THE PRESENT STATUS OF ARTICLE X, LUMBER CODE,
IN THE DOUGLAS FIR REGION

by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREWORD</td>
<td>1</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>DEVELOPMENT OF INDUSTRIAL REGULATION</td>
<td>5</td>
</tr>
<tr>
<td>The need for regulation in the lumber industry</td>
<td>5</td>
</tr>
<tr>
<td>Review of governmental regulation of forest</td>
<td>6</td>
</tr>
<tr>
<td>industries</td>
<td></td>
</tr>
<tr>
<td>The National Industrial Recovery Act</td>
<td>8</td>
</tr>
<tr>
<td>HISTORICAL NOTES ON THE CONSERVATION SECTION OF THE CODE</td>
<td>11</td>
</tr>
<tr>
<td>Early history of Article X</td>
<td>11</td>
</tr>
<tr>
<td>Later history of Article X</td>
<td>17</td>
</tr>
<tr>
<td>THE LUMBER CODE IN THE DOUGLAS FIR REGION</td>
<td>23</td>
</tr>
<tr>
<td>Importance of this region</td>
<td>23</td>
</tr>
<tr>
<td>Timber industry and the lumbermen</td>
<td>24</td>
</tr>
<tr>
<td>Application of the code in this region</td>
<td>26</td>
</tr>
<tr>
<td>SURVEY OF CODE OPERATION IN THE DOUGLAS FIR REGION</td>
<td>28</td>
</tr>
<tr>
<td>Procedure</td>
<td>28</td>
</tr>
<tr>
<td>Results</td>
<td></td>
</tr>
<tr>
<td>1. General discussion of the lumber code</td>
<td>32</td>
</tr>
<tr>
<td>2. Influence of the code on small operators</td>
<td>38</td>
</tr>
<tr>
<td>3. General attitude toward forest conservation under the code</td>
<td>43</td>
</tr>
<tr>
<td>4. Fire protection under the lumber code</td>
<td>45</td>
</tr>
<tr>
<td>5. Reforestation under the code</td>
<td>48</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Photo</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIRGIN DOUGLAS FIR STAND</td>
<td>23</td>
</tr>
<tr>
<td>LOGGING IN DOUGLAS FIR</td>
<td>27</td>
</tr>
<tr>
<td>RESULT OF A FOREST FIRE</td>
<td>45</td>
</tr>
<tr>
<td>GOOD NATURAL REPRODUCTION</td>
<td>48</td>
</tr>
<tr>
<td>LOGGING DEVASTATION</td>
<td>49</td>
</tr>
<tr>
<td>SELECTIVE LOGGING</td>
<td>52</td>
</tr>
</tbody>
</table>
FOREWORD

The reader should understand that all the concerns to whom acknowledgment is made did not assist this investigation in the same manner or degree. Some of those listed divulged confidential information about their own business, some furnished ideas about the business of their neighbors or competitors, others furnished the investigator with references and introductions to their friends in the industry, and a few merely courteously received the interviewer to inform him of their inability to furnish any facts on the problem studied.

It is sincerely hoped that no attempt will be made to credit particular lumbermen with individual ideas presented in the report. The frankness with which many of the men discussed their business and their problems is greatly appreciated, and it is hoped their confidence and trust in the interviewer will be preserved.

Note is here made of the fact that this study and report was started during the year 1934 and not completed until the present year, 1937. The first part of the report was written when the code was still at least partially effective, whereas during the present year the code is totally non-effective. It is hoped this explanation will serve to clarify differences in the point of view which may appear in the various parts of the report.
INTRODUCTION

It may be recognized that the management of one of our greatest natural resources, the forests, has passed through three distinct stages. First, the early American settler cut out and destroyed the timber because he needed the land for his crops, and the forests to him were a nuisance and a source of danger from enemies. The forests were extensive and the settlers relatively few so that the timber destroyed was replaced by crops which were more valuable than the timber. Then the lumberman entered the picture. As the country became settled, lumber was needed in increasing quantities, a fact which was soon recognized and action taken. The lumberman made the utilization of the forests his business and in a typically American and typically efficient way he proceeded to clean up the timber resources. The New England states, being nearest the centers of population and markets, were logged off first, then, when timber became scarce there, the mills were moved to Lake states, then to the South, and finally we find the center of lumber production in the Pacific Northwest. Lumber was needed and the lumberman performed a useful public service in providing it, but we can now see that a huge price was paid for the products resulting from indiscreet forest utilization. This price was devastation with its attendant evils of huge
areas of worthless unproductive land, land waste through erosion, transient character of communities, and so on.

Our final stage in forest management is characterized by the entrance of the forester into the forest resource business. He proposes to modify the lumberman's utilization scheme to the extent that enough timber will be left on the logged-off areas to provide for a future forest crop and assure an adequate future timber supply. The influence of the forester has greatly increased in the last few years and we find that his ideal, sustained yield of forest lands, which means a balanced timber budget with production and consumption equal, is being talked about and acted upon even among our so-called "hard-headed" lumbermen.

The transition from the stage of settler-devastation to that of lumbermen-utilization was easy and logical. No conflicting interests were involved and no trouble was experienced. The transition from the stage of lumbermen-utilization to forester-management, however, involves the curtailment of the individualistic rights of the lumbermen in favor of the public interest, and, furthermore, usually means reduced income to the operator, therefore we find considerable strife, misunderstanding, and even antagonism incident to the process. It is well to note here that the majority of our foresters are employed in public service and to them the safeguarding of public interests is the
primary consideration, and profits from timber of secondary importance. To the lumberman profits are of primary importance and the public interest secondary. Thus we can see that the proposals of the foresters will probably not be in line with the chief concern of the lumberman in the operation of his business.

The latest and undoubtedly the greatest step toward bringing about scientific forest management is, or was, the lumber code. The background, history, application, results, and probable future of the lumber code, especially the forest conservation or forester-management phase of it, Article X, will be discussed in the following pages.

1 Read "Article ten".
The Need for Regulation in the Lumber Industry

It is generally known that prior to the inception of the lumber code and under the influence of the business depression the lumber industry was in an exceedingly hazardous position. With a heavy investment in production facilities, large stocks of lumber on hand, and a poor market the lumberman was in a position where any course promising relief was welcomed. It was under these conditions that the lumber code was drawn up and applied.

When the lumbermen were considering a code for their industry the foresters saw this as the opportune time to introduce measures to bring about better forestry practices in the woods. The result of the foresters' efforts was Article X of the lumber code.

The forest conservation provision, Article X of the code, was badly needed, no one can deny. Without going into detail it may be mentioned that, according to statistics of the United States Forest Service, we have an area of 83,000,000 acres of devastated or poorly stocked forest land, nine-tenths of which is privately owned, and this devastated area is increasing by 850,000 acres every year. To prevent this waste and to guard our forest resources

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against destructive utilization some drastic steps are necessary. The lumber industry chose the code as preferable to direct governmental regulation of woods practices, and we can be certain that if industrial self-government fails to work out, direct governmental control in some form will enter in the not too distant future.

Review of Governmental Regulation of Forest Industries

Direct regulation of the lumbering industry by public agencies is a common practice in foreign countries where steps have been taken to prevent forest destruction. Through a series of reviews of the forest regulations of various countries, Lunoz has shown that some type of public regulation of private forest exploitation is found in nearly every European country. The same author contrasts this with the various American nations where such regulation is notably absent. Nieuwejaar points out that some European countries, particularly Norway, Sweden, Switzerland, France, and the Balkan States have attacked the problem of

4 see also, A national plan for American forestry, Senate doc. No. 12, 73rd Cong., 1st session, 1933.
forest destruction through legislative action along the following lines:

1. Forests taken over by the state and handled for the public good.

2. Forest conservation laws enacted with the lands retained in private ownership but the owner restricted in his right of disposal.

3. All cuttings made only according to marking of timber by public authorities.

4. Reforestation declared mandatory within a period determined by public authorities.

Such regulation of forest exploitation has always been looked upon with great disfavor in this country. Our age-old individualistic traditions forbid public interference in private business, and this view is still held by a great majority of lumbermen and a considerable number of foresters. Some of our leading foresters and others prominent in public life, including Shepard, Graves, Marshall, Silcox, and Wallace openly advocate immediate steps to

7 A fact evident in utterances of various members of the industry in the current press concerning the proposals of the national administration for public regulation. Also witness the current controversy in the Society of American Foresters about the desirability of public versus private control of the lumber industry.


10 Marshall, R. loc. cit.


bring about close public regulation. If the lumber code fails to bring desirable conditions in forest utilization, many other persons influential in the present national administration will undoubtedly support a scheme of government regulation of lumbering, and, it is believed, in such an eventuality the United States possibly would see federal control of private timber industries similar to the control exercised by public agencies in European countries.

The lumber code, as an American idea to avoid direct governmental control of private business, is an interesting experiment in attempting to secure cooperation by force in a vast industry characterized by extreme individualism. How did it start and how did it operate? These points will be investigated more closely in the following discussion.

The National Industrial Recovery Act

The National Industrial Recovery Act of 1933, or N. R. A. as it is popularly known, provided for a system of industrial self-government in the various industries of the nation in an attempt to improve business conditions by compulsory cooperation intended to prevent overproduction, stabilize prices, protect the rights of the workers and spread employment by a regulation of minimum wages and maximum hours, and otherwise improve the condition of both employers and employees. A central N. R. A. administrator was
appointed by the president to carry out the program of the administration, and each industry was allowed to choose its own central authority to handle its affairs. All the industries of the nation were required to draw up "rules of fair competition" as provided for by the National Industrial Recovery Act and to conduct their operations in accordance therewith. Any violations of code provisions subjected the operator to heavy fines or forced closure of his business. Section 3(f) of the National Industrial Recovery Act provides that:

"When a code of fair competition has been approved . . . , any violation of any provision thereof . . . shall be a misdemeanor and upon conviction thereof an offender shall be fined not more than $500.00 for each offense, and each day such violation continues shall be deemed a separate offense."

In accordance with the National Industrial Recovery Act the lumber industry drew up a "code of fair competition for the lumber and timber products industries" which was formally approved by the president on August 19, 1933. The formulation and presentation of the code was handled by representatives of the industry as the "Emergency National Committee of the Lumber and Timber Products Industries" which was later superseded by the Lumber Code Authority, the final governing body, which was

"empowered to administer the Code under the authority of the President and to 'issue and enforce such rules, regulations and interpretations, and impose upon persons subject to the jurisdiction of the Code such restrictions as may be necessary to effectuate the purposes and to enforce the provisions of the Code.'"

