

Intensive Timber Harvest in Private Adirondack Forests, Joint Government-Industry Conference, Nov. 30-Dec. 2, 1980

Summary prepared for Adirondack Research Consortium forestry workshop meeting, Oct. 15 by Graham L. Cox, Audubon New York

Forty three panelists, plenary speakers and panel moderators gathered at the Rensselaerville Institute of Man and Science. **Conference chair was Theodore M. Ruzow, chairman of the Adirondack Park Agency.** His charge to the conference participants was to suggest improvements to the clearcutting law and regulation in effect at that time – and which are still in effect and operative today, 33 years later, within the Adirondack Park.

Chairman Ruzow asked participants to consider a series of events that “focused our attention on the clearcutting law and regulations,” namely:

- Concern that mechanical harvesting machines were about to be introduced to the Park;
- A temporary ban by the EPA on the use of a herbicide, 2-4-5-T, an ingredient of Agent Orange, that was used in forest management;
- The potential use of herbicides in clearcuts;
- Growing concerns about the impact of acid precipitation, particularly re-growth after clearcuts;
- Impact of full value real estate tax assessments on private forest land in the Park, and the possible panic reaction of landowners to “cut and run”;
- The national energy crisis that could divert wood to fuel out-of-state electric generating facilities, to the industrial fuel market, whole tree harvesting to use “waste” wood toppings, and increased use of wood as a home heating fuel;
- Proposals to develop additional hydropower in the Park;
- National reports about keeping timber resources within the USA in light of reports of increased timber exports to Canada, Europe, Japan, China.

Chairman Ruzow said that the APA looked to its law and regulation and found them inadequate to respond to these issues. “We chose to enter into a dialog with the industry, the foresters, the academic community and the public. We believed that we at the Agency should become better informed before making a major decision whether to change the law or regulation.”

He continued: “...clearcutting and other intensive timber harvesting practices can have momentous environmental and economic consequences for our state and for the parties, corporate and private, engaged in forestry.”

He asked: “How should we respond to an application for a clearcut of say 800 acres? 8,000 acres? 80,000 acres? Should the agency require positive assurance that the area cut will regenerate or will be replanted? What safeguards should be imposed to protect wetlands and streams, rivers and lakes against soil erosion? Protect fauna and flora? Should the applicant have to demonstrate that there is no better silvicultural system that could be employed?”

Chairman Ruzow continued: “If this region encourages clearcutting is it like cutting – not trees – but our own economic throat? Will clearcutting leave this region’s unemployed still without work and spread its economic benefits largely outside the region? Will selection timber harvesting or some other approach short of clearcutting cause those economic benefits to be more fully shared with those to whom this region is home and a way of life?”

“It is clear to me that the interests of the public must be protected. If this protection of the public can be accomplished on a cooperative basis – fine. If however, industry sees itself as the enemy of government, if government and industry each see the other as natural antagonists, then we in government will take up the challenge and protect the public, the land and the trees....Let us work together to arrive at recommendations that are sound today and during the lifetime of our grandchildren,” Chairman Ruzow said.

In his concluding remarks at the end of the conference, Chairman Ruzow said: “One of the things that has been unsaid here Is the present regulatory stance of APA vis-à-vis the forest. With the exception of perhaps a dozen applications for clearcutting over a period of ten years and involving an infinitesimal number of acres of land, there has been no regulatory activity by the APA with regard to the forestry industry or forest stands in the Park. The reason for the study and this symposiumwas to decide how we should cope with a change in the circumstances of the forest industry in the Park....We did not say and we do not say now that there was extensive clearcutting going on in the Park, however you define clearcutting. We were informed that there was the prospect that clearcutting would significantly increase in the Park. Clearcutting can have adverse impacts upon the Park. We decided to learn more about the subject....What we are trying to do – without studying something to death, without researching something to death – what we are trying to do is find the dimensions of the problem.”

Keynote speaker Dr. Rupert Cutler, then senior vice president for programs and chapter relations at the National Audubon Society and former assistant secretary for natural resources and environment, USDA.

He posed the following questions: Can clearcutting be justified in the Adirondacks? If so, where and how much?

