

The Adirondack Park in the 21st Century

PART II: Strategies for Implementing a "Research to Inform Policy" Agenda

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Introduction

In Part I (AJES 4(2) Fall/Winter, 1997) proposals for a long range policy and research agenda were advanced in order to stimulate ideas, commentary and dialogue. Part II is intended to do the same. It proposes a strategy for implementing a "research to inform" policy agenda through creation of a formal partnership of existing institutions and capabilities.

I take as a starting point the assumption that the Park's open space character and biological diversity must be preserved. This is so on ecological grounds and aesthetic grounds. It is also so on economic grounds. If the ecological integrity of the Park is not sustained and its vast open spaces become fragmented, the economic viability of Park communities can only be further eroded over time.

Unfortunately, there is not likely to be a magic bullet to improve the Adirondack economy. The price of economic vitality for Adirondack communities is a healthy environment. Tourism, recreation, sustainable forestry and public sector employment are likely to continue as the main sources of income for Park residents. Tele-commuting technologies may open other opportunities. But quick fixes by inappropriate development are not the answer. The socio-economic well being of Park communities and residents, like no other region in the eastern United States, will remain wholly dependent on

the unique quality of the Park's environment: a green oasis amid the largest concentration of people on the North American continent and home of the last great forested wilderness east of the Mississippi.

Furthermore, acquisition of most of the land within the Park seems highly improbable. No one has seriously proposed moving the Park's 130,000 year round residents and 100+ communities outside the Blue Line. With the reality that about half the land will remain in private hands, the challenge is to keep the Park in an ecologically healthy condition, befitting its status as the largest designated Park in the U.S., outside Alaska.

From this, two conclusions follow. First, research is needed—cutting-edge research to inform the policies, decisions and actions that will affect the ecologically mingled public and private lands. Reliance on laws and regulations is not enough. Second, a *collaborative* research and education effort is required, involving public and private sectors, local and state government.

The linkages among the biological, economic and social benefits of the Adirondack Park's natural systems and ecological services and its open space need to be better understood and presented, if those who live, labor and recreate in the Park are to work effectively with state agencies and interest groups to protect the Park's human, cultural and natural resources.

Although a large body of scientific information about impacts of human activities on natural systems exists, very little research has been undertaken and applied to specific Park resources in specific locations as they may be impacted by different kinds of development.

Further, in regard to existing research, no entity is continuously providing scientifically defensible, peer-reviewed information to communities, organizations and the agencies charged with managing and regulating actions that impact the Park's resources.¹ In the context of the Adirondacks, if appropriate people are unaware of a piece of research, or do not understand its implications, that research will have no impact.

Finally, improving foresight capability, through research and monitoring, so as to prevent individuals, communities and New York taxpayers from being burdened with costly after-the-fact correction of problems that could have been avoided, is not a primary focus of any group concerned with the Adirondack Park.

Having made a case for the primacy of sustaining the Park's ecological integrity as the foundation of its economy, this paper identifies institutional partners, suggests a governing mechanism for working together, and summarizes some social, economic, and natural resource research priorities that should be pursued in a manner that informs policy.

An Adirondack Research Partnership

Any research partnership, if it is to respond to the needs of stakeholders (citizens of New York State, Park residents and landholders, visitors, public agencies, for example), requires a means of open dialogue among many perspectives. Whether the applied research is about socio-economic factors or behavior of natural systems as a consequence of land use and development, those proposing or planning to undertake research should do so in a real world context, solving real

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world problems and helping those who may be affected by the research to understand the results, the consequences and the application of the findings. This latter responsibility is rarely seen by researchers as part of their mission, but is critical if the research is to be useful.

