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RESOURCE USE ISSUES  
AND  
THE PLANNING PROCESS

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## FOREWORD

This publication represents a collection of papers which were presented before the Second Northeast Extension Seminar of The Northeast Regional Committees. The conference, which was held in Boston, October 11-13, 1966, explored the topic of "Resource Use Issues and the Planning Process."

The seminar was attended by professionals in rural and urban planning, economics, and sociology; landscape architects; educators, agricultural agents; and extension specialists in forestry and wildlife, area development, and public affairs.

Included in this publication are all papers which were presented before the four committees and those presented before the Northeast Regional Extension Public Policy Committee. They represent current thinking in the field of resource use and planning.

Much guidance and support was given by Henry M. Hansen of the University of Connecticut, and Joseph Ackerman and R. J. Hildreth of the Farm Foundation to the Boston Conference and the publication of the papers presented there. Financial costs were underwritten by the Farm Foundation and the Institute for Research on Land and Water Resources of The Pennsylvania State University.

Finally, we salute Jack Brown and Carroll D. Price, II who devoted many hours to the editing of this compilation of papers.

John C. Frey, Chairman  
Northeast Regional  
Extension Public  
Policy Committee

## NATURAL RESOURCE CONSIDERATIONS

by Robert G. Wingard\*

### RESOURCE MANAGEMENT

For too long there has been too little communication and understanding between the social sciences and the natural sciences in public affairs work. This is true for planners, economists, political scientists, and others who deal with policy issues and the disciplines concerned with forests, waters, and wildlife resources. Yet key management decisions for these resources depend largely on public policy.

To paraphrase Dean Shirley Allen of the University of Michigan, natural resource management is "the science, art, business, and public policy capable of affecting continuous production and management of all renewable natural resources for the benefit of people."

By training, experience, and orientation toward this definition, natural resource specialists should be able to recognize and deal with policy issues as represented by the public interest as opposed to that of the exclusive private interest viewpoint.

When public affairs programs focus on land-resource issues, success will depend largely on teaching people the following:

1. The interdependence of all natural resources.
2. The application of science to natural resource management.
3. Citizen responsibility and participation must be balanced with appropriate government action to fully reflect public concern in natural resources.

### APPLICATION OF SCIENCE

To be effective, educational programs dealing with land issues must involve the competencies of appropriate natural resource specialists, teaching the application of science to natural resource management.

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Facts, not opinions, must be the basis of natural resource management and use. The application of science to natural resource management offers an opportunity to most effectively satisfy people's interest [ and encourage their ] understanding, participation, and action in resource use and conservation programs. There is a body of knowledge and science in wildland management and use, but it is not well understood nor effectively used.

In Pennsylvania, we recognize the accelerating land-use adjustments with the attendant demands placed on land and water resources by a growing and changing society. Most of the issues related to these changes in rural Pennsylvania have strong ties to forest and wildlife resources and to public policy. These issues are being resolved as people participate and express their interest and concern in public policy determinations.

In a state such as Pennsylvania where 17 million of the 29 million acres (58 per cent) are in forest cover, where over a million hunting licenses are sold annually, and where there is increasing demand to preserve the integrity of the natural environment, educational work must recognize fully the public policy considerations which will determine to a large extent the pattern of development for the future. Only a well-informed citizenry can make intelligent decisions as to how natural resources can best be used to meet immediate and future needs.

Following are some specific accomplishments which have involved land issues, with respect to forest and wildlife resources, that were conducted in the public affairs context.

#### DEER MANAGEMENT EDUCATION

Some years ago, as programs were evaluated, we recognized the educational need in connection with Penn State's heavy research in deer management. Pioneering research by Dr. Jerome K. Pasto in cooperation with wildlife scientists, which relates to people, land, and deer, provides the framework for various disciplines to contribute to a meaningful Extension educational program.

These Extension educational programs consist of short, formal presentations by Extension specialists and a research biologist of the Game Commission. Various aspects of deer and land management are considered including: deer economics and policy, deer and forest land management, deer biology and populations, the effects of hunting and deer management and science. The programs feature open discussion and idea sharing on many critical and controversial public issues. The discussion and comments have been stimulating and orderly with high farmer, sportsman, forest owner, and businessman involvement and participation.

We are flexible in our presentations and have made many program adjustments. But the land issues of concern to people throughout the state fall into the following general categories:

Deer damage to plant life -- The issue is that land cannot be posted so that it excessively limits deer harvest and not expect to have a herd increase with attendant damage to natural vegetation and crops.