The lumber code involved a renewable natural resource, therefore, in addition to provisions for minimum prices for the products, production allocations, minimum wages, and maximum hours, the code contained Article X providing for "conservation and sustained production of forest resources". This phase of the code, Article X, is of the greatest interest to us in studying the effect of the code in bringing about forester-management of our timber resources in place of lumbermen-utilization of the destructive nature we have previously indicated. Let us investigate the source, application, and the effect of this important code provision.

14 See the cover page of the Lumber Code Authority Bulletin published periodically by the Lumber Code Authority, Washington, D. C.
15 Handbook of Forest Practice for the West Coast Logging and Lumber Division. West Coast Lumbermen's Association, Seattle, Wash., Nov. 1934.
Early History of Article I

When plans for the lumber code were being consummated, one forester immediately recognized this as a rare opportunity to bring about better forestry on the privately owned timber lands. This man, Ward Shepard, called the attention of President Roosevelt to this desirable phase of a code for the lumber industry and thereby started a strong movement among foresters and others interested in forest conservation to incorporate in the lumber code a provision for good woods practice.

A conference was then called in Washington, D. C., to meet on October 24, 25, and 26, 1933, for a consideration of a forest conservation article as a part of the lumber code. This meeting called by Secretary of Agriculture Henry A. Wallace, was attended by 75 delegates representing the following organizations, listed here as a matter of record: the lumber industry, United States forest service, United States Indian service, Society of American Foresters.

16 Gill, Tom, The man behind Article X. Jour. For. 31: 842, Nov. 1933.
American Forestry Association, Association of State Foresters, Pack Foundation, National Recovery Administration, the National Grange, American Farm Bureau Federation, United States Chamber of Commerce, state extension foresters, the pulp and paper industry, the naval stores industry, and the Farmers' Educational and Cooperative Union. The farm wood-lot owners, the turpentine industry, and the pulp and paper industry were not subject to the lumber code, but their representatives were asked to the conference in order to coordinate the standards of woods practice.\textsuperscript{20}

The conference, with Secretary Wallace as chairman and H. S. Graves as vice-chairman, transacted considerable business, which is briefly summarized here as an aid in understanding the later developments under the lumber code. Committees were appointed to consider the various phases of forest practice and to report on them to the meeting. These reports were then discussed and voted on by the general session, after which the reports, whether sustained or rejected, were sent to the various regional divisions of the lumber code authority. The various regions were then requested to submit recommendations to the conference, which proposals\textsuperscript{21} are to be the basis for the rules of woods practice to be drawn up by the general conference meeting December 14, 1933.

\textsuperscript{20} Am. Forests 39: 515, Nov. 1933. op. cit.
It is interesting to note in this connection that the committee on public timber disposal and acquisition recommended a policy of strict conservation in public timber disposal, the timber to be withheld from competing with private timber on a poor market. This committee also favored increased public acquisition of timberlands and endorsed a policy of incorporating the Oregon and California Land Grant areas into national forests. The committee on taxation emphasized the need for a reduction in the tax burden on timberland owners, but went on record as opposed to a yield tax on timber.22

The October meeting of the Conservation Conference was apparently a marked success,23 and high hopes were held for a successful conference on December 14.

The December Conference saw a total of 94 delegates of the forest industry and related groups working in close harmony on the problems arising from Article X of the code.24 The main item of business transacted was the appointment of the following committees: forest practice, public timber disposal and public acquisition, taxation and forest credits, public cooperative expenditures, farm timberlands, and emergency timber salvage. These committees were charged with the work of carefully considering all the proposals in their

24 Reed, Franklin, Conference on Article X. Jour. For. 31: 891-896, Dec. 1933.
fields, and reporting to the conference on them, including recommendations on the problems involved. The conference then considered the recommendations of the committees, prepared a report, and advised the divisional code authorities of its action. The divisional code authorities, after considering the proposals of the conference, reported back to the committee. The divisional reports were then studied by the six specialized committees and final recommendations were made for action by the next session of the conference on January 24, 1934.

The conference met again on January 25, the central committee having been in session since January 22. This meeting convened to study the regional rules of forest practice which had previously been considered by the committee on forest practice and found them, for the most part, to be defective. The regional codes were then referred back to the various regions for revision. These divisional agencies of the code were then instructed to draw up the final rules of forest practice by April 15, 1934, and to submit them for approval by the Lumber Code Authority. It was decided that the rules are to be put into practice on June 1,

1934.

The conference proposed an amendment to Article VIII (production allocations), providing for a ten percent increase in cutting allocations to operators going on sustained yield and an amendment to Article X (forest conservation) to put the forest practice rules into effect. The conference also decided that a committee is to be appointed by the Secretary of Agriculture and the chairman of the Lumber Code Authority, with an equal number of industry and public representatives, to take such action as needed to put into effect the recommendations of the conference.

Mr. O. Butler, in an article in American Forests magazine, summarizes the program agreed to by the January 25 conference as follows:

1. Rules of woods practice to maintain productivity and eventually to bring about sustained yield.

2. All farm woodlands placed under the code.

3. Adequate forest protection with the federal government meeting up to fifty percent of the cost.

4. Enlargement of the public forest area by 225 million acres, balancing approximately the forest land ownership between the public and the industry.

Butler, O. loc. cit.

A complete account of all the recommendations and proposals of the conference is presented in the following reference: Jour. For. 32: 275-307, sup. Mar. 1934. op. cit.
5. Direct attack by the federal government and the states on the problem of forest taxation.

6. Creation by Congress of a temporary revolving fund of 200 million dollars for loans to the forest industry.  

7. Increased federal activity in forest research and forestry extension work.

In line with the recommendation of its committee on public timber disposal and acquisition presented at a previous meeting the conference went on record as advocating "extreme conservatism" in public timber disposal and favored the incorporation into national forests of the Oregon and California Land Grant areas.

The Joint Committee established by the January 25 conference met on February 15, 1934, with the Assistant Secretary of Agriculture, who represented the Secretary, and arrangements were made to have a hearing with the president on February 23. Then on February 26, public hearings were held on the proposed amendments to Articles VIII and X of the code as approved by the Lumber Code Authority. On March 12, a hearing was held on the amendment proposed by the president to bring all the forest products industries under the code. Although a number of controversial opinions

30 It should be noted that the Forest Service representatives at the conference declined to vote on this issue, stating that they desired "to study it further".

31 October 24, 1933.

32 Reed, F. W. Further progress and accomplishments under the lumber code. Jour. For. 400-404, 524-526, Apr.-May, 1934.
were expressed at the hearings, all the amendments to Articles VIII and X became law.

The administrative organization for the forest conservation phase of the lumber code was finally perfected when John B. Woods was appointed its head on April 2, 1934.

Later History of Article X

The lumber code and the forest conservation article were put into effect amidst the hearty approval of a large number of at least the more vociferous members of the industry. Did the initial acclaim of the code indicate lasting support from the industry? A perusal of the later history of the code and of Article X may throw some light on this matter.

As soon as the lumber code and the forest conservation phase of it were put into effect, differences of opinion arose among members of the industry. Small operators were suspicious of the large operators who were influential in the administration of the code. Price fixing was found to be unworkable because the competitive conditions within the industry placed a premium on "chiseling" on the prices. Thus we find lumbermen dodging the price fixing provision by such ruses as "sweetening the grade", delivering high

33 Formerly of the Long-Bell Lumber Company. The head of the Lumber Code Authority, John D. Tennant, is also connected with this company.
grade lumber to the purchaser of low grade stuff, and resorting to "betting", making a wager with the purchaser that a specified amount of lumber could not be delivered at a certain place by a specified date - a wager which was always lost, thus amounting to an outright sale of the quantity of lumber mentioned without an actual "sale" taking place. Practices such as these under price fixing reflected unfavorably on the remainder of the code, and we find more and more operators becoming disillusioned.

A few lumbermen, notably those influential in its administration, spoke optimistically of the future of the code, and, finally, struggled heroically to make it a success. The odds were against this group, however, for in addition to the open opposition of an increasing group of operators, the N. R. A. failed to receive the support of the courts. The final factor in making the lumber code inoperative was the failure of the Department of Justice to carry through the supreme court the Belcher case, which was appealed from a lower court and was hailed as a final


A. E. Belcher, an Alabama lumber operator, was indicted for violating the wages and hours provision of the lumber code, but the federal district court held against the government, ruling the N. R. A. unconstitutional. The government appealed the case to the supreme court, but the Department of Justice finally dropped the appeal.
test of the constitutionality of the N. R. A. legislation. At the present time (May, 1935) the lumber code is not enforced but is complied with voluntarily by the members of the industry as found convenient in the various regions.

The history of the lumber code is briefly summarized here as a matter of record.

As a result of the withdrawal of the Belcher case from the courts by the government, the Lumber Code Authority discharged most of its employees,36 to take effect April 12. At this time the executive officer of the Lumber Code Authority, Mr. D. T. Mason, announced that the withdrawal of the Belcher case means suspension of the code, in effect, if not in fact. Also, the president of the National Lumber Manufacturers Association, Mr. C. C. Sheppard, forcefully arraigned the N. R. A. and the Department of Justice and declared that some provisions of the lumber code were written and forced on the industry by the administration.

A meeting of the West Coast Lumbermen's Association at Portland, Oregon, on March 29, 1935, voted for suspension of the present code and the drafting of another "more acceptable to the industry".37,38 The conference, however, favored voluntary compliance with the wages and hours and

38 Greeley, W. B. West Coast Lumbermen's Association, published statement.
forest conservation provisions of the code, pending formulation of a new lumber code.

In the midst of this storm of opposition to the present lumber code a few voices were raised in support of it, notably that of the Western Pine Association,\textsuperscript{39,40} which declared itself in favor of retention of the present code and in opposition to any changes.