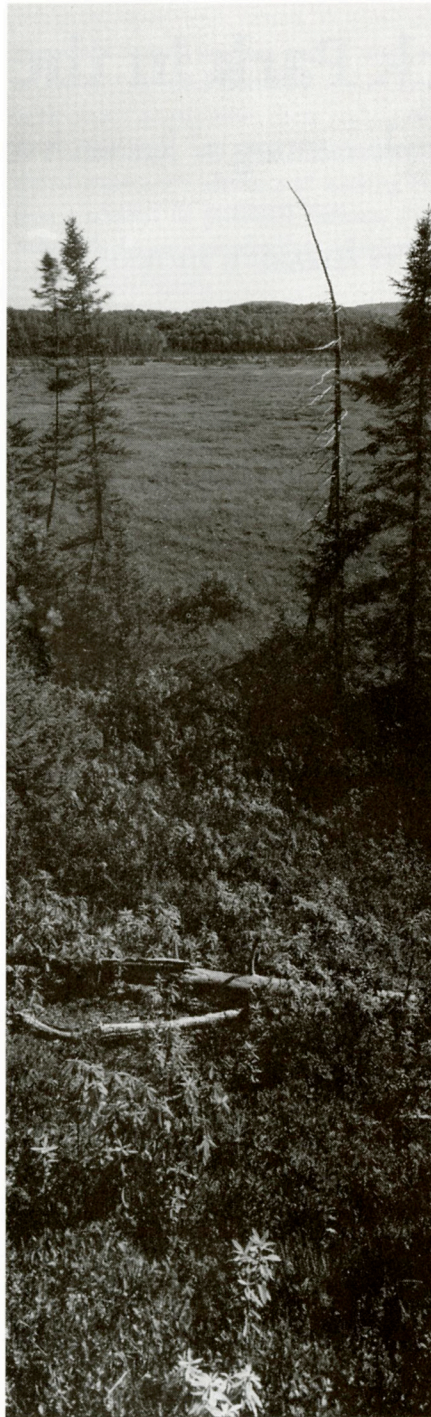
A partnership created from existing capabilities could provide the working framework most likely to succeed. The Adirondack Park does not need a new institution or agency to address the research agenda suggested in Part I. It does need a coordinating mechanism for bringing together diverse existing capabilities, institutions and perspectives, identifying supporting resources and defining and acting on priorities. No single entity, whether New York State or a large university, has the capability to implement a "research to inform policy" agenda on its own.

Local and state government, special and public interest organizations and education groups, along with academic institutions, need to be represented in an effective partnership. The partners must acknowledge that they will constantly be engaged in a balancing act between human aspirations and nature's constraints, between demands of short term pressures and inevitability of long term natural processes.

The importance of having multiple decision-makers and stakeholders as participating members of the partnership cannot be emphasized too strongly. As problem solvers and "customers," they will request the research that is relevant to them, and, most important, they will be aware of, and pay attention to, the results of the research.

Specifically, who should be members of the partnership? The following list is meant to be illustrative, not conclusive.

Research and educational institutions should join in a partnership (let's call it the Adirondack Research Partnership) with other Park affiliated groups: special interest organizations such as Empire State Forest Products Association, Adirondack North Country Association, Adirondack Economic Development Corporation, and the Adirondack Landowners Association; also with public interest



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groups including the Adirondack Roundtable (an informal association of various environmental organizations) and the Residents Committee to Protect the Adirondacks, with its in-Park grass roots constituency.

In addition, local governments should be represented through the Adirondack Park Local Government Review Board and the Association of Adirondack Towns

and Villages. Six state agencies that have extensive responsibilities in the Park should also be represented — New York State Departments of Health, Transportation, Economic Development, Environmental Conservation, State and the Adirondack Park Agency.

Educational and land conservation groups that should be affiliated include the Adirondack Museum, the Adirondack Research Library, the Visitor Information Centers at Paul Smith's and Newcomb, Adirondack Discovery, the Adirondack Conservancy/Land Trust and the Open Space Institute.

Academic institutions would include those with major research capabilities relative to the Park, especially New York State supported research institutions: SUNY College of Environmental Science and Forestry with its expertise in forestry, environmental studies and landscape architecture and Cornell University with its institutes for water resources, resource information systems, waste management and programs in natural resources, ecology, agriculture, rural sociology, local government and regional planning. North country-centered colleges, Paul Smith's, St. Lawrence, North Country and Adirondack Community Colleges, Plattsburgh, Potsdam and Clarkson should be key members. Syracuse University, RPI, Dartmouth, Yale School of Forestry, University of Vermont and Duke are other institutions engaged in research that could add expertise to the Partnership.

