Public Regulation of Timber Cutting Practices on Private Lands

by

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Introduction

Because of the widespread interest in the problem of non-productive forest lands and the accompanying hardships done to the local communities and to the entire nation, certain forms of constructive remedial measures have been proposed. Perhaps the suggestion of governmental regulation of cutting practices has provoked more criticism and controversy than any other forestry subject for many years. In 1947 the controversy is still alive and there is likelihood that it will be extended for many years to come.

The basic facts of the situation are nearly all at hand. Most of the people on all sides accept these facts as reasonably accurate. From this point, though, few will accept the conclusions drawn by those to whom they are opposed.

NON-RESTOCKING AND CUT-OVER LANDS

There are in the United States (1946) 73,283,000 acres of commercial forest land that are non-stocked or poorly stocked. This poor stocking keeps growth down on nearly 16 percent of commercial forest lands in this country.
It is not the concern of this thesis to treat on the methods or practicability of putting the non-stocked and cut-over lands back in production. Rather it is intended to look into the various methods proposed to prevent continued deterioration and destruction of private forests and forest lands in the United States.

Of the 465,000,000 acres of commercial forest land in the United States in 1946, roughly 25 percent were publicly owned or controlled and 75 percent privately owned. The volume of sawtimber amounted to 1,620,824 million board feet. The Federal government owned 38.5 percent, State and local governments owned 3.9 percent, farmers owned 15.7 percent, and industrial or other owners owned 41.8 percent. (1) Of the poor to non-restocking commercial forest lands of the United States in 1938, the Federal government and Indian lands accounted for 13.5 percent, State and local governments 10.5 percent, farm woodlots 28 percent, and industrial and other owners 41.8 percent of the area. (25) Recent surveys may have changed this figure slightly.

A considerable portion of the commercial forest area of the United States has been cut or burned and little provision has been made to keep the land productive. As will be shown, many regions are continuing to convert commercial forest lands to non-productive brush fields and barren wastes.

The sawtimber stands for the western States and a
total for the eastern States are shown in Tables I and II. Table III shows the areas and condition of timber lands of the United States.

THE NECESSITY FOR BETTER CUTTING PRACTICES

Because the Forest Service of the United States Department of Agriculture has made a consistent and vigorous campaign for the enactment of legislation dealing with cutting practices, its reasons for proposing regulation as the answer to this forest problem will be considered.

Many private forest owners are using good forest practices. Nevertheless, 80 percent of the cutting on private lands is still being done without adequate planning or provision for future crops. Much of this cutting is of a destructive character which leaves the forest in poor condition to regenerate. The nation is primarily dependent upon private lands for its timber supplies. Unless we are to face a future shortage of wood, we must take the necessary measures to raise annual timber growth to an adequate level. The Forest Service proposes that this be done by public regulation of cutting practices. Actual administration of regulations would be left to the States. The Federal government would administer regulations only within those States which fail to enact adequate laws or fail to enforce the regulations designed to meet national minimum standards.
The Forest Service justifies this program because of the great national interest, both present and future, in forest lands and forest products. More than a million people are employed in American woods and they and their families make their living directly from the forests. (47) Every person in the nation uses wood in some form. Many in the transportation, manufacturing, mining, and other industries are dependent upon wood to a greater or lesser degree.

Secretary of Agriculture Anderson (2) in a speech before the American Forest Congress in October, 1946 said that public control of cutting and other forest practices on private lands sufficient to stop forest destruction and to keep those lands reasonably productive was, in conjunction with public cooperative aids, one of the main programs of the United States Department of Agriculture. He said that we no longer could take chances on the voluntary action of every individual owner and operator of forest lands. There are four million small owners of 75 percent of the private commercial forest lands. On only 40 percent of these lands are cutting practices rated good or better. Of the larger holders, 50,000 acres or more, 29 percent are rated as using good or better cutting practices.

Public interest requires that all resources upon which
the people depend be wisely husbanded. The need for regulation of any resource should be decided on its own merits. The justification of any governmental regulation is the welfare of the people. The further depletion goes, the more drastic will be the type of regulation demanded.

Forest lands in private ownership are subject to no continuous policy in regard to management. Property changes hands, management in companies and company policies and philosophies change, estates are broken up, and numerous other events take place which affect private property. Public control is needed to assure that reasonable forest productivity will be maintained at an acceptable level. The Forest Service does not propose to extend regulation beyond the cutting stage.

Kirkland (28) has estimated annual cuts for the Douglas fir region under several different assumptions. If cutting proceeds as in the past, it is possible to cut 8.2 billion board feet annually for twenty years, or a perpetual cut of 5.7 billion board feet annually if controls are established on private lands to enforce sustained yield. If all means of utilization are practiced in the Douglas fir region, and if all lands suitable for forests are in production, the region would have an annual sustained yield of 13.1 billion board feet. The 1944 log production in this same
region was 9.7 billion board feet. In 1929 it was 10.2 billion board feet.

Behre (5) has stated that the sawtimber stand in the United States in 1938 was 37.5 percent less than in 1909. He estimated that from 1919 to 1938 the Eastern hardwood stands were reduced 42 percent by volume and the Eastern softwoods 29 percent. This shows a trend towards depletion and not a situation where growth keeps up with the cut.

The unrestocked areas in the Eastern and Southern states represents a shocking economic waste. There is little that can be done about the present areas in an unrestocked condition, but some form of regulation would help to prevent additional unrestocked areas. This forest land, given management, can gradually sustain a greater growth and a greater cut. The first step in management, however, is to keep the forest land productive.

The Forest Service thinks that regulation is a necessity because of widespread and traditional American misuse of much of the private forest land. The people in the industrial East and in the sparsely wooded or treeless agricultural plains States and the Middle west have an interest in the productivity of timberland in the forested parts of the United States. Besides timber production,
these people have an interest in the watershed, stream flow, and flood prevention influences of forest land. Forestry in the United States means much to the human welfare of all of the citizens of the country.

Sparhawk (43) makes the statement that gross misuse which destroys or severely impairs the productivity of the land is generally assumed to be inimical to the public welfare. The Supreme Court of the United States (21) has ruled that the State or Federal government can regulate if the problem is one that has a public interest. In a letter to John Jay, George Washington (51) wrote in 1782 that experience has taught that men will not adopt and carry into execution, measures best calculated for their own good, without the intervention of a coercive power.

The proper use of the forest and forest lands is a matter of national significance with which the Federal government must be concerned because timber is such an important item in the national economy. The Federal government, the Forest Service feels, cannot evade its responsibility for protecting the interests in a permanent timber supply of people in non-timber producing areas. From the standpoint of water conservation, protection of forests from destructive cutting is as important as protection from fire. The public's interest in watersheds is concerned with water supplies for irrigation, flood control, and stream
flow for navigation purposes. Even if some states were to adopt legislation to control cutting practices on private lands, the Federal government should protect the forestry interests of all the people by federal legislation. The Forest Service feels that it has a nationwide responsibility that it cannot avoid. (49)

The Forest Service, as can be seen, has adopted a policy of promoting better cutting practices by the adoption of legislation to enforce minimum practices. That this is a sound policy is pointed out by Hiley (23) when he states that it may be accepted as a generalization that private or commercial ownership of forests, when unfettered by legislative restriction, generally leads to devastation. The accepted solution of the problem is some form of state intervention, and state control of forests is now practiced in nearly every civilized country of the world.

Show (42) wrote that the Forest Service believes it is in the public interest to use every means at its disposal to accomplish the kind of cutting on all lands, public and private, which will leave those lands in productive condition after cutting. A policy such as this is a good one for the community, the State, and the Nation.

Forestry is one field where regulation is clearly necessary to maintain prosperity. Essential controls can be established without abandoning private enterprise or
sacrificing individual initiative.

The minimum restrictions would prevent destructive cutting of young stands. It seems reasonable to expect that lands for which the States have provided fire protection should be maintained in a productive condition. The Forest Service has opposed immature cutting from the time Pinchot was Forester until the present time. Regulation should be administered by professional foresters and provisions made for thinning and other silvicultural practices in immature stands.

Watts (48) advocated regulation as the only means of preventing forest destruction and deterioration, and of keeping forest lands reasonably productive. This is a matter of great public concern. For this purpose, regulation is necessary, aided by public cooperation with private owners. Public acquisition is another way out.

Nelson (35) says that the adoption of minimum forest practices would prove to be a handicap economically only for the cut-out and get-out operator. Such regulation would not involve additional expense to those already practicing forestry. The need is pressing for minimum forest practices, universally adopted, (but with due considerations for variations in local conditions; economic, physical, and political), plus greater public cooperation
with forest owners designed to relieve the economic obstacles deterring permanent ownership and good forest management. The justification for regulation exists on the basis of consumers' present and future requirements for wood products.

Andrews (3) states that in the Douglas fir region the necessity for public regulation of forest land-use results from the failure of private initiative to check the abuse that follows unrestricted exploitation. For lands that remain hereafter in private ownership there must be some regulation of methods of cutting. If only the silvicultural rules in the "Forest Practices Handbook" of the West Coast Lumbermen's Association were made obligatory there would not be the pressing need of regulation in the Douglas fir region. Clear-cut areas should be limited to the seeding ability of the timber left. Positive values should be left after selective cuts. Andrews states that if private owners do not voluntarily adopt such a program, public regulation is invited.

It seems that the Federal government must lead the way. The private owners as well as the States have had many chances over the years to demonstrate their leadership in the matter of keeping forest lands productive. Little or no progressive forestry has come from the States unless prodded by the Federal government. The Forest Service
has usually advocated and educated for superior forestry in order to at least get others to practice acceptable forestry.

Because of the interest agricultural groups have in watershed values, they have been prominent in seeking to insure the preservation of waterflow. They believe this is a national problem and that Federal assistance and controls are necessary to maintain the natural resources.

The States, prompted somewhat by the Forest Service attempt to secure Federal legislation, have also taken an interest in regulation. Many States recognize the need for regulation of cutting practices on private lands and feel strongly that the responsibility belongs to the States. State forestry organizations feel that the state is obliged to keep the forest land productive.

Many private timber owners and other citizens are opposed to regulation by any agency. It is felt that education of these people as regards the real need for minimum cutting practices cannot be urged too strongly.

The industry, while mainly recognizing the need for minimum cutting regulations, has through its associations, been opposing regulation at almost every turn. One representative, Compton (13), says that industry has been continuously improving its practices. He says that 94 percent of industrial forest land is productive and only 6 percent
non-productive. He neglects to mention that industry does not hold on to non-productive lands but that it lets this type of land revert to the public as tax delinquent lands. Compton says further that regulation is not to be feared but is to be avoided because it is the wrong way to seek the right objective. He feels that the lessons learned in Europe are not applicable to the American scene. Instead he would like to see more education on the problem, economic inducements (subsidies), and public and private cooperation. These, he thinks, would be more permanent and dependable. If, then, simple restrictions on cutting are desirable or necessary, they could be enacted by local governmental bodies or by the States. Regulation would, however, force action more quickly.

