of the planners to travel to Washington, D.C. to confer again. Finally, they were able to satisfy the NRDC concerns and there was no appeal. A NRDC spokesman commented that no other National Forest had come to them for clarification of their position as the Allegheny had done.

The Shawnee National Forest Plan offered an example of the necessity to balance economic considerations with environmental concerns. The Shawnee draft Plan contained heavy emphasis on converting the Forest to the production of pine. However, pine forests are not native to southern Illinois, where the Shawnee is located. There was an immediate adverse reaction to the draft Plan from local people who did not want to see the appearance of their area changed. The comments on the draft Plan reflected this reaction, so the Forest made substantive changes, in the final draft, removing the emphasis on pine. This did not satisfy everyone, and there were appeals on the Shawnee Plan, but what happened illustrates the willingness of Forest planners to defer to strong public reaction. Similar drastic changes took place between the draft and final versions of the Monongahela and White Mountain National Forest Plans.

After the draft plans were made public there was a 90-day public reaction period. When that was over, the key people from the Forest were asked to come to Milwaukee and go over the public reaction and other critical issues with the Regional Forester and his planning staff. These meetings sought to resolve problem areas while simultaneously generating a final plan. At this point the Regional Forester made the final decisions since he was the deciding officer for forest plans. [10]

Wilderness in Forest Planning

For years there have been certain areas in most National Forests which have been what might be called "wilderness in waiting." These are areas which are managed in much the same way as wilderness with no harvesting, few existing roads and no new ones, and no developments. Wilderness advocates are aware of such areas but their existence does not satisfy them because they do not trust the Forest Service to continue such pseudo-wilderness management. They know that the administrative direction of the Forest Service can change—a new Chief or a new Regional Forester could set things in a new direction. What the wilderness advocates want is Congressional designation of wilderness areas which can only be undone by act of Congress.

In the last round of forest planning, the administrative direction from the Regional Forester and his staff was to provide in each forest plan opportunity areas called "semi-private, non-motorized recreation areas" which were suitable for study as wilderness at some future date. If managed in this manner, no further damage would be done to the wilderness qualities and over a period of years the areas might well come closer to being real wilderness than they were at the beginning. [11]

From a practical standpoint, wilderness in the Eastern Region has to be small in area and is rarely genuinely pristine. In fact, Congress can designate anything it wants to be wilderness. The National Forest managers will manage any designated area as wilderness if that is what the public wants. Luckily, wilderness recovers more quickly in the forests of the East rather than in the drier climates and higher altitudes of the West. [12]

But few people in the Eastern Region wanted to see Congress take over the whole process of wilderness designation. Fortunately, a reasonable alternative was available in the semi-primitive, non-motorized management prescription available in the forest plans. The considerable expertise of the Forest Service could be applied to the selection of SPNM areas which could be managed like wilderness and might someday be recommended to Congress for wilderness designation.

Under pressure from the Regional Office, most National Forests of the Eastern Region included some SPNM areas in their forest plans. This has, in effect, kept the Forest Service in the wilderness designation process and opened the way for significant additions to the National Wilderness System in the future. It is also what the leadership of the Forest Service directed be done when they decided to abandon RARE II. If the wilderness selection process stays in the hands of the Forest Service the expertise of the Forest Service is applied, the public has input, and an appeal process is available. In the meantime, semiprimitive, non-motorized areas can be managed without substantial Congressionally imposed restraints so as to benefit a wide variety of publics and to continue providing such benefits for generations to come.

Clearcutting in Forest Planning

Since the Monongahela Controversy, the Region had been concerned about clearcutting. From the standpoint of efficient forest management, clearcutting could not be abandoned, even though environmentalist groups strongly advocated just that. The solution sought by the Region was to allow clearcutting to be written into forest planning only where it makes good sense, not only from the economics standpoint but in terms of good silviculture and wildlife management. An example might be the clearcutting of areas in the Chippewa, Ottawa, Chequamegon, Nicolet, Superior, and Hiawatha National Forests where aspen will regenerate. The benefits are many: the aspen will come in voluntarily, habitat conditions for several desirable species of wildlife will be improved, and there are new and growing markets for aspen.

In the past the Region has stood fast on the values of clearcutting, even in the face of strong criticism. However, in more recent times, there has been an initiative emphasizing uneven-aged management. This could change things on many National Forests and could mean that the policy is shifting away from clearcutting. [13]

Handling Appeals

Appeals of forest plans were handled by filing with the Regional Office a Statement of Reasons which explained why the plan was being appealed. The Regional staff then put together a Responsive Statement, to which the appellants were given an opportunity to respond. Then the appeal went to the Chief of the Forest Service for a final decision. Since the Regional Forester was the deciding officer, the Chief's role was to review his decision and uphold it or remand it to the Region for something to be done. Naturally, the federal courts were open to appeals, but ordinarily federal judges would not accept appeal cases until all review procedures had been exhausted within the Forest Service. In the event of an appeal to federal court, the Regional Office handled the case, preparing the record of appeal and all of the other phases of the administrative process in preparation for the court procedures. [14]

Revising the Forest Plans

The forest plans project management practices from 50 to 150 years into the future. Some of the more sanguine critics have charged that this is little more than a long term commitment to the planned destruction of the forests. The original Forest Service regulations concerning forest plans anticipated this criticism and provided that the forest plans be revised every 10 to 15 years. When such reviews take place, the whole process will be repeated, including determining public sentiment and incorporating all new information to determine the best management direction.

"Sensible, Balanced and Responsive"

As described earlier, major emphasis on pine was eliminated from the Forest Plan of the Shawnee National Forest partly in response to criticism from the Sierra Club and others. The changes were made in part because of economic realities. A local sawmill had closed and the

foreseeable market for pine had lessened. The changes were made also because of comments received from the Regional Technical Review Team. The whole process epitomized what the Region was trying to do with the planning process.

The responsiveness of the Forest Service in changing the Shawnee Plan was recognized in a highly laudatory editorial which appeared in the *Southern Illinoisan*, a regional newspaper published in Carbondale in the heart of the Shawnee National Forest. The editorial praised the way the entire forest plan process had been conducted. In a piece titled "Shawnee Plan OK," the newspaper wished that the government could address such problems as poverty, hazardous wastes, or nuclear arms as sensibly as the Forest Service had planned the future of the Shawnee National Forest. The editorial writer found something "almost calmly rational" about the way the plan was written, submitted to the public, modified by 22 major changes resulting from public input, and then finalized in a form which carefully balanced competing interests so that strong objections were minimized.

The *Southern Illinoisan* noted that where the original Shawnee Plan had called for greater emphasis on pine planting and timber harvesting, it now provided for planting more hardwoods and reduced cutting. The newspaper used words such as "sensible," "balanced," and "responsive," frequently in describing the Shawnee Plan, and it congratulated the Forest Service (heartily) for its effort.

The hottest local issue in southern Illinois concerning the Shawnee Plan had been off-road vehicles. The editorial described how on this matter, the Shawnee Plan went down the middle of the road. ORV's would be permitted on about 55 % of the Forest, but only on designated trails and roads. There had been objections from tourism-oriented groups to designating Bald Knob area, a popular religious site, and six other areas for wilderness study, but the editorial agreed that such unique areas needed to be protected and added "If the motels and restaurants are a few miles away, that's all right." [15]

The *Southern Illinoisan* editorial recognized what every forest planner and manager hoped the public would see—that the best that could be hoped for with a forest plan was to reasonably balance the interests of environmentalists, recreationists, timber companies, local communities, the general public, and many others.

The revised Shawnee Plan came very close to achieving the kind of balance the Regional planners wanted. Part of the credit for this must go to the Regional Forester and his planning staff because the Shawnee Plan was one of several which underwent significant changes urged by the Region.