Structuring the Partnership

The partnership will require 1) a means of insuring regular interaction between decision-makers, stakeholders and researchers and 2) resources to establish a competitive grants program.

The entire partnership could meet periodically at a location in the Park. These meetings would be designed to get feedback from the range of partners about priority needs for research, offer an opportunity for researchers to find out what stakeholders need to know, and provide a chance to share brief summaries of current research, including its application and implications.

The availability of competitive grant funds will be key to making the partnership functional. Requests for proposals should be based on consensus within the partnership about priorities for research. Research proposals could be reviewed in three categories — social science and economics, natural sciences, and interdisciplinary research and education. Peer review panels should have expertise to judge the quality and substance of the proposals, as well as their priority for addressing needs of Adirondack decision-makers and stakeholders. Review panels could be drawn from partnership members and other affiliations.

The Great Lake Research Fund could serve as a model for this process. In that case an endowment fund has been established by all the Great Lakes states. Another model is the New York State Energy Research and Development Authority, funded by an assessment on the state's utilities and matched with federal and private sector funds. Two to three million dollars annually would go a long way toward enabling needed research.

Projects involving collaboration between agencies, associations and qualified researchers should be strongly encouraged, so long as the research is designed objectively, and involves input from the stakeholders, but not control over the research methodology and outcomes.

Abstracts of recently awarded grants and synopses of current research findings could be included in the *Adirondack Journal of Environmental Studies* or a supplementary newsletter. Funds to support a secretariat to insure that dialogue occurs, to administer the grants program and to provide for communication costs such as a newsletter could come from a combination of dues assessed by the members and from grants. The secretariat might become a specific function of the Adirondack Research Consortium or of one institutional member of the partnership.

Priorities for Research

When the Adirondack Park Agency Act was enacted in the early 1970's and the map defining zoning categories for private and public lands was created, these instruments were considered to be

at the cutting edge of land protection. They no longer are.²

The State Land Master Plan, governing the "forever wild" Forest Preserve and having the force of law despite its designation as a "Plan," based the public land zoning of the Forest Preserve on a unifying theme:

. . . the protection and preservation of the natural resources of the state lands within the Park must be paramount. Human use and enjoyment of those lands should be permitted and encouraged, so long as the resources in their physical and biological context as well as their social or psychological aspects are not degraded.³

Use and development of the private lands was zoned according to overall intensity guidelines for principal buildings per square mile in each land use category. Thirty seven development considerations were listed for review before any new jurisdictional land use and development was to be undertaken.

Holistic ecological concepts, a routine part of contemporary environmental planning and management, were at the time in their infancy and not incorporated into reviews of environmental impacts required by the APA Act. Ecosystems, whole watershed planning, biodiversity, cumulative environmental impact (effects of many separate and seemingly negligible actions impacting the same resource) and carrying capacity (amount of use that can be sustained without deterioration of quality) of lakes, rivers, wetlands, forest tracts or watersheds were not part of the 1971 Act's language.

Research topics noted in Part I of this paper suggest the scope of a research to inform policy agenda:⁴

- baseline data on Park resources.
- controlled experiments to improve understanding of how the Park's interlocking public and private land ecosystems function and how they are impacted by specific kinds of development.
- inventories of the Park's biological diversity and incorporation of this information into existing gap analysis studies already underway, so as to im-

prove understanding of which biota are protected.

- determination of biological, physical and social carrying capacity of specific Park ecosystems.
- advancement of methodology to assess cumulative environmental impacts of many separate actions on the same resource over time.
- design and implementation of systematic early warning systems to detect and mitigate environmental problems while they are small.
- design of studies that establish connections between open space protection and costs of municipal services.
- investigation of costs and benefits to New York State of changes in the estate tax and capital gains tax as this pertains to protection of forest and agricultural lands.
- an independent study of the potential of hamlet expansion as a means of accommodating growth while reducing costs to communities of expanding services.
- investigation of feasibility of specific multi-community collaborative programs to reduce costs of services for road maintenance, education, health, wastemanagement, water supply and other community services.