Collingwood (12) states that the establishment of forestry practices suited to continuous forest production is an obligation of forest owners and of industries using forest products. He says that regulation will be necessary to get this into effect.

Matthews (32) notes that the depletion of immature timber and lack of silvicultural care and protection of young stands can be ill-afforded by the nation.

Some facts introduced by industry spokesmen as regards growth and drain are felt to be dangerous assumptions by Behre (5). He feels that the trend is towards depletion
of the public resource and not of growth keeping up with cutting.

On the extreme side of industrial spokesmen is Bruner (6) who thinks that no regulation of any kind is needed. He wants practices on private lands to be given a fair trial and that much more education of operators should be tried.

The following organizations or associations have declared public regulation by Federal or State to be necessary:

- Forest Service
- American Federation of Labor 1941, 1942
- Directors of American Forestry Association 1939
- Railway Labor Executives' Association 1943
- Council of Society of American Foresters 1941, 1943
- International Woodworkers of America
- Association of State Foresters 1941, 1942
- Lawyers' Guild 1943
- National Grange 1944, 1945
- National Lumber Manufacturers' Association 1941
- American Farm Bureau Federation 1940
- Congress of Industrial Organizations 1941, 1944
- Isaac Walton League 1944
- Forest Resources Appraisal Committee 1946
- General Federation of Women's Clubs 1941, 1942
- National Council of State Garden Clubs 1940
The Southern Pulpwood Association (9) has come out against Federal regulation but appears to have an open mind to State regulation.

A general agreement from all sources of the need for cutting regulation is evident. Korstian (29) found that the majority of operators and other forestry minded individuals throughout the United States are in favor of regulation. The controversy turns about the kind of legislation needed, how much regulation is necessary, and by whom regulation is to be administered.

Organized labor has maintained that forests must remain productive for the security and permanence of communities. Timber workers, as well as farmers, merchants, and professional people have been concerned with the cut-out and get-out policy that many forest owners have adopted. The workers believe that this is a national problem and should be handled by the Federal government. Labor has favored Federal legislation to prevent forest devastation.

The International Woodworkers of America passed a resolution in 1945 endorsing regulation in order to
safeguard the future productivity of American forests and recommended the enactment of comprehensive national forestry legislation to require good silvicultural practices in all commercial logging operations. Foster (17) stated before the American Forestry Congress in 1946 that the Congress of Industrial Organizations believed in a national program of control over commercialized logging to prevent further prolonged insecurity and poverty among woodworkers. He stated that education and assistance are not substitutes for such regulation.

HISTORY OF FORESTRY CONTROLS

Forestry controls date back to the Middle Ages in Europe. The earliest controls regulated the wildlife resources for the benefit of the nobility. In 1483, Brunswick, Germany regulated cutting forest trees by setting diameter limits. During the last two hundred years regulation has been a prominent feature of private forestry in most European countries.

In the United States, the controls over fire were the first enacted, followed by laws permitting public agents to enter forests to control diseases and insects. Land zoning was the next step but it was not extensively applied to forest lands.

Prior to 1922, no important cutting legislation was
enacted by the States. Several seed tree laws were passed after that date. Beginning with Oregon's Forest Conservation Act in 1941, more extensive forest cutting regulatory laws have been enacted by a few States.

PRESENT LEGISLATION - HISTORY AND PHILOSOPHY

There have been forestry laws dealing with other phases of forestry for a number of years, but laws that have regulated forest practices and, in particular, cuttings have been enacted only recently. The following is a list of the States and the date of adoption of regulatory measures.

1. Nevada 1903
2. New Hampshire 1921
3. Louisiana 1922
4. Wisconsin 1929
5. Idaho 1941
6. Oregon 1941
7. Virginia 1942
8. Minnesota 1943
9. Maryland 1943
10. California 1943
11. Massachusetts 1943
12. Washington 1945
13. New York 1946
One philosophy in the regulation of timber cutting on private lands has been based on State regulation, if any, and this to be self-imposed as nearly as possible by the responsible part of the industry affected. These self-imposed regulations would be supervised by the State. The actual rules would be arrived at by the men on the ground and incorporated into the regulations rather than imposed from the top. The State Board of Forestry or similar agency would rule on the adequacy of the rules thus proposed.

Some of those who propose Federal regulation also are in agreement with the idea of local administration and local boards proposing the rules. The Forest Service proposals include provisions for local boards and a stated policy has been that all rules above an absolute minimum be formulated by these boards comprised of representatives of affected groups.

Stoddard (44) states that any regulatory bill designed to institute sufficient public controls for curbing the worst effects of forest destruction should contain a high degree of local participation, use existing administrative organizations to their maximum, and avoid duplication and inefficiencies.

The Code adopted under the N.R.A. by the lumber industry was a practical application of the philosophy of self-regulation. These regulations were accepted by the
larger and more responsible timber operators by whom they were directly proposed. For the Douglas fir region the rules stated:

1. The forest was to be protected from fire.
2. Operators were to protect and conserve young growth.
3. Provision was made for the restocking of the land after cutting.
4. The operator was forced to close down in hazardous fire weather and to fall all snags.

In the pine region of Oregon, Washington and California, diameter limits were set for the different sections. Seed source was protected and provision was made for the protection and conservation of young growth.

Goodman (18) separates all proposals into two phases; (a) the control of private forest operators, (b) the use of naked power not restricted by some form of law or custom defining rights and privileges and not supported by the tacit or explicit approval of its subjects.

A sample of such arbitrary control is found in a State forest regulatory law which delegates to a board authority to fix minimum diameter limits for each species below which no tree may be cut. Goodman thinks that if we are to have effective laws there must be penalties for their infraction, but where regulations are promulgated by independent agencies having the force of law, he believes it is
necessary to write into them a super-criminal code. On the probable assumption that the observance of these regulations is too difficult a technique for regular courts to adjudicate, these forestry framework laws create their own tribunals, from whose decisions appeal is a theoretical but seldom a practical remedy.

The law that requires a permit to operate is considered by Goodman to regard a man as guilty unless proven innocent. He must first prove his innocence in order to get a permit. While some have advocated public assistance to encourage proper forest practices, Goodman believes that these would not be available to the liquidation operator who could not meet the qualifications of practice. The liquidation operator would still need regulation of some kind to insure that he leave his land productive. Goodman further suggests that regulative laws be motivated by a reasonable quid pro quo and adapted to specific forest regions, types, local conditions, and be adjudicated in local courts.

Minimum requirements in silvicultural practices applicable to present conditions will not suffice as a minimum requirement in the years to come. As we evolve from extensive to intensive forest management, forest practices will change. Public regulation is an evolutionary process concerned with the perpetuation of our most important, renewable, natural resource in which all of the people
have a greater interest than the individual timber owner.

Korstian (29) says that in any genuinely democratic approach to public regulation, at least a sizeable segment of the group to be controlled must be in sympathy with the major principles on which it is based, or there must be widespread public demand for the proposal, or both. Lacking either the support of the group to be regulated or strong public demand for regulation, control measures are inevitably doomed to failure.

There being two basic philosophies in governmental regulation, it will be hard to ever satisfy everyone. The Individualist considers government a practical necessity and he would confine its activities to those of a policeman and umpire. On the other hand there is the Regulationist who believes that the government is the supreme agency of initiative, control, and service. He thinks that government should be an active, aggressive, expanding, regulating force, ever seeking new ways not merely of protecting people, but of advancing their economic, social, and moral well-being (36). Most Americans can accept neither policy in its entirety but see some advantages of each. In everyday life, whatever we do from birth to death is controlled by the government in one way or another. This has been true for a long time and is, in its way, a form of governmental regulation. Therefore, regulation in itself is not
The application of large doses to the field of forestry is, however, an extension not heretofore encountered in United States history.

PRESENT LAWS, THEIR ADMINISTRATION AND EFFECTIVENESS

The Forest Practice Act of California, The Forest Conservation Act of Oregon, and the Harvesting of Forest Products Act of Washington will be found in the appendix. Of the laws already on the statute books, something should be said of their administration and effectiveness. Chart no. 8 will show that, by the standards set up by the Forest Service as the absolute minimums desired of a regulatory measure, not one of the present laws meets all of the requirements in full. The Maryland law comes the closest to the ideal if we are to accept what the Forest Service wants as the minimum needed.

The requirements that the Forest Service deems necessary of a regulatory measure are:

1. To provide for adequate restocking after cutting with trees of desired species and form.
2. Prohibiting premature or wasteful cutting of young stands.
3. Providing for reserving a sufficient growing stock of desirable trees to keep the lands reasonably productive.
4. Preventing avoidable damage to uncut trees or young growth.

5. Regulating grazing to prevent damage to tree growth and to protect the watershed.

6. Prohibiting clear-cutting or limiting the size of a tract that may be clear-cut, except where clearcutting is silviculturally desirable or the land is put to some other use. (46)

On the chart those States which have specific provisions in the laws to cover the minimum conditions listed above are indicated and notes are added to show those States which have adopted forest practices by boards or other similar agencies. Some States do not meet any of these so-called minimum requirements. Even Maryland, which has a model forest practice law, meets but four of the six requirements by legislative enactment. However, Maryland by having local boards can, by action of these boards, adopt needed controls without legislative approval.

State regulatory laws have, in general, failed to provide protection of young timber from premature or wasteful cutting and to prevent needless damage to uncut timber by logging methods or other practices. In some States, where cutting practices are prescribed by law, the measures do not meet the requirements of proposed Federal standards. The State laws are, for the most part, also inadequate in
regard to penalties and procedure for enforcement.

Little is known about the actual effectiveness of the present State laws. The Forest Service thinks that they are inadequate to keep the nation's forests producing the nation's wood requirements. Time has not sufficiently elapsed since the enactment of the latter State cutting laws to know if the results will satisfy the minimum requirements.

OREGON

The Oregon law, being the first of the cutting laws enacted and having the support of the organized lumber industry, offers the best chance for an analysis. Many features of this act were taken from the West Coast Lumbermen's Association rules on forest practices. These in turn had been a part of the NRA code adopted by the industry. The Oregon State Board of Forestry has been vigorous in making the law do all that it was supposed to do. A Conservation Assistant has been employed by the State Forester to administer the Act. He has three conservation inspectors, each with technical assistants, to enforce the compliance of the provisions of the act within northwestern, southwestern, and eastern Oregon. Slash inspectors are also used to further the compliance of the act.