Can clearcutting be reconciled with other values that must be maintained in this very special place – recreational, aesthetic, and wildlife values, for example?

And what of the 25 acre clearcutting loophole in the APA Act which permits a series of 25 acre clearcuts without Agency review?

And what of the basic need for fair, current use property taxation? We all recognize the need for it; so now, what do we do about it?

Management practices such as cutting and thinning that create openings in the forest will result temporarily in increases in the amount of forage for grazing wildlife species. As the forest regenerates ... forage gradually declines. As a result in closed forests which are characteristic of much of the commercial timberland area, forage is largely limited to borders and openings.Most management practices affect the aesthetics or the beauty of forested areas....Clearcutting and road building produce effects that are generally considered undesirable. They also create desirable habitat for many species of wildlife and thus contribute to the pleasures of bird watchers and hunters.

These are the kinds of tradeoffs, to permit economic development while protecting the public trust in clean air and water and in recreational and cultural amenities that ought to be addressed in any new regulations adopted by the APA.

Dr. Cutler cited a US Forest Service scientist addressing the SAF in 1972: “One of the biggest shortcomings of the forestry profession has been our failure to prescribe treatments specifically matched to ownership objectives, site and present stand conditions. We’ve tended to latch on to whatever cutting system is currently in vogue and have tried to apply it everywhere. We did this

with selection cutting ... we are doing it with clearcutting now in many of the northeastern states.” He continued: “There are probably many stands where aesthetics or other forest uses will preclude even-aged management. ... There are many sites that are not suitable for clearcutting. Clearcutting on poorly drained soils frequently result in failure, and the risks of soil erosion and site deterioration after clearcutting are too high to justify this type of cutting on many high elevation sites where slopes are steep and soils are shallow.

Clearcutting in regions affected by acid rain indeed may be a gamble in terms of sustainable productivity.

Federal regulations “set maximum sizes of clearcuts depending on region and forest type; we gave special protection to streams and lakes through 100 foot buffer zones; and we set up a process for identifying areas simply unsuitable for timber harvest.... We provided for a multi-disciplinary planning team approach to negotiate a consensus... on National Forest plans -- satisfactory to all concerned.

Can clearcutting be reconciled with other values that must be maintained in the Adirondacks? On private lands I would not rule out clearcutting of small tracts if it is silviculturally justified and if the operations are sensitively located, attractively designed, widely spaced and protective of wildlife and riparian values. This can be done.

Let’s bend our best efforts to the drafting of APA forest policy and regulations that recognize the industry’s right to survive and prosper... and the public’s right -- in this region especially -- to a magnificent natural environment.

Robert Pierce, project leader, US Forest Service, Durham, NH: discussed problems related to long term forest productivity and ecological changes, using Hubbard Brook Experimental Forest research in watersheds. By selecting watersheds carefully it is possible to compare the nutrient balances of undisturbed forest ecosystems to those that have been disturbed by human activity.....Clearcutting is one kind of disturbance. Nitrogen is a nutrient that is significantly affected by clearcutting. Different harvesting practices will remove different volumes of nitrogen. Moreover, after harvesting, when the soil is exposed, there will be decomposition releasing additional nitrogen. With site regeneration there will be a recovery of nutrients....A whole tree harvesting operation may double the volume of nitrogen and calcium nutrients removed, extending the recovery period or necessary rotation... The opportunities to replace this loss through fertilization appear unlikely because of the increasing costs involved.

He continued: Although forests are rugged and resilient, we must be concerned that we do not cross an invisible threshold where, in rapid succession, organisms that are vital to the forests begin to disappear and long term productivity is reduced.

Professor Ernest Gould, forest economist, The Harvest Forest, MA, provided a short history of land use law in Northeast States and spelled out the external economic, social and legal forces that impact forestry events.

All these external forces will come to naught if landowners are unable or unwilling to manage their lands.

The new fuelwood value is a golden opportunity to get rid of the low grade hardwoods that take up so much growing space in our forests. This could leave our stands in a much better condition for the rapid growth of high quality trees.