The success story which the Shawnee Plan represents has been a source of pride throughout the Forest Service. The *Southern Illinoisan* editorial which praised the "sensible and balanced" attributes of the Shawnee Plan was circulated to all of the National Forests of the country at a time when many people were becoming disheartened at the seemingly endless planning process. According to Regional Planner Don Meyer, the editorial was such an encouragement to forest planners that it was "important in lifting morale" and took on "national implications." [16]

The Monongahela Plan

If there was one National Forest which would indicate whether the lessons of the past had been learned and applied in making the Forest Plan, it was the Monongahela. This was true not only because of the Monongahela Controversy, but because the Forest is a fairly typical eastern Forest. Timber production was once the main focus of the Monongahela. It began with "cut and run" lumbering around the turn of the century. In the 1930's after the Forest Service acquired it, the emphasis was on protection and rehabilitation of the forests. This continued even into the 1950's because the Forest had little timber to sell. Then, in the 1960's, the Forest became productive again. The managers of the Forest were primarily concerned with marketing the crop they had been growing for 30 or more years. They gave little thought to the implications of clearcutting. It had been used on the Monongahela before. In the year before the Monongahela Controversy began, timber sales reached 60 million board feet, 150 % of what the recent Forest Plan would allow.

As reflected by its Forest Plan, the Monongahela has changed greatly. Part of the change is the result of the controversy over clearcutting, but an important part is also the product of the public reaction to its Forest Plan. The managers of that National Forest are clearly determined to give the public what it wants within reasonable limits.

Determining What the Public Wants

The managers of the Monongahela, with little training in evaluating such things, decided to use their common sense and years of experience in taking the meaning from the public response to the Forest Plan. They reasoned that they could not simply count votes. Polls and surveys are too easy for interest groups to manipulate. Nor could they take written reactions at face value. They had to try to take into account the people who were not organized and who did not write letters but who were nevertheless quite concerned. They were aware that very few letter responses came from rural residents who hunted and used the National Forest frequently. "We know he [the rural resident] is there and we know he uses the National Forest; we have to take him into the consideration."

In evaluating the written responses, the data was processed by "blind" evaluation so that the evaluators did not know the numbers of responses attached to each issue. Even so, a heavy preponderance of remarks favoring something was bound to influence their decisions. The evaluators took into account the entire range of public involvement. This included 61 public meetings, wide publicity in local news media, talk shows, responses from organized groups, and written responses. Decisions were made collectively by line and staff officers based on the public response and their own knowledge and experience. There was an attempt to systematize the process, but in the end it was judgment call.

If the public responses were fairly well balanced, deciding was easy and the position taken in the Forest Plan was confirmed. An example of this was the question of whether the Forest should buy more land to add to its National Recreation Area. There were about 100 responses; 50 or so wanted more land than the Forest Plan specified, and about 50 wanted less. The Plan was not changed in this regard. On the other hand, the Forest received more than 15,000 replies saying they wanted reduced cutting, and more wildlife habitat. Only about two hundred letters wanted less habitat and more cutting, so the decision was made to decrease cutting.

The Final Plan

The final Forest Plan provides that the Monongahela National Forest which once had no wilderness areas and apparently little concern about having them, now has 78,000 acres of designated wilderness, about 9 % of the Forest. An additional 125,000 acres have been prescribed for recreation with no harvesting of trees. About 75% of the Forest contributes to remote habitat for wildlife because it is carefully controlled so as to cause minimum disturbance to the environment. There are also many new campgrounds, a new visitor's center, and increasing recreational use.

The new emphasis on wilderness, recreation, and wildlife habitat was not achieved without resistance. The West Virginia forest products industry believed that their interests had been hurt by the Monongahela Forest Plan because of the limitations it put on harvesting. In reality, their objections lay more in a conditioned response than in actual financial injury. The managers of the Monongahela studied the situation thoroughly and concluded that under the Forest Plan, both the short and long range needs of the industry can be easily met. The pivotal question was whether the timber would ever be offered for sale. In these considerations, the managers weighed heavily the overwhelmingly negative public reaction to proposals from the industry that harvest levels be set much higher than they were in the draft Forest Plan. They were convinced that the public would not tolerate such heavy cutting, especially clearcuts.

Deciding what to do about timber harvesting was not simply a matter of compromise between conflicting interests. The managers of the Monongahela now have a long range master plan for the Forest. They will provide what the public wants in recreation, wilderness, and wildlife habitat and at the same time they will build a hardwood forest that may someday be a valuable and rare resource for the nation. Planning and Information Officer Gil Churchill puts it this way:

> "We'll be growing trees—good trees to a much larger size than is practical on private lands—and one day we may be producing a timber product that can be found nowhere else—very high quality hardwood. So we may play an important role yet (in timber production)." [17]

From this it is evident that the management of the Monongahela has not turned its back on the older Forest Service values. Even though there has been a shift toward recreation and preservation, timber and other resource utilization still play an important role. There remain five operating coal mines on the Forest plus 50 operating natural gas wells. The Forest continues to grant grazing allotments and, as indicated earlier, timber cutting continues. [18] But taken as a whole, the Forest Plan suggests that the managers of the Forest have come a long way in adjusting to the realities of the 1980's.

All of these concessions to public concerns raises the question of whether the Monongahela has over-reacted to the clearcutting controversy which lies buried in its past. The managers of the Forest recognize that it is possible. There are employees on the Forest who believe that there is now too much emphasis on recreation and scenery. They hope the pendulum will swing back toward timber cutting some day. It may. As far as the managers are concerned, it all depends on what the public wants. They have learned this lesson well. They now intend to manage the Forest so they do

not "spend all of your time feuding and fighting and defending yourself . . . and not establishing credibility for the outfit." [19]

The White Mountain Forest Plan

Because of the limitations of time and space it will not be possible to analyze all of the forest plans of the Eastern Region. However, the White Mountain National Forest used such a different approach in writing its Plan that it is worthy of note here. The Forest has used a Working Group method in their planning processes since 1971 when the New England Area Guide was being developed. The same Working Groups were used extensively in formulating the White Mountain Forest Plan. The Groups were made up of volunteers who worked together for six to eight weeks to find a group consensus on the best management actions for the Forest. The volunteers represented a cross section of the users of the National Forest. After opposing views are discussed, a consensus based on a well thought out rationale was reached. The Forest Service provided the group with a situation statement, a list of management alternatives, analysis of environmental impacts, and maps. The expertise of management specialists could be called on when needed. In the end, the Working Group's response was presented to the Forest Service as a consolidated statement of the public's desire in the Forest's Plan for future management. [20]

Reactions to Forest Plans

Retirees' Association

The Eastern Region Retirees' Association is a group which includes former Regional Foresters and many people who have played key roles in the history of the Region. The Association reacted strongly in its *"Newsletter"* of November of 1986 to the large number of appeals to the forest plans and the prospect for a drawn out process of legal maneuvers and court cases.

Bob Prausa, President of the Association, urged the members of the Association to be involved in the forest plan process and above all to support the final approved plans. Prausa stated, "We believe the FS has been very responsive to the direction [of the RPA and NFMA], and . . . that Forest Supervisors have been very responsive to expression of concern." He pointed out that extensive revisions and basic changes had been made in plans as the result of public input. But, said Prausa, "Now it is time to get on with the job of putting these plans into action." He urged the members to support the forest plan process and the final product by contacting their Congressional delegations. [21]

Swanson's Appeals

Each and every forest plan when its draft went out for public involvement was appealed by John R. Swanson, whose address is a post office box in Minneapolis, Minnesota. The appeals are all hand written in a barely legible hand and invariably protest the fact that more land was not put into wilderness in the forest plans. Swanson usually advocates that as much as half the land of the National Forest be put into wilderness. However, the areas he selects are not exact and usually show no specific knowledge of the individual Forest. No Forest Service officer has ever met Swanson or

consulted with him. Each Forest has a more-or-less standard answer to his appeals: They cannot make any of their land into wilderness on their own or through the forest planning process. Only Congress can designate wilderness. [22]

Sierra Club

Since late 1986, the Sierra Club has carried on a program called "Save Our National Forests." It is a slick, hard-sell mail campaign to raise money to fight the forest plans nation-wide. The literature claims that the forest products industry has unduly influenced the writing of the forest plans with the result that they are no more than plans for the ultimate destruction of the National Forests by intensive harvesting. Several areas in the National Forests of the Eastern Region are included in a list of those deemed threatened by excessive harvesting. [23]

Summary

The long range effects of the latest round of forest planning will not be known for years, perhaps decades. The immediate consequences, however are discernible. The Eastern Region has made a good faith effort to accomplish the task set before it by Congress and the Forest Service. In the process, two major developments have taken place. One has been the far greater participation in the planning process by the public and by organized interest groups. The other has been increased consideration of resources and uses other than timber. Along with the latter has come a holistic approach to forest planning which did not exist before.