Rogers (41), State Forester, reported in 1946 that in certain respects the Oregon Conservation Act was experi-
mental legislation and some of its original provisions have proven to be inadequate. A survey of the results of the act was made in 1942 and, as a result, some changes were made in the law which facilitated the administration of the act and enhanced its effectiveness.

The degree of compliance from 1941 to 1946 (Table IV) in the Douglas fir and Coastal types of Western Oregon was far from satisfactory. Over a five-year period almost 10 percent of the entire cut-over area was in violation of the Forest Conservation Act.

The principal causes of non-compliance with the Act were found to be:

1. An incomplete or an incorrect understanding by some operators and landowners of the provisions of the act.
3. Destruction of seed source through slashburning.
4. Inability of the State Forester to prevent conscious and willful violations of the act.

The State Forester attributes the first three causes to a shortage of trained administrative personnel. Experience has shown that willful and conscious violation of the act can only be prevented by changes in the penalty provisions.
The weaknesses of the act can be corrected, it is thought, by placing the harvesting of timber under regulatory permit and increasing the rehabilitation fee to at least eight dollars an acre.

The diameter limit provisions of the act for the Ponderosa pine open stands of eastern Oregon are excellent for the stands where there is a good distribution of age classes. For stands where most of the pine is over the diameter limit, only trees of inferior species are left as seed trees to restock the area. The State Forester recommends that amendments be made to the act increasing diameter limits in certain instances or requiring reservation of seed trees of species of the original stand.

It is also recommended that the definition of merchantable stand be changed to include all live timber being harvested or that can be harvested for commercial purposes in order to protect young and immature stands.

For the State as a whole the Conservation Act has contributed in a large measure to the general improvement of forest practices. Even greater improvements are expected in the future.

WASHINGTON

An act entitled Harvesting Forest Products was enacted by the legislature of Washington to take effect in January of 1946. A copy of this act is in the appendix. Goodyear,
Supervisor of Forestry, stated in a letter to the author that seven technically trained foresters in the field, a forester in charge and two secretaries would comprise the force for administering the act.

This act is very similar to the one adopted by Oregon with some improvements. Reference to Chart no. 8 shows that the act does not meet with the Forest Service recommendations in regard to prohibiting premature or wasteful cutting of young stands, does not regulate grazing on cut-over lands, and does not prohibit clear-cutting or regulate the size of the clearcut area. The law has been in effect too short a time for an accurate appraisal of the degree of compliance.

**CALIFORNIA**

Chapter eighty-five of the California forest and fire laws was adopted in 1945. This act provides for the creation of forest districts and district forest practice committees which adopt forest practice rules. They are charged in the law with protecting the timber against operations in logging which unnecessarily destroy young timber growth or timber growing conditions of the soil, protection and prevention from damage by insects and disease, and provisions for the restocking of the lands after cutting, by natural or artificial methods.

Forest districts were set up by the law and the
California
Forest Practice Districts
I  Redwood
II  North Sierra Pine
III South Sierra Pine
IV  Coast Range Pine and Fir
committees were appointed in 1946. Hearings were held and proposed practice rules adopted. These rules must be approved by a two-thirds vote of the timber owners in the district and submitted to the State Board of Forestry for approval.

The law as written does not specify any minimum cutting regulations. Proposed forest practice rules as regards cutting do set minimum standards for old and young growth timber. Diameter limits have been proposed as well as provision for an adequate seed source. Immature stands are protected in all of the proposed forest district rules.

Forest practice rules and forest management plans approved by the State Board of Forestry shall have the force of law within the district boundaries where the rules originated. There are no penalties under the California law for non-compliance. Registration with the State Forester is necessary to cut and remove timber or other forest products from forest lands for commercial purposes.

Practice rules have been adopted (March 1947) and approved for districts I and II. These are now enforceable as laws. The purpose of the act, as explained by State Senator Carter at a meeting at Willits, California in 1946, is to allow timber operators to regulate themselves. He said that legislation has been passed that would enable the forest and timber men to institute self-regulation. If
they do not regulate themselves, it will be but a short period of time before the people of the State of California, who have a direct interest in timber, will demand regulations. The State or Federal government would then have to regulate timber cutting for the lumbermen. Thus the California law was the answer to the proponents of a drastic State regulatory law and to those proposing Federal regulation. In view of the record of self-enforcement of the provisions of the NRA code relating to practices adopted by the industry in 1934, not too much can be expected in the way of improved forest practices from the California Forest Practice Act. Its effects from the standpoint of education may be considerable. Adequate provisions for the enforcement of the rules may later be adopted if a poor degree of compliance is noted.

The State Forester in a letter to the author said that he intended to add only one man to his staff as a forest manager. Administration of the act in the field will be placed upon the already overburdened and understaffed State Division of Forestry, heretofore strictly a fire control organization.

As seen from the results of the first five years of

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1 Minutes of meeting California Forestry Study Committee, Willits, Calif., Aug. 3, 1946
operation of the Oregon Forest Conservation Act, lack of adequate administration by technically qualified personnel and the comparatively light penalties for non-compliance led to a 10 percent violation of the act. The California law, as it is to be administered, should meet with much of the same trouble.

MARYLAND

The State of Maryland enacted its Forest Conservancy District Acts in 1943. These acts declared it to be a policy of the State to encourage, assist, and guide private ownership in management of private forest lands. Local boards set up tentative practice rules when, if approved by the Commission of State Forests and Parks, have the force of law. The District Boards may promulgate safeguards for proper forest land-use, such as:

1. Providing for adequate restocking, after cutting, with trees of desirable species and condition.

2. Providing for reservation for growth and subsequent cutting, a sufficient growing stock of thrifty young trees of desirable species to keep the land reasonably productive.

3. Preventing clear-cutting, or limiting the size of a tract to be clear-cut in areas where clear-cutting will seriously interfere with protection of a watershed, or in order to maintain a suitable
growing stock to insure natural reproduction, provided, however, that any such rules of forest practices shall establish a procedure by which any operator of forest land may secure a permit to clear-cut land upon proof; --

(a) That he has a bonafide intention of devoting the land to other than forest use;

(b) That devoting the lands to such new use will not seriously interfere with the protection of the watershed;

(c) That the lands are appropriate for the proposed use.

The law requires licensing of forest products businesses from January 1, 1944. It also requires that each person engaged in forest products businesses shall (1) leave conditions favorable for regrowth, (2) leave young growth, (3) arrange for restocking land after cutting, (4) maintain adequate growing stock after partial cutting or selection logging, (5) provide for leases and timber cutting rights, (6) make application for inspection by district forestry board before cutting.

The law provides for penalties. Any person in violation of the act shall be deemed to have committed a misdemeanor and shall be fined not less than ten dollars, nor more than five hundred dollars, or imprisoned for not more than six months.

District Foresters supervise the activities of the
farm foresters and the non-technical men in the field in administrating the act.

In a letter to the author, the State Forester stated that more adequate field supervision is needed. He recommends that at least one technical forester be used in each county to properly advise all types of landowners on the proper management methods to be applied to their lands.

Wherever opposition to the cutting practices is in evidence, Kaylor (27) believes that the antidote is education and more education to enlighten the opponents and convince them of the great need for safeguards on cutting practices on private lands.

MISSISSIPPI

The Forest Harvesting Act was adopted by the State of Mississippi on March 24, 1944. It prohibited (1) working of new faces for naval stores purposes on trees less than ten inches in diameter unless there is left unfaced or untapped on each acre of forest land being worked, 100 or more well distributed trees four inches or more in diameter, or at least four seed trees, ten inches or more in diameter; (2) cutting for commercial purposes any pine tree unless there is left standing on each acre of forest land being harvested at least four pine seed trees of ten inches or more in diameter; (3) cutting any pine trees under ten
inches in diameter unless there is left standing on each acre of forest land being harvested, one hundred or more well distributed pine trees four inches in diameter or at least four pine seed trees of ten inches or more in diameter.

The provisions for the harvesting of hardwoods are the same except that six ten inch or larger in diameter seed trees are required instead of four. Mixed stands must have two seed trees of hardwood species and four pine seed trees left per acre.

Provisions are made for alternate management plans and for clearcutting when the land is to be used for other purposes than the growing of forest crops after harvesting. Each sheriff, constable, game warden, district attorney and prosecuting attorney is charged in the law with the enforcement of the act. Penalties are $25.00 minimum and $50.00 as a maximum for each separate offence. Ten percent of each forty acre unit comprises a separate offence in the meaning of the act.

The Mississippi Forest and Park Service requires their Area Forest Rangers to make two inspections of timber cutting each month. When violation occurs, fines are paid in Justice of Peace courts or trials are in Circuit Courts.

The procedure of inspection is simple and if there is a question of violation, it is a policy to favor the timber
cutter rather than to prosecute. Efforts have been devoted towards getting the cooperation of the producers by understanding of the purposes of the law rather than to force the law on the operators by threat of stiff fines.¹

The inspection report for the six months between January 1, and June 30, 1946, shows that out of 491 inspections, there were (1) 390 cases where cutting was not in violation of the law, (2) 86 cases held over for further inspection, (3) 15 cases where fines were collected amounting to $525.00 and court costs of $58.75. The fines averaged $35.00 each.

MASSACHUSETTS

An act providing for the establishment of forest cutting practices was approved on June 12, 1943. This act provided for a State Forestry Committee representing (1) farm wood-lot owners, (2) industrial woodland owners, (3) other woodland owners, (4) the general public. This committee was authorized to prepare tenative forest practices requiring that trees of suitable size be retained uncut so as to stand singly or in groups and be distributed in the manner and in numbers designated to secure restocking. Provision would be made for clearcutting if approved by the director. These tenative proposals would be

¹ Letter to author from A.A. Ligett, State Forester, June 24, 1946.
approved by the Commissioner of Conservation. Penalties not to exceed $25.00 could be levied for violation of the act.

The practices proposed by the committee were adopted by the Commissioner of Conservation on May 15, 1944. These set forth desirable species, described seed trees and the number and size that should be left per acre, and the conditions under which clearcutting would be allowed.

The Massachusetts law is administered by the State Forester directly with four district foresters doing the field work. All matters of policy and standards are initiated by the State Forestry Committee.

OTHER STATES

Virginia, New Hampshire, and Louisiana have seed tree laws not comprehensive enough or important enough to study for our purposes. Minnesota law establishes the sizes of trees that may be cut and provides penalties for violators. No Indiana law governs or controls cutting practices on private lands.¹ The New Mexico Laws of 1939, Chapter 141, requires that (1) all reasonable precaution be taken in falling trees, skidding, and transporting logs to protect young trees on the area being cut and to reserve sufficient

seed trees. It specifies sizes and numbers of seed trees
to be left per acre. Penalties are provided for violation.
This act is administered by the Commissioner of the State
Land Office.

