Proceedings of the SYMPOSIUM ON INTENSIVE CULTURE OF NORTHERN FOREST TYPES

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FOREWORD

THE NORTHERN FOREST TYPES constitute a vast natural resource for the United States and Canada. For instance, in the eastern United States there are more than 10 million acres of commercial forest land supporting spruce and fir types alone. The magnitude and variety of this resource is such that treating it in any detail at a 3-day meeting was impossible. Rather, the idea that germinated and developed into this symposium was to present a broad picture of the extent of our knowledge of intensive cultural techniques, the status and trends of our research in the northern forest types, and some actual experiences in managing this resource; and to explore those factors that affect our use of the intensive cultural techniques we have at hand.

There is no doubt that we face a new era in the management of northern forests. The production of wood products is no longer the primary objective of many owners, and increased pressure for the social values of our forests is being felt by all landowners. We must recognize these other forest values, which in turn dictates intensification of all aspects of forest management if we are to meet the future demands of a wood-hungry society.

The enthusiastic efforts of the symposium sponsors—the School of Forest Resources, University of Maine; the Maine Bureau of Forestry; the Maine Forest Products Council; and the U.S.D.A. Forest Service—and the individuals behind those efforts, should be commended. Special thanks are due to Great Northern Nekoosa, Inc., and Brooks B. Mills for their help in providing interesting field trips, and to the Casco Bank and Trust Co. for sponsoring the symposium brochure. Also, without the enthusiastic participation of the experts invited to present papers, and the moderators of each session, the Symposium could not have taken place.

—**BARTON M. BLUM**
Symposium Chairman

PUBLISHER'S NOTE

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held 20-22 July 1976 at Nutting Hall, University of Maine, at Orono.

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- School of Forest Resources, University of Maine
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POSSIBLE LEGISLATIVE CONSTRAINTS TO INTENSIVE SILVICULTURAL PRACTICES IN NORTHERN FOREST TYPES

by Brendan J. Whittaker, Chief, Information & Education, Agency of Environmental Conservation, Montpelier, Vermont

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Abstract

The question of legal constraints to forest practice is currently active again. Two sources of restriction are the historic concern for timber supply and related amenities, and the mandates of the Federal Water Pollution Law. Legislators by and large, both State and Federal, realize the need of the nation for timber and will give due weight to the data presented to them by professional foresters. Foresters, on their part, have the obligation to become even more involved in the legislative process and to present the basics of sustained yield forestry in a clear and understandable manner.

These comments on legal restraints to intensive silviculture come from the admittedly subjective viewpoint of one who, though he has a forestry background, now works in a state-level multi-discipline environmental agency in Northern New England. In this position I do follow quite closely our own state legislature but, on the other hand, can only, from general reading or other information sources, learn what is happening in the forest regulatory field over a wider area. I would ask, therefore, that you take the following comments and balance them against the situation in your own state or region.

First, although it is not in my assigned topic, let's recall that legislation or administrative regulation is not necessarily a detriment or restraint to forestry. They can be a benefit! A serious situation in Vermont, for example, is forest land taxation, the all-too-familiar story of land taxes far in excess of the

forestry or agricultural capacity of the land to produce a cash return. A good tax law revision in this instance would aid in removing a restraint to intensive silviculture.

An even more intriguing example in Vermont now comes at a time when we hear that interest in environmental legislation has ebbed. However, the latest information concerning "Act 250", our basic land development law, without going into a great amount of detail, is that due to the legislation as now written, there has been a proliferation of land subdivisions of just ten acres or slightly over - the minimum subdivision which escapes Act 250 jurisdiction - with obvious adverse effects on the practice of forestry. It is more difficult for logging operators or foresters to deal with a multiplicity of small ownerships of ten acres each laid out with no regard to natural features such as ridge tops or stream valleys.

The point to be made is that instead of cries for the dismantling of Act 250, what is heard are pleas for some innovative and creative strengthening of the law to remove the small or irregular lot detriment to forest management, while at the same time preserving, as far as possible, the free market concept in land sales. What the outcome will be is unclear at this time, but some very responsible people, including the Forests & Parks Commissioner, are seeking through law and regulation to enhance, rather than restrict, the practice of silviculture.