The Lumber Code Authority, finding the code non-enforceable, echoed the sentiments of the various divisions of the industry and made no attempt to secure code compliance. The Southern lumbermen declared themselves in opposition to the code,\textsuperscript{41} and the National Lumber Manufacturers Association called upon the various industry associations to voluntarily continue the forest conservation practices of the code.\textsuperscript{42}

In an attempt to secure code compliance N. R. A. officials, through Donald R. Riehberg, informed the Lumber Code Authority that it had no authority to suspend the lumber code,\textsuperscript{43} only the president or his representatives could bring about suspension. This statement, however, brought

\begin{itemize}
\item \textsuperscript{39} Morning Oregonian, Mar. 4, 1935. Pine men oppose added regulations.
\item \textsuperscript{40} Morning Oregonian, Apr. 2, 1935. Pine association in favor of code.
\item \textsuperscript{41} Morning Oregonian, Apr. 5, 1935. Lumber boycott proposed by N. R. A.
\item \textsuperscript{42} Morning Oregonian, Apr. 12, 1935. Ickes considers ways to enforce lumber code.
\item \textsuperscript{43} Morning Oregonian, Mar. 31, 1935. Riehberg warns lumber trade.
\end{itemize}
no results; so the N. R. A., through W. A. Harriman, declared that it will administer the code with three men of its own selection, recognizing the Lumber Code Authority merely as an advisory board. Code compliance is to be secured by boycott. It is announced that no governmental agency will buy lumber unless the vendor signs a certificate of compliance with the lumber code. In line with this ruling all projects financed from Public Works Administration funds have demanded compliance certificates from lumber vendors.

Thus we can see that the lumber code as a whole has passed through the stages of enthusiastic acclamation and partial enforcement to ineffectiveness and non-compliance on the part of the operators. The last chapter in the history of the code seems to have been written, the code, as such, is merely a memory.

The forest conservation provision of the code, Article X, has, of necessity, been closely tied up with the remainder of the lumber code and has been subjected to the same treatment. It is heartening to note, however, that,

44 Morning Oregonian, Apr. 5, 1935. Lumber boycott proposed by N. R. A.
45 Morning Oregonian, Apr. 12, 1935. Ickes considers ways to enforce lumber code.
although the rules of forest practice and the sustained yield program have met with numerous difficulties in application, no one has publicly denounced them, and all the trade associations have asked for their voluntary retention by members of the industry even though the code, as a whole, may be suspended.

The public in general, and the foresters in particular, are interested in retaining the forest conservation provisions of the lumber code, this great gesture toward forester-management of our timber resources, and efforts are being made to bring this about.

In the Douglas fir region we are particularly impressed with the necessity of better forestry practice on private lands than we have had heretofore. To secure first-hand information on the attitude of our Douglas fir operators toward Article X of the code and to find the reasons for its success or lack of success, a study was made in this region, and the results are recorded here.

An article in The Timberman, 36:12, Jan. 1935, states that eight operations are on sustained yield under the lumber code at this time. The operations are as follows, none in the Douglas fir region of the Pacific Northwest: Allison Lumber Co., Bellamy, Alabama; Crosby Lumber and Mfg. Co., Crosby, Miss.; Crossett Lumber Co., Crossett, Arkansas; Diamond Match Co., Stirling City, Calif.; Fruit Growers Supply Co., Susanville, Calif.; Southern Pine Lumber Co., Diboll, Texas; Union Sawmill Co., Huttig, Arkansas; Urania Lumber Co., Urania, Louisiana.
THE LUMBER CODE IN THE DOUGLAS FIR REGION

Importance of This Region

At considerable risk of triteness some statistics are quoted and discussed for the purpose of making this paper complete and emphasizing to the reader those facts, perhaps oft-repeated in current forestry literature, that bring out the all-important position of lumbering and forestry in the Pacific Northwest.

According to statistics of the United States Forest Service, the Pacific Coast region, comprising the states of Washington, Oregon, and California, contains 13 percent, an area of 66,885,000 acres, of the total commercial forest land of the United States. Of this huge area, 33,037,000 acres is privately owned. Only one other region, the South, exceeds this in commercial forest area. The Pacific Coast leads the nation in area of old growth timber, which totals 38,892,000 acres in this region.

As to growth, Munger of the Pacific Northwest Forest Experiment Station estimates the present annual growth in the Douglas fir forests of western Oregon and Washington to be one billion board feet, with an estimated increase to three billion board feet in twenty years and

47 A National Plan for American Forestry, op. cit.
seven billion in the more distant future. The increase may be attributed to faster growth of the young trees when the present mature forest is liquidated.

As to the lumber industry, from another source we learn that Washington and Oregon have ranked first and second, respectively, in lumber production almost every year since 1919. In the peak year of 1929 Oregon alone had a cut of 4,784,000,000 board feet. The 1929 census shows over 139,000 people employed in the forest industries of Oregon and Washington.

The above serves to show the extent of the forest trade in the Pacific Northwest. Permanency in the timber industry appears to be of vital importance in maintaining our payrolls and communities. This permanency is the objective of foresters and is the goal toward which Article X of the lumber code was a step.

Timber Industry and the Lumbermen

As we have already pointed out, when the lumber industry had passed through the peak stages of lumberman-utilization in the Northeast, Lake States, and South, the migration was to the Pacific Northwest. Virgin timber was here for the taking. The federal government gave timber away and the settlers sold it at ridiculously low prices.

Crow’s Pacific Coast Lumber Digest, Oct. 23, 1934, p. 22.
Enterprising lumbermen recognized the opportunity, took advantage of it, and made money not only on lumber and forest products but on the rising values of stumpage. As someone has pointed out, probably more money has been made on this enhancement of stumpage values than in any other phase of the lumber game.

Thus the Pacific Northwest became a lumber producing area with most of the early timber speculators faring well financially. Those who arrived later, however, were forced to purchase timberland at higher prices, and as the lumber market failed to advance as it should under a "timber famine", many operators found themselves in serious financial difficulties. This combination of high stumpage prices, failure of the lumber market to keep pace with the expected, heavy investment in mills and factories, large timber ownerships with attendant carrying charges, taxes and other costs, has forced many lumbermen to frantic efforts at liquidation or, in some cases, into receivership.

The Douglas fir lumbermen were, in the main, pioneers, rugged men, individualists, but men who were forced to the wall by conditions beyond their control. It was under these circumstances that the lumbermen accepted and welcomed the lumber code, a code which "meddled" into their private business but which promised them a chance to struggle out of their financial doldrums.
Application of the Code in this Region

Much difficulty was experienced in drawing up and securing compliance with a workable code. The industry in this region is scattered over a big area with varying conditions and varying interests. In one part of the region we find the virgin stands fairly well liquidated with saw-log lumbering changing to pulp and paper manufacturing; in another part we find virgin sawlog and "peeler" logging; in another we find a multitude of small operators utilizing low quality stands widely distributed over a large area. In addition practically all the operations are conducted on a clear cutting and broadcast burning basis. The logging methods, also, are characterized by high speed, powerful machinery using high lead and skyline systems that require the removal of a high timber volume to keep down costs, and that volume not removed in logs is usually destroyed by the operations on the area. This condition may be attributed to five factors:

1. Rough topography, necessitating powerful equipment.
2. Large timber.
3. Past investments in this type of equipment.
5. Failure of silviculture to improve upon the
clear cutting system of logging in this type.

It can be readily seen that to get the many operators, large and small, who are used to the old ways of logging, many of whom are on the verge of bankruptcy, to embrace the code and suddenly begin practicing rudimentary forestry required considerable educational work and plenty of enforcement.

The application of the lumber code, particularly the conservation phases of it, appears to present a problem of colossal magnitude. Was this problem solved? Here's what the lumbermen thought:
VIRGIN DOUGLAS FIR STAND

Photo Courtesy U.S. Forest Service
LOGGING IN DOUGLAS FIR

Photo Courtesy U.S. Forest Service
SURVEY OF CODE OPERATION IN THE DOUGLAS FIR REGION

Procedure

Considerable information is available on the story of the lumber code and on the attitude of the men in charge of its application and enforcement, but apparently little is known of the attitude and private thoughts of the men on whom the code is applied. It is true that the more vociferous members of the industry have made themselves heard, but, in general, public denunciations or expressions of wholehearted support of the code by lumbermen have been rare.

Confidential information is often difficult to secure because of the reluctance of individuals to express themselves when such expression may react unfavorably toward their business. It was thought that busy and harassed lumbermen, already overburdened with paper work resulting from the code, would look with disfavor on questionnaires sent by individual investigators and which were of no particular import to them. The method of confidential, private interviews was therefore decided upon to secure field information on the subject.

Interview technique had the disadvantage of limiting contacts to those members of the industry within reasonable traveling distance for the investigator. Lumbermen located
in the trade centers of the State of Washington were, therefore, necessarily eliminated from this report because of limited time and facilities at the disposal of the writer. This limitation, however, appears to be not serious because no reason for different conditions for code enforcement should occur in one part of the region than in another. Code enforcement is carried on by the same agency but different officials, and the industrial problems are similar, even though the individual members of the industry may differ. It is believed that the results obtained from our Oregon interviews are no different from those that would have been obtained in Washington, for, after all, no reasons for variation are evident.

The interviews were intended to include as many members of the lumber industry as could be contacted in the time available. Particular effort was made to include a variety of operations in order to get first-hand information on all angles of the problem. Acknowledgment has already been made to the firms contributing to this report, including the following types of operations:

Large operators (generally with lumber-producing capacity of over 35,000 board feet per day);
Small operators;
Logging men;
Wholesale lumbermen;
Retail lumbermen;
Forest engineers, consulting foresters;
Lumber trade associations;
Code authority representatives;
Lumber trade journals;
Public representatives, U. S. Forest Service.

Note should here be made that all firms to whom acknowledgment is made did not furnish confidential data on their own operations. Some assisted by introducing the investigator to other lumbermen, by expressing opinions on minor phases of code enforcement, or by general discussion of code problems, forestry and the lumber industry. Interesting information not directly applicable to the code problem is included in the appendix to this report. Interviews were intended to include at least the following items:

General opinion of the lumber code and Article X;
Small operators under the code;
Fire protection of cut-over lands;
Reforestation under the code;
Sustained yield of forest lands;
Recommendations as to public cooperation and legislation.