**TYPES OF REGULATION PROPOSED**

According to Korstian (29), laws pertaining to public
regulation of forest practices on private lands should
prescribe basic principles such as:

a. A statement of policy which should state the basic
aim of the State or Federal government in requiring that
all owners keep forest lands productive.

b. The designation of particular agencies formulating
and approving minimum cutting practice rules.

c. Penalties for non-compliance or violation of the
act or rules adopted under it.

d. Make provisions for the approval of alternate
forest management plans.

Hammack (20) would include in a cutting practice law:

1. Provisions for adequate restocking with trees of
desirable species after cutting by natural regeneration,
supplemented if necessary by replanting.

2. Avoidance of premature and wasteful cutting in
young stands.

3. Reserving for growth and subsequent cutting, a
sufficient growing stock of desirable species to keep the lands reasonably productive except where clearcutting is the approved practice.

4. Prevent the use of destructive logging methods and subsequent damage to uncut trees.

5. Insure all practical protection against loss by fire, insects, and disease, employing proper slash disposal to this end, where necessary.

6. Prevent injurious grazing, where it damages tree growth or causes erosion or impairment of watershed values.

7. In general, stop forest destruction and deterioration and insure maintenance of the land in a productive condition; safeguard its watershed values and so protect local communities, furnish supplies of timber for local, state, and national use, including national defence.

The Forest Service of the Department of Agriculture has also recommended certain minimum conditions which should be safeguarded by public regulation. These were discussed under the section headed "Present Laws, Their Administration and Effectiveness" on page twenty-one of this thesis and need not be repeated here.

It is largely because of the common failure of small operators and owners to leave private forest lands productive that the principle of public regulation has gained increasingly wide acceptance. Buttrick (8) states that
regulation should start with the minimum necessary to safeguard reproduction following cutting. The regulations should be flexible enough so that they will fit the many different forestry situations met in the region for which they are intended to be effective. Later, if all goes well, we might try to regulate for sustained yield. This could be accomplished by public cooperation using Federal long-range credits and forest insurance against fire, windthrow, insects, and disease.

One alternative to regulating along silvicultural lines has been suggested by Wiesehuegel (53). He proposes to regulate the cut only, to allot total cut on a county basis, and to allow only the growth to be harvested.

It is generally conceded that regulation should be based on silvicultural practices and to that end several types of regulation have been proposed. Proposals have been made that the Federal government exercise direct control over cutting practices on private lands. Another proposal, supported by the Forest Service, is that the States do the actual regulating while the Federal government places a national floor on forest practices and administers the Federal law where States do not have an adequate law or fail to adequately enforce the law to meet the Federal standards. The Federal government would bear part of the cost of administration where the States do the
regulating under this proposal.

A common plan is that the States should adopt forest practices without the aid or control of the Federal government. A State would be free to adopt practice rules or not as its legislators saw fit. Again there are those who are not in favor of any regulation. They believe that more progress can be made by the industry regulating itself and that governmental regulation would hamper initiative and progress for better forest practices.

**DIRECT FEDERAL REGULATION**

For those that feel that the national scope of the problem of forest destruction and improper forest practices places a great responsibility on the entire nation, direct Federal regulation of cutting practices is the only method deemed appropriate. They point out that few States have adequate forestry departments to administer a regulation law. To meet the opposition of the State forestry departments or the State governments in the matter of accepting forest regulation by the Federal government, grants and other cooperative forest funds can be controlled. While the States will retain the power to tax or to zone lands, the Federal government, by withholding grants, can force the States to cooperate with it in the matter of regulation policies.

Platt (38) has blamed much of the Western range
depletion on the non-regulatory policies of the Federal government. One wonders if the same line of thought is not applicable to the forest lands of the United States. Regulation of the range was proposed first in 1913 in order to prevent the damage which even then was apparent. It was 1934 before the Taylor Grazing Act was passed. Will forest regulation take that long? Obviously not in many States which have already made a start.

According to Stoddard (44), ample evidence has been established in legal circles that both State and Federal regulation are legally valid. He does not believe that there will be much action taken generally in the States in regard to regulating forest practices until the Federal government takes action. Stoddard thinks that we should first have direct Federal regulation which should be abandoned and replaced by financial assistance to the States together with desirable types of technical cooperation to the private owners when the States work out their own adequate plans and administration.

**LEGISLATION FOR DIRECT FEDERAL REGULATION**

The first direct Federal regulatory bill, introduced in Congress in 1941 by Mr. Pierce of Oregon, was H.R. 3849. The next was S.B. 1330 in 1943, introduced by Mr. Wallgren of Washington and the most recent bill was H.R. 6221, introduced by Mr. Hook of Michigan in 1946.
Mr. Pierce stated that State regulation has failed to protect the forests of every State in the union, even in those States that have regulatory laws. There is no evidence, he says, that the States can function effectively in regulating forest lands. State forest regulations will not work except in the interests of private timber owners. Regulation is the concern of the Federal government because of the far-reaching influence of the forests on social security.

H.R. 3849 provides for regulation of cutting practices by the Secretary of Agriculture. Each day of violation would be penalized as a separate violation with a fine of fifty dollars. S.B. 1330 is similar to H.R. 3849 in all of its provisions as to the regulation of timber cutting.

H.R. 6221, introduced in Congress by Mr. Hook of Michigan, provides for a system of regulation patterned after the Swedish plan. It is direct Federal regulation with a flexible plan of operation fitted to the different forest regions of the country. The details of operation would be worked out in consultation with the forestry boards set up under the law representing forestry operators, farmers, forest labor, conservationists, and other interested groups. The forest owner or operator would not be able to control the board.

The bill provides for (1) adequate restocking, such as
planting after cutting, (2) prohibiting premature cutting of young stands, so that they can grow to become useful and valuable trees, (3) leaving a reserve of healthy trees, so the forest can keep on producing, (4) prohibiting wasteful logging methods, (5) prohibiting stripping the land of all trees; and limiting the size of the tracts to be cut in one season. The Hook bill applies only to commercial logging. Title II requires marking of trees to be harvested or those left to grow, in advance of the logging operation, by foresters employed by the government or licensed by the Federal agency in charge of the administration of the bill. The rate of cutting is prescribed by the law.

The Hook bill was sponsored by labor organizations and supported by liberal and conservation groups. It is a much stronger bill than that proposed by the Forest Service to the Joint Congressional Committee on Forestry. This bill would give all regulatory power to the Secretary of Agriculture. Needless to say, it has been vigorously opposed by the organized lumber industry. No hearings were held on the bill and it died with the Seventy-ninth Congress.

Agitation for bills with as strong regulatory provisions as the Hook bill may help to get enacted more moderate control measures such as those suggested by the Forest Service. If pressure becomes strong from consumer, labor,
and conservation groups for a bill as drastic as H.R. 6221, industry and others opposing strong direct Federal control may swing their support to the Forest Service type of proposal which will cover essential requirements of control.

The Forest Resource Appraisal of 1946 (1) found that nowhere, except where Forest Service propaganda has been extensive, is public opinion strong for Federal controls. Forest industry does not believe that the present set-up of Federal agencies in managing Federal lands inspires confidence in their ability to take over the task of regulating forest harvesting on private lands. Unfavorable features are: (a) inexperienced personnel, (b) preoccupation with ideologies, (c) centralization of authority, (d) wasteful spending, (e) jurisdictional struggles, and (f) failure to fully utilize productivity of forests under public management. Jewett (24) believes that direct Federal control will set up rule by men instead of law and so he has asked all industry to fight Federal controls.

Korstian (29) found most people in States he visited opposed to direct regulation of cutting by Federal control.

**FEDERAL-STATE REGULATION**

The report of the Joint Congressional Committee on Forestry, 1941, recommended that the Federal government increase cooperative assistance to the States provided the States pass legislation providing for proper fire protection
and regulations governing minimum forestry practices to be administered as approved by the Secretary of Agriculture. The principles to base such regulation upon might include (1) legislation and enforcement of State regulatory laws must be satisfactory or Federal assistance would be withdrawn, (2) forest owners assured full opportunity to participate on advisory boards and have a right of appeal from requirements, (3) three to five years allowed the States to pass and apply legislation, (4) Secretary of Agriculture would exercise administrative power for the Federal government.

Senate Bill 2043, introduced by Senator Bankhead on November 13, 1941, was the direct outgrowth of the investigation of the Joint Congressional Committee on Forestry. This bill, known as the Bankhead Bill or the Forestry Omnibus bill, embodied the major recommendations of the Forest Service regarding forest cutting practice controls on private lands. The Secretary of Agriculture was authorized to approve State plans for the conservation and proper use of privately owned forest lands, provided that they met the requirements of the law. Federal financial aid would be extended to the States where plans were approved to aid in administration of the forest practices. If within three years, States had not submitted plans, the Federal government would withdraw the financial assistance given
under the Clarke-McNary Act until the State had submitted and had approved such a plan.

A bill introduced in Congress before S.B. 2043 was H.R. 3850 by Mr. Pierce of Oregon on March 6, 1941. This bill was similar to H.R. 3849 which was previously discussed except that provision was made for State regulation of private forest lands in place of direct Federal control. The provisions of H.R. 3850 in regard to action by the Secretary of Agriculture on plans submitted by the States were exactly the same as those in S.B. 2043.

Basically, these bills set up nationwide rules of forest practices or management standards. States which would pass forest legislation that met with these standards and which administered such laws in a way to ensure their effective application would not have to worry about Federal regulation. However, in the case States failed to enact legislation that met with the Federal government's management standards, or which, when proper legislation was enacted, failed to enforce its provisions, the Government would withdraw cooperative financial assistance. The Forest Service recommended that instead of the withdrawal of assistance, it be allowed to step in and enforce the minimum practice standards under the law.

Kaylor (27) stated that he thought the Forest Service was on firm ground in adopting this policy. With that in
mind, Maryland passed its Forest Practice Law in 1943. Meinecke (33) believes that the Forest Service should be given powers of wise regulation of cutting practices if regulation is needed. He claims that while the leaders in private forestry are foremost in the industrial world, they have not been the leaders in forestry.

Tompkins (45), speaking for the agricultural interests, supports the contention that because of lack of State action, and the national character of the problem of forest practice regulation, stronger Federal assistance and controls are needed.

