

The New National Forests of the East

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THE INITIATION OF the policy of the Federal government of establishing national forests in the eastern mountains has been one of the most far-reaching incidents in the recent history of forestry in this country. The great significance of it is that the Federal government recognizes that there are certain public interests in the handling of mountain forests which are so great as to justify action by the nation itself. Congress was led to undertake this enterprise because the effects of forest destruction were already being felt by the people. The public at large is interested in having the great mountain forests of the country maintained in a condition of productiveness rather than in permitting them to become unproductive and impoverished through fire and neglect. The public is interested in the continued production of forest products and in the maintenance of industries engaged in exploiting and manufacturing these products. The public is interested also in the protection of the sources of streams and rivers, for the water resources are of vital importance in the economic and industrial life of the nation. The safeguarding of these public interests cannot be left to private ownership, and history has shown that they cannot be left to the action of the states. Especially true is this with reference to the protection of water resources. The people of Tennessee cannot expect North Carolina to tax its citizens for expenditures in forestry at the headwaters of rivers rising in North Carolina but primarily of importance to Tennessee; the people of the nation cannot expect the citizens of an individual state to expend money for the protection of the navigability of a river in another state.

What Has Been Accomplished Under Weeks Law.

The so-called Weeks law, passed on March 1, 1911, appropriated \$11,000,000 for the purchase of lands at the headwaters of navigable rivers, but through the limitations of time placed upon the expenditure of this money nearly three million dollars have reverted to the treasury. Since the passage of the act the government has been engaged in buying lands in the Southern Appalachians and in the White Mountains of New Hampshire. As a preliminary measure a careful examination of these regions was made to determine the most important strategic localities, where it would be most desirable for the government to own lands. Areas were then laid out, or designated, within which the purchases would be confined. The government next proceeded to build up blocks of forest land, just as a private individual in consolidating land for a timber holding or a logging operation. It was, of course, essential to consolidate the holdings as far as possible with a view to practical problems of subsequent administration. Altogether there have been acquired or contracts have been entered into for the purchase of 1,317,551 acres. There have been established sixteen units, or purchase areas as they are called, within which the government is buying land. Of these sixteen units, one is located in New Hampshire and fifteen in the Southern Appalachian range.

In White Mountains of New Hampshire.

The White Mountains of New Hampshire are of importance as containing the headwaters of a number of the most important rivers in New England, which are used for navigation and for many industrial purposes. The streams of New England are

more intensively developed for water power than those in any other part of the country. Any influence injurious to water resources is instantly and keenly felt. The protection of the sources of these rivers is therefore of vital and immediate importance. In the White Mountain region there have been purchased or contracted for approximately 260,000 acres, situated in some of the most rugged and beautiful sections of the White Mountain range. The government has been able to acquire a great deal of land upon which there is still an excellent forest cover, and upon which an abundant new growth of trees is springing up. The forest is for the most part a mixture of spruce, hemlock and fir, with such hardwoods as the hard and soft maple and beech. On the upper, steep slopes the spruce often occurs in pure stands, or in mix-



SHOWING DETERIORATION OF FORESTS FROM ATTACKS OF FIRE.

ture more or less with balsam fir. Lower down on the slopes the hardwoods form an increasing proportion of the mixture, and in some places maple and beech have practically crowded out all the coniferous species. Fire plays terrific havoc in such forests. In the past they have swept over thousands of acres in the White Mountains, laying bare a rocky soil upon which it takes many years to re-establish a forest growth.

In Southern Appalachian Mountains.

In the Southern Appalachian Mountains the total area of land purchased or under contract amounts to approximately one million acres. The forest of the southern mountains is one of the richest in the world, outside of the tropics, in variety of species which produce material of high use in the arts. Thus, for example, in the forests of western North Carolina there are thirty-five species of trees used for commercial purposes today. These species grow in intimate mixture, constituting not only

a forest of great interest but one presenting many complex problems of scientific forestry. Upon the better classes of soil, such as occur in coves and on lower slopes and benches, are found the largest variety of trees and the heaviest yield of valuable material. In such places occurs the yellow poplar, which frequently attains a diameter of six feet and a height of over 130 feet, and yields as much as 5,000 board feet of merchantable material for a single tree. It occurs singly or in groups mixed with hickories, white ash, sugar maple, red, white and other varieties of oak, and other species characterizing the more fertile of the mountain soils. In many instances in the Southern Appalachian Mountains there is a soil of considerable depth on the slopes, and even on many of the ridges, and there are many places where if the land were level it would be suited to agriculture. Because of this good soil the conditions for a splendid forest production exist on a very large proportion of the area, although it is true that on the slopes and ridges there are fewer species, and the trees are smaller and of poorer quality than on the more protected and fertile areas at the base of the slopes.

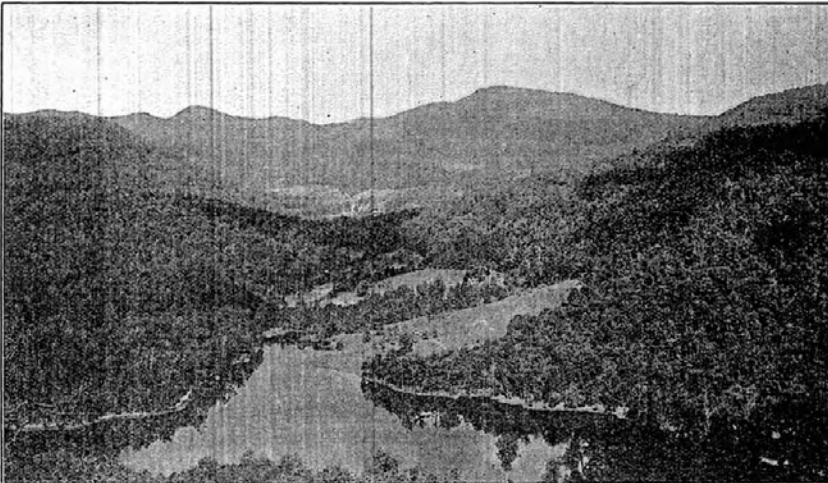
Former Fires in Southern Forests.