Next Steps

As previously noted, the research program that is given priority should be decided upon by the Partnership. But a clear starting point can already be identified.

1. A literature review of research conducted in the Eastern U.S., regarding the above topics, should be undertaken.

2. A data base on research specific to the Adirondack Park should be created, maintained and made accessible on the Internet.

3. The Adirondack Park Agency should be funded to create, in concert with the Adirondack Conservancy/Land Trust, a map of development trends within watershed boundaries and land use classifications, so as to provide an analytical



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Spring thaw on the Saranac River near Bloomingdale

tool for an ongoing monitoring program. Such a program would be a prelude to more extensive studies that track cumulative impacts of development and describe carrying capacities of specific watersheds.

4. A small group of North America's leading research scientists should be convened to make recommendations about the general scope and the resources needed for a research program specifically relevant to the Adirondack Park.

Concluding Remarks

It has been estimated that half the residential development in the Park, many small projects, is not subject to APA jurisdiction.⁵ Just as scientists have learned that low doses of chemical substances and long time periods of exposure may be detrimental to human health, so also might we anticipate that inappropriate land use and development in small increments over time will harm the Park's natural systems upon which residents and visitors alike depend. Thus local governments especially need sufficient resources and easy access to scientific and technical information in order to plan and monitor development in their communities and take appropriate early action to avoid adverse consequences.

Divisions of public and private lands in the Park are based on boundaries created by history and politics, not nature. The APA Act, which was largely based on existing land uses, will be of limited value in the future in channeling land use and development appropriately if its decisions

and the decisions of landowners, small and large, are not informed by rigorously defensible scientific knowledge applied to specific on the ground, sub-regions of the Park. Using a laundry list of development considerations for a single project, as the present Act requires, is an outdated method of understanding the consequences of development in the context of other impacts to the same affected resources.

Ecosystem carrying capacity investigation, studies of watershed development effects, cumulative environmental impact measurement and biodiversity studies, in concert with socio-economic studies, should identify *where and how* future development can occur without causing undue adverse impact to natural processes and open space. The Park deserves no less. Future generations will applaud our foresight in undertaking and applying this research.

Endnotes

¹Exceptions include the Adirondack Lakes Survey, sponsored by the NYS Department of Environmental Conservation and the electric power industry to determine lake acidity and the recent joint APA, Adirondack Lakes Survey, SUNY Plattsburgh research, funded by EPA, characterizing influences on wetlands and lakes in the Oswegatchie/Black River watershed.

²Adirondack Park Agency, "Special Area Land Use Management in Other States." August, 1994.

³Adirondack Park State Land Master

Plan, State of New York, Adirondack Park Agency, 1987. P. 1

⁴In 1990 the Commission on the Adirondack Park in the 21st Century made a series of recommendations regarding needed research initiatives, including establishment of a research clearinghouse and central data repository, development of a research institute on parks and conservation, studies on the dynamics of wildlife populations, monitoring of watersheds, of forest health, of fishery resources and of air quality and determination of carrying capacity of water bodies.

⁵Adirondack Park Agency, Reports to Park Policy and Planning Committee, circa 1992

Acknowledgment

Thanks are owed to my colleagues among the commissioners and staff of the Adirondack Park Agency for insightful dialogue and tutoring over the years that I served as Chair of the Agency's Park Policy and Planning Committee. Major credit is also due to the hundreds of Park stakeholders with whom I have interacted since 1970, who have raised all the problems, the solutions, the ideas and the hopes embodied in this paper. I am also indebted to Ed Thorndike, research scientist, for his candid appraisal of the limitations of research as an influence on policies, while acknowledging that research has been a neglected tool for protecting Park resources.