The forest plans have forced the Eastern Region to make public its intentions for management of the National Forests. In the process, the underlying philosophy has been re-evaluated and modified. It has been a healthy experience for the Eastern Region, but the published forest plans have also provided clearly defined targets for a wide range of critics. The Region showed considerable flexibility in reaction to public criticism during the planning process but its position on protests after the forest plans have been finalized and approved has tended toward the defensive. At the time of this writing, it was too early to conclude anything about the eventual outcome of the appeals process.

Reference Notes

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CHAPTER XVIII

PROFILES OF EASTERN REGION PEOPLE

Backgrounds

From what kind of families and backgrounds do Forest Service people of the Eastern Region come? Most of them, with some notable exceptions, come from rural areas in the states of the Eastern Region. Often their fathers were involved in some sort of timber or outdoor work. And they come from hardy stock. Sigurd Dolgaard, whose career spanned decades in the Eastern Region, had a father who worked for a logging company. The family lived 13 miles from the town where the father worked. Every day, in all weather, he walked to and from work, nearly 30 miles a day and also did a day's work. When asked how he had the time to do all of this in one day, his reply was that he walked a quarter of a mile and then ran a quarter of a mile to get to work on time and home for supper. 1

Getting the Job Done

With fathers such as Mr. Dolgaard, it is not surprising that the sons and daughters were deeply imbued with the work ethic and with getting the job done. It was traditional not to talk much about such matters, except perhaps to young sons and daughters who were being instructed in the important things in life, but underlying attitudes can often be seen in humorous anecdotes. An example might be the story of Jack Valentine and Frank Legat of the Superior National Forest, who were running a compass baseline in the middle of the winter from Ely to Grand Marais, Minnesota. The idea was to survey a baseline by walking through the woods sighting a compass and holding on a given bearing. After many miles of this, Valentine and Legat closed out two chains (132 feet) south of the known point they were supposed to hit. They were upset by that much inaccuracy because the baseline could not be used and all of their work would be wasted. After thinking about it for a while, they came up with the answer: Legat's right snowshoe was caked with more snow than the left and was much heavier. This had caused him to veer off course as he sighted the compass. 2

The humor of this story might escape many people who would only wonder what the two men were doing out in the woods of northern Minnesota in mid-winter doing a job which could be done much more easily in the summer. But to Forest Service people, the story illustrates the determination it takes sometimes to get the job done. It also shows the kind of people involved and the unknown problems that can get in the way of success.

Forest Service people of the Eastern Region, being mostly New Englanders and Midwesterners and small town people, carry with them the values of those places. In the recent years the weekly National Public Radio program called the "Prairie Home Companion" has become a touchstone for the way of life referred to here. Broadcast nationally from St. Paul, Minnesota, the show features the humorous stories of Garrison Keillor who talks about the imaginary town of Lake Woebegon, Minnesota—" my home town." Keillor's humor is not for everyone, it seems to be lost on most city people, but if you were raised in a small town or rural community in the Midwest—or anywhere—

you can relate to his stories. Keillor has a firm grasp of Midwestern and small town values and his gentle humor evokes feeling of warm nostalgia for millions of people.

The "Prairie Home Companion" has commercials for imaginary products, including powder milk biscuits. These biscuits are made of the purest of flour raised by Norwegian bachelor farmers near Lake Wobegon. Keillor claims that powder milk biscuits have special powers to help shy people get up and do what needs to be done. This sort of thing has special meaning for many Forest Service people. Jim Brewer, former Supervisor of the Chippewa National Forest, speaking about the kind of people who are in the Forest Service, put it this way:

> "Most people have a great interest in the outdoors, nature, and the environment. That's a kind of shared set of values between us that bind us together. Most of them are very hard working individuals. They work a lot of independent situations, without close supervision, and you can rely on them; you can count on them to come through with what needs to be done. We sort of kid about having a powder milk biscuit, you know, and then that gives you the strength to do what needs to be done—Garrison Keillor you know." [3]

Dedication to Work

Anyone who talks with Forest Service people will be struck with their remarkable dedication to their work. Many Forest Service men and women speak so enthusiastically about their work that it is clear that they identify closely with it. They do not seem to have the total separation between work-life and home-life which is so common for the 20th century man.

How did such people come to be in the Forest Service? Like many of the older Forest Service men, Sigurd Dolgaard's first contact with the Service was in the Civilian Conservation Corps in the 1930's. [4] Bill Wolff, now retired in Lakewood, Wisconsin, was in the CCC on the Nicolet National Forest for three years. Then he "graduated" to towerman and next to fire guard. In 1970 he retired from the Forest Service. His job at that time was Administrative Officer (in charge) of Blackduck Job Corps Center. "Not bad," says Wolff, "for a depression-era school dropout from Chicago. Right?"[5]

Bill Emerson went into the Forest Service as a result of a letter he received from a District Ranger. Emerson had written to inquire about camping in the Boundary Waters Canoe Area. The answer from a Ranger in the BWCA was a long, personal letter about wilderness camping and the uniqueness of the BWCA. Emerson decided that if the Forest Service had people like that, it would be a good outfit to join. [6]

The men who were foresters in the 1930's through the 1950's considered themselves "custodians" of the forest rather than "resource managers," the proper term today. [7] The role of custodian fitted well with the Forest Service's concept of its mission going all the way back to Gifford Pinchot and the beginnings. It also suited the conditions in which foresters worked in the Eastern Region. Since most of the National Forests there were created from cut-over, eroded, and burned lands, there were fewer resources to manage while the Forests were being restored. The job of the forester actually was custodial and restorative.

If eastern foresters were custodians, they were also self-reliant and goal-oriented. Although there was definitely a Forest Service way of doing things, the isolated situation in which many

foresters worked made individuality and self-reliance character requirements for the job. Because they seldom worked in the field under much supervision, the typical Forest Service employee developed a goal-oriented philosophy. Getting the job done was everything. They simply were not clock-watchers. Often they stayed on the job until it was done. They wanted their monthly reports and diaries to show jobs completed and the periodic inspections to see accomplishments.

An example of determination to get the job done happened one winter on the Superior National Forest. There was an unseasonal warm spell, an Indian summer in the middle of the winter in which the snow on the ground melted and ground litter dried out but the lakes remained frozen. There was a high fire hazard, and several fires started. A group of fire fighters working on one fire spotted another fire across a lake. The fire boss dispatched a two-man crew on ice skates to cross the lake carrying their fire fighting equipment on their backs and put out the fire before it spread dangerously. The distance was about a mile and a half, but the men covered it quickly and in 15 minutes put out the fire. [8]

Often, Region 9 retirees, looking back over decades in the Forest Service, will say that their favorite job of all was District Ranger. Even though the individual may have risen to a high position and served in many different line and staff positions, the job of Ranger was the most enjoyable, and they often use that word. What was it about being a Ranger that they enjoyed so much? To answer this, it is necessary to understand two basic characteristics about such men. One, they liked working out-of-doors and really did not feel comfortable doing paper work in an office. They believed that the important work was not being done if they were not in the field. The second characteristic was a desire to work on their own without supervision.

The job of Ranger fits the bill on both counts. A Ranger is a line officer. He makes decisions and, within the framework of Forest Service rules, even makes policy. He deals directly with many publics, and in effect has his own Forest which he manages and for which he is responsible. To do the job he must be out in the Forest much of the time and, particularly in the Eastern Region, he must deal with diverse interest groups and individuals. He is usually the local spokesman for the Forest Service. His position in the community is usually one of respect and deference.

Ordinarily, District Ranger or Assistant Ranger is the first important job a career person has, and they are usually young when they obtained the assignment. This may account for part of the warm feeling they have toward the job. Those were the best years of their lives, so to speak. But it is also true that being a Ranger in the Forest Service has been for decades one of the most glamorous and sought-after positions in the federal Civil Service. In fact, many Americans would probably be surprised to know that it really is a Civil Service job like so many others.