Deer-highway conflicts -- The issue is that land cannot be posted, publicly or privately, and have new highways cross heavily forested areas and not expect deer, as part of the natural environment, to create deer-auto collisions. This is a national issue, but is of special concern in the heavily forested, heavily urbanized Northeast which is laced with highways. Pennsylvania has more highway-deer kills than 30 other states harvest by hunting, and the Northeast has over half the nationwide total of deer-highway kills.

Mixed land use and ownerships -- The issue is that as land moves out of agricultural production by urbanization or obsolescence (most of it by the latter), it places pressures on the remaining farm land that generally encourage invasion of both trees and deer. Conflicts of mixed land uses (management objectives) in farm and forest areas can be as serious and disruptive to the rural community as industrial uses in a residential zone on main street. These conflicts arise in rural areas because people fail to understand fundamental natural processes in the environment. We stress the application of science to deer management, which provides clear evidence of the need to harvest both

sexes and all ages of deer on an annual basis, and we encourage understanding that if public policy relating to land and deer is to reflect all citizen interests, then people must be willing to participate in the appropriate ways to influence that policy.

What has been learned? -- Three main points are clear from this public affairs-deer management educational work: (1) Research and education have a unique challenge to help all groups concerned with deer to understand the land management issues involved; (2) a satisfactory and acceptable deer and land management program requires citizen participation in discussion and exchange of ideas; (3) cooperation among agencies, groups, and individuals, both public and private, stimulates public understanding of deer and land management issues.

What have we accomplished? -- In a decade of public affairs-deer management education, Pennsylvania has had a continual annual harvest of deer of both sexes and all ages. Antlerless deer harvest is now well accepted and supported by all groups because of the educational opportunity provided to farmer, forest owner, sportsmen, businessmen, public agencies, and other groups.

Because of public interest arising at these Extension meetings, the Game Commission wrote a Deer Management Public Policy statement in 1960. This policy continues to provide the framework for various action programs.

Over 7,000 citizens have participated in the meetings, and over 20,000 publications on deer management have been distributed in response to citizen interest. The presentations have also been filmed for agent use.

Game Commission support of Extension's involvement in this program continues in recognition that Extension education is somewhat different than the information and educational programs given by the Commission alone.

We have provided county staffs with an opportunity to function as educators among the citizens representing the total community,

although we recognize problems in shifting the role of the county staff to represent broader interests.

Harvest of both deer sexes continues at a high level, and record antlered harvests have been set in recent years.

#### PUBLIC ACCESS TO PRIVATE LAND

Access to land and water is essential for recreation. One of the most critical issues facing farm and forest owners and the recreation public is to develop access arrangements that are satisfactory and acceptable to both groups. The hodgepodge, checkerboard pattern of posted signs is eloquent proof of landowners' concern. The frustration of hunters, fishermen, and other recreationers is becoming more intense. Alternatives of private development, public ownership, and public leasing of land rights are available choices. Evidence indicates that the urban sportsman will increasingly vote for public activity, and if he happens to be a member of a minority group, it is almost certain he will choose public ownership.

Our publication, "Public and Private Land Use Issues," coupled with continual emphasis on access at public meetings and with groups and individuals, has created a greater understanding and action on this issue. An Extension assistantship in the Cooperative Wildlife Research Unit stimulated a land posting research project from which we envision strengthened Extension education in this field.

The fact that Pennsylvania hunting license sales are on the increase, as opposed to a national decrease reported in the 1965 Hunting and Fishing Survey, clearly indicates that Pennsylvania farmers, forest owners, sportsmen, and public agencies have developed action programs to partially accommodate this land issue.

Landowners have expressed justifiable concern for liability by public recreationers. As an advisory member of the Forest Resources Committee on the State Chamber of Commerce (which is primarily concerned with public issues rather than timber production), I was able to participate in appropriate educational ways to stimulate action and support for the



new landowner liability law, Act 586, which limits farm or forest owner liability for literally any public recreational use of private land except when fees are involved. This action was supported by sportsmen, farm and forest groups, and public agencies.

The public access feature of the Cropland Adjustment Program, while it was a radical departure in philosophy to make payments for public use rather than for permitting the land to be idle, afforded an opportunity to work educationally with the staff of ASCS and the state game and fish commissions as plans were formulated.