Many portions of the Southern forests have been repeatedly burned in the past. In some sections it was formerly the custom of the Indians to burn over the forests just as in some parts of the West. We find today the effect of old fires, not only in the distribution of species and constitution of the stand, but in the fact that the yield of material is much less than it ought to be, judged by the quality of the soil and a climate unusually favorable for forest production. These forests, on account of the fires, have been steadily deteriorating. In many cases the better and more exacting species were driven out and were replaced by less valuable kinds. Many of the individual trees are defective because of the damage by repeated fires. The stands themselves are often open, with not over 50 per cent of the number of trees which might be growing on the same area; and because of the open character of the stand many trees are short, limby, and poorer in quality of material than would have been the case if they had grown in thick stands, which always produce long, clear trunks with a maximum of useful material.

One-fourth is Virgin Timber.

Of the total amount of land purchased by the government under the Weeks law not over 5 per cent has been severely burned over. About 28 per cent of the new purchases can be regarded as virgin stand, and about 51 per cent has been culled or cut over, though the culled portion still contains a large amount of merchantable timber, only the most valuable trees having been removed. The cut-over land is rapidly restocking.

The participation of the Federal government in the forest problems of the South has already begun to show definite results. In the first place it has greatly increased the interest of the people in forestry, especially with reference to the need for protection from fire. This can be seen in public sentiment toward forest fires everywhere in the vicinity of the new purchase areas. Woodlot owners are beginning to see that land protected from fire has actually a greater value than land which is continually burned. The government pays a higher price for land which has been a long time



MUCH BEAUTIFUL SCENERY IS INCLUDED IN GOVERNMENT PURCHASES.



WHERE FIRE FOLLOWED THE LOGGERS.



GOVERNMENT HAS SECURED SOME EXCELLENT TIMBER.

under protection than for that which is scarred and impoverished by continued burning. In the next place, the example of the government in forestry and a demonstration of its methods are having large effect in creating a new point of view

toward the handling of forests by private owners of all classes. In many cases the government is able to co-operate directly with private owners whose lands are interlocked with those of the Federal forests; and without question the increased interest in forest matters due to Federal activities is having its effect in stimulating state governments to undertake more work than heretofore in forestry.

Beautiful Scenery in Mountains.

Most of the areas in which government lands are being purchased are located in portions of the mountains which are very attractive from the scenic standpoint. A great deal of interest is now being shown in the possibilities of developing these areas for recreation purposes. The government is giving every encouragement to the use of its lands for health and recreation. Considerable work has already been done in opening up the forests by trails and in building telephone lines and other improvements, with particular reference to better protection of the lands from fire; but unfortunately the funds available for construction of roads and trails has heretofore been limited. Such improvements as have been made, however, help to make the areas more accessible to the general public. There is authority to lease lands for hotels, summer homes, and other purposes. A good many of these leases have already been issued, and unquestionably there will be a constantly increasing demand for privileges of this kind. The terms of the leases are moderate, so that even people of small means have an opportunity to enjoy the national forests.

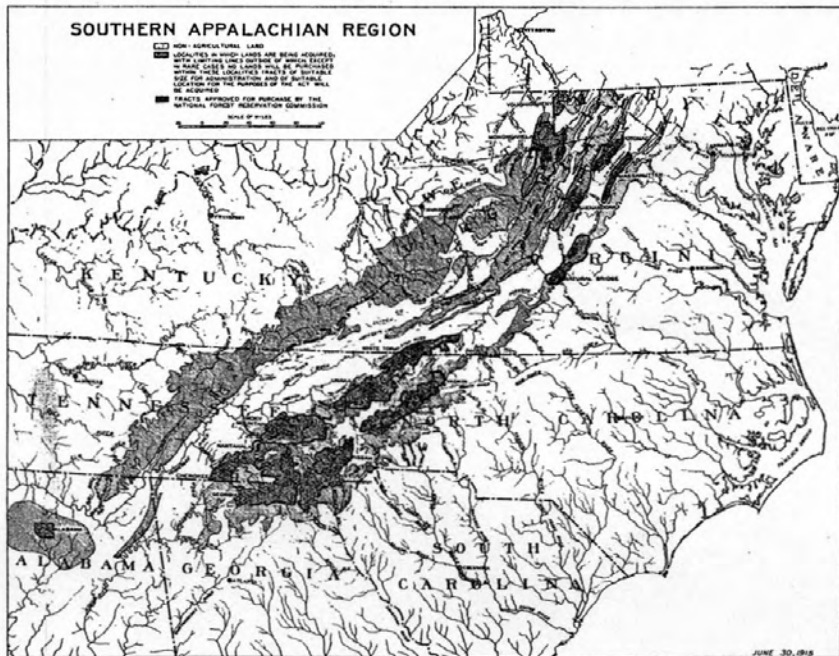
Extension of Purchases Advisable.

The question of the extension of these purchases will come up in the near future, for the money originally appropriated will soon be exhausted. The National Forest Reservation Commission has recommended to Congress the appropriation of



TRAILS AND LINES OF COMMUNICATION ALREADY ESTABLISHED.

more moneys for a continuance of the purchases, and in order that the forests already under process of establishment may be rounded out to units which will more effectively meet the purposes of the public in inaugurating the new policy.



MAP SHOWING GOVERNMENT PURCHASES IN SOUTHERN APPALACHIANS.