The investigator was courteously received by nearly all the firms contacted, and, generally, the lumbermen were
eager to share experiences and express opinions on certain code problems with which they were familiar. In some instances, however, hesitancy in answering questions relating to private business affairs was evident. Some individuals, also, appeared ignorant of, or misinformed on, such technical terms as "sustained yield", "reforestation", and "selective logging". In only one or two instances did a lumberman deliberately attempt to misinform the interviewer, a fact brought out by further questioning and "cross-examination" during the course of the discussion. In these instances the lumbermen wished to create an impression of altruism and public-spiritedness, although, in reality, they were in the lumber business for profit and personal gain just like everyone else.50,51,52

The reliability of results secured through confidential interviews should be high, because the interests and knowledge of the man contacted were soon discovered and the discussion directed into those channels producing best results. It was obvious that the retail lumberman knew little of forest conservation under the code, therefore discussion of Article X was kept to minimum in his interview.

51 Hallauer, F. G. Will sustained yield in lumber operations come through regulation or competition? Jour. For. 28: 942-951, Nov. 1930.
Results obtained are here discussed under eight headings.

Results

1. General Discussion of the Lumber Code

Lumbermen

Of the lumbermen who expressed a general opinion on the lumber code, the percentages were as follows:

- Code is desirable: 45 percent
- Code is undesirable: 55 percent
- Code is workable: 20 percent
- Code is unworkable: 80 percent

The men who stated the code was desirable were, for the most part, operators who were in a very precarious financial position before the code went into effect or those who were engaged in the wholesale and retail end of the business. The few wholesale and retail wood products men included in this survey were one hundred percent in favor of the code.53 The lumbermen stated that the code was needed by the industry to stabilize lumber prices and allow them to get out of their financial crisis. One operator, well-known for his progressive thought on

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53 One of the reasons given for the collapse of the code structure was that the wholesalers were left out of the jurisdiction of the code and profited by the burden carried by the operators. Ref. Mason, D. T. Lumber Code (Lbr. Ind. Ser. v. 11) 30 p. 1935. Yale U. School of For., 205 Prospect St., New Haven, Conn.
industrial responsibilities to the public, expressed himself as favoring the code for its provisions for safeguarding the public interests, to which private interests should be subordinate.

Those who declared the lumber code undesirable were opposed to it mainly because of added costs of operation. Among other things the fact was brought out that in many cases the code required the sawmill to operate at reduced production, yet the cost of overhead, depreciation, etc., went on as before. It was also pointed out that under "price fixing" (established minimum lumber prices under the code) only the wholesaler benefitted. The wholesaler, being outside the code, bought from the small operators at below-the-code prices and sold to the retailer at code prices. Small operators were forced to suffer this because of his inability to maintain his own sales organization. An exporter of lumber declared price competition on the export market to be so keen that compliance with code minimum prices or provisions such as Article X, which increase the costs of operation, is impossible.

Another item receiving considerable comment in the code set-up was the coercion feature. Any form of government control or regulation of private business was vehemently opposed! Regulation was mentioned as a "hobby" of the

54 A situation which, perhaps, could be remedied by a cooperative sales organization for small operators.
present national administration. The profit motive was declared to be the moving force in industry today (sic) and no amount of regulation would be able to change this. The code, particularly the forest conservation features of it, were said to be a fabrication of the forest land owners, manufacturers, and the Forest Service, and "forced down the throats" of the loggers.

Some unfavorable sentiment was expressed on the "minimum wages, maximum hours" provision of the code. One lumberman explained that to meet competition his prices had to be reduced, and to reduce prices he had to reduce costs of production which resulted in a necessary reduction in wages. Discussion of this phase of the code showed that although wages were increased, the hours of work were decreased so that the aggregate earnings of the workers were less than before. The work, also, was arranged throughout the week in such manner that workers had small opportunity to increase their earnings with other part-time jobs.

As to workability of the code, it was found that the great majority of lumbermen declared the code unworkable. The only operators who thought the code workable were the wholesale and retail men and one woods operation to whom the code generally had been a blessing, due to financial difficulties.55

55 This information secured from competitors and associates and apparently borne out by data gathered in interview.
The chief reason for unworkability appears to be the difficulty of enforcement, particularly as to small operators. The combination of non-compliance by a minority and lack of adequate enforcement forced more operators into price "chiseling" activity. Among the clever ways of "chiseling" was that of "lumber wagers". The lumber buyer would bet the operator $200.00 that a specified amount of two by fours could not be delivered to him by a specified time. The wager, of course, was always lost if the terms were satisfactory to the lumberman. Another popular way of avoiding the "minimum price" rule was to "sweeten the grade". The buyer bought some low grade lumber and received delivery on higher grade stuff.

Enforcement of code provisions, of course, was not attempted after the supreme court decision in the Belcher case which declared the N. R. A. lumber code unconstitutional. 56,57,58,59,60,61

One lumberman, obviously unfamiliar with lumber code history, remarked that the code was drawn up by men unfamiliar with West Coast conditions; the code was thus un-

59 Lumber boycott proposed by N. R. A. Morning Oregonian, Apr. 5, 1935.
60 Ickes considers ways to enforce lumber code. Morning Oregonian, Apr. 12, 1935.
workable here, and was administered by men interested only in holding their jobs.

Some sentiment in favor of nation-wide regulation to eliminate competitive advantages of one lumber producing region over another was expressed. That a federal law to equalize differences in wages and working conditions in the various forest regions be passed was proposed. In general the operators favored some control of wages and working hours and forest conservation.

Summarizing: Majority of lumbermen declared code unworkable. Sentiment on desirability was more evenly divided with the greater number not in favor of a code. Wholesale and retail lumbermen very much in favor of the code. Most of code opposition based on increased costs of operation and its coercion features. Unworkability chiefly due to lack of enforcement and difficulty of enforcement of a recalcitrant minority.

Trade Associations

No general comments on the code.

62 A proposal probably not favored by competitive forest regions with wages lower than those of the Pacific Northwest.

63 See also Woods, J. B. Schedule C and the forest practice rules. Jour. For. 33: 224–30, Mar. 1935, in which the following estimates for the nation's lumber industry are made: 60% of production fully up to code, 30% partially complying, and 10% not complying.
Trade Journals

The consensus seems to be that although some regulation may be desirable in the lumber industry the code has proved to be the wrong approach to the problem. One reason for unworkability of the code has been the lack of clear-cut, simple explanations of code regulations. Expressed in complicated legal language, code orders and regulations are often vague and unintelligible to the man in the woods. Another detrimental factor in the successful application of the code has been the proved failure of price fixing clause. Failure of this feature of the code has cast a doubtful light on the other code regulations, including Article X.

The conclusion is that the lumber code will not survive the attacks being made on it.

Consulting Foresters

The inclusion of a price fixing clause in the lumber code was unfortunate because its failure reflected unfavorably on other features of the code. Such provisions as production control for a natural resource industry and conservation are very desirable and not a great burden to the operators. It is thought that the desirable features of the code will survive in some form in the industry, although the code in general may become past history.
U. S. Forest Service

No general comments on the code. The Douglas fir region, in general, is thought to have a better set of rules of forest practice than any of the other forest regions.

2. Influence of the Code on Small Operators

Lumbermen

The lumbermen interviewed exhibited more interest in the problem of the small operator than in any other topic discussed. In answer to the question, "Has the lumber code discriminated against the small operators?" the results were:

Yes 64 percent
No 36 "

Those who declared that the code has discriminated against the small operator appear to have the support of the evidence on hand as will be seen in the following discussion.

Operators stating that no discrimination is evident in code administration argue that the small operators have had an opportunity to express their views on the code and have received the same treatment as the larger operators. It was also brought out that under the code the small operator learned for the first time what his product was worth.
Other points brought out were that the small operators have been subject to less supervision under the code than the large, and furthermore, the investment and overhead charges of small operators are so small that production curtailment has but little effect on them.

A number of points was brought forth in support of the statement that small operators were discriminated against. The majority were of the opinion that code construction, application, and enforcement has been dominated by the large operators and is aimed at the betterment of their economic position with little regard to the welfare of the weaker members of their industry. Discussion brought out the following information:

In setting the code prices the administrative agency sent questionnaires on production costs to the lumbermen. Since the small operator had no cost accounting system and knew little or nothing of his actual production costs, he was unable to reply to the agency questionnaire, thus answers were received mainly from the large operators. Production costs of large operators are usually higher than those of the small, it is argued, and since prices were fixed on the basis of these higher costs, we find the small operator at a distinct disadvantage in marketing his product. High lumber prices turned the buyers to the better

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64 The truth of this statement may be questioned, as will be shown in later discussion.
merchandised stock of the larger mills; the result was "chiseling" by small operators.

Small operators make up the greater number of lumbermen in the region but have only one representative on the code enforcement committee, while large operators have several. Production allocations for small operators are also very unfavorable. The example is cited where a large operator is allowed to operate his mill 58 hours per week, whereas a small mill nearby is allowed to operate only 18 hours per week. Even though his orders are booked ahead, the small mill is held to his unfair minimum hours, with resulting loss of income. It is thought that large mills are allowed to operate at near-capacity but small mills are cut down to a small fraction of their capacity.

Selfish motives on the part of large operators are suspected in the administration of the code. The statement is made that the forest conservation regulations of the code would put the small logging men out of business if strictly enforced. The bigger lumbermen are thought to be soliciting aid from the government by sponsoring regulations in the public interest.

A few of the large operators came out boldly with the

65 But not the greater production. Figures furnished by the Pacific Northwest Forest Experiment Station show that mills of less than 35,000 board feet daily capacity produced the following percentages of the total: 1925, 5.89%; 1929, 8.03%; 1931, 5.21%.
assertion that small operators are a "detriment" to the industry and jeopardize public interests by their "devastation of immature timber" and "undesirable logging practices". These men indicated that the "elimination" of small operators might not be a bad idea! (It should be emphasized, however, that radical opinions such as these were rare and should not be construed as expressions of the large operators as a whole).

Summarizing: The majority of lumbermen thought the lumber code unfair to small operators because of the dominance of large operators in the code administrative agencies. The consensus was that the code was generally aimed at betterment of the economic position of the bigger lumbermen with slight regard to the welfare of the small members of the industry.