### POLLUTION

Any land or water use which defiles the natural environment has direct or indirect effects on living organisms and is a proper concern of forest and wildlife resource interests.

One of the high priority issues facing the nation is how to dispose of wastes of a space-age society without completely fouling all of our natural environment. These wastes may be industrial, domestic, agricultural, or recreational.

Coal Mining -- For over 100 years in Pennsylvania, our chief industrial waste from coal extraction has gone unchecked until the Federation of Sportsmen, acting on behalf of all citizens, gave forceful leadership to strip mine controls in 1963 and a new Clean Streams Act of 1965.

While Extension cannot claim much credit for this action, our educational association with sportsmen has continually stressed the untenable position of attempting to develop our water resources without appropriate protection to insure unpolluted and uncontaminated water. The alternatives in this issue are not only dead fish, but also dead industry, dead communities, and dead recreational potential. Effectiveness of this new public water policy will have to await accomplishments in the future.

Agricultural Chemicals -- The issue of agricultural pollution and wastes was recently a quite lively one. If ever there was a public issue begging for the best of Extension education, this was it, yet this was defaulted when the need was greatest. It remained for the President's Science Advisory Committee to partially clear the air, and for federal regulation and restraints on pesticides to effect the changed policy position. Understanding and acceptance still leaves much to be desired.

The agricultural chemicals coordinator role on Extension staffs was long overdue, and I take personal pleasure in having contributed ideas on pesticide relationships to wildlife and the natural environment in several recent pesticide publications, which recognize the public concern and the pollution issue of pesticides in the natural environment.

Recreational Wastes -- The issue of recreational wastes is one of local people not understanding their own responsibility in providing public or private developments to accommodate the recreational visitors they encourage.

The costly issue of recreational waste, pollution, and littering takes many forms. It may be unsightly litter of roadsides. It may be bus bodies or tarpaper shacks which serve as hunting headquarters or the bundles of garbage from campers, weekend cottage owners, or picnickers as they leave forest or farm areas.

In nearly all cases local people are concerned and resentful of these wastes on rural lands. The paradoxical situation is that nearly all of these rural areas have a promotional program encouraging and inviting recreationers who, in turn, create wastes. We stress the fact that promotion cannot take the place of resource development, including elementary community waste disposal facilities.

Without waste disposal arrangements, trash bundles will plague farmers and forest owners. Without standards or building codes, the woods will be full of bus bodies which are incompatible with the natural environment. Without satisfactory sewage arrangements, cottage

owners will continue to put septic tanks literally in the lake, and pollute the environment that attracted them. Without meaningful access arrangements for recreational use of private lands, and with the hodge-podge of landowner posting and deer conflicts with farmers and highways, the frustration of recreationers will continue.

### COMPREHENSIVE PLANNING

In our situation, where forests are occupying more and more land chiefly by default as a residual use -- where both food and fiber require a smaller commitment of land, and where people are sensing that all is not well in the natural environment, it is apparent that, as a people, we [ must exercise our ] choice in how some of our land and attendant resources are owned, managed and used.

Citizens throughout Pennsylvania have made the commitment to comprehensive development planning. They are determined to seek a better outcome than has been evident in the past.

In a recent appraisal of resource planning programs in six states, we reached some conclusions and made some recommendations to strengthen the planning process in rural areas. A basic weakness has been that comprehensive development planning isn't really comprehensive. Its strong social and economic base studies have had little relationship to natural resources or to ecological considerations for the area.

If the integrity of the natural environment and processes are accepted as planning objectives, then coordination of federal, state, and local planning programs should be mandatory. Economic or "purse string" power should be considered in order to make development planning truly comprehensive by including more complete natural resource analysis and interpretation. For planning programs not to respond to natural resource concerns would be inexcusable. Failure to use financial stimulation to strengthen natural resource elements would be omitting a powerful force for making planning comprehensive.

## EXTENSION EFFORTS

Land-grant universities are attempting to strengthen research and educational efforts in resource planning and development, but none have fully met the need. They could, and should, move more aggressively to respond to the challenge implied in people's concern for the natural environment.

Professional education in planning is chiefly centered in architecture, landscape, or engineering departments, which accounts for the current heavy emphasis in planning spacial design, and largely ignores complex ecological relationships. On the other hand, those who know ecological relationships have been reluctant to participate in the planning process -- except in rare cases -- and planners have failed to involve these "foreign" disciplines.