The forest industries have the need and the organizational resources to do a good job of producing wood products on a continuing basis. Most of them are also aware of the need to

protect public water, wildlife and amenity values at the same time. The same can be said for the other owners of large holdings such as clubs, associations and undivided ownerships....The remaining land is held in parcels of less than 500 acres and the capacity of these owners to manage it and their desire to do so is not entirely clear... These folks hold their land primarily for its value as a place to live, for recreation and amenity and as an investment. Less than five percent have timber production as a primary purpose. ...Steps to coordinate amenity, wildlife, water and timber values will be necessary to get these people engaged in forestry that will benefit themselves and the public. The job of reaching these folks will be vastly simplified if the owners of fewer than ten acres are not approached individually. They make up 56% of the total number (of landowners in the Northeast states) and own only eight percent of the land.

Large owners are quite capable of managing with little aid and a minimum of guidance from society. The owners of the other half, however, need help. Today most of them rely on loggers for technical advice. The logger is a central figure in our present forest scene....The logger is generally the one who gets through the protective shell of landowners to actually work on forest land. Unfortunately the logger is also the least well trained and financed of all the actors in the forest system. Because careful woods work takes extra time it directly reduces his paycheck by cutting down log delivery at the mill. Thus financial incentives often favor the fast and sloppy operator.

When these ideas are added to the fact that there are many landowners and only a few loggers, it is clear that public attention might be most cost effective and efficient if given to helping and constraining loggers to become better businessmen and more skilled and sensitive operators. Any new public or private initiatives should have it clearly in mind that the first step in the wood extraction system is the weakest link, so that presently the private market system seems to put its worst foot forward. This situation must be changed before we can hope to strike a balance among forest land uses that provides fuel, logs, recreation of all kinds, beautiful young and old forests, and healthy watersheds that benefit both the owner and the public.

Richard Barringer, Commissioner, Maine Department of Conservation: This region's forests are now in poor shape. Many acres are overloaded with cull trees and low value species. Maturity and over maturity are the general rules, reflecting a recent history of underuse and shoddy partial cutting. Forest productivity is under serious stress from spruce budworm, gypsy moth and possibly from acid precipitation. To restore these forests to a high level of timber productivity consistent with wildlife, water and aesthetic values is a challenge worthy of the best efforts of all of us: landowners, foresters, industry, citizens and government.

We have never done it before. It was easy to degrade the forest; as easy as falling off a log. To restore, repair and protect it will take decades.

They are issues that we have been ten years dealing with in Maine and none of them is fully resolved. But I can say that Maine has had superior experience with the productivity tax which works well in our state. We have worked effectively with cooperatives on small landowner management. We are working now in the area of logger training. Each of these things has produced a substantial improvement in forest management in the state and has wonderful prospects for the future.

Logger training is, in Maine, the single biggest problem that we have in forest management....Anybody can get into the business who can leverage the mortgage money and once in they are too often over their heads.

Maine has a successful forestry cooperative comprising some 200 small landowners, owning some 120,000 acres. Its object is to improve management on their land by serving as a vehicle of information, education and even marketing. It is supported by the Maine Forest Service and the USDA and I recommend it to you as a means of organizing the small landowners and raising their consciences to both the opportunities and the responsibilities of forest management. Clearcutting: I have not in ten years of walking around the Maine woods seen a clearcut that looked good....If you think you are going to combine aesthetics with clearcutting I think you are kidding yourselves. You can combine aesthetics with partial cutting, of sorts. Clearcutting is ugly....I think that once tourists and even you own residents start seeing what big clearcuts look like they are going to be unhappy if you don't anticipate that through public education, through public information, through regulation of siltation problems, sedimentation problems and of road construction.

Referring to clearcutting along the Alagash River corridor: I don't oppose that clearcutting...It makes perfectly good sense to me in certain instances...What we are asking is there be a more sensitive approach to when it's done, where it is done and how it is done.