Trade Associations

The opinion was expressed that as a result of public acquisition of timberlands and the blocking up of public timber with private areas for sustained yield the small operators may be largely eliminated from the industry. The small operators at the present time are, for the most part, cutting small, growing, immature timber and getting small returns for it. The present lumber cut should be mainly old growth timber so that the young stuff could grow.
Trade Journals

Opinion on whether the code has discriminated against the small operator is about evenly divided. Consensus is that the large operators have dominated the code work due to their alertness in perceiving possibilities to better their economic position. Great possibilities are seen in Article X to eliminate the small operator. One trade journal deplores the fact that "poor business judgment" was rewarded by the allocation of greater production to lumbermen with heavy investments in timber. Much of this timber investment is overinvestment resulting from poor judgment, therefore why reward it?

Comment was made that as a result of the lumber code, the large operators were agitating for the inclusion of the Oregon and California Land Grant lands in national forests. It is claimed these lands are depended upon for their timber supply by many small lumber outfits, whose elimination would result if the lands became national forest. Such elimination of small operators, it is said, would better market conditions for the large operators.

Consulting Foresters

Thought that small operators are faring well under the code since they can get by with code violations that larger mills are checked on. Small operators are difficult to police, and they comply with code provisions in a
desultory fashion.

U. S. Forest Service

The observation is made that many small operators who were out of business found it possible to begin operations anew under the code. Thus it appears that at least in some instances the code has been beneficial to small lumbermen.66


Lumbermen

Only a limited number of the lumbermen contacted discussed the general aspects of Article X, forest conservation under the lumber code. The opinion was expressed that enforcement of Article X to date had not subjected the operators to any unnecessary hardships or undue expenses. The lumbermen agreed that Article X was such a recent addition to the code that its effects had not been fully felt and judgment as to its value would be premature.67 The general attitude toward the conservation phase of the lumber code was favorable, with particular emphasis being given the low cost of necessary changes in operations required by Article X rules.

66 see also Small Mills Thrive, article in Business Week, July 28, 1934, p. 12.
67 Perhaps Article X was never given a fair trial due to its late introduction, general code controversies at the time, and early total abandonment.
It may be noted that a few operators thought the forest conservation requirements of the code superfluous. They pointed out that the timber famine predicted by some of our early-day foresters never arrived, and our forests were now growing faster than they were being cut.\(^68\) This statement, however, appears to be a slight exaggeration in the case of the commercial forest area of the West Coast, for which the following figures are given:

Growth: 1,765,000,000 bd. ft. per year\(^69\)

Production allocation under the code:\(^70\)

1,181,300,000 board feet for the first quarter of 1935, or, in round numbers, a cut of 4,700,000,000 board feet per year.

Cut exceeds growth by 2,935,000,000 board feet per year.

Summarizing: Lumbermen appear to be favorable to a conservation policy not involving appreciable added expense to them. Some members of the industry are not convinced that conservation through regulation or legislation is necessary.

**Trade Associations**

General aspects of conservation under the code not discussed.

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\(^68\) see also Woods, J. B. *Where are we in forest conservation?* *Jour. For.* 54: 682-8, July, 1936.

\(^69\) A National Plan for American Forestry, op. cit., p. 221.

\(^70\) Crow’s Pacific Coast Lumber Digest, Jan. 5, 1935.
Trade Journals

The suspicion was voiced that Article X of the code was aimed at selfish ends, being intended to better the economic position of large operators over the small lumbermen.\(^1\) In general, the editors of the trade journals thought the conservation rules were accomplishing some good in the woods, especially on some of the larger operations.

Consulting Foresters

Enforcement of Article X is thought to involve but slight additional expense to operators. No data is available on the extent of participation in code regulations for forest conservation.

U. S. Forest Service

No general comments on this topic.

4. Fire Protection Under the Lumber Code

Lumbermen

Opinion was equally divided on the question, "Has the lumber code resulted in better fire protection in the woods?"

The chief argument given in support of the contention that the code has not reduced fire danger was that the state laws already adequately dealt with the fire protection problem. It was stated that the enforcement of the state fire

\(^1\) see also discussion under "Small Operators", this report.
RESULT OF A FOREST FIRE
laws was as fully effective as the enforcement of code provisions was or could be.

One lumberman said that no compliance in spirit was evident among small operators. This minimum compliance was said to be due to the expense involved in the fire protection requirements and the incongruous situations arising from their enforcement. The example was given of one small operation employing only three men having to go to the expense of a full fire fighting outfit with six shovels, six grub hoes, etc. Another operation, although located far from any adequate water supply, was required to furnish a water pump system for fire fighting purposes.

Opposition was expressed to the snag falling requirements of the code, which was said to be "unnecessary and unreasonable" and to involve "much expense".

Those who thought the code valuable in preventing forest fires cited the educational value of this phase of code enforcement, and asserted that much had been accomplished in making operators forest fire conscious.

Summarizing: Opinion on the value of the fire protection requirements of the code was divided. The main argument brought forth on the question was that Article X accomplished nothing beyond that which had already been taken care of by the state forest fire laws. Considerable

favorable comment was heard on the educational value of code forest fire protection requirements.  

**Trade Associations**

The code was given a large share of the credit for the good fire season (1934). Although code requirements merely follow state laws and do not supersede them, the emphasis placed on enforcement and education has done much to improve fire protection in woods operations.

**Trade Journals**

Opinion on the value of the code in improving fire protection was divided. It was thought that the small operator, the greatest fire hazard among loggers, had been influenced to practice better fire protection. The contrary thought was that the code fire protection regulations were being enforced sporadically and the resulting confusion was not conducive to effective region-wide protection.

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73 Woods, J. B. Where are we in forest conservation? Jour. For. 34: 682-6, July, 1936, states that at "high tide of compliance" 95% of lumber production was under the forest fire rules, and 82% was under the cutting practice rules in the nation as a whole.

Other references:

Consulting Foresters

The state law was thought to have taken care of fire protection to an adequate degree. Since the code did not supersede the state forest fire laws, very little was accomplished toward better protection.

U. S. Forest Service

Much credit is given to Article X of the code for a successful 1934 fire season. Continual emphasis on fire protection and the requirement of adequate fire fighting tools at all operations has made the small operators, who constitute the greatest fire menace, more careful and better prepared to prevent and control fires.

5. Reforestation under the Code

Lumbermen

Discussion of the problem of reforestation indicated that lumbermen generally had the wrong idea of the word "reforestation". Apparently most lumbermen thought of "reforestation" as artificial reforestation or planting. Nearly all operators questioned on this point thought that no rules as to reforestation of their cut over areas were necessary since enough large, conky, defective, and marginal-value trees were left on the area to assure a new stand. Slash burning as practiced at present was thought to be the chief drawback to adequate reforestation. To improve this
GOOD NATURAL REPRODUCTION
condition suggestions of prompt burning and spot burning of Douglas fir slash were made.

One operator, laboring under the delusion that "re-forestation" meant tree planting, emphatically stated that reforestation was possible only by the very largest operators or the government!

This investigator was greatly surprised at the unanimity of opinion to the effect that reforestation was being adequately provided for under the present logging conditions. With these facts in mind a representative logging operation, in fact, directly supervised by one of the lumbermen who declared "reforestation is adequate", in the Coast Range Douglas fir type, was visited and the following memorandum, self-explanatory, was written in the field:

The high lead method of logging destroys all young reproduction, poles, and younger trees which may have been left on the cutting area. The large trees left because of defect or poor quality are badly scarred and damaged. The number of large trees left is probably enough to seed the area adequately, but the broadcast slash burning plus wind-throw destroys nearly all of them.

Reproduction on cut over areas is generally very poor. Areas cut over in 1917 at the present time, 18 years later, support only a "spotty" stand of low quality trees. Most of the old logged-off area as well as the recent cut-over is devoid of reproduction of the valuable tree species, being covered for the most part by shrubby species such as hazel and chinquapin.

Timber mining, fast, powerful machinery, little care for the future forest, broadcast burning, and similar practices are still the outstanding features of the average Douglas fir operation.
Summarizing: Lumbermen appear not to be cognizant of the true meaning of "reforestation", and, for that reason, are not interested or receptive to regulations aimed at reforestation on their cut-over lands. The unanimous opinion that present logging methods adequately provide for reforestation is refuted by facts evident to anyone visiting one of the typical Douglas fir logging operations.

Other Agencies Contacted

No data on reforestation under the code.

6. Possibilities of selective logging in this region

Lumbermen

The advocacy of some form of selective logging for Douglas fir operations by the rules of forest practice of the code prompted this investigator to question lumbermen on their views on this matter. The lack of a clear idea on what constitutes selective logging was apparent, with the majority assuming "selective logging" to mean "tractor logging" for selected trees. With this interpretation in mind, opinion among operators was divided on the possibilities of this form of logging. Those who said "not possible" based their argument on the necessity of using powerful machinery in the large timber with resulting breakage of the immature trees. Those who thought selective logging "possible" cited instances where this was practiced. It was
estimated that selective logging was adapted to 65 percent of the timbered area in this region.

Summarizing: Opinions on the possibilities for selective logging practice in the Douglas fir region vary, largely because of the lack of a clear-cut definition of the term "selective logging". Although the forest practice rules list tree, group, and area selection under "selective logging" the lumbermen speak of it with tree selection in mind. 75

Trade Associations

Examples of successful selective logging in this region are cited, and the declaration is made that the "aim of the conservation provisions of the code is to secure more widespread selective logging in the Douglas fir operations".

Trade Journals

The assertion is made that selective logging with tractors is possible in 75 percent of the timbered area of the Douglas fir region. Examples can also be shown where donkey skidders were successfully used in selective logging.

74 Handbook of Forest Practice, op. cit.
75 Selective logging in Douglas fir is discussed more fully by T. T. Munger in speech entitled Practical Application of Silviculture to Overmature Stands Now Existing on the Pacific, delivered at Fifth Pacific Science Congress, Vancouver, B. C., June 13, 1933.
Consulting Foresters

Although selective logging in Douglas fir has not yet definitely proved itself, it appears to be feasible and is being practiced on several operations. The Douglas fir timber type requires a very flexible selective logging scheme and straight single tree selection will probably never be practiced. Clumps of mature trees in the stand must always be cut at one time, thus leaving large openings which favor Douglas fir reproduction over other species. Various-sized openings in the stand will also result from breakage in felling and skidding, concentration of logging operations around spar trees, and so on.

As a whole the possibility of using some scheme of selective logging in Douglas fir appears to be good.