Now, it seems to me that possible legislative or regulatory restraints to intensive silviculture can be reasonably expected, if they come at all, from either or both of two governmental levels, state and federal, since, as most realize, New England has only a skeletal county government compared with much of the United States; and any prospective town laws or regulations on timber cutting would obviously have only an extremely local effect. As urbanization progresses, however, such local restrictions can become quite severe on woodland owners. For example, although not aware of them personally, I am told that local ordinances against tree cutting are extremely severe in such New Jersey townships as Hampton and Parsippany-Troy Hills.

Potential areas of regulation can reasonably expected to be:

1) Measures designed especially to fulfill the mandates of what has been recently described as "one of the most complex pieces of legislation ever passed by the United States Congress",[1] PL 92-500, the Federal Water Pollution Control Act.

2) Measures intended to maintain levels of forest productivity, a historic American concern, now widely expanded, however, to not only to the nation's timber supply, but related resources and amenities such as scenic values, clean water, and recreation areas. This latter would include the sometimes emotion-laden term "wilderness areas".

3) Combinations of these areas in such matters as pesticide and silvicide regulation, road building and other forest-related construction, even perhaps controlled burning if this should come into wider use in the northern forest. These latter concerns not only raise the wider interest of foresters and environmentalists as they always have, but now also will be examined in the light of PL 92-500 to see if their use will affect water quality in the forest.

* * *

To look at the first area, the Federal Water Quality Act, the Section numbers of 92-500 - "106", "201", "402", "404", "303(e)", and "208" - have become stock phrases among environmentally aware people at all levels, and if the numbers at least are unknown or a mystery to the general public, the effects of these Sections of the Law are beginning to reach to the remotest corners, hills, and valleys and river bottoms of all 50 states.

It's a massive program to say the least. 201 construction grants to build sewage treatment plants and related facilities now total billions of dollars annually. 303 River Basin Plans have had hearings in all parts of the region which, though generally sparsely attended, are sources of huge amount of detail for future water quality planning in the immediate area. The 404 section, the so-called Dredge and Fill, is of immediate interest to forestry since it, as the result of a federal court decision, requires the U.S. Army Corps of Engineers to extend jurisdiction on dredge activities to the most upland stream areas and their attendant wetlands. We are now, as of July 1 of this year, in phase 2 of Section 404 implementation which extends Corps jurisdiction to all major rivers. Next

year, July 1, will complete implementation of Corps jurisdiction right up into the headwaters. As of now, it is determined that permits will be needed for several activities commonly used in forestry such as stream crossings. In order to, as one water engineer in Vermont puts it, "soften the blow", the Corps is proposing general permits to be issued to a state to cover the more routine activities; but apparently negotiations on the details between the states and the Corps are not progressing too well at this point. To compound our own situation in Vermont, our State is split down the middle by two Corps jurisdictions and conceivably a timber operator somewhere on the height of land of the Champlain and Connecticut watersheds could find himself applying to both Albany and Waltham for permits for the same operation. Vermont, obviously, is currently trying to rectify this situation.

Several changes by amendment are now in process in Washington on the whole Water Quality Act. A proposal on this 404 section, however, to redefine Corps jurisdiction on dredge and fill to truly navigable waters, the so-called Breaux amendment, failed in June. Our own position in Vermont is that the states keep jurisdiction over most waters, with the Corps retaining jurisdiction over the traditional navigable waters, but we do realize the need for wetlands legislation of our own, an area which many feel is inadequately covered by law at this time. A possible compromise could be a requirement that all states enact suitable wetlands legislation and then be "signed off" by the Federal Government to run their own dredge and fill programs. We understand a major concern about this among environmentally oriented Congressmen is that approximately half of the states have no wetlands legislation at all.

The last section of PL 92-500 I will mention is 208. This is a broadly designed planning action designed to involve citizens at a very basic level in planning for future water quality needs where complex problems exist. 208 has been described as a form of land use planning, with all of the positive and negative connotations this term brings, since it is obvious that man's treatment of the land affects water quality. Vermont is just beginning its involvement with 208. We are being cautious. A state level committee headed by the Secretary of my Agency has been established with participants from all sectors with an emphasis on participation by the agricultural community. We plan to do the groundwork on 208 through the 13 Regional Planning areas in Vermont.