Collingwood (12), in writing about S.B. 2043, stated that if this bill were enacted it would result in Federal dictation to the States and their ultimate domination, for the regulation of privately owned forest lands is an invasion of States rights and responsibilities. If regulation of practices were instituted, it would be at the expense of forest protection which Collingwood rates as the greatest problem facing forestry. He estimated it would cost a billion dollars a year to enforce S.B. 2043. Speaking for the National Lumber Manufacturers' Association, he came out flatly against Federal regulation and Federal control of State practices. Writing about the Bankhead bill, Collingwood said,

"We believe that the establishment of forestry
practices suited to continuous forest production is an obligation of forest owners and of industries using forest products. Such regulation as may be desirable should, we think, be applied and administered under State law."

Most opposition to the Forest Service program stems from the fact that the responsibility for regulations and the enforcement of regulations is by a public agency and not by minimum standards promulgated by law.

Rogers (40), in opposing Federal regulation, believes that there is no doubt that these proposals are legal. He bases his contention on the decisions of Solicitor White of the U. S. Department of Agriculture. However, he thinks that at best, Federal regulation would require years before any effective results would be obtained. In contrast, he points to Oregon as an example where State action produced immediate results. People want State regulation rather than Federal regulation according to Rogers. He admits that it is a help for the advocates of Federal control to go about shouting their wares because they frighten country folks into an awareness of their problems and enable them to obtain progressive State legislation.

Malsberger (30), State Forester of Florida, is opposed to Federal legislation also. He believes that public cooperation and public aids should be given a longer trial before regulation is tried. Other opposition to Federal legislation developed because it was felt that the Federal
government would become in effect the manager of business. Many lumbermen questioned the ability of Federal agents to show them better or cheaper methods of forestry practices.

STATE REGULATION

Because the States are closer to the problems of the landowners, many believe that they are the logical ones to regulate forest cutting practices. The States have a direct control over taxation and zoning of forest lands and through these powers can exercise a measure of control over forest practices. Every State has different problems which require different kinds and degrees of regulation.

The Forest Service believes that the essential requirements of a satisfactory State regulatory law are:

1. Provision for methods of administration or supervision by or through a single State agency.

2. Provision for methods of administration, and funds and facilities adequate for the proper and efficient administration of the regulatory plan.

3. Provision for the classification of all privately-owned land as either forest or non-forest land, and the designation of such of the privately-owned forest land as is to be exempt from regulation.

4. Provision for furnishing technical advice and assistance to forest owners and operators.
5. Provision for the adoption and enforcement of rules of forest practice and for their approval and modification by a designated State agency; such rules to be adapted to local conditions adequate to prevent forest destruction and deterioration and to maintain forest lands in a reasonably productive condition, including where applicable but without limitation to:

   A. Provision for reasonable precautions in protecting forest lands against fire.

   B. Provisions for reasonable precaution in protecting forest lands against insects and disease.

   C. Provision for safeguarding the proper use of forest lands and for preventing improper exploitation, as listed by the Forest Service in their suggested regulations previously listed on page twenty-one.

6. Authority for representatives of the cooperating Federal agency to go upon the lands regulated for the purpose of making inspections; also authority for the responsible State agency to furnish such Federal agency with information and reports under the cooperative agreement. This is provided Federal law requires such cooperation and inspections.


8. Violations of the regulatory law or orders issued under it must be prohibited and adequate penalties for such
violations must be prescribed.

9. Provision for injunctions to restrain violation of the rules of practice. (52)

Greeley (19), Forester of the United States, recommended in 1920 that the States should regulate the cutting of timber on private lands.

Merrill (34) would include in a State bill to regulate forestry practices the following:

1. A statement of policy.
2. Definitions of terms.
3. A State Forestry Board representing (a) owners of commercial forest lands, (b) owners of farm forest lands, (c) pulp and paper industry, (d) lumber producing industry, and (e) citizens' conservation groups. The executive officer of the Board to be the State Forester or similar officer.
4. The board should have the power to (a) issue rules and regulations to cover forest practices after public hearings, (b) compile statistics of cutting, (c) issue licences governing the conditions of cutting, (d) permit inspections, (e) direct district board activities, (f) hear appeals from district boards, (g) appoint representative members to regional boards. District boards are to adopt rules of forest practices after hearings open to the public. The Department of Forestry will supply a forester to be the
executive officer of each district board. The policy will then be for the district board to develop local policies and pass on specific management plans. When these management plans are adopted, the district board is to set up a procedure to insure their compliance with district rules. The district board members would get a per diem pay less than the State board as well as necessary expenses.

5. The duties of private owners of forest land would be to (a) leave the forest land in favorable condition for regrowth in order to maintain sufficient growing stock to provide raw materials for forest industries and employment to forest communities continuously or at least without long interruptions, (b) protect young growth, (c) restock land after cutting with seed trees, planting, etc., (d) clearcut only on approval of district forester, (e) see that practices are complied with by everyone logging private forest lands.

According to Stoddard (44), the effective accomplishment in the woods should be the aim of State laws which are being proposed to offset Federal laws. In this regard, the Forest Resource Appraisal (1) finds that public opinion supports State regulation, but that forest agencies must exercise great skill in recommending laws that will work and then making the laws work after they are adopted.

Numerous laws have been proposed to State legislatures
and some have been approved. A few were discussed in detail previously in this thesis. More are being proposed at every legislative session in forested States. Regulation is admittedly desirable and necessary. There is a feeling that regulation should be self-imposed as nearly as possible, but that the State is obliged to see to it that its forest land is kept productive and recalcitrant operators made to conform to the more desirable practices adopted by the progressive operators. Local regulation should provide for forest protection and perpetuation in the manner best suited to local forest requirements. This, only the State is qualified to do well. Rogers (40) says that the States can produce immediate results.

Korstian (29) believes that in Oregon, the State Conservation Act did what through voluntary cooperative effort of owners would have been a slow and tedious process. Many forest landowners are favorable to the principle of public control of cutting practices on private lands, provided they could be assured of regulation by the States. Requiring all landowners to follow conservation practices would place competition on a more uniform and fair basis.

A proposed forestry practice law in Michigan was actually sponsored by timber and farm interests but was effectually blocked by the mining interests of the State. This law would have set minimum diameter limits on certain
INDUSTRIAL SELF-REGULATION

There are those, mostly identified with the timber industry, who believe that with education and sufficient time the industry will regulate itself for the good of the nation. They point to the fact that in 1911 the industry imposed upon itself fire regulations in the Northwest. Again in 1934, industry adopted Article X, Schedule C of the N.R.A. Code, and that in Oregon, Washington, and California, controls have resulted from industry-sponsored legislation.

The N.R.A. Schedule C provided for restocking measures, selective logging, conservation of immature trees and young growth, as well as closing down in hazardous fire weather. It is also true that the large operators were the first to get in line behind these measures. It was a fact too, that many operators only partially observed these rules as suited their own convenience. A study made of the compliance of these rules by Woods (54), recommended education and not enforcement as the best method to get the operators to comply. However, he admitted that ten percent of the operators would never voluntarily comply with the rules. Bahr (4) stated that the outstanding and critical problem under the Code was the inability to secure compliance enforcement. These arguments against self-regulation are
answered by Heywood (22) who states that:

1. Self-regulation is cheaper than any other plan to the taxpayer.

2. No law will ever get 100 percent compliance as those really not wanting to comply cannot be regulated.

3. There is no question of the constitutionality of self-regulation.

He feels that if the State and local governments would provide help and encouragement to the industry the problem could easily be solved.

There are those who feel that the lumbermens' associations are in a position to lead the way in self-regulation. The associations would like to have the public believe this to be true. It must be remembered that the associations of lumbermen are for the purpose of advertising, propaganda, lobbying in State and national capitals, publicity, and occasionally for technical advice. These associations may have fine plans but they cannot enforce their programs. Much of the time the associations will have programs for public presentation, such as tree farms and the N.R.A. Code. However, the actual practice of these in the field, while having an educational effect, has never affected over-all forestry practice very much. Instead of the associations controlling the loggers, they are themselves controlled by their members.
FUTURE TRENDS IN PUBLIC CUTTING REGULATIONS

The American public and the lumber industry itself will not long tolerate the mistreatment of forest lands by any minority of owners and operators, notwithstanding the application of sound forestry practices on the majority of commercial forest lands. In dealing with a serious national problem, such as the present one involving forest destruction and devastation, it is contrary to the principles of democracy to permit a minority to go its way, especially where it is distinctly inimical to the interests of the public. Therefore, public control of cutting practices on private lands is inevitable. Perry (37) believes that the timber supply shortage will force industry to come out for regulation and that to a large measure industry is resigned to regulation of cutting practices.

Chapman (11) warns that regulation will succeed only by first convincing the individual of its necessity and reasonableness and then giving him as close an association with the regulating machinery as possible under democratic methods. It should be enforced only against those who do not comply with the minimum requirements in the silvicultural fields only.

The formulation of sound minimum requirements, which can be legislated or regulated, is something that cannot be accomplished overnight. Even trained foresters know
little about silviculture in forest regions where they have not practiced the art. Silviculture is still a field of research in America rather than an applied science. Regulation of operating techniques should be avoided as it kills all initiative and pride of ownership. According to Goodman (18), the diversity of local forest conditions is such that regulation of operating techniques or forest practice rules cannot be formulated in laws. The law-making agency must, therefore, content itself with framework law, setting up requirements and prohibitions. Damtoft (14) suggests that strict regulation should wait until more owners are in favor of it, which he believes will not be long.

The real contest in the future of forest regulation is between those who want Federal regulation, those who want State regulation, and the large but declining group which is not in favor of any regulation. The Forest Service, emphasizing the national interests and urging a uniform policy and uniform action, has offered the States a chance to pass their own laws. State action has been stimulated since Federal pressure has been applied.

Before 1940, only five States had legislated any kind of regulatory law. More than twice that number have adopted better laws since the Forest Service program was intensified in 1940. This is an indication of the trend
of public regulation of cutting practices. The trend should continue, not only in more States, but for improved laws in those States now having nominal control over cutting practices.

Forestry is one field where essential controls can be established without abandoning private enterprise or sacrificing individual initiative according to Watts. (50) With the general agreement for the need of control, and State control having the most adherents, there is a growing disbelief that a Federal law will be enacted. The educational benefits from the California law, in conjunction with those of some of the other States, outweighs to some extent their imperfections. However, unless more States recognize their duty, and take progressive action soon, the Federal government will inevitably do so. The farther depletion goes, the more drastic the eventual legislation is likely to be.

Most operators believe in the principle of regulation; most believe in the necessity of public action. Almost universally the operators are against Federal participation. Why is this? Forests are concentrated in a few States where timber interests are powerful. Legislators in these States are sensitive to the pressure of timber interests. If there is to be regulation, the operators want it to be under their local political control. The consumers of
lumber, the farmers who depend upon the watersheds for their irrigation supply, the urbanite who looks to the forests for recreation, and the sportsman interested in forest wildlife are not often of political significance within the timbered States. Only the pressure of public opinion, plus the sustained activities of the public forestry agencies, both Federal and State, have accomplished what already has been done.