U. S. Forest Service

Although reproduction on Douglas fir cut-over lands can be secured under present logging systems by either alternate settings or reserved strips or blocks, a system of single tree selection is basic to any sustained yield project. Although many silvicultural problems are present, this scheme, using modern flexible logging equipment, is now in practical use. Studies, results of which have been published, by the Pacific Northwest Forest Experiment Station, have shown the possibilities in Douglas fir single tree selection

76 see also Handbook of Forest Practice, op. cit.
logging.

7. Possibilities for sustained yield

**Lumbermen**

Operators questioned about their idea of the feasibility of sustained yield involving their operations or others with which they were familiar brought out only a difference of opinion. Only relatively few, usually the larger operators, saw any possibility of woods operations going on a sustained yield basis. The majority saw no immediate possibility of such a step, and several operators frankly admitted they had not considered the possibilities or given their operations any study on this matter.

Those favoring the sustained yield idea for their operations admitted that progress in this direction at the present time was slow. It was thought that in the future when timber becomes more scarce and more valuable, and if favorable legislation as to taxes and credits is passed, the chance for a sustained yield set-up would be considerably enhanced.

One operator discussed a sustained yield management plan which his firm had drawn up. This plan was never put into operation because, it is claimed, the Forest Service refused to cooperate in regard to national forest timber included in the proposed unit.
Statements given in support of the assertion that sustained yield was not possible in the Douglas fir region were based on the apparent impossibility of the small operators to become timberland owners or cooperators in a sustained yield scheme. It was said that over 50 percent of Douglas fir production was in the hands of operators who could not or would not practice sustained yield. A sustained yield operation was thought to be possible only by the government or a few of the largest operators, mainly because of the heavy tax burden on timberlands.

In regard to public cooperation to promote better forestry and sustained yield among private operators, the suggestion was made that the Forest Service should have an experimental forest area upon which selective logging and sustained yield could be demonstrated on a practical basis.

Summarizing: Lumbermen have not interested themselves to any extent in the possibilities of sustained yield timber management for two reasons:

1. Lack of close study of the problem;
2. Apparent impossibility of getting the small operators to cooperate in such an undertaking or to become landowners in order to control sufficient timber for a sustained yield set-up.

Photo Courtesy U.S. Forest Service

SELECTIVE LOGGING
Trade Associations

The small operator is thought to be in a bad way so far as sustained yield is concerned. Some of the large tracts of timberland could be placed on a sustained yield basis rather easily but for the small operators and timberland owners a cooperative scheme is necessary. Before such a scheme could become operative, however, some modifications should be made in the tax laws. A modification, perhaps, could be in the form of a deferred tax on timber with a federal loan to counties to compensate for reduced revenues due to the deferred taxes. The proposal is for the counties to repay this loan to the government when the timber taxes are collected at the time of harvest.

The desirability of sustained yield management of timberlands cannot be questioned, and such a scheme is possible in this region.

Trade Journals

The lack of interest among operators on the possibilities of sustained yield is thought to be due largely to lack of knowledge of the problem. Some operators are apparently looking into the matter, and it is expected others will become interested as the possibilities of such a scheme are demonstrated.
Consulting Foresters

The possibilities of sustained yield management would be greatly enhanced if the federal government would modify its timber acquisition policy to include the following:

1. Land with immature timber commercially valuable.
2. Timberland needed to block out sustained yield units.
3. Timberland with immature stuff in danger of early utilization by the mills, small operators, and others.

U. S. Forest Service

Some possibilities of cooperative sustained yield units for small operators are seen, but the immediate possibilities are only with the larger lumbermen. Only two operators are considered to be in a position where they could practice sustained yield management on their operations. One of these operations has a possible sustained yield of 325 million board feet per year.

The main problems in a sustained yield program for any operator in Douglas fir are (1) how to secure reproduction on cut-over lands, and (2) how to finance the carrying charges on long-term investments in timber and timberland.
S. Promotion of Private Forestry

Lumbermen

In view of the many difficulties confronting the lumber code, particularly Article X, and private forestry in general, an attempt was made to gather first-hand suggestions and ideas on what should be done to overcome these difficulties. Much has been written on this subject, but opinions of individuals in the rank and file of the industry should be of interest and perhaps of value.

The most significant suggestions were the following, in order of emphasis:

1. Modification of the timber tax laws.
2. Increased rate of public acquisition of timberlands.

Modification of tax laws was unanimously declared to be the most essential step toward private forestry. The present property tax on timber was declared to be prohibitive and confiscatory. It was pointed out that although the timber stand may be overmature and deteriorating and productive of no current income the private owner was, nevertheless, required to pay burdensome annual taxes.

78 For a more complete discussion of the problem see DeVries, W. Property tax as an obstacle to private development of idle forest land. Jour. of Land and Pub. Utility Econ. 9:228-232, Aug. 1933; also Orde-Powlett, N. A. Capital and interest. Jour. For. 29: 606-611, Apr. 1931.
In regard to public acquisition the lumbermen declared timber holding to be possible only by the government, and for that reason, the government should acquire and hold more of it. One argument in favor of more public acquisition was that with the present system of intermingled public and private timber the competition of government timber sales was unfair to larger operators who are timberland owners. In lieu of government ownership the proposal was made that private owners be adequately compensated for leaving seed trees and reserve timber on their cut-over lands and for other forestry measures which they may take.

Summarizing: Private operators favored two steps as essential toward better forestry: (1) modification of timber tax laws, and (2) greater public acquisition of timberlands. The advocacy of the latter appeared to be based largely on the premise that timberland holding for any period of time was not possible by private operators.

Trade Associations

Modification of the timber tax laws said to be the

79 Probably not a valid argument because, according to A National Plan for American Forestry, less than two percent of the land cut over annually is publicly owned.
prime essential for better forestry practice on private lands. 80

Trade Journals

A deferred timber tax was advocated as a great aid to timberland owners. Sentiment in favor of government acquisition of cut-over lands to provide for a future forest crop was expressed.

Consulting Foresters

Here again the necessity of modification in the tax laws to ease the burden on timberland owners was stressed. Due to the fact that government timber is not taxed, it can be marketed at a lower price than private timber, resulting in what was termed "vicious competition." Private timberland owners were said to suffer from this competition of government timber. 81

80 see also: Lumber industry starts conservation program. Am. Forests 40: 320, July 1934.

81 see also Mason, D. T., and Bruse, D., Sustained yield forest management as a solution to American forest conservation problems, 47 pp., Mason and Stevens, Portland, Ore., 1931.
To prevent destructive forest liquidation and to bring about sustained yield of forest lands, the following steps are thought necessary:

1. Relief of timberland owners from excessive taxation.
2. Federal loans to operators at low interest rates.
3. Cooperation of public and private interests in establishing sustained yield units.
4. More widespread adoption of selective logging by private operators.
5. Accelerated rate of federal acquisition of cut-over and immature timberlands.

Summary and Discussion

Interviews of men connected with the lumber and forest industries of the Douglas fir region on the subject of the lumber code and forest conservation produced the

Other references on this subject:
following general results:

1. The lumber code was unworkable and generally not acceptable to the industry because:
   a. Apparently dominated by large operators.
   b. Discriminated against small operators.
   c. Failure of enforcement.\footnote{83}
   d. Increased cost of production.
   e. Operators were opposed to any form of coercion.
   f. Presented in language not understandable to the "man in the woods".
   g. Contained definitely unworkable clauses such as "price fixing".

2. A forest conservation policy requiring small additional expense to operators would receive favorable support.

3. The idea that fire protection requirements of the code have done much to reduce fire danger is questioned. State forest fire laws are said to be adequate to take care of this matter.

4. Evidently much confusion exists as to meaning of "reforestation" as the term is used in code regulations. Lumbermen think reproduction on their

\footnote{83 see also Conservation and reforestation program worked out as part of lumber code. New York Times 11: 4, Feb. 24, 1934.}
out-over lands is generally good.

5. The problem of selective logging has not been studied by most lumbermen, and its possibilities are therefore not appreciated.

6. Little hope is seen for widespread early adoption of sustained yield management. Only very few large operators are thought to be in a position to consider this scheme.

7. To promote private forestry modifications of tax laws and public acquisition of commercial timberland are thought necessary. In addition public agencies propose better credit facilities and cooperation toward establishment of sustained yield units.

Throughout the above it is evident that two facts are of particular importance when an attempt is made to regulate the private lumber industry: (1) lumbermen oppose schemes tending to increase cost of production, and (2) any form of coercion or interference with individual initiative is objectionable.
CONCLUSIONS

The writer believes that the outstanding thing proved by this survey is that any structure, no matter how noble in design or purpose, must be laid on an adequate foundation. The lumber code and Article X were generally very desirable from both the lumbering and forestry standpoint, everyone agrees, but the structure collapsed - a collapse which can be blamed on an inadequate foundation.

The foundation for the code movement should have been education, as proved by the following points brought out by this survey:

1. Lumbermen were required to accept the code as law so suddenly that resentment was created. Operators spoke of having "the code forced down our throats".

2. Immediate suspicion of the code objectives resulted from the leadership in its enforcement by a few prominent large operators.

3. The sporadic enforcement attempts failed because of lack of cooperation between operators, operators and code agencies, and operators, code agencies, and public representatives.

4. In some cases, due to lack of training of code enforcement officers or defects in the code itself, the regulations were too literally and tactlessly
applied, creating ill feeling among operators.

5. Confusion existed and still exists among lumbermen as to the meaning of technical terms such as "reforestation", "selective logging", and "sustained yield".

Adequate preparation of operators and members of code enforcement agencies through an educational program perhaps would have accomplished at least the following:

1. Greater appreciation of the need and desirability of code proposals.
2. Elimination of suspicion as to code objectives.
3. Greater cooperation to make the code a success.
5. Better knowledge of technical terms and code provisions.

In conclusion we may say that, in the Douglas fir region, Article X of the lumber code accomplished one result, the value of which may be demonstrated by the trend of future events. This result was the provoking of widespread, earnest discussion of the need and possibilities in better woods practices in private timber operations, and the need for cooperation among operators. Apparently the

lumberman has become somewhat interested in forestry, an interest which may grow and produce the results so greatly to be desired.
RECOMMENDATIONS

At the present time (1936) the forest conservation work started by code agencies is carried on by the trade associations on a voluntary basis. The objective in this program is primarily educational. The lumbermen are being educated in forestry and their cooperation is solicited to get good forestry into the logging woods. This program, to the writer, appears to be a logical and valuable step toward the type of forestry at which Article X was aimed. Such education will build the strong foundation which the code lacked, and after this foundation is built, we can expect that any regulation which may be needed will be more acceptable to the lumbermen and more successful than was the code.