I would urge you to check carefully the 208 setup in your own state if you have not done so already, or if you are not participating at this time. Forestry needs to be represented on this planning level which will be recommending basic land use decisions affecting us for years to come. I do know that eastern Massachusetts, particularly, has 208 planning areas and staffs who are further along than we in northern New England, and though, obviously, that is a highly urbanized area, a visit to them if you are in the vicinity will show somewhat where we might be as 208 progresses.

208 is under consideration for change with some amendments in Washington at this time. One proposal receiving serious attention is to add air pollution and solid waste to the 208-type model. The result would be a complete waste planning effort and the ramifications for land use planning therefore even broader.

As a late update to the whole question of amendments to PL 92-500, our water resources people tell us that the most appropriate forum toward which we may address our comments is now Senate Bill S-2710 which has passed the House as HR 9560 and is now back in the Senate to resolve differences.

* * *

The second major area of regulation is that intended to maintain levels of forest productivity. This is a historic concern; it's been pointed out by others that debate on the timber supply issue has been strong in at least three previous periods in our history: 1910, 1923-1924, and 1938-1952.[2] At the present time, of course, the added concerns of many interest groups accompany the timber shortage worries. I will not go into great detail on forest practice laws but will make some general observations from our standpoint in Vermont. First, something is definitely "in the wind" again regarding the regulation of cutting on both government and private lands; it's an issue that is very active. To expand on this a little, we have the very concrete and highly visible congressional action in Washington rewriting the basic Forest Service Organic Act. As most of you undoubtedly know, this action grew out of a federal court ruling on clearcutting in West Virginia on Forest Service land, a ruling now known as the Monongahela decision. There is also in effect now a new federal law entitled the Forest and Range Land Renewable Resources Planning Act (RPA), requiring an ongoing long-range assessment, planning and program on the management primarily of federal lands. The status of

state and privately owned land resources will, however, also increasingly figure in Federal land program decisions.

Already these two major Federal activities, Forest Service Organic Act Revision and RPA, are becoming interrelated in that the major Organic Act rewrite, S-3091, the "Humphrey Bill", makes reference to, and ties in with, the RPA already passed. Now we, at the state level, could sit back, and say "that pertains only to federal lands". I don't think we should be misled, however. Any forest-related legislation as comprehensive as the two Federal actions just mentioned are bound to have "spin-off" effects on state and private forestry. Indeed, I an told that the states have been asked to assume responsibility for a Resources Planning Act type of effort on state and private lands. Even if that does not happen, a major debate with press and television coverage of, for example, Forest Service clearcutting practices, would bring that issue to the fore on state and private forest levels, also.

(Permit an anecdote here: Until now, tree length clearcutting and chip harvesting in Vermont has been confined to a relatively small and remote area in the northeastern section. Already, however, we have received at my Agency some heated comments and questions from travellers into the area such as snowmobilers and hunters. It is my contention that if and when the clear-cut-chip harvest operations move down state in view of Interstates 91 and 89, the public outcry for regulation for cutting, even on private land, will be very large.)

At least up to now, forest practice regulation has been at the state level with a measure of largely voluntary state-federal cooperation. That this is likely to continue is indicated in an important policy speech given by John R. McGuire, Chief of the U.S. Forest Service on February 10, 1975, to a joint Forest Service - EPA sponsored meeting on state forest practices legislation in Washington, D.C. McGuire said, in part, "Forest practice regulation, if necessary for whatever purpose, is not a federal function. Any such legislation should be developed, implemented, and administered within the established pattern of federal-state-private cooperation in forestry matters".[3]

Perry Hagenstein, Executive Director of the New England Natural Resources Center in Boston, has prepared a paper on forest practice legislation in New England.[4] This is an excellent source of information regarding

forest regulation on our own area. A conclusion Hagenstein drew was that regulations are most effective when designed to deal with specific problems fairly narrowly defined. On the other hand, he felt that broadly applicable laws on cutting when enacted in the past, have often simply not been enforced. Hagenstein wrote his paper to relate forest regulation to the water quality problem mentioned above, but it would seem his conclusions would apply to the timber supply and aesthetic concerns also.