Since there is already a certain measure of control, debate is turning more and more to methods and specific objectives rather than to the desirability of cutting practice regulation. The questions of sustained yield, continuous production, and regional annual cuts are beginning to appear. Laws must give general objectives only and in so doing they must be silviculturally sound and economically feasible.

As the change to sustained yield comes about, large operators will look more favorably on public regulation for assurance that the small operators are falling in line. Also, as the public attempts to regulate more and more on private lands, the pressure will build up from the operators for increased responsibility from the public in the matter of affording better protection and more assistance to the forestry enterprises.

According to Silcox (26), if the private owners do not
improve their management, they will force more regulation upon themselves; if public regulation still fails to protect the public interest in forest lands, then government acquisition is the next step. Compton (13) says that the faster regulation is placed on industry, the more land will go to the public and this will retard private enterprise in the forestry field. Reynolds' (39) solution to this problem is maximum public aid, coupled with minimum public control.

Buttrick (7) points out that if regulations are exceedingly restrictive, it might be like "Prohibition". If that is so, it will set back all phases of the forestry movement for a generation or more.

We must not lose sight of the fact that permanent forestry requirements go far beyond the scope of enforceable forestry practice laws. Such laws can deal only superficially with stands as they exist at the time of cutting. They cannot take the place of continuing skilled management.

Dana (15) brings out the fact that a law is only a tool, whose effectiveness depends upon the skill with which it has been fashioned and with which it has been used. Success of administrative law will depend on the integrity and the ability of the officer to whom is delegated the responsibility of formulating the "administrative law" authorized by statutory law. If the primary aim is to
improve management, education is the best and proper way.

Chapman (11) has clearly stated the issues when writing:

"Regulation, then, is a live issue as long as there remain any owners who deliberately destroy the reproductive power of forest land without making any alternative use of the soil, and the extent of voluntary forest practice or of destructive operations is not the determining factor, provided the destruction is continuing. In fact, the greater the showing of good practice, and the larger the area covered, the more chance there is for regulating the recalcitrant minority."
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(40) Rogers, Nelson S.


(42) Show, S. B.

(43) Sparhawk, W. N.

(44) Stoddard, Charles H. Jr.

(45) Tompkins, Morton
(46) United States Department of Agriculture.
1945. "What Are We Aiming At." Forest Conservation Program.

(47) United States Forest Service.
1945. "Don't Kill the Forest Goose."

(48) Watts, Lyle F.


(53) Wiesehuegel, Erwin G.

(54) Woods, John B.
THE OREGON FOREST CONSERVATION ACT

Chapter 237, Oregon Laws 1941, as amended by Chapter 142, Oregon Laws 1943.

Section 1. This act shall be known as the "Oregon Forest Conservation Act".

Section 2. The preservation of the forest and the conservation of forest resources for the equal and guaranteed use of future generations, and the protection of forest and water resources and the continuous growth of timber on lands suitable therefor hereby are declared to be the public policy of the State of Oregon. Further, it is recognized that the forested areas situated east of the summit of the Cascade mountains within the State of Oregon predominate in Ponderosa pine trees, and that the forested areas situated west of the summit of the Cascade mountains within the State of Oregon predominate in Douglas-fir and related species. Different logging conditions and circumstances in each area necessitate varied forest practices. Therefore, in order to accomplish the foregoing purposes certain different classifications in the provisions of this act must be limited in application in each area within the state of Oregon suitable therefor.

Section 3. When used in this act:

1. The term "delinquencies" shall mean departure from the terms and provisions of this act which has rendered the operator and/or landowner liable, after written notice from the state forester, to the obligation imposed by section 11, chapter 237, Oregon Laws 1941.

2. The term "delinquent operator" shall mean any person, firm or corporation who is delinquent under the definition herein.

3. The term "merchantable stand of timber" shall mean any stand of timber consisting of not less than 3,000 board feet per acre of currently merchantable live timber as measured by the Scribner Decimal C log rule, from trees 16 inches in diameter breast high and larger.

4. The term "state forester" shall mean and include the state forester and/or his duly accredited and appointed representative.

5. The term "operator" shall mean any person, firm or corporation which engages in logging timber for commercial purposes from any lands within the state of Oregon.

6. The term "seed tree" shall mean a live, windfirm tree of commercial species and of seed-bearing size,
Section 4. Any person, firm or corporation cutting timber for commercial use from lands within the state of Oregon, shall, in order to effectuate the policies of this act, comply with such rules and regulations as may be promulgated by the state forester and approved by the state board of forestry, equivalent to or interpretive of, the stated requirements of sections 5 and 6, chapter 237, Oregon Laws 1941, and shall in any event leave reserve trees of commercial species deemed adequate by the state board of forestry under normal conditions to maintain continuous forest growth and/or provide satisfactory re-stocking to insure future forest growth. In the conduct of logging operations and prior to and during slash disposal by burning required by section 107-222, O.C.L.A., proper precautions shall be taken and every reasonable effort made by the operator to protect residual stands and/or trees left uncut as a source of seed supply from destruction by fire or unnecessary damage resulting from logging operations.

Section 5. The provisions of section 4, chapter 237, Oregon Laws 1941, shall be deemed to have been complied with in the forested areas situated east of the summit of the Cascade mountains within the State of Oregon, if the equivalent regulations promulgated by the state forester pursuant thereto are complied with, or if there shall have been reserved and left uncut all immature Ponderosa pine trees 16 inches and less in diameter breast high outside the bark. Except as provided in section 7, chapter 237, Oregon Laws 1941, where compliance with the above provisions of this section would not leave sufficient Ponderosa pine seed trees to restock the land, there shall be left seed trees of commercial species 12 inches in diameter or larger breast high in the ratio of two trees per acre well distributed over the area cut.

Section 6. The provisions of section 4, chapter 237, Oregon Laws 1941, shall be deemed to have been complied with in the forested areas situated west of the Cascade mountains within the state of Oregon, if the equivalent regulations promulgated by the state forester pursuant thereto are complied with, or if there shall have been reserved and left uncut not less than 5 per cent of each quarter section (160) acres well stocked with commercial tree species of seed bearing size. The foregoing may be accomplished by leaving, until the cutover areas for which the seed source was left are restocked in a manner satisfactory to the state board of forestry, (a) marginal long
corners of timber between logged areas, or (b) strips of timber along creeks, across valleys, along ridges or natural fire breaks, or (c) staggered settings and the leaving of uncut settings. Alternatively, the provisions of section 4, chapter 237, Oregon Laws 1941, shall be deemed to have been complied with by leaving seed trees of commercial species at least 18 inches in diameter breast high, in the ratio of two trees per acre, well distributed over the area cut.

Section 7. In the event that any operator shall desire to adopt other practical methods than those contained in sections 5 and 6 hereof for providing for future forest growth within the meaning of section 4 hereof, including but not limited to artificial restocking or partial or selective cutting of the entire stand, said methods may be substituted in lieu of the provisions of sections 5 and 6 hereof, if 30 days prior to the commencement of operations, said operator shall have submitted in writing to the state forester such substitute plan, and unless, prior to the commencement of said operators, the state forester shall have disapproved the same.

Section 8. The provisions of the foregoing sections 5 and 6 of this act shall not be applicable where the removal of any trees shall be for the following purposes: (a) To benefit the general health and increase the annual growth of residual stands or for the purpose of removing dying or diseased trees; (b) to clear the land upon which said trees are situated for bona fide agricultural, mining, business or residential purposes; and (c) for the clearing of rights of way, landings, campsites or fire breaks.

Section 9. The provisions of section 5 above shall apply only to forest lands which carry a merchantable stand of live timber, as herein defined, immediately preceding logging operations.

Section 10. Within one year after the effective date of this act, and at least once each year thereafter, it shall be the duty of the state forester to examine all forest areas upon which timber harvesting operations for commercial purposes have been conducted, or timber cut in accordance with section 8, chapter 237, Oregon Laws 1941, in order that he may determine whether said operations have been conducted in compliance with the terms and conditions of this act. Upon completion of said examination it shall be the duty of the state forester to issue to the operator or landowner found to have conducted said operations, in
compliance with the terms of this act, a release from any and all penalties and obligations hereinafter provided for, and no operator or landowner subject to the terms of this act shall be liable for violation of this act upon any area cut after one year from the date of completion of harvesting operations, unless the state forester within the said year shall have notified said operator or landowner of a violation of this act in accordance with the provisions of section 11, chapter 237, Oregon Laws 1941, provided, that if at any time after the release provided for herein is issued additional forest products have been harvested for sale from the area so released, such harvesting shall again be subject to the provisions of this act.

Section 11. Immediately upon the detection of any violation of the foregoing provisions of this act the state forester shall notify the operator and landowner in writing of his finding that the logging operations have not been and/or are not being conducted in accordance with the provisions of this act, specifying in which respects said operator has been delinquent, and directing such steps as he shall deem necessary to assure future compliance with the terms and provisions of this act with respect to the entire operation. If said operator so notified shall refuse to conform to the practices directed in said notice within a reasonable time after such notification by the state forester as herein provided, the state forester shall have the power and it shall be his duty to enter upon said lands being harvested by said operator and to take such steps as are necessary to correct the conditions caused by the violation of this act, and he shall keep full records of the costs incurred therefor; provided, that in no event shall said forester expend for said purposes more than two hundred dollars ($200) for each 40 acres upon which correction of the conditions caused by the violation of this act shall be necessary. Upon the completion of all steps necessary to repair the damage caused by said violation or violations, the state forester shall notify the delinquent operator or landowner in writing of the costs incurred therefor, and thereupon the total of said amount shall become a debt or obligation of said operator or landowner due the state of Oregon, which debt or obligation shall be collectible in an action brought for said purpose by the attorney general in the name of said state; provided, that the remedies herein prescribed shall not be exclusive but that the state, in its own proper name, shall and may have any and all other civil remedies provided by law to insure compliance with this act, except that no injunctive relief
shall be granted against any operator unless he shall have
been notified by the state forester in writing of a delin-
quency as herein defined at least 30 days immediately prior
to the date of application therefor.

Section 12. The state forester, acting under the
authority and direction of the state board of forestry,
shall be charged with the administration and enforcement
of this act and shall have and may exercise all powers nec-
essary or convenient. He shall have the power to perform
all duties imposed upon him by this act and to employ
sufficient personnel to assure compliance with this act,
including assistance to applicants in formulating necessary
harvesting plans. The foregoing powers shall be in addition
to all other powers conferred upon him by statute.

Section 13. Any findings or orders made by the state
forester pursuant to the duties imposed upon him by this
act shall be final unless modified or vacated in an appeal
taken within 90 days after the issuance of such finding or
order in the manner hereinafter provided.