The keynote of a vast forestry movement such as that of Article X, it is believed, should be conservativeness. Build the foundation, then erect your structure. The logical steps in building private forestry are education, cooperation, regulation. Regulation should come only after thorough education and a sincere attempt to secure cooperation, after which it should only fill the gap where cooperation failed.

It is sincerely hoped that this survey has proved to the reader the need for a logical approach in solving the problem of private forestry. The code put the "cart before
the horse" and failed - now we are back to normalcy and have begun our new attack along logical lines, through education.

No investigation dealing with private forestry is complete without a consideration of the difficulties presented to the problem by certain characteristics of our social-economic system. To achieve success in private forestry development we must secure the following:85

1. Modification in tax laws to ease the burden on timber.
2. Improved forest credit facilities.
3. Better fire protection on private forest lands.
4. Public acquisition of certain timberlands, such as those needed to block up sustained yield units, cut-over areas, marginal stands, etc.
5. Sustained yield units through cooperative agreements among timberland owners.
6. Aggressive research by industry and public agencies.
7. Extension of markets and marketing.
8. Investigation of possibilities in forest insurance.

85 List compiled from literature, discussions, and personal knowledge.
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" " " 1 (119), May 26, 1934.

" " " 2 (62), Oct. 15, 1934.

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APPENDIX

The reader may be interested in further details of the tools used in this survey, and in other information relating to the problem studied. Perhaps some value will be derived from a study of these data, particularly if some similar survey is contemplated.

Survey Tools

A study of the problem under investigation revealed that information relating to it could be classified under definite headings. To compile such information by interview or questionnaire technique, certain questions must be used under each heading. A complete outline of the desirable information was thus compiled as shown in exhibit A.

A glance at exhibit A shows that obviously no such complete outline could be followed in discussing the problem with a busy lumberman. The man interviewed would lose all patience with the interviewer, and furthermore, all the lumbermen contacted would not be interested or even well-informed on all the topics included in the outline. To limit the interview to a few essential points exhibit B was drawn up. This was used as an outline for the interview, being folded up into a pocket notebook in which the notes were taken. As can be seen the outline begins with a
general discussion of the code. The lumbermen were all more or less interested in the code generally, thus an opening for the interview was made; and during the general discussion, the particular interests and knowledge of the interviewed could be determined. From this beginning the interview could logically proceed to as many of the other points of the outline as necessary. The objective of each interview was to gather as much information on every point of the outline as possible. In many cases, of course, some parts were left out if it was obvious that their inclusion would result in no valuable information.

The results of this survey show that the technique used was at least partially successful since some information was secured under every heading of the outline.

The actual interview was kept as informal as possible so that the discussion would be as lively and productive as the investigator could make it. In nearly all cases the men interviewed were assured that their opinions would not be divulged as quotations, and no personal difficulties would ensue from a frank discussion of the problem. In some instances, also, it was thought best to refrain from formal note-taking during the interview so that the interviewed could proceed without fear of verbatim quotations showing up later. In such cases the interview was written up from memory within a few minutes after
leaving the discussion.

As to interview technique, the essentials for a successful interviewer could perhaps be listed in order of importance as follows:

1. Self-assurance.
2. Knowledge of problem and procedure of interview.
3. Informality.
4. Frankness as to ideas, use of information, etc.
5. Ability to quickly discern the particular interests of the interviewed and concentrating his discussion on those interests.

Additional Information on Lumber Code

A discussion of the technique of code application and enforcement is admittedly beyond the scope of this paper. During the course of this investigation, however, the Western Pine Association furnished copies of the forms used in code enforcement work, which are here included as a matter of interest. Exhibits C and D were used by the divisional forest engineer in his inspection work on logging operations. Exhibit C, printed on transparent paper, was used to show condition of logging operations in map form. These maps were supported by information secured by the form shown as exhibit D.

Through the use of these forms, field information
was compiled and used by the code agency. Monthly reports to the Lumber Code Authority by the division (in this case the Western Pine Division) were submitted on the form shown as exhibit E.

The above is of interest primarily to show some of the tools used to compile field information and to report the divisional progress in code work to the central authority. Complete information on this work can probably be secured from the divisional code agency, now the trade association.

Comments Made on Other Forestry Problems

Discussions with members of the lumber industry brought out information on some forestry problems somewhat unrelated to the code, information which is here included as a matter of record.

Oregon and California Land Grant Lands

The present system of unregulated utilization of these valuable timberlands as administered by the General Land Office of the Department of the Interior results in devastation and neglect. The timber is disposed of through bids with no attempt to regulate the amount or method of cutting or the extent and severity of denudation. The earnest plea is made that these lands be incorporated in national forests with utilization regulated by the Forest
Service of the Department of Agriculture. The receipts from the timber sales on these lands could well be "earmarked" to furnish funds for federal acquisition of cut-over lands in this area.

**Competitive Position of Douglas Fir Lumbermen**

The chief competitor of Douglas fir lumber in middle western and eastern markets, Southern pine, has benefitted from the code because of the controversies which resulted among Douglas fir lumbermen. Operators engaged in petty quarrels among themselves, with mutual suspicion and dissension, and failed to unite against their competitor. The code, also, allowed a number of new operators to start production with resulting detrimental effects on all concerned. The final effect has been to establish several southern pine operations on a sustained yield basis as opposed to no sustained yield operations in Douglas fir.

One of the most important matters for the Douglas fir operator to consider is that of markets, and unless he stops the many small bickerings with his neighbors and unites with his fellow operators in extending his markets, he will find the Middle West and East dominated by the southern pine men.

**Importance of Small Mills in Douglas Fir Production**

Although some of the small operators are very
pessimistic as to the future in this type of sawmilling, the small mill will probably always be an important factor in this region. Apparently some mills have fared well and continued for many years as money-making enterprises. Others have not proved profitable as one operator indicated, saying that he is in no better economic position now than he was fifteen years ago - adding the warning "stay away from the private lumber game, young feller!"

The small mill is undoubtedly the most economical way to utilize our many small, scattered timber stands. This fact, together with the advantage in production costs which small mills enjoy over the large, will always maintain this type of operation in an important position in the industry of this region.

Small mill production figures, furnished by the Pacific Northwest Forest Experiment Station and quoted in the main part of this report, are here recorded.

<table>
<thead>
<tr>
<th>Year</th>
<th>Size of Mill, Per Day Capacity</th>
<th>Percent of total Lumber Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>1-10 M bd. ft.</td>
<td>1.02</td>
</tr>
<tr>
<td></td>
<td>11-20 &quot; &quot;</td>
<td>1.46</td>
</tr>
<tr>
<td></td>
<td>21-35 &quot; &quot;</td>
<td>3.41</td>
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<tr>
<td></td>
<td></td>
<td>5.89</td>
</tr>
<tr>
<td>1929</td>
<td>1-10 M bd. ft.</td>
<td>2.11</td>
</tr>
<tr>
<td></td>
<td>11-20 &quot; &quot;</td>
<td>2.77</td>
</tr>
<tr>
<td></td>
<td>21-35 &quot; &quot;</td>
<td>3.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.03</td>
</tr>
</tbody>
</table>
Some concern has been expressed over the apparent preponderance of so-called "inferior species" in the reproduction found on cut-over lands in this area. These species, mainly white fir and hemlock, have been "inferior species" in the past but may not be so in the future as evidenced by the increased demand for pulpwood and other products for which they are particularly adapted. Douglas fir, both old and young growth, is a wood of rather limited utility and in the future will probably be less in demand than, for instance, western hemlock. The timberland owner may find himself in a better economic position if his stand is made up of several tree species than if he had a pure Douglas fir timber area. As has already been shown, the other species may be more valuable than Douglas fir, and furthermore, the owner may be less vulnerable to fluctuations in lumber markets if his land supports trees suitable for many different products.

The Lake States were first stripped of their white pine stands and the hardwoods were left as "inferior species". Later it was found hardwoods had increased in

<table>
<thead>
<tr>
<th>Year</th>
<th>Size of Mill, Per Day Capacity</th>
<th>Percent of total Lumber Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>1-10 M bd. ft.</td>
<td>1.17</td>
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<tr>
<td></td>
<td>11-20 &quot; &quot;</td>
<td>1.73</td>
</tr>
<tr>
<td></td>
<td>21-35 &quot; &quot;</td>
<td>2.31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.21</td>
</tr>
</tbody>
</table>
value and their logging was equally as profitable, if not more so, as the original utilization of the pine. It appears that history may repeat itself silviculturally in the Pacific Northwest with white fir and western hemlock more valuable than Douglas fir.

Suggested Research Problems

The following list may suggest problems of interest to prospective investigators:

1. Economic, silvicultural, and psychological factors unfavorably affecting the practice of private forestry in the Douglas fir region.

2. Improvement of sawmill cost accounting to secure unit cost of products.

3. Possibilities in cooperative sales organizations for small sawmill operators in this region.

4. A study of logging methods applicable to Douglas fir to secure better reproduction of desired species.

5. Occurrence, causes, and effects of good seed years in Douglas fir.


7. Thinning and pruning studies in Douglas fir, with the objective of maximum value of intermediate
harvests and final yield.

8. Effect of various forms of forest utilization on the soil (physical, chemical, water, flora and fauna).

9. Chemical and physical characteristics of certain strains of ponderosa pine making them less susceptible to rodent damage.

10. Practical application of the phenological studies of the Forest Service.

11. Forest insect epidemics, occurrence, causes, and possibilities of forecast.

12. A study of the Peavy Arboretum and McDonald Forest to develop a workable, efficient plan of improvement, administration, and utilization.

13. A study of the School of Forestry instructional technique with recommendations for improvement (conference method, four-step procedure, etc.).

14. A study of School of Forestry graduates and students to improve personnel guidance and placement; particular reference being made to interests, adaptabilities, and attitude of individuals.


(Exhibit A)

Article X, Lumber Code

Reforestation:
1. What logging methods do you use, in the main?
2. Were any modifications necessary to conform to the code requirements for protection of young growth?
3. If so, what?
4. Is it possible to leave reserve seed trees within ½ mile of all cutover areas?
5. How do you do this, if done?
6. Do you consider this very costly?
7. Have you investigated what effects it has on costs?
8. If so, how?