The answer we have chosen has been twofold: education is one. The other is the kind of regulation undertaken by the Land Use Regulation Commission....that agency has zoned for protection areas of special interest, whether it is wildlife habitat, historic concerns, sensitive soils, steep slopes...In all these protective zones there are special cutting standards that are mandated by regulations and to which the companies must adhere unless they come into the commission and get a special exception. That approach I believe has been extremely successful although it was a ten-year battle itself just getting from unfettered harvesting...to a position where we now have a pretty universal agreement that the standards made sense, the management is sensitive and intelligent and that exceptions are made under reasonable conditions.

Lyman Beeman, President, Finch Pruyn and Company: To achieve better woods management in all areas of woods operations including that of the small wood lot owner we must recognize current problems: 1. Small parcels of land and diversity of ownership make economical management difficult; 2. Small landowners lack management knowledge and fear exploitation by unscrupulous cutters; 3. Pressure of taxation forces landowners to cut their land and get out rather than manage and hold for development; 4. There is difficulty and expense in coping with many regulations which have been enacted by past governments.

Changes can be made: 1. The Forest Tax Law 480-A should be modified so that the small landowner may understand it, be able to comply with it, and get a tax break for long term management. It may be possible to set up forest land cooperatives to help the small landowner manage his land efficiently and profitably. 2. Government regulation needs to be informed, realistic and practical....Probably each area should be judged for selective cut or clearcut of whatever type or size on its own merits.

Dr. Ted Hullar, associate director of research, adjunct professor of natural resources, Cornell University and former DEC deputy commissioner for natural resources: The private forest lands are an integral part of the social values of the Adirondack Park. It follows then that the private forest lands are a social resource as well as a private community resource. Thus we are confronted with a dilemma.How can the private sector as it uses its commodity resource for economic gain accommodate and serve the social and public values of the Park as a whole? Conversely, how can the public sector, as it exercises stewardship over the private lands

on behalf of the public, assure value and long term gain to the private sector?....Our challenge is to determine how to establish the most beneficial symbiotic relationships ...between the different interests of the private and public sectors, between long term biological requirements for sustained productivity and short term economic return, between visual aesthetics of altered landscapes and intensive harvesting?

The APA and the forest industry should explicitly recognize the crucial role of private forests in preserving the overall long term ecological and aesthetic integrity of the Park.... Assuring long term soil quality and site productivity and having prudent management of the forest stands requires up to date sophisticated knowledge of the soils, the biology of the forest and of silvicultural practices.This is often beyond the capability of the small landowner....Forestry cooperatives are a convenient, cost efficient way to supply these expert services to small landowners....major catalytic help can and should be given by one or more public agencies such as the APA or DEC...with early assistance from Cornell University (extension service) and SUNY ESF.

There is not yet sufficient information available to understand the long term implications of intensive harvesting methods on soil quality and site productivity. Nor are there commonly accepted numerical methods available...to relate a harvesting method to visual impacts....One method of possible value would be to use the 'best judgment' of acknowledged experts; a panel of experts could be convened to evaluate the impact of harvesting proposals on soil quality, site productivity and estimate visual impact...This information could then be given to the APA staff and DEC for consideration in their deliberations and in the regulatory process.

The key parameters of soil quality and site productivity and visual quality are at the heart of our decision about intensive timber harvesting in the Adirondack Park.

The conference considered reports from members of three plenary panels and four workshops.

Plenary Panel One: the research perspective:

Dr. Leon Minkler: The overall purpose of forest research is to understand forest ecosystems and how they can be managed for environmental values, commodity values and environmental protection, all in an integrated and harmonious way. The panel considered eight areas of research: how to develop a method for evaluating and balancing these values; explore the economics of wood commodity harvesting involving new and improved machinery for selection silviculture and relatively light cuts; determine long range yield and wood quality characteristics of even and uneven management of northern hardwoods; develop cost data in physical units on degrees of intensity of management; combined with harvesting studies there should be elements of attaining zero detrimental effects on soil and water and minimum damage to residual stands and visual characteristics; explore the best methods of recovering fuel wood during log harvesting and silvicultural operations; long term studies on the relation between silvicultural and harvesting methods and wildlife habitat; continue ecological research on regeneration requirements of Adirondack northern hardwoods and conifers. Policy makers and foresters must use the information we already have. Our practice is always far behind our knowledge. The reason for this all too often is short term economics not consistent with APA objectives or those of non-industrial private woodland owners.