Section 14. Any person, firm or corporation affected
by any finding or order of the state forester under the
terms and provisions of this act may appeal to the state
board of forestry under such rules as it may prescribe.
An appeal from any decision of said board under this act
may be taken by any person, firm or corporation affected by
any such decision, and such appeal shall be taken to the
circuit court of the county in which the land or any part
thereof affected by any such decision is located, which
said appeal must be taken within 90 days from date of the
decision by said state board of forestry.
Be it enacted by the Legislature of the State of Washington:

Section 1. Keeping the forest land of this state continuously and fully productive is one of the most important steps toward perpetuation and conservation of its forest resources. One of the most important means of effectuating such public policy is to keep timber lands productive by seeking to maintain continuous growth of timber on all lands suitable for such purposes, and in order to accomplish this end it is necessary, and in the public interest, to prescribe certain rules of forest practices to be observed in harvesting the timber.

Section 2. When used in this act:
1. The term "Forester" shall mean the State Supervisor of Forestry.
2. The term "owner" shall mean the owner of any forest land.
3. The term "adequate restocking" shall mean a stand of not less than three hundred (300) established live seedlings per acre of which at least one hundred (100) shall be well distributed, or not less than three hundred (300) surviving trees per acre which were established by artificial means.
4. The term "merchantable stand of timber" shall mean any stand of timber consisting of not less than three thousand (3000) board feet per acre of currently merchantable live timber as measured by the Scribner Decimal C log rule.
5. The term "operator" shall mean any person, firm or corporation which engages in logging of timber for commercial purposes from any land within the State of Washington.

Section 3. Any bona fide owner or operator of land in the State of Washington, supporting a merchantable stand of timber, to be logged during the current calendar year must first obtain a written permit from the Forester.

To obtain such a permit, the owner must make written application to the Forester submitting a map showing the area to be logged, legal description, and acreage.

Each permit shall be signed by the owner or operator, and shall set forth the provisions of this act as to the responsibility of the owner or operator, and shall further state that the owner or operator is familiar with its
provisions and agrees to abide thereby. All permits shall expire at the end of each calendar year but shall be renewable for another year upon written application of the owner or operator: Provided, That there has been no violation of this act or rules and regulations of the department.

Section 4. Every owner or operator shall provide that during the process of logging adequate precautions shall be taken to leave reserve trees of commercial species deemed adequate under normal conditions to maintain continuous forest growth, or provide for adequate restocking to insure future forest production. In the conduct of logging operations and prior to and during slash disposal as required by chapter 58, Laws of 1939, proper precautions shall be taken and every reasonable effort made by the operator to protect residual stands and trees left uncut as a source of seed supply, from destruction by fire or unnecessary damage resulting from logging operations.

Section 5. The provisions of this act shall be deemed to have been complied with in the area east of the summit of the Cascade mountains within the State of Washington if at the time of issuance of a certificate of clearance by the Forester in accordance with chapter 140, Laws of 1941, there shall have been reserved or left uncut all immature Ponderosa pine trees less than sixteen (16) inches in diameter breast high outside the bark. Except where compliance with this section would not leave sufficient seed trees of commercial species to restock the land, there shall be left seed trees of commercial species twelve (12) inches or larger breast high in the ratio of four (4) thrifty trees per acre well distributed over the area cut.

Section 6. The provisions of this act shall be deemed to have been complied with in the area west of the summit of the Cascade mountains, if at time of issuance of a certificate of clearance by the Forester in accordance with chapter 140, Laws of 1941, there shall have been reserved and left uncut not less than five per cent (5%) of each quarter section (160 acres) well stocked with commercial coniferous trees not less than sixteen (16) inches in diameter breast high outside the bark until such time as the area is adequately stocked by natural means. The foregoing may be accomplished by leaving marginal long corners of timber between logged areas, or strips of timber across valleys, or along ridges and natural fire breaks, or leaving staggered settings and uncut settings.
Section 7. In the event that any owner or operator shall desire to adopt other practical methods than those contained in sections 5 and 6 hereof for providing for future forest growth within the meaning of section 4 hereof, including but not limited to artificial restocking or partial or selective cutting of the entire stand, said methods may be substituted in lieu of the provisions of section 5 and 6 hereof, if approved by the Forester. Said plans shall be filed with the Forester previous to application for permit.

Section 8. The Forester shall have the power to employ a sufficient number of technically trained foresters as inspectors to enable him to maintain an inspection service deemed adequate to secure compliance with the provisions of this act. In the event that an owner or operator shall fail, refuse or neglect or (to) comply with the provisions of this act, the Forester shall be empowered to order the particular operation, as to which the provisions of this act are not being complied with, discontinued until the owner or operator has given satisfactory assurance that he will resume operations in compliance with the provisions of this act and furnish cash deposit or bond in lieu thereof as set by the Forester but not to exceed eight dollars ($8) per acre for that portion of the area which through his failure to carry out the provisions of this act does not have sufficient source of seed to adequately restock the area. Such cash deposit or bond shall be furnished to insure that the owner or operator will artificially restock the area for which the money was collected, within two (2) years. In the event that at the end of said two (2) years the owner or operator has not artificially restocked the area, or this area has not become adequately restocked, the cash deposit shall be forfeited, or if the owner has posted bond in lieu of making cash deposit he shall within thirty (30) days after notification in writing by the Forester furnish the amount of money for which he has posted bond. The Forester shall place this money in a special deposit fund of the State Treasury for artificially restocking the land on which the deposit was withheld. The Forester shall artificially restock the area within two (2) years after said deposit has been forfeited, using the money in the special deposit fund collected from the owner for that purpose. Until compliance is so assured, the Forester shall also have the power to prevent any new operation or operations in this state by the delinquent operator.

Section 9. The provisions of this act shall not be
applicable where, upon the application to the State Forester, he has in writing permitted the removal of trees. Such permits shall be issued where removal is sought for any of the following purposes: (a) To benefit the general health and increase the annual growth of residual stands of timber or for the purpose of removing dying or diseased trees. (b) To clear the land upon which said trees are situated for bona fide agricultural, mining, business or residential purposes. (c) To clear rights of way, landings, campsites or firebreaks.

Section 10. This act shall take effect January 1, 1946.
the end that adequate supplies of forest products are assured for the needs of the people for their farms, homes and industries. It is declared to be the policy of the State of California to encourage and assist private ownership in the management and economic development of privately owned forest lands.

Section 2. In this article the following definitions shall apply, unless the context clearly requires otherwise:

The terms "timberland", "forest land," and "commercial timber land" shall mean land upon which is growing a crop of trees of any species which are of sufficient size and quality to be capable of furnishing raw material used in the manufacture of lumber and other forest products; the term "cutover land" shall mean land which has borne a crop of commercial timber from which at least 70 per cent of the merchantable original growth timber stand has been removed or destroyed by logging, fire, insects, or tree diseases and which is now supporting, or capable of growing, a crop of commercial timber and other forest products and which has not been converted to other commercial or agricultural use; the terms "timber owner" and "private timber owner" shall mean any person, copartnership, firm, corporation, or company, or a recognized agent or representative of such ownership, owning commercial timber, timber land, cutover land, or timber rights on lands of another other than a governmental agency; the term "timber owner-operator" shall mean any private timber owner, who cuts and removes timber and other forest products from forest lands; the term "farmer-timber owner" shall mean any timber owner, whose principal business is that of farming or ranching but included in whose property holdings are areas of commercial timber; the terms "board" and "State board" shall mean the State Board of Forestry; the terms "committee" and "district committee" shall mean the district forest practice committee; the term "district" shall mean forest district; the terms "rules" or "district rules" shall mean the district forest practice rules.

Section 3. Forest Districts. The privately owned commercial forest areas of the State are hereby devided into four regional groups to be known as Forest Districts. The boundaries of these Forest Districts are defined as follows:

1. Redwood Forest District. All privately owned timberland and all privately owned cutover lands not converted to other commercial or agricultural use situated between the Pacific Ocean and the eastern edge of the
natural occurrence of redwood timber in the counties of Del Norte, Humbolt, Mendocino, Napa, Sonoma, San Mateo, Santa Clara and Santa Cruz.

2. North Sierra Pine Forest District. All privately owned timberland and all privately owned cutover lands not converted to other commercial or agricultural use, lying within the area of the State bounded on the north by the State of Oregon, on the east by the State of Nevada, on the south by the divide between the drainages of the American and Yuba rivers and on the west by the Sacramento River and the Shasta River to its confluence with the Klamath River and thence north to the Oregon State line.

3. South Sierra Pine Forest District. All privately owned timberland and all privately owned cutover lands not converted to other commercial or agricultural use, lying within the area of the State bounded on the north by the divide between the drainages of the American and Yuba Rivers, on the east by the State of Nevada, on the west by the Sacramento and San Joaquin River Valleys and extending south to the southern limit of the commercial timber belt.

4. Coast Range Pine and Fir Forest District. All privately owned timberlands and all privately owned cutover lands not converted to other commercial or agricultural use, lying within the area bounded on the north by the State of Oregon, on the east by the Shasta River to its confluence with the Klamath River, thence north to the Oregon State line, on the west by the eastern boundary of the Redwood Forest District and extending south to the southern limit of the commercial timber belt which is north and west of the Sacramento River Valley.

Section 4. District Forest Practice Committees. For the purpose of assisting in administering the provisions of this act, a district forest practice committee shall be established for each forest district created by and provided for in Section 3 of this act. Each district forest practice committee shall consist of five members, four of whom shall be appointed by and hold office at the pleasure of the Governor. Of the four members appointed by the Governor, two shall be private timber owner-operators in the forest district; one shall be a private timber owner owning 1,000 acres or more of commercial timber in the forest district, who does not conduct any logging or milling operations; and one shall be a farmer-timber owner owning not less than 160 nor more than 1,000 acres of commercial timber in the forest district. The fifth member of each district forest practice committee shall be a member of the State Board of Forestry or an employee of the Division of Forestry designated by
said board to represent it and who shall be the secretary of such district forest practice committee, and who shall meet with and take part in all deliberations of the district forest practice committee, but shall not have the power of a vote excepting in the case of a tie vote. The appointive members of the district forest practice committee shall receive no compensation for their services or expenses in connection with the service on said district forest practice committee.

Section 5. Duties of the District Forest Practice Committee. The forest practice committee shall advise and assist the State Board of Forestry and the lumber industry in the establishment of forest conservation practices on privately owned land. The district forest practice committee in advising and in assisting the State Board of Forestry shall not interfere with any of the powers and duties of the State Board of Forestry which are established by law.