Selective logging:
9. Do you consider selective logging possible?
10. If so, what form: single tree, group, or area selection?
11. Has your company considered selective logging for its own operations?
12. If so, what was done?

Sustained yield:
13. Do you consider sustained yield possible?
14. If so are you planning to operate under sustained yield?
15. Has your operation been studied for sustained yield possibilities?
16. If so, what personnel was used for the study?
Forest protection:

17. Do you think forest protection is the main requirement for assuring new growth on cutover lands?

18. Do you think the fire protection requirements of the code too costly?

19. Are the requirements justifiable?

20. What modifications would you suggest, if any?

21. Have you made any investigations on possible effect of the fire protection requirements on costs?

22. If so, how?

23. Do you belong to a cooperative fire protection organization?

24. Do you think it worthwhile and feasible for the logger to consider insect and disease protection in his operations?

N.R.A. Lumber Code:

25. Did your company have definite plans for protection and reforestation before Article X of the Code went into effect?

26. If so, were any changes necessary at that time?

27. Were the changes desirable, in your opinion?

28. Do you think Forest Conservation can be secured by compulsion as in Article X?

29. Do you think the Lumber Code, particularly Article X, will produce lasting results in the industry?
(EXHIBIT B)

Points to Consider

The Lumber Code, and Article X

1. What is your reaction to the Conservation Article of the Code?
2. What do you think will be the future of the Code?

Small operator

3. Do you think the Code discriminates against any certain class of operator?

Fire Protection

4. Are the fire protection requirements reasonable?
5. What effect does Article X have on fire protection?

Reforestation

6. What is the big defect of the present logging practice in regard to reforestation?
7. What do you think will be the future logging practice in this region?
8. What are the possibilities for selective logging?

Sustained yield

9. What are the possibilities for sustained yield?
10. Has your company studied selective logging and sustained yield possibilities?

Public cooperation

11. How do tax laws affect the practice of good forestry?
12. Do you think a large program of public acquisition of timberlands is desirable?
(EXHIBIT C)

Form F-I

OPERATION MAPS
WESTERN PINE DIVISION, LCA.

Date......

Company............ Camp............ Scale......

Twp. ...... Range ............ Meridian, Sections...

LEGEND

<table>
<thead>
<tr>
<th>Main Line Railroads</th>
<th>Area Logged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Spurs</td>
<td>Area Slash Disposed of</td>
</tr>
<tr>
<td>Truck Roads</td>
<td>Area Reserve Stand</td>
</tr>
<tr>
<td>Setting or Timber</td>
<td>Area Undisposed Slash</td>
</tr>
<tr>
<td>Boundary</td>
<td>Single Seed Trees</td>
</tr>
<tr>
<td>Fire Lines or Trails</td>
<td></td>
</tr>
<tr>
<td>Section Line</td>
<td></td>
</tr>
<tr>
<td>Camps</td>
<td></td>
</tr>
</tbody>
</table>
(EXHIBIT D)

Name of Company ____________________________

Location ________________________________

State ________________________ Date _______

I. FOREST PROTECTION DURING AND IMMEDIATELY FOLLOWING LOGGING:

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

6. ______________________

7. ______________________

8. ______________________

9. ______________________

(a) ______________________

(b) ______________________

(c) ______________________

(d) ______________________

(e) ______________________

10. ______________________

III. CONSERVATION OF IMMATURE TREES AND YOUNG GROWTH:

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

6. ______________________

7. ______________________
IV-V  RESTOCKING LAND - SELECTIVE LOGGING:

A.________________________

B.________________________

VI. PREPARATION OF INDIVIDUAL FIRE AND MANAGEMENT PLANS:
### ADDITIONAL INFORMATION

<table>
<thead>
<tr>
<th>Logging Operation Location</th>
<th>Township</th>
<th>Range</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp Name or Number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camp Superintendent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destination of Logs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source of Stumpage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of Holdings (acres)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire History of Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System of Fire Protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of Old Slashings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggestions for Disposal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition of Company's Lands:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncut - Beetle Infestation - Percentage of loss</td>
</tr>
<tr>
<td>Fire Killed Timber - Acres</td>
</tr>
<tr>
<td>Types of Stands - Mature &amp; Overmature - Acres</td>
</tr>
<tr>
<td>Growing - Vigorous - Acres</td>
</tr>
<tr>
<td>Ponderosa Pine Type - Acres</td>
</tr>
<tr>
<td>White Pine Type - Acres</td>
</tr>
<tr>
<td>Mixed Larch &amp; Douglas Fir Acres</td>
</tr>
<tr>
<td>Lodgepole Pine - Acres</td>
</tr>
<tr>
<td>Sugar Pine Type - Acres</td>
</tr>
<tr>
<td>Other Mixtures - Acres</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended Methods of Logging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Stand - Per Acre Type Seed Trees per Acre</td>
</tr>
</tbody>
</table>

| Disposition of Cutover Lands |
Logging and Mill Studies - Any such made? __________________________

Company Interested? ________________________________________
(EXHIBIT E)

A. ORGANIZATION REPORT

I. Were Division or District meetings held by Conservation Committees during month? __________

Please submit copies of Minutes of all such meetings.

II. (a) Number of technical men employed at beginning of month. __________

(b) Number added __________.

(c) Number dropped __________.

(d) Present number on staff __________.

If any changes, indicate, giving name, title and business address, using separate sheet for the purpose.

III. Indicate any changes in Committee personnel during month, attaching separate sheet for the purpose.

B. FIELD INSPECTION REPORT

I. In what way(s) do the inspections made during the month indicate advancement in Fire Compliance? __________

(a) Number of inspections made __________.

(b) Acreage involved __________ acres.

II. In what way(s) do the inspections made during the month indicate advancement in Cutting Practice? __________

(a) Number of inspections made __________.

(b) Percentage of Division monthly production represented by Persons visited __________%.

III. Give brief statement of any cooperative arrangement you have made with Federal, State, or other Agencies ______

(a) Indicate degree of participation by each of these public agency representatives in your inspection work;
Federal Forest Officers _______
State Forest Officers _______
Fire Association Officers _______
Other Persons __________________

(b) Note number of visits by each of the above that represented duplication of inspections already made by your staff. __________

IV. To what extent have other field Agents participated in Conservation administration during month __________

V. Indicate progress made in extending fire protection to lands formerly not protected, and when practicable, show:

(a) Number acres forest land brought under protection.
(b) By ________ Persons.
(c) Number acres dropped from protection __________.
(d) By ________ Persons.
(e) Indicate period covered by this report __________.
(f) Indicate how land-owners, deciding to give fire protection to their lands, were interested and why those abandoning protection did so. __________

C. ALTERNATIVE MANAGEMENT PLANS

I. Indicate the extent to which alternative management plans are a factor in your Division administration, by reporting:

(a) Number such plans in effect at beginning of month __________.
(b) Approximate acreage involved ________ acres.

II. Submit resume of principal provisions (on separate page(s) of plans approved during month, and report:

(a) Number of such plans ________.
(b) Approximate acreage involved ________ acres.

III. Summarize progress to date by reporting:

(a) Number plans in effect at end of month ________.
(b) Approximate acreage involved ________ acres.

D. SUSTAINED YIELD REPORT

I. Report number of persons certified as sustained yield operators at beginning of month ________.

(a) Acreage involved ________ acres.
(b) Monthly allotment ________ ft. or ________ ft.*
(c) Increased allotment ________ ft. or ________ ft.*

*in case your allotments are on hour basis, indicate the percentage of total monthly allotment represented by these items.

II. Report number of persons certified as sustained yield operators during month ________.

(a) Acreage involved ________ acres.
(b) Monthly allotment ________ ft. or ________ ft.
(c) Increased allotment ________ ft. or ________ ft.

III. Report number of prospective applications now being developed by your Staff ________.

(a) Acreage involved ________ acres.
(b) Monthly allotment ________ ft. or ________ ft.

IV. Report number of persons certified as sustained yield operators at end of month ________.

(a) Acreage involved ________ acres.
(b) Monthly allotment ________ ft. or ________ ft.
(c) Increased allotment ________ ft. or ________ ft.

E. COMPLIANCE REPORT

I. Number of cases of non-compliance with Rules of Forest Practice and Article X observed and reported during month, by:

(a) Your technical staff ________.
(b) Federal Forest Officers ________.
(c) State Forest Officers ________.
(d) Persons under the Lumber Code ________.
(e) Others (stating whom) ________.

II. Number of such complaints during month ________, and number disposed of by:

(a) Complaint being found in error ________.
(b) Persons agreeing to comply ________.
(c) Reference to LCA for action ________.

III. Number of complaints pending at end of month ________.

IV. Estimated percentage of Persons and percentage of monthly production in your Division, who are consciously conforming to Rules during the current month ________.

F. FIRE RECORD

I. Number of times during current month that operations have been closed by:

(a) Division Agency ________
(b) State Authority ________
(c) Federal Authority ________, because of fire hazard.

II. Has this been a bad fire month? ________

III. Have the Rules been effective in reducing numbers of fires? ________

(a) Or loss from fires? ________

G. INSECT, DISEASE, WINDTHROW REPORT

I. Report, and describe fully, using separate sheet for the purpose, any insect or disease attack, and/or disastrous windstorm affecting forests in your Division.

II. Report progress of control campaigns and/or salvage operations now being conducted in connection with attacks or storms previously reported. Information desired comprises statement of area covered; volume of timber involved; the volume recovered; the volume and value of timber lost.

H. PUBLIC RELATIONS PROGRESS

As often as conditions indicate, report separately on:

I. Activities pursued to develop a constructive attitude on the part of legislators towards private forestry.

II. An outline of desirable and/or undesirable legislation which may be pending in any of the States under your jurisdiction.

III. Activities toward establishing in the public mind:

(a) The desirability of private ownership and control.
(b) The public responsibility for prevention of forest fires, establishment of forest credits and stabilization of forest taxes at reasonable levels, and the acquisition of sub-marginal lands by Federal or State governments for forestry purposes.

IV. Any cooperative activities with State or Federal forestry agencies or any other agencies not contemplated in the specific suggestions heretofore outlined.

Date ____________________

By _______________________

Division or Subdivision