There are jobs other than Ranger that people like. William Byers, in over 35 years in the Forest Service rose to be a staff officer on the Chequamegon National Forest. He never reached his highest aspirations, but he enjoyed the work, especially the responsibility.

Byers says that in the Forest Service he has had what he calls "work freedom." There is always a job to do and superiors to report to, but there is a high degree of trust and confidence. "You set your own pace," says Byers:

> "There is not someone nit-picking and looking over your shoulder all the time. To me that is important. When you feel that you can do a job—as long as you stay within the legal requirements, the supervisory positions in the

> Forest will give you the latitude to carry out the job. There are always a few people in the organization who say, I want it done this way, or I want it done that way. They are hard to work for."

It is often true in the Forest Service that the line officers do not know as much about what is being done as those under them. This is true of staff officers also. They have experts working under them who can provide the compartmentalized technical knowledge they need. However, when it comes to administration, making decisions, and taking responsibility for what goes wrong, that is the job of the staff officer and line officer.

The Forest Supervisor or Regional Forester does not need to know everything about the work of the staff officer. He/she depends on the staff officer to take care of ordinary problems which arise in his/her areas of expertise and responsibility. This system of delegating responsibility strengthens the position of staff officers to the point that they become "Little Supervisors" or "Little Regional Foresters" themselves. This is especially true during the first few months after a new line officer arrives.

All of this means that staff officers are important people in the system. But also important are the specialists who work under the staff officers. Responsibility is delegated to them as well. They come to think of themselves as being "in charge" of their areas. This attitude of responsibility is important, perhaps even essential, for good morale and job satisfaction. By allowing so many people to have it, the Forest Service has a surprisingly high proportion of employees who take pride in what they are doing and believe they are accomplishing something. [9] Of course, not all employees are this way. The Forest Service, is after all, a bureaucracy and there are people in lower positions for whom it is just a job and who are just putting in their hours.

But one reason for the generally high morale, job satisfaction, and personal development of the people of the Forest Service seems to be connected to the traditional decentralization of authority and delegation of responsibility. Such a conclusion is supported by a study made in 1981 by a Penn State group. The study selected the Forest Service as one of 10 public and private organizations in the country with model qualities that can improve understanding of how organizations can be successful. One characteristic shared by all 10 organizations was a demonstrated commitment to the highest ethical and moral standards. These qualities are traditional in the Forest Service. Many young men have been attracted to careers in the Forest Service because of what one such young man identified as the "integrity and dedication" of a man he came to know in the Forest Service. [10]

Moving

The dedication of Forest Service people can be seen in their willingness to transfer and move their place of residence. It is traditional in the Service that employees, especially those on the way up the career ladder, must move to a different post every few years. Usually the transfer is within the Region, but even so that could mean a move from northern New Hampshire to the Missouri Ozarks. For a family to move—and most Forest Service people seem to have families—means serious disruptions in life styles, especially for wives and children. It is not uncommon for a person to work 35 years for the Forest Service and stay only two to four years at each of a dozen different places. [11]

When asked about the problems of moving, Forest Service people are stoical. They say that transfers are part of being in the Forest Service. You cannot afford to get too deeply rooted in one place—your home is the Forest Service. Sometimes, the children do not understand about being in the Forest Service family. The most difficult moves, according to many, were when the family had teenaged daughters. Sometimes teenagers were left behind with another family for a year or two so they could finish high school and be with their friends. [12]

The Forest Service has its reasons for transferring its personnel. These go all the way back to Gifford Pinchot and the early days of the Service. All of the National Forests were out West then and most of the foresters came from the East. An early *National Forest Manual* put the matter of moving quite simply: "Every member of the organization should expect to transfer. Service interests will be served thereby." [13]

The modern day leaders of the Forest Service have not changed the system of frequent transfers. Perhaps it is because they went through it themselves. There are, however, sound reasons for continuing the system. It prevents field personnel from putting down deep roots and becoming so attached to a locality, or a Forest that they lose their perspective or their primary loyalty to the Service and its mission. Another important reason is the broad training the system gives to personnel in many different jobs and situations. This is especially necessary for upward bound people who will someday be managers.

The tradition of frequent moving tends to divide Forest Service people into two groups—those willing to move and those not willing. Often those who have been transferred frequently have been the professional, college trained, and upward-bound people. This group was almost exclusively men in the old days. Those not willing to move were usually local people with no college training and no desire to leave their home town. However, this group was not confined to women. Many local men took jobs with the Forest Service just to have a job. They did not plan to make it a career. Occasionally an individual would like the job, realize the possibilities and want to start moving up the ladder. If so, the key to advancement was being willing to move. Vacancies in jobs such as Assistant Ranger and Ranger were usually filled by people moved in from elsewhere.

This situation presented the ambitious employee with a real dilemma. Warren Livens once had a very capable employee under him when he was a District Ranger. The man was ambitious and frequently asked Livens for a better job. Finally, Livens arranged for a promotion on a National Forest hundreds of miles away. The man thought it over and decided he could not leave his home town. He never complained again about his job. [14]

The Forest Service Family

Despite the hardships of frequent changes of residence, the wives of Forest Service men seem to enjoy their roles. They speak of being in the Forest Service as being part of a family. Some 30 or 40 years ago, when there were few hotels or motels in the small towns where Supervisors' Offices and Ranger Stations were located, it was the job of the wives to provide lodging and meals for visiting Forest Service people. They became well acquainted under these conditions and often the visits were returned later. Frequently a family moved to a new station and found they already knew several other families there. [15] The feeling of family which pervaded the Forest Service also helped to ease the loneliness of dislocations.

Eastern Region people like to tell the story of Art Greeley, the son of William B. Greeley, Chief of the Forest Service from 1920 to 1928. When Art was a child, the family home often had Forest Service guests visiting Washington from all over the country. The family, rather than have the boy call visitors by their first names as his father did, taught him to speak to them as "uncle." Later, when Art Greeley himself became Regional Forester of old Region 9 and later Deputy and Associate Chief of the Forest Service, he was superior in rank to many of the same men. Nevertheless, he still called them "uncle." [16]

Often the wives became involved directly in their husbands' work. When there were only a few people at a Ranger Station and some were down with the flu or some other illness, the wives filled in as clerk or switchboard operators. Wives tell of driving trucks and scaling logs when the men were absent. One wife, Alice Tausch, remembers taking her toddler regularly up in a fire tower for watch duty when there was an overload of work for the men on the ground. [17]

In the Eastern Region there were few residential compounds for Forest Service families. Ordinarily, when a family came to a new assignment, they had to make their own arrangements for housing. Sometimes they are able to take over a house being vacated by another employee, but often not. In the 1930's and 40's young couples had to occupy crude shelters in isolated areas in the forest. Kay Samuelson and her forester husband lived for several months on the recently created Superior National Forest in an abandoned Finnish sauna before building a tarpaper shack for more permanent quarters. [18] Bill and Mabel Wolff lived in a two room towerman's cabin so deep in the woods that supplies had to be packed in to them. [19]

Women Employees

In the days before women were foresters and District Rangers, women employees were forced to find special niches if they wanted to advance in the Forest Service. Fern Nilsen was such a woman. After several years working in private industry, she entered the Forest Service and worked for 8.5 years in a Forest Supervisor's Office. Then she went to the Regional Office where she worked in fiscal management for many years, specializing in accounting and budget.

When Nilsen came to the Regional Office bookkeeping and payroll were still being done manually. Over the years she played a key role in conversions to National Cash Register Company machines and eventually to several generations of computers and automation. Sometimes she had misgivings about the changes: "In the last few years the professional in accounting and budgeting work took a big step that at first we weren't really sure of, so I guess I was a pioneer in that area."