It shall be the duty of each district forest practice committee to develop forest practice rules for the forest district, to fulfill the purposes of the act. Such forest practice rules shall apply to old growth and second growth timber and shall include, but not be limited to: fire protection devices and practices, protection against operations in logging which unnecessarily destroy young timber growth or timber growing conditions of the soil, protection and prevention from damage by forest insects and disease, and provisions for the restocking of the land after cutting, by natural or artificial methods.

The district forest practice committee shall adopt forest practice rules after due notice and hearings held for the purpose. When such forest practice rules have been submitted to the private timber owners and have been approved by two-thirds of the private timber ownership in the district, such percentage to be measured by the acreage of the timber and cutover land privately owned in the district, they shall be submitted to the State Board of Forestry for approval.

The committee may receive and approve forest management plans which may be submitted by owners of forest land in the forest district as an alternate for the forest practices rules approved for that district.

If in the judgement of the State Board of Forestry such rules of forest practice and such management plans are deemed sufficient to accomplish the purposes and intent of this act, they shall be approved by the board.

In the event that any of the rules so submitted are disapproved by the board, they shall be returned to the
district forest practice committee with recommendations for amendments. Action upon the recommended amendments shall follow the same procedure as hereinbefore provided for the adoption of the initial rules.

In the event that the board deems that a forest management plan has been submitted for approval is inadequate, it shall return such forest management plan to the district forest practice committee and the timber owner who submitted such forest management plan, for concurrence in suggested amendments which will fulfill the purposes and intent of this act.

Forest practice rules and management plans approved by the State Board of Forestry shall have the force of law within the forest district in which such rules originated, and all timber owners in the forest district shall be subject to compliance with such forest practice rules excepting, however, that if any owner has submitted a forest management plan which has been approved by the State Board of Forestry, he shall be subject only to compliance with such forest practices as may be a part of such approved forest management plan; and excepting in such cases where timberland owners can give satisfactory proof that the forest lands in process of cutting or to be cut are to be devoted, in a bona fide manner, to other than a timber growing use.

Upon receipt by the State Board of Forestry of a petition, signed by 50 per cent of the private timber and cutover land ownership in an established forest district, requesting amendments to the forest practice rules of the forest district, the State board shall order the district forest practice committee to review the petition and conduct public hearings in connection therewith. Should the district forest practice committee conclude after such public hearings that the forest practice rules should be amended to meet any or all demands of said petition, they shall proceed to the adoption of such amendments under the procedure heretofore set forth for the adoption of the original forest practice rules.

Section 6. Inspections and Administration. The Director of Natural Resources shall cause to have made by the State Forester, periodic inspections of cutting operations to determine and to require compliance with the approved rules of forest practice and of approved forest management plans.

The State Forester, acting in accordance with the policies adopted by the State Board of Forestry and under the supervision and direction of the Director of Natural
Resources is charged with the administration of this act and may exercise all powers necessary to accomplish its purposes and intent.

Section 7. Registration. All timber operators engaged in the cutting and removal of timber or other forest products from forest lands, for commercial purposes, shall register with the State Forester, to perform such operations.

The fee for such registration shall be one dollar ($1) per year.

Any timber operator who fails to register, as provided for in this section, shall be prohibited from cutting or removing timber or other forest products for commercial purposes from forest lands.
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<tr>
<th>Species</th>
<th>Plains</th>
<th>Rocky</th>
<th>Southern</th>
<th>Pacific</th>
<th>Calif. Total</th>
<th>Copeland Report</th>
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From West Coast Lumberman, Volume 73, No. 12, 1946 p. 78.
TABLE II

AREA OF COMMERCIAL FOREST AND STAND OF SAWTIMBER
OF ELEVEN WESTERN STATES
(Equivalent to Lumber Tally)

<table>
<thead>
<tr>
<th>State and region</th>
<th>Commercial Forest Area</th>
<th>Total Sawtimber</th>
<th>Softwood Sawtimber</th>
<th>Hardwood Sawtimber</th>
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<td>Wyoming</td>
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<td>11,052</td>
<td>10,551</td>
<td>501</td>
</tr>
<tr>
<td>Arizona</td>
<td>2,815</td>
<td>16,270</td>
<td>16,270</td>
<td>....</td>
</tr>
<tr>
<td>Colorado</td>
<td>7,874</td>
<td>27,658</td>
<td>26,742</td>
<td>916</td>
</tr>
<tr>
<td>Nevada</td>
<td>98</td>
<td>367</td>
<td>367</td>
<td>....</td>
</tr>
<tr>
<td>New Mexico</td>
<td>3,465</td>
<td>8,471</td>
<td>8,471</td>
<td>....</td>
</tr>
<tr>
<td>Utah</td>
<td>1,530</td>
<td>4,102</td>
<td>4,102</td>
<td>....</td>
</tr>
<tr>
<td>Oregon</td>
<td>26,330</td>
<td>381,389</td>
<td>378,577</td>
<td>2,812</td>
</tr>
<tr>
<td>Washington</td>
<td>19,874</td>
<td>249,505</td>
<td>248,364</td>
<td>1,141</td>
</tr>
<tr>
<td>California</td>
<td>16,405</td>
<td>227,565</td>
<td>227,565</td>
<td>....</td>
</tr>
<tr>
<td>Total Western</td>
<td>108,075</td>
<td>1,043,276</td>
<td>1,036,847</td>
<td>6,429</td>
</tr>
<tr>
<td>Total United States</td>
<td>465,094</td>
<td>1,620,824</td>
<td>1,295,681</td>
<td>325,143</td>
</tr>
</tbody>
</table>

From West Coast Lumberman, Volume 73, No. 12, p. 78, 1946.
### TABLE III

**Condition of Commercial Forest Land of the United States (1933)**

<table>
<thead>
<tr>
<th>Class of Area</th>
<th>Million acres</th>
<th>Percent of total area</th>
<th>Stand, million cu. ft.</th>
<th>Av. stand per acre cu. ft.</th>
<th>Av. range vol. cu. ft. per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denuded areas</td>
<td>84</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restocking areas</td>
<td>102</td>
<td>21</td>
<td>117,869</td>
<td>530</td>
<td>0 to 1,060</td>
</tr>
<tr>
<td>Cordwood areas</td>
<td>121</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sawtimber areas</td>
<td>189</td>
<td>38</td>
<td></td>
<td>1,590</td>
<td>1,060 to 2,120</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District</th>
<th>Acres released</th>
<th>Acres in violation of OFCA</th>
<th>Unexamined Acres</th>
<th>Total probable violation of OFCA</th>
<th>OFCA violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>67,908</td>
<td>8,382</td>
<td>6,690</td>
<td>15,072</td>
<td></td>
</tr>
<tr>
<td>N. Willamette</td>
<td>134,261</td>
<td>18,140</td>
<td>2,920</td>
<td>21,060</td>
<td></td>
</tr>
<tr>
<td>S. Willamette and Coastal</td>
<td>288,159</td>
<td>8,532</td>
<td>2,000</td>
<td>10,532</td>
<td></td>
</tr>
<tr>
<td>Southwest (Jackson and Josephine)</td>
<td>116,084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Oregon</td>
<td>255,240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>861,652</td>
<td>35,054</td>
<td>11,610</td>
<td>46,664</td>
<td></td>
</tr>
</tbody>
</table>

Data from Biennial Report of the State Forester, 1946.
COMMERCIAL FOREST AREA OF UNITED STATES

Showing States having some public control over cutting on private forest lands and their percent of total area.

Total U. S. Area 465,094,000 acres = 100%

CHART NO. 1

Basic data from Forest Resource Appraisal 1946
CHART NO. 2
TOTAL SAWTIMBER VOLUME OF UNITED STATES
Showing States having some public control over cutting on private forest lands and their percent of total volume.
Total U. S. Volume 1,620,824 MM Bd. Ft. = 100%

Volume of sawtimber not under any type of regulated cutting practices or control. 1946

Oregon 23.5%
Washington 15.4%
California 14.0%
Ida. 3.75%
Md. 0.25%
Miss. 1.88%
La. 2.64%
Va. 1.56%
N.Y. 1.56%
N.M. 0.52%
Minn. 0.71%
N.H. 0.47%
Ind. 0.38%
Mass. 0.29%

Basic data from Forest Resource Appraisal 1946
CHART NO. 3
CONDITION OF U. S. FOREST LAND 1946

Total timber area of U. S. 656 million acres = 100%

- Non-commercial: 29.1%
- Sawtimber: 30.2%
- Pole and good sapling: 29.6%
- Poor Seedling: 11.1%

Basic data from Forest Resource Appraisal 1946
OWNERSHIP U. S. COMMERCIAL FOREST LAND 1946

Basic data from Forest Resource Appraisal 1946
CHART NO. 5

OWNERSHIP OF SAWTIMBER IN U. S. 1946

1,620,824 million Bd. Ft. = 100%

Basic data from Forest Resource Appraisal 1946
CHART NO. 6.

OWNERSHIP OF POOR TO NON-RESTOCKING AREAS 1938

76,738,000 acres = 100%

- Industrial and other: 48%
- Federal and Indian: 13.5%
- State and Local: 10.5%
- Farm woodland: 28%

From "Forest Lands of the U. S.", Joint Congressional Committee, 1941.
CHART NO. 7
VIRGINIA
MANAGEMENT CONDITIONS OF PRIVATE FOREST LANDS

Report of State Forester of Virginia 1946
Proposed Federal cutting rules provide for:

1. Adequate restocking after cutting with trees of desirable species and form.
2. Prohibiting premature or wasteful cutting young stands.
3. Reserving a sufficient growing stock of desirable species to keep the lands reasonably productive.
4. Preventing avoidable damage to uncut trees and young growth.
5. Regulating grazing to prevent damage to tree growth and protect the watershed.
6. Prohibiting clear-cutting, or limiting the size of a tract that may be clearcut, excepting where clearcutting is silviculturally desirable or the land is to be put to some other suitable use.

CHART NO. 8

SCOPE OF PRESENT LEGISLATION 1947

<table>
<thead>
<tr>
<th>State</th>
<th>1937</th>
<th>1943</th>
<th>1945</th>
<th>1922</th>
<th>1944</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Massachusetts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miss.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Mexico</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Hampshire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nevada</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Virginia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- ✓: Adopted
- ✓: Proposed practice rules
- ✓: Practice rules

Washington
- 1945
- 1941-43

Oregon
- 1945

California
- 1945

Idaho
- 1937

Maryland
- 1943

Massachusetts
- 1945

Louisiana
- 1922

Miss.
- 1944

New Mexico
- 1939

New Hampshire
- 1921-41

Nevada
- 1903

Virginia
- 1942-46

Indiana
- 1941

Leaf seed trees only.

Loblolly pines only.

Shortleaf pines only.