Dr. Ed Ketledge: his focus was on physical environment rather than economics. He agreed with the initial list of issues spelled out by Chairman Ruzow, and suggested New York should look to other states for some research guidance. We need some baseline studies on natural ecosystems in

the Adirondacks, with a focus on Wilderness areas for establishing baseline data. We need some permanent study plots scattered through the park. We need institutional involvement and support for research (ESF and Cornell, APA, DEC and others) combining resources. We need to complete the inventory of valuable species and habitats, some basic ecological studies on wetlands, and studies of the impacts of intensive levels of production. We need data on the size and location of clearcut. "There is nothing defensible or magical about a 25 acre limit. There's a whole series of environmental issues simply related to the size of the clearcut and the position of the clearcut vis-à-vis the different age classes of the surrounding stands."

Dr. Ketledge continued: "There is another problem of saving these stands that have been so heavily high graded that they are in a poor condition now. It seems to many of us that the only way you can handle those is to cut them down and to start over again. All the quality wood has been taken off in the past." He continued: "We need ecological studies that follow the foresters in their intensively managed stands. We would like to see studies conducted on industrial lands for different management techniques, such as shelter wood cuts, selection cuts and clearcuts." He continued: "...if you let the forest go back to a continuous even canopy throughout, you are removing, destroying, eliminating the diversity of these habitats. In natural environments there are many openings by wildfires, insect epidemics, and the like. Without these openings you are eliminating the diversity of animals. You are also lowering the flexibility of these regional ecosystems. The most vigorous, healthy ecosystem is the one that has stands in all different conditions."

Chairman Ruzow: "From what everyone has said today, and what everyone seems to have said in different ways in the past, is that there is a need to learn an awful lot more about the Adirondack Forest and the activities that forestry involves. And I think that absence of knowledge has been demonstrated."

Plenary Panel Two: the industry perspective:

Don Peterson: "People keep looking for this marvelous solution that's going to save us all and we are bleeding to death from a thousand capillaries."

Phil Nowell: "The workshop found that in the next 20-year period intensive forest management is likely to be applied to only those sites of high productivity and the best estimate is approximately 15 to 20% of industrial land. The type of management system seen as most likely to increase in scale on industrial lands is the shelterwood cutting method.....No one cutting method is ideal if applied on a broad brush basis. Intensive management requires flexibility in the sense that you have to make prescriptions based on site specific cases. Basically we have to recognize that selection cuts, shelterwood cuts, seed tree cuts and clearcuts all have valid silvicultural practices under certain circumstances. The difficulty is in actually making the prescriptions.....The small private landowner needs some assistance, in many cases, in managing his forest land. Speaking from an industry standpoint I think you will see an increased interest on behalf of industry in landowner assistance programs.

"Most large industrial forest landowners derive direct financial benefits from land leasing programs, hunting clubs and camp leases. As timber management intensifies we have a stronger obligation to consider the impact of harvesting practices on these other values. It is possible that the industry may seek assistance and expertise from outside sources."

Mr. Nowell continued: "Workshop number three was on land ownership patterns. There is almost a universal perception of pressure on small landowners to cut and run. This issue can be approached in two ways: first would be some relief in financial pressure from the real estate tax

system based on current use, sort of a modified 480-A. The big issue here appears to be the resulting shift in tax burden to residential and commercial properties. Since the Park resource is for everybody, the burden of taxation to preserve the unique interface of public and private lands should probably be a shared burden by everybody in New York State....Industry and their public programs can assist the small forest landowner in recognizing the values of forest management ...By providing some guidance many cut and run temptations may be overcome. "The possibilities for expansion of the forest products industry in the Adirondacks is viewed by industry as not being particularly good. Maybe we have a wrong perception but we don't really view the Park Agency and the government as being very receptive to this idea. If the Park Agency is really concerned about the economy of the Park residents they will encourage industrial expansion within the Park, provided that is it compatible with the other Park uses."