In a subtle way, Fern Nilsen accepted the common Forest Service belief that the most important work was done in the field and not in the office. Today in retirement she is proud of having been sent on details to Washington and other places. She is quick to mention going to the field on service trips, but she admits somewhat sadly, "I wasn't out in the forest." [20] Others point out that Nilsen is not the "typical Forest Service girl" working in the Regional Office." She had an important position in budgeting and payroll and as such worked closely with most aspects of the Region. [21] This gave her a broader view—what she calls "a different angle." [22]

The inevitable questions about women employees such as Fern Nilsen are: did they rise as high as men in the Forest Service and did they receive equal pay? Many older Forest Service people, even Nilsen, are defensive about these questions. They point out that there were differentials in pay,

but it was "not intentional." Women did clerical work in the old days and such work paid less than traditional men's jobs.

But there were clearly injustices in the system. Often women clerks were less mobile than men because they had husbands and children and had to stay where the husband worked. Sometimes when a new man came on the job he was trained by a woman clerk who had been there for years and knew the procedures. In this situation, the man might very easily be making more pay than the woman and might later be promoted partly because of the knowledge he had gained from the woman. This kind of thing is changing in the Forest Service, but gradually. [23]

Fern Nilson, in 28.5 years in Region 9 rose from the bottom of the ladder to the Civil Service Grade of 11. In her day, women with no college training rarely went beyond Grade 3, but Grade 11 is still not particularly high. If she had been a man in forestry, she could have gone much farther. Part of the treatment of women in the Forest Service stems from the traditional "macho attitude" of the Service. Women were given clerical work because it was thought they were not able to be out fighting forest fires or scaling logs. Supposedly, these tasks were too difficult and dangerous for women. And after all the presence of women would only make trouble among the men. Often the clincher in these arguments was that in the field there were no separate rest rooms for women. In fact, there were usually no rest rooms at all. Forest Service men were too Victorian to believe that decent women should be required to go into the bushes to relieve themselves. Such attitudes were important in keeping women working in offices.

Prejudices against women doing "man's" work are disappearing in the Forest Service, but again it is gradual. Even the older forester types are today willing to admit that women can scale logs and fight forest fire and "go into the bushes just like we can." [24] At the time of this writing there were five women District Rangers in the Eastern Region: Hilary Dustin on the Finger Lakes National Forest, Kathleen Travers of the Greenbriar District of the Monongahela, Mary Hosmer/Billetdeaux of the Ridgeway District of the Monongahela, Susan Rutherford of the Gunflint District of the Superior, and Elizabeth Ohlrogge of the Glidden District of the Chequamegon. Rita Thompson recently left a Ranger position on the White Mountain for another post.

One of the woman Rangers, Elizabeth Ohlrogge, came to the Chequamegon from being Timber Management Assistant on the Helena National Forest in Montana. She was not the outdoor type before she went to college, but her university had a good forestry school and she "sort of fell into forestry." Ohlrogge has been in the Forest Service 12 years. In those years she has seen an increased flexibility in how a District should be managed and what kind of people can do it. At the same time the Forest Service was growing accustomed to accepting new specialists and a more diverse work force. Women and minorities were emerging as a part of the new work force.

Ohlrogge has never found being a woman to be a physical liability in her work. Nor have other Forest Service people treated her differently because she is woman. She is very happy in the Forest Service and believes that the Service is becoming more flexible in its attitude toward all sorts of management problems. For instance, the attitude toward having part-time workers is changing. She thinks this will allow even more women to enter the field. As a District Ranger, Ohlrogge operates under a team management approach. She says she has no problems using authority or accepting it from either sex. [25]

Getting Ahead in the Forest Service

What qualities does it take to get to the top in the Forest Service? When asked this question, former Regional Forester and now Deputy Chief of the Forest Service Larry Henson answered not surprisingly that the key was hard work. When pressed for other factors, he added that those who have succeeded had to avoid being stuck in one narrow niche. They have tried to do a variety of different jobs and to "do them fairly well."

Another necessary quality for success is creativeness, according to Henson. But it is not enough just to be creative; one must be recognized in the Service as being creative. Furthermore, one must be willing to take risks, to try something different. It is also necessary to work well with others, not only in the Service but outside it. Above all, one must understand the Forest Service and believe in its work; otherwise all is meaningless. Henson's prescription for success in the Forest Service is obviously not very complex, but it squares with what was said earlier about dedication, the work ethic, and Midwestern values.

It has been traditional in the Forest Service that people in the highest places such as Regional Forester come from the West and from forestry. Only in recent years have there been any Regional Foresters from the East and from fields other than forestry. As Regional Forester of the Eastern Region, Henson was one of the new breed. He comes from southern Illinois and feels at home in the Midwest. Henson believes that because he grew up in a part of the Eastern Region he was better qualified to manage the Region than if he had been raised in the West. In a part of the country like the Midwest, there are, according to Henson, "customs and mores that you just don't learn overnight, and it helps to have grown up in that environment." When he was stationed for three years in Denver, Colorado, Henson felt a "little bit out of place." 26.

Place in Society

A special problem of the Eastern Region comes from the way private and government lands are intermixed in the National Forests. In this situation, the Forest Service does not have the separate identity it has in the West. In the Eastern Region, Forest Service personnel are well integrated into local communities. In the West, they often live in Ranger compounds, which are, in effect, separate Forest Service communities. The closest things to separate communities in the Eastern Region are the two Job Corps Centers, and only one of these still has family housing. In the Eastern Region, Ranger Stations are typically in small towns and the personnel live completely mixed in with the local population. This situation strongly influences how the public perceives the Forest Service and how people within the Eastern Region relate to each other. It undoubtedly makes Forest Service people more a part of the local communities than in the West and probably less clannish. 27

In the past, it was a common situation for Forest Service personnel moving into a small town to be treated as outsiders and even to be unwelcome. There were usually some local people who made their living by illegal activities in the National Forests, especially during hard times. These people cut trees illegally, hunted out of season, and grazed their livestock without permits. In recent years, they have grown marijuana in the Forests. The arrival of a new Forest Ranger, especially one from another part of the country who did not understand the local practices, represented a threat to their livelihood. As late as the 1960's, one Ranger in the Ozarks who was confiscating loose-

running hogs in the National Forest, was told by the local sheriff that if he came to town he would be arrested for hog stealing. He stayed out of town for a while. [28]

Forest Service employees, knowing they have to cope with local antipathy, have tried to walk a thin line between enforcing the letter of the law and being a threat to the local economy. They usually try hard to make friends and fit into the local community. In most cases they are successful. When they were not, they are transferred. [29]

Retirees

When they retire from the Forest Service, few Eastern Region people want to just forget the whole thing. Often they return to the places where they worked when they were young. They want to see the plantations they planted and gaze up at the tall trees. However, they try not to be sentimental about it. Stanley Olson, who came from his home in Seattle, Washington to the Superior National Forest for its 75th Anniversary celebration in 1985, went on to visit the Upper Peninsula of Michigan and the Hiawatha National Forest. He had worked there as a young man. "First time back to the UP in 40 years," he commented. "Many changes—the old clearcut, private hardwood lands look much better regenerated." [30] Another retiree, Dave Kee commented: "I roamed over plantations and stand improvement projects I personally worked on from 1933 through 1941 on the Marquette (now part of Hiawatha) and Ottawa Forests. The results were very gratifying as were the management jobs performed in these same areas since that time." [31]

After they retire from the Eastern Region, Forest Service employees tend to continue living in the same small cities and towns where they worked. Often they return to the place they liked best among all those they had seen during their careers. Quite a few have moved to Florida because of the mild climate, but most return to the Region at least once a year. A few maintain a summer home in the Region and a winter home in Florida.

The retirees try to be active outdoors. Many speak of playing golf three or four times a week, of gardening, and of laying in an ample supply of firewood for the winter. Many have traveled extensively since retirement, but their travel is not as likely to be foreign travel as domestic.

