A Research Agenda for the Adirondacks

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Abstract

The Adirondack Park’s unique (at least in the United States) combination of public and private lands combined with the Adirondack Park Agency Act and the State Land Master Plan that set overarching policies for the Park’s management call for more complex land use decisions than those required in the management of traditional public parks. The quality of decisions that are made regulating development in the Park will depend upon the quality of information available about the impacts of development on the natural environment and the trade-offs among users’ desires, economic costs and benefits and ecological losses. This paper cites examples of research needed to supply adequate information, urges the research community to explore these needs, and addresses some institutional short-comings in supporting needed research.

Upon hearing a presentation by the Department of Environmental Conservation on the Comprehensive Snowmobile Plan for the Adirondack Park during the March meeting of the Adirondack Park Agency,

Chairman Whaley commented that the claim heard over and again during the hearings on the Snowmobile Plan that “Snowmobiling was a major economic asset to the communities in the Park” was not particularly useful in and of itself. The reason that it is not particularly useful isn’t that economic impacts aren’t an important part of policy decisions. Nor is it likely that the statement is wrong. Such a generalization by itself isn’t very useful, simply because everyone claims that their particular recreation pursuits are good for the economy. But, how much does each activity contribute to the economy? Implicit in the statement by advocates of expanded snowmobiling opportunities is that wider corridor trails will add more snowmobilers and therefore greater economic contribution to the local communities. Is that right? It was suggested by some who were testifying that snowmobiling clearly contributes more than hiking. Does it? Or some suggested that hiking does more harm to the environment than snowmobiles. Does it? Or do the comments about the economy and the environment in the same hearing suggest that a more explicit benefit/cost analysis should be part of the decision making process? How do we do that? Our point is that many of the statements attempting to influence a particular policy decision have limited usefulness without further thought and analysis. This is true whether the question deals with waterfront lot width and its relationship to water quality protection, roads and protecting wetlands, human activity and maintaining ecological integrity, or the economic or aesthetic impacts of development. This prompted Ray Curran, Steve Erman and me to think about bringing this need for thought and analysis to the attention of scientists and researchers who explore Adirondack issues.

The Adirondack Park’s unique (at least in the United States) combination of public and private lands combined with the Adirondack Park Agency Act and the State Land Master Plan that set overarching policies for the Park’s management call for more complex land use decisions than those required in the management of traditional public parks. Adding to the complexity, this great historic conservation experiment has the potential to set the stage for another experiment — the Park as a world-wide model for sustainable development of rural wild land areas. The concept of sustainable development is consistent with the enactment of the Adirondack Park Agency. Realizing the potential of achieving a viable economic base for its residents and vital communities while protecting the natural environment that supports them, however, raises the information and research challenge to an even more daunting level.

It is important to point out that implementing current policy and regulations or moving ahead in the quest of creating this new model, whether called sustainable development or something else, can be done without the help of the scientific and research community. We should all be reminded that science is the search for truth. Policy making, however, is dependent on the best information available whether or not it is the truth. Nonetheless the best decisions will be those informed by the best in science. What then are the impediments to satisfying the science and information needs of the Park if it is to achieve recognition as a model for sustainable development? We will be viewing this
question largely from the viewpoint of the Adirondack Park Agency.

The role of the Park Agency in achieving this objective is principally, though not exclusively, regulatory. Fundamentally, government regulation involves limiting some individual’s or group’s freedom for the protection of the public good. This trade-off is a heavy responsibility and can most appropriately be evaluated when the evidence for the protection of the public good is grounded in scientifically verifiable information rather than personal opinion, or left to conservative vis-à-vis liberal political persuasions. Not only is it appropriate, but some decisions may be indefensible (legally) if not based on good science.

The Adirondack Park Agency Act directs the agency to not approve projects coming under its jurisdiction unless it determines “the project will not have an undue adverse impact upon the natural, scenic, aesthetic, ecological, wildlife, historic, recreational, or open space resources of the park … taking into account the commercial, industrial, residential, recreational or other benefits that might be derived from the project,” (Section 809:9 APA Act). Therefore, there is research of two kinds (1) cause and effect (i.e. undue adverse impact) and (2) tradeoffs (taking into account … benefits) implicit by the mandate of the Act.

Pressing Questions and Research Needs

It is impossible in a brief paper and within the limits of the experience of the authors to recite a master list of research needs. However, we would like at least to give a sampler of some pressing issues in which information is lacking for the kind of precision one would like in the decision making process.

Further, we want to make the point that most topics of importance to the Park (e.g. snowmobiling and other forms of recreation) can be researched from many different perspectives, each involving separate fields of research. Again focusing on snowmobiling, think for example of the economic impacts of the activity, the types and values of required capital expenditures, potential for induced community growth, fiscal impacts, air quality impacts, noise, impacts to wildlife, public safety impacts, etc. Policy making at best requires the recognition of these impacts, and to be truly effective, a readily available source of information based on peer approved research.

The ten Adirondack Research Consortium meetings that preceded today’s conference have amply demonstrated that there are a growing number of researchers interested in and able to address research on topics related to the Park. In the comments that follow, we will try to provide some examples of research needs for a sample of important policy areas.

One way to select a sample of policy areas to explore is to review the results of the conference celebrating the 30th Anniversary of the Adirondack Park Agency Act held in Lake Placid in Oct 2003. The purpose of the conference was to look at the first 30 years of work of the APA, to celebrate successes and to identify results that have fallen short of expectations. Many speakers, representing vast experience and varying political persuasions, identified key challenges for the future and made numerous recommendations for appropriate responses. They appeared to pick up on the notion of sustainable development whether or not they used that term. Water quality and invasive species were universally identified as key environmental issues. Duality of a year long economy and housing were also at the top of the list of inadequately addressed problems under the current regulatory environment.