Plenary Panel Three: the government perspective:

Herb Doig, DEC: The Adirondacks are special – as an ecosystem, for recreational values, for the wilderness experience, for the interrelationship between industry and recreation that form the economic base for the region, for the unique legal protection they enjoy, special for governmental relationships and particular public interests that watch out for the Adirondacks in a very thoughtful way...As government representatives we have to be aware of these kinds of things when we address the issues of importance to the Adirondacks.

Dan Weller, DEC: The crux of the problem is the non-industrial private landowner. I think that poor management should not be blamed on the industry or the loggers. I think it is the landowner who makes the decision....I believe that the job of the public foresters is to educate, to whet people's appetites so that they desire professional forest management....I think we must develop in the State of New York a constituency that will speak for us and for forestry....people say that we ought to give the private landowner tax breaks. I would submit that this has to be considered very carefully because when society gives the landowner a tax break, society demands something in return. The landowner is going to be required by society to give up some rights if society pays part of his bills.

Robert Glennon, APA: "So everybody has called for more data. I suspect that's the inevitable result of the task before us. What started out as a study of some of the problems in the Agency's regulatory definition of clearcutting has become instead a vast research agenda involving the present state of the timber resources and the health of the industry at large. There's a vast amount of information already generated."

Herb Doig: "I would suggest that professionals frequently fall into the pitfall of hiding behind a shield of lack of knowledge. There seems always to be a need to collect more and more and more information and therefore avoid any major involvement in decision-making...we really cannot wait for all of this knowledge before decisions are made. We must make decisions on a day to day basis."

Workshop One: Growth and yield: There is a need for growth and yield data that can be made available to the public and the forestry professional...and good resource drain data is necessary. A major consideration should be a more or less continuous monitoring system so that drain data would always be current. General agreement: Trees grow, and all silvicultural systems are valid if properly applied and administered. In summary, and on a regional scale, intensive forest management will probably mean a short term loss in productivity with a future gain in long term productivity.

Workshop Two: Multiple Use: Visitors to the Adirondacks expect and seek a park-like character. Timber harvesting is viewed to some extent as being contrary to these park values but is also necessary to enhance the visual accessibility of the Park....The size of the cut is not the only consideration in an operation. Intrinsic ecological factors, the relationship of the size of the cut to the size of the watershed, and the location within the watershed are also important in determining the potential water quality, yield and soils impact.....The APA, DEC, SUNY ESF and the industry should develop informational and educational resources for small landowners in the practices that will protect their land resources and their investment and to increase the feasibility of management and prudent harvesting....The APA should develop and provide criteria to landowners for preparing harvesting plans for lands in non-industrial ownership and should use these criteria in reviewing proposals for intensive harvesting operations.

Workshop Three: Community/business relationships: Protect the productive capacity of the soil by minimizing soil erosion and nutrient loss from forest ecosystem....establish mechanisms for gathering needed data and monitoring forestry activity so as to understand what indeed is happening – include reliable removal figures, including domestic fuelwood removals and analysis of demand for forest products.....Assess the long term profitability of alternative harvesting systems....through cooperative efforts of academia, government and industry to supply long term data...Overhaul tax structure to encourage forest management by non-industrial landowners...Establish vocational training programs for wood operators...investigate forestry cooperatives.... Assess impacts of alternative harvesting systems on tourism, recreation and visual resources.

Workshop Four: Land Economics: Insufficient data on property ownership; lack of knowledge about turnover of private lands; lack of knowledge about changes in ownership or use.....Should 480-A policy, or any alternative for optimizing timber production, be modified to include non-timber outputs, particularly within the Adirondacks? Should assessments be based on current use value? Are there alternatives to tax policy for stabilizing the land market?Industry should intensify landowner assistance to smaller landowners for management plans, particularly those for 480-A....Government must resolve potential for conflict between 480-A plan (where requested by landowner) and Agency jurisdiction. Government should examine a reorientation of 480-A eligibility criteria to take into account non-timber values and uses.....and research should identify remaining prime timber production lands and the amount of land needed to support the forest products industry...Research should address the valuation of non-timber outputs of forest lands.