Looking back over their careers in the Forest Service, the retirees talk fondly of the many friendships they formed and the pride they have in the work they did. Although they may have risen to fairly high levels of responsibility and served in the Regional or Washington Office, most say that their favorite job was District Ranger. They often mention the number of years they were in the Forest Service—30 or 40 years or even more. One woman, Cleo Conway has worked for more than 40 years in one office, the North Central Forest Experiment Station at Carbondale, Illinois. Irene Salo worked in the Supervisor's Office of the Superior National Forest in Duluth, Minnesota for 32 years. [32]

The people of the Eastern Region are proud of the Forest Service. Bill Emerson, then a staff officer in the Regional Office, once attended a Great Lakes States environmental conference at which Hubert H. Humphrey was present. Humphrey was then Senator from Minnesota. Emerson made a presentation at the conference on behalf of the Forest Service, and after it was over he asked Humphrey how it had gone. Humphrey replied that he never worried about the Forest Service. It was the best outfit in the federal government—comparable to the Marine Corps in the military.

Hubert H. Humphrey was never known for his lack of enthusiasm, but if loyalty and dedication of its people are the measure of a good outfit, one wonders if he was not right on this occasion.

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CHAPTER XIX

CONCLUSION

The major achievement of the Eastern Region in its 80 years has been the restoration of the once destroyed forests of the northeast, Lake States, Ohio Valley and Missouri Ozarks. Today, a tour of the Eastern Region reveals truly magnificent forests, not only the National Forests but the state and private ones.

The return of the forests has been accomplished because of growing public demand for forest conservation. This demand was translated into a series of laws which made the Forest Service the principal agent of the restorative process. Even with finite authority and limited funds, the Eastern Region has been able to build a system of National Forests and has managed the planting and re-growth of the forests.

The lands used to create most of the eastern National Forests were once virtual wastelands—the lands nobody wanted. Now, they are productive forests. Beginning in the 1940's, the National Forests of the Region supplied critical wood products for the World War II effort. After the War the older forests began to come into full production. In two more decades even the younger forests of the Region were profitably productive. This was especially true of the Lake States Forests and the Allegheny National Forest.

From the beginning the Forest Service has made it clear that the National Forests of the Eastern Region, like the Southern Region, are very different from the rest of the National Forest System, eastern Forests are acquired land Forests. Therefore, the mission of the Eastern Region must be to finish the job of acquiring them. Only then can the most effective management and the ultimate objectives of a National Forest be achieved. Anyone coming into the Eastern Region quickly becomes aware of this mission. However it is something quite new to people who have served with the Forest Service only in the West.

Possibly because of the different situation in the Eastern Region, the Forest Service has given it Regional Foresters who have experience in the East. All have understood, clearly what had to be done. As a result, the land acquisition policy has not changed. Methods and means have changed with the times, but the basic goal of completing its National Forests has remained before the Region. Over the years, reasonable progress has been made toward that goal. It is true that incomplete Forests remain, but the effort to finish the job continues. Help is coming from environmental groups and local citizens who are taking increasing interest in public lands.

One of the major successes of the Eastern Region has been in ending the holocaust forest fires which once burned tens of thousands of acres and consumed whole towns. Today, even the worst forest fire in the Region is almost certain to be contained in two or three days and to affect only a few thousand acres at most.

Clearly, the Region and its National Forests have accomplished much in forest fire prevention and suppression. The men and women of the Region are willing, and often eager it seems, to go fight a forest fire anywhere, even one halfway across the country. This dedication, along with

significant improvements in detection, communication, organization, and fire fighting techniques have greatly lessened the losses caused by forest fires in the Region.

The fish and wildlife of the Eastern Region were once so depleted that many species faced extinction. Sportsmen had to go to other parts of the country to hunt and fish. Today, deer, squirrel, and turkey abound in the National Forests and many species of fish are caught in their waters. The Forest Service management has helped restore the bald eagle, peregrine falcon, Kirtland's warbler and other endangered and threatened species, plants and animals. The Eastern Region does not directly manage wildlife, but it has managed its forests so as to provide good wildlife habitat. Such management amounts to more than simply letting the forest grow. For years, forest managers and planners have been mindful of wildlife in their plans and actions, and even major decisions such as whether to clearcut or the new emphasis on managing for aspen in the Lake States are based in no small part on providing diverse wildlife habitat.

In the "old days" of the Forest Service before World War II, recreation was not a big item in management of National Forests. Today there exists greatly increased recreational needs in the Eastern Region caused by a growing population. The Region has been forced to take action to meet the need. Certain National Forests, particularly the Green Mountain, the White Mountain, and the Boundary Waters Canoe Area of the Superior have become the most recreation-oriented National Forests in the National Forest System. Canoeing, skiing, lodges and inns, summer camps, and hiking trails are the leading activities, in addition to the usual ones of camping, picnicking, hunting and fishing.

All of the other National Forests of the Region provide diverse recreation opportunities also. In fact, some of the Forests have found that they have over-provided recreational facilities to the extent that the supply has kept well ahead of the demand. Several Forests have decided to not expand their recreation facilities further until it is clear that there is a need for more. The policy of the Region has been to keep the recreation experience in the National Forests as close to nature as possible. Camp and picnic sites are well kept, but the facilities are limited. The philosophy is to let the private sector provide the more luxurious facilities. This is to be commended. Very few Americans want their National Forests to become commercialized or to compete with private business.

Beginning with the CCC and continuing with the Job Corps, YCC, YACC, and the Seniors and Volunteer programs, the Eastern Region has shown a positive approach to Human Resource Programs. These Programs have as their goal helping people and lending a hand with the serious national problem of unemployment. Although dealing with human economic problems was not one of the original assignments of the Region or the Forest Service, the Region has adjusted well to the task. The agency has approached it as if unemployed and untrained youths or seniors needing something meaningful to do in their retirement are another resource to be managed. A visit to Blackwell or Golconda Job Corps Centers is enough to convince anyone that the Region has made a good faith effort to do this difficult job. Clearly, they have helped many young men and women who otherwise might never have had a decent chance in life.

The most recent round of forest plans, as an overall effort, have been a success. The National Forests now have a clearer picture of how to integrate resource management. The forest plans also reflect the new willingness in the Region to listen to the public and to respond. The Regional

leadership in this effort was pivotal. Without it, some of the Forests might have made serious errors in their future directions.

However, it will take years to know if the forest plans were worth the vast outlay of money and effort, considering the planning which had gone before. For six years, it seemed that some personnel at the National Forest and District levels were able to do little more than work on the plans. However, the task was assigned by Congress, it had to be done well, and it is now done. Everyone can return to normal work and the implementation of the plans. The plans must be updated and revised in the future, but the great body of work is done.

Because of the vagaries of appropriations and the economy, several of the younger National Forests of the Eastern Region remain fragmented to the point that they are difficult to manage effectively. This is true of the Wayne National Forest, and to a slightly lesser extent of the Hoosier and the Shawnee. There are Districts on several other National Forests which have less than 30% "greenlands." However, the high price of land and federal government's budgetary problems combine to make it unlikely that the ownership situation will be solved in the foreseeable future. In the meantime, land exchanges and other programs are making reasonable progress.

The same factors are at work with regard to mineral rights. The Eastern Region is at a disadvantage in having to manage surface lands without owning the subsurface. Mining and drilling are, however, carefully monitored, and the environment is protected. Limited acquisitions of mineral rights are also being made.

A major problem for the Region is off-road and all-terrain vehicles. Each National Forest is finding its own way toward a solution to this problem. But that solution may come eventually from outside the Forest Service, either in a landmark court decision, legislation which limits the use of the vehicles, or a decline in use. In the meantime, the Forests must seek ways to permit legitimate use without allowing serious damage to the forest environment.

The related issue of enforcement is also a problem. With reduced budgets and fewer personnel a distinct possibility, it will be increasingly difficult to enforce the rules necessary to preserve wilderness and wildlife, to guarantee the quality of recreational experiences, and to protect the Forests from those users who would do careless damage. Indeed, for the Eastern Region enforcement may be the most serious challenge of the future.

Over the years, the management of the National Forests has been good enough to return many cut- and burned-over areas to a condition which can be considered for wilderness designation. At present, the designated wildernesses in the Region constitute about 2% of the total acreage of the National Forests. These areas vary from a few hundred acres to many thousands of acres in size. They are essentially a "natural" haven for city-worn people.