I would like to step aside now for a moment in conclusion and,notwithstanding all my biases as a forester and professional environmentalist, try to put myself in the place of a Vermont legislator as he or she might look at the question of regulation of cutting on private lands in my state, if the matter comes up for legislation. Leaving the narrower question of water quality aside, I believe, as a legislator, I would be open toward leaving forest practices in private and professional hands with, however, some important qualifications. The most important of these is that, as a legislator or even private citizen, I would want to hear from professional foresters about the concept of sustained yield, defined something like this: "repeated crops of timber removed at regular defined intervals, into the future as far as man will control it; with no degradation of the soil or water base and the maintenance of a healthy, productive forest". I would like to hear that from foresters, and I would like them to delineate the areas on which they intend to do it.

Most legislators in Vermont are beginning to realize that wood is the only large-scale renewable resource we have. If, for example, as seems likely in out state, we move into generation of electrical power with wood fuel and/or if another large paper mill is located in the upper Connecticut Valley, the wood resources of Vermont would be even more crucial to our economy and well-being. Dialogue and debates with recreationists, environmental groups, and others, some of whom might wish to restrict cutting, will continue, but I believe that legislators will give due weight to reasoned, professional advice from foresters, if the lawmakers can believe that the timber business is here to stay on a sustained yield basis.

(A superb example of the sort of intelligent lucid professional testimony that would be most helpful to me were I a legislator was that of the President of the Society of American Foresters, R. Keith Arnold, before

the Forests Sub-Committee on Agriculture, U.S. House of Representatives, on March 24, 1976. Arnold was testifying on one of the proposed rewrites of the U.S. Forest Service Organic Act. This testimony may be found verbatim in the May 1976 Journal of Forestry.)

There will be debates and problems in the future in Vermont on forest practice regulation. I still think, however, if we do our own work, know what we are about, and are able to communicate it effectively, we will have our just hearing in the legislative process. In our system of government, we really cannot ask for more.

The major conclusion to be draws from all of this is one that has been repeated many times among professional foresters, but it now assumes a new urgency. Foresters must assume a more active role in guiding forest practice regulation. We will have to become involved in the political process, in information and education programs, in dealing face-to-face with recreation special interest groups, and in public relations efforts. And, we must make sure we do our own homework, so that we present our case for intensive silviculture on the soundest professional base.

In this light, I will end on a personal note. I have a son who is planning to enter forestry school next fall. There are two things I intend to share with him as he enters his professional studies. One is a paper by Benjamin A. Roach of the U.S. Forest Service, written for the Applied Forestry Research Institute at Syracuse. It is entitled, Selection Cutting and Group Selection. I have read it and marked it up at least three times. Having been out of forestry school for twenty years this summer, I had really forgotten a lot about the absolute basics of our profession: terms such as "regeneration method", "silvicultural system", "regulatory system", "sustained yield", "even age and uneven age management". Can you define each of the above in clear lucid terms to a layman? Roach can and does. He is well worth reading over and over again.[4]

I feel if I explained Roach's paper to my son and also gave him the rudiments of the use of basal area and, if he can walk out on our own 70-acre woodlot and explain these terms satisfactorily to a non-professional visitor, he will have the basics of what he, as a forester, will deal with all his professional career, no matter what sophisticated courses beyond that he may receive at a university.

Footnotes

[1]"Water Pollution Control and Forestry" - George W. Brown, Raymond M. Rice, and Robert B. Thomas. Journal of Forestry, Vol. 74, No. 6, June 1976. p. 344.

[2]Remarks by John R. McGuire, Chief, U.S. Forest Service, Washington, D.C., February 10, 1975

[3]ibid.

[4]"Selection Cutting and Group Selection" - A paper by Benjamin A. Roach, Research Forester, Northeastern Forest Experiment Station. The paper is available from the Applied Forestry Research Institute, State University of New York, College of Environmental Science and Forestry, Syracuse, New York 13210