Given the pressures from powerful organizations to have more wilderness, the Eastern Region must now ask itself how much more wilderness does it need. Bob Marshall, the Forest Service's leading wilderness advocate, was once asked the same question. His answer was, "How many Brahms symphonies do you need?" It is a telling remark, but it does not settle the question. One might ask Bob Marshall if every piece of music should be a Brahms symphony.

A reasonable answer to the question of when to stop designating wilderness in the Eastern Region is to do it when the need is met. However, that answer immediately raises another critical question: is there enough genuine wilderness in the Eastern Region to meet the needs of millions of city people? It is a matter that the Region will study carefully before proceeding. Designating new

wilderness is not something which should be done simply because there are areas where it is feasible. Nor should areas which are not reasonable as wilderness be forced into the status in order to meet determined needs. Phony wildernesses will yield nothing but phony experiences for the public.

Moreover, the wilderness seekers make up only a small part of the users of the National Forests—probably somewhere close to the portion of wilderness acreage which now exists. Using the criterion of need, this suggests there may be enough wilderness for the present. But there are other legitimate reasons to designate wilderness. Unique, unspoiled, and threatened areas need to be protected, and the Eastern Region will undoubtedly continue the process of protecting through the wilderness designation process.

The Eastern Region has had a public relations problem in getting its message through, especially in urban areas. Not enough is known about what is happening in the National Forests, what is available there, and indeed the great accomplishments of the Region. In the Monongahela Controversy, the Region learned how dimly the public understands the mission of the Forest Service. In practical terms, it also learned from an unexpected public reaction how poorly suited massive clearcutting was in eastern Forests.

The mandated public involvement phases of RARE II and the forest plans were intended to elicit what the public wanted done about wilderness and the National Forests in general. There was great variety in the way the National Forests evaluated and interpreted the public reaction to these initiatives. There seemed to be a tendency to quantify the reactions and then to bend them into whatever meaning seemed most workable. On the whole, though, the Eastern Region has become much more aware of the needs of the public and responsive to those needs as a result of the Monongahela Controversy, RARE II and the forest planning process.

Despite the understandable difficulties in ascertaining what the public wants, the Eastern Region is determined to continue the effort. It wants to be responsive to public desires and needs. The Region is not inclined to return to the old days when foresters and other experts gave little thought to the public and managed Forests as their training and experience dictated. That way worked well for many years, but the future of the National Forests, like so many other complex and technical matters in today's world, is so important that the public will have to be involved. This is probably not the most efficient way to operate a National Forest System, but in a democracy it is the only way.

APPENDIX

The Eastern National Forest: A Chronology of Establishment

Year	Forest	Location	Action/Status
1908	Minnesota	MN	Currently Chippewa NF
	Marquette	MI	To the Hiawatha NF
1909	Michigan	MI	To the Hiawatha and Huron
	Superior	MN	
1918	White Mountain	NH, ME	
1920	Monongahela	WV	
1923	Allegheny	PA	
1928	Chippewa	MN	Name changed from Minnesota
	Huron	MI	Created from Michigan NF and other lands
1931	Hiawatha	MI	
	Ottawa	MI	
1932	Green Mountain	VT	
1933	Nicolet	WI	
	Chequamegon	WI	Created from part of Nicolet NF and other lands
1938	Manistee	MI	
1939	Clark	MO	
	Shawnee	IL	
	Mark Twain	MO	
1945	Huron-Manistee	MI	Consolidated
1951	Hoosier	IN	
	Wayne	OH	
	Wayne-Hoosier	OH, IN	Consolidated
1952	Clark	MO	Combined with Mark Twain
1962	Mark Twain	MO	Separated from Clark
1969	Clark	MO	Became part of Mark Twain
1985	Finger Lakes	NY	Created from Hector Land Use Project (Bankhead-Jones land)
1994	Wayne	OH	{
	Hoosier	IN	{Separated
1995	Chequamegon	WI	{
	Nicolet	WI	{Combined Administration

—Excerpt from *The Lands Nobody Wanted*, 1977, William E. Shands and other sources.

DERIVATION OF NATIONAL FOREST NAMES

ALLEGHENY NATIONAL FOREST	Named after the Allegheny Mountains.
CHEQUAMEGON NATIONAL FOREST	After the Chequamegon Bay of Lake Superior, which in the Chippewa language means "place of shallow water".
CHIPPEWA NATIONAL FOREST	Named after the Chippewa or Ojibwa Native American group (both names are forms of the same word, which signifies "people whose moccasins have puckered seams".
CLARK NATIONAL FOREST	Named after Senator "Champ" Clark.
GREEN MOUNTAIN NATIONAL FOREST	After the Green Mountains of Vermont.
HIAWATHA NATIONAL FOREST	Named after the Mohawk chief who brought about the confederation known as the Five Nations of the Iroquois. He was also the hero of Longfellow's poem, "Hiawatha".
HOOSIER NATIONAL FOREST	Named for the nickname for a native or resident of Indiana.
HURON NATIONAL FOREST	Named after the Iroquoian tribe of the Great Lakes region.
MANISTEE NATIONAL FOREST	Native American word meaning "the whispering of the wind through the pines."
MARK TWAIN NATIONAL FOREST	Named after Missouri's literary figure.
MONONGAHELA NATIONAL FOREST	Named for the Monongahela River. The word, Monongahela, is derived from a Native American word meaning "high banks or bluffs, breaking off and falling down at places."
NICOLET NATIONAL FOREST	Named for French explorer of the 17th century, Jean Nicolet.

OTTAWA NATIONAL FOREST	Named for the Ottawa ("traders") tribe of the Ojibwa Nation. These lands between Lake Superior and Lake Michigan were known to the Native Americans of the region as "gitchie guam" (big waters) and "mitche guam" (small waters).
SHAWNEE NATIONAL FOREST	Named after the Central Algonkian Native American tribe.
SUPERIOR NATIONAL FOREST	Named after Lake Superior.
WAYNE NATIONAL FOREST	Named for "Mad" Anthony Wayne, a fearless American soldier chosen in 1792 to rid the Ohio and Indiana frontiers of Indian tribes in order to open the area for American settlement.
WHITE MOUNTAIN NATIONAL FOREST	After the White Mountains of New Hampshire.

Summary

The Eastern Region: A History of Reorganization

From its earliest beginning in 1908 with the creation of four Lake States National Forests, Region 9 has grown in size and importance. By the time of WW II, it was clear that the Region had taken its rightful place among the Regions of the Forest Service.

The Forest Service Regions were transferred from DC to field headquarters sometime during 1908. At that time, National Forests in northern Minnesota and northern Michigan were listed under the administration of Region 2 at Denver, CO. These National Forests (Minnesota NF, Marquette NF, Michigan NF, and Superior NF) remained under the jurisdiction of Region 2 until March 1909 when they were transferred to Region 1 with headquarters in Missoula, MT. On February 1, 1913, administration was retransferred to Region 2 at Denver, CO.

The first Eastern Region was Region 7. Created in 1914, R7 included National Forests in all east coast states and the entire area west to Arkansas excluding the Great Lakes area. By 1918, Region 7 included all of the southern National Forests extending as far west as Oklahoma. At this time, the Regions, then called Districts*, operated little more than as an adjunct to the Office of the Chief Forester in DC (*Districts became known as Regions in the 1930's).

The major factor in the establishment of a separate Region in the Lake States was the passage of the Clarke-McNary Act of June 7, 1924. This amended the Weeks Act and authorized the purchase of land for timber production purposes as well as for streamflow protection. The establishment of Region 9, the Lake States Region, was on December 22, 1928, with temporary headquarters in Madison, WI. The Lake States, R9, Regional Office moved to Milwaukee in 1929.

Between 1924 and 1929, purchase units in Wisconsin (Flambeau, Moquah, and Oneida) were established in the Lake States Region (R9). On January 3, 1930, North Dakota was also added to Region 9. Further expansion of R9 occurred later that year with the addition of several purchase units and National Forests in the states of Iowa, Illinois, Indiana, Ohio and Missouri. These five states were formerly administered as part of Region 7, the Eastern Region. In 1933, as a result of this expansion, Region 9 (Lake States Region) was renamed the North Central States Region.

In 1934, the Eastern Region (R7) was divided into two Regions by creating the Southern Region (R8) with headquarters in Atlanta. At that time, Region 8 encompassed all of the National Forests south of Kentucky and Virginia. The Eastern Region (R7), contained only seven National Forests: the Green Mountain NF, Vermont; White Mountain, New Hampshire; Allegheny, Pennsylvania; Monongahela, West Virginia (all currently R9 Forests) and the Cumberland NF (currently Daniel Boone NF), Kentucky; George Washington and Jefferson NF's, Virginia.

In 1941, the Eastern Region (R7) headquarters moved from DC to Philadelphia, PA. Originally, the new offices were located in a downtown building, which presented parking and transportation problems for employees. In addition, the City of Philadelphia collected an income tax on employees. Because of these disadvantages, the Eastern Regional Office was moved to the nearby town of Upper Darby, PA.

On December 22, 1928, the Lake States Region was created to oversee the National Forest lands in Wisconsin, Michigan and Minnesota. The job of selecting the location for the permanent headquarters of the new Lake States Region (Region 9) fell to Earl Tinker, the new Regional Forester. At that time, regional headquarters were usually placed in large cities within that particular

region. Tinker chose Milwaukee with its good railway connections. In Washington, Forester (Chief) Robert Y. Stuart approved Tinker's choice and also his plans to open the office with a very small staff and to handle the work of the office without creating a formal organization by branches. Tinker proposed that the staff at the Regional Office consist only of himself, a Deputy Regional Forester, and a Fiscal Agent. All the other staff in timber management, lands, etc., would be placed on the Forests, "where the work was". The plan was endorsed by the three Forest Supervisors. But when Tinker learned in Washington that funding for the Region would depend on the amount needed by the Regional Office, he withdrew his proposal.

On January 1, 1929, temporary headquarters for Region 9 was established with the Forest Products Laboratory at Madison, WI. Meanwhile, Tinker looked for a suitable building in Milwaukee. The best he could find was the former rye whiskey testing laboratory in the Post Office Building. In March of that year, the tiny staff occupied its new quarters, equipped with hand-me-down furniture and a few battered file cabinets. In 1932 the offices moved to the Post Office Building at 517 East Wisconsin Avenue in downtown Milwaukee. At that time, the entire staff consisted of 19 people. One employee commented that the new office space was "what a real Forest Service office looks like—or should look like". In 1935, the offices were moved to the Plankinton Arcade Building at 161 West Wisconsin Avenue.

From the beginning, the Lake States Regional Office had been a sparse affair. By 1930, there were only 13 members of the staff. Very few compared to other regions. Regional Forester Tinker was ready to say that perhaps the austerity had been "overdone". Tinker suggested this in a report to the Forester (Chief), but little note was taken. Nonetheless, the staff began to grow and the Regional Office had 166 employees by 1940.

The organization of the Regional Office was in divisions, each headed by an Assistant Regional Forester. By 1962, the divisions were: Engineering; Fiscal Control; Information and Education; Operations and Fire Control; Recreation , Wildlife, Range and Water Management; State and Private Forestry; Timber Management; and Personnel. The total number of permanent employees in the Region increased from 138 in 1928 to 207 in 1931. Some technical foresters had been added, a few clerks and several District Rangers, but there was one less supervisor. The Region had only three types of specialists: lecturers (a term no longer used), acquisition specialists, and surveyors. This indicates how much simpler the job of the Forest Service was in those days.

The Wayne and Hoosier Purchase Units were consolidated in August 1949. In a news release Regional Forester, Jay H. Price, explained the reason for this administrative action: "We have found it necessary, as an economy move, to combine the administration of our purchase units in Indiana and Ohio. The administrative headquarters of the Wayne Purchase Unit, now located in Columbus, Ohio, will be vacated sometime in September and established in Bedford, Indiana, the present headquarters of the Indiana Unit. The consolidated units will be known as the Wayne-Hoosier Purchase Units".

Although included in the National Forest System as purchase units in the 1930's, it was not until 1951 that the Wayne-Hoosier National Forest was established through official proclamation.

Administrative consolidation of the Mark Twain and Clark National Forests in Missouri occurred in 1952. Headquarters of the Mark Twain in Springfield, MO was moved to Rolla, MO and merged with the headquarters of the Clark. In announcing the reorganization of the administrative units in Missouri, Regional Forester Price pointed out that "it is one of several being

made to permit the Forest Service to operate within terms of the current budget and still provide customary degree of service at the District Ranger level".

By 1956, several units of Region 9, North Central States Region, were abandoned as National Forest administered lands. These purchase units included: Bellevue-Savanna, IL; St Croix, MN; Souris-Sheyenne, ND; and Hawkeye, IA.

In 1965, the Secretary of Agriculture, the Director of Budget and the Chairman of the Civil Service Commission set up a joint team to review management policies and practices in the Forest Service. The review conducted from February 15 to July 2, 1965 was part of President Lyndon Johnson's program for improved management of the Federal Government. The resulting document of their findings was called the Deckerd Report. The report recommended that the approximate size of Districts, Forests and Regions be more nearly standardized throughout the Service. As defined by the Deckerd Report, the optimum size of regions was one which had a span of control over 15 to 19 forests.

In response to the span of control concept, Chief Cliff and his staff decided that Region 7 would be eliminated and its Forests divided among Region 8 and 9. The White Mountain NF, Green Mountain NF, Allegheny NF and Monongahela NF were assigned to Region 9, and the George Washington NF, Jefferson NF and Daniel Boone NF went to Region 8. The Region 7 RO in Upper Darby, PA was closed and most of the personnel moved to Atlanta or Milwaukee. With the abolishment of Region 7, the North Central Region (R9) became the Eastern Region (9) and, with one exception, the Finger Lakes National Forest*, included National Forest System lands of the current Eastern Region (R9) configuration. The rest is history....!!! (*In 1985, the Finger Lakes National Forest, NY was added to the Eastern Region as a result of acquiring the Hector Land Use Project (Bankhead-Jones land).

REGION NINE REGIONAL OFFICE LOCATIONS

During the period from 1929 to 1960 the Regional Office has been located as follows:

Date	Location
January 1, 1929	Temporary headquarters at Forest Products Laboratory at Madison, WI
March 1929	Appraiser's Stores Building, East Michigan Street, Milwaukee, WI
March 8, 1932	Post Office Building, 517 East Wisconsin Avenue, Milwaukee, WI
July 1935	Plankinton Arcade Building, 161 West Wisconsin Avenue, Milwaukee
September 30, 1941	Madison Building, 623 North Second Street, Milwaukee, WI
September 1958	Carpenter Building, 710 North Sixth Street, Milwaukee, WI
June 1966	Clark Building, formerly the Greyhound Building, 633 West Wisconsin Avenue, Milwaukee, WI (Building currently known as "633 West").
June 27, 1983	Reuss Federal Building, 310 West Wisconsin Avenue, Milwaukee, WI

REGIONAL FORESTERS

Region 7

William L. Hall	1914 - 1918
Franklin W. Reed	1918 - 1925
Evan W. Kelley	1925 - 1929
Joseph C. Kircher	1929 - 1934
Robie M. Evans	1934 - 1950
William S. Swingler	1950 - 1953
Charles L. Tebbe	1953 - 1956
Hamilton K. Pyles	1956 - 1962
Richard F. Droege	1962 - 1966

REGIONAL FORESTERS

Region 9

Earl "Ted" W. Tinker	1929 - 1936
Lyle F. Watts	1936 - 1939
Jay H. Price	1939 - 1954
H. Dean Cochran	1954 - 1956
Arthur W. Greeley	1956 - 1959
M. "Red" M. Nelson	1959 - 1962
George S. James	1962 - 1970
Jay H. Cravens	1970 - 1976
Steve Yurich	1976 - 1983
Larry Henson	1983 - 1986
Floyd "Butch" J. Marita	1986 - 1996
Robert T. Jacobs	1996 - Present

INDEX

Abbreviations: JCC = Job Corps Center; NF = National Forest;
PU = Purchase Unit; RD = Ranger District;
KIA WWII = Killed in Action in World War II

-A-

-B-

-C-

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