The Agency staff compiled a list of 82 major recommendations gleaned from the presentations. They ranged from short term to long term and from big, complex ideas (create a Great Oswe-gatchie Canoe wilderness) to more simple ideas (change the proportion of local representatives on the membership of the Agency Board). Most of the recommendations, however, require better information before launching into policy or regulatory changes.

For the purposes of this paper we picked a couple of issues that suggest an array of researchable questions.

Water Quality

An area that many respondents felt had not been adequately addressed by the APA Act in 1973 and was an activity with continued undue adverse impacts, is the effect of shoreline development on water quality. Water quantity and quality are central to the future of the Park whether your interests are preservation or development. While there may be regions of the US with higher mountains or more lakes, nowhere in the US will you find the combination of mountains and water that you find in the Adirondacks. Let’s not forget the primary rationale for the creation of the Forest Preserve was the long term protection of the water resource for Down-State consumers. The sheer abundance of water, however, and its apparently adequate protection through the federal Clean Water Act, the APA Act, and the State Wetlands Act has led to a presumption that it is a solved problem and therefore needs little attention paid to it by the citizens of the State or the nation.

Taking a step back to 1973, land use controls administered by the Park Agency also were designed to protect water quality. The APA Act included comprehensive and enlightened provisions to guard against environmental impacts to waters, such as setbacks for onsite wastewater systems, building setbacks, density guidelines to address “carrying capacity,” shoreline cutting restrictions to protect critical shoreline...
vegetation and wetlands protections, especially near water bodies. Has water quality been or will it be protected under current law and regulations? Potential problems for lakes from development are sedimentation and nutrient loading resulting from construction of impermeable surfaces, subsurface transport from poorly functioning, designed or located on-site sewage treatment systems or removal of protective vegetation.

These suggest some researchable questions.

- Are storm water sediment inputs to streams increasingly affecting water quality?

- Since the rate of second home development has escalated on shorelines far out of proportion to the rates of primary home development across the Park, are building setbacks, cutting restrictions and the minimum shoreline lot widths adequate for water protection? Or do unforeseen loopholes and grand fathering provisions significantly weaken protection?

- Under the APA Act grandfathering provisions, does permission to expand single family dwellings (seemingly limitlessly) along shorelines jeopardize water quality?

- What is the relationship between housing density (which one might think should keep development from exceeding the carrying capacity of watersheds) and potential impacts on water quality? Does this depend upon the characteristic of the lake as well as the development? That is, are all lakes and watersheds equally sensitive? This suggests research on lake characteristics.

- What is the capacity of any given water body to sustain development? Is there a useful policy definition of “carrying capacity”, and can we find measurable indexes that are useful from a regulatory standpoint?

- Do we have adequate baseline measures to know which lakes are critically in need of attention and whether the condition of our lakes is improving or degrading? How reliable are the models for predicting water quality from nutrient enrichment?

Absent answers to these or questions like them, changes in law or regulations will at best set off a conflagration of controversy and at worst lead to bad policy. Beyond the ecological and limnological questions of water quality and the potential causes of undue adverse impacts, there are institutional questions that also deserve study:

- What is the role of local government vis-a-vis State government in controlling water quality?

- What is the role of the New York State in assisting local government either financially or technically to carry out this responsibility in a region declared a Park by State law and from which multiple benefits to all New Yorkers flow (especially downstream)?

The above questions regarding water quality result from the fact that the principle role of the Adirondack Park Agency is to protect the natural environment, and that water is arguably the most important component of that natural environment. Therefore, we start by asking questions about the environment, and then as an afterthought raise questions about the economic consequences, i.e. taking into account...(economic and social) consequences. But what if one accepts the idea that this Park, with its mixture of private and public land, its mixture of local and state jurisdiction, its mix of visitors and local residents could be a model for sustainable development? If that is the case then we may at times wish to start with economic and social questions that then lead, by the way, to the reduction or elimination of undue adverse (ecological and aesthetic) impacts.

Housing

Let’s examine housing as an economic, social and ultimately environmental policy issue central to sustainable development in the Park. To start we should recognize that there are those who think that the least housing, or the least of any other kind of development, is the best. Starting with this premise the informational requirements are small. If on the other hand one embraces the notion of sustainable development then the questions become considerably more complex. Now we must address the interaction between economy, equity, community and environment.

- What will be the impact on land and housing prices as the Park pushes the build-out allowed under the Land Use and Development Plan or as prior development occupies the most desirable or accessible properties?

- What are the impacts on housing prices for residents of the Park as the demand for seasonal housing for non-residents increases? Are there equity implications that should influence public policy? What are the appropriate policy solutions?

- What are the short and long term implications of “pricing out” local residents who work in tourism and non-tourism related ventures in high housing cost areas?

- What are the impacts on the effective functioning of communities when the majority of homeowners do not live there year-round?

- What are the implications of expanding development restrictions from ecological protection to aesthetic judgments? Are there consistent, measurable, commonly shared criteria for determining aesthetic quality?
We emphasize that this is only a sampling of researchable questions. Perhaps our (as people who are asked regularly to make “yes” or “no” decisions) purpose in preparing this paper was largely a lament for the absence of adequate information on which to base or implement policy. Perhaps it will urge more researchers to focus their attention on the Adirondacks as a venue for their inquiry. We hope it also raises some questions about the institutional basis for research.

Failures of research as an institution in the Park

We would like to end with some nagging questions that may put into perspective some of the failures of research as an institution in the Park.

1. There is an interesting contrast between socio/economic information and ecological information. As a nation and a state we have funded the continual monitoring of human population and its income, its employment, its education, its housing, its farm acreage and income etc. — all recognized economic indicators. This is done on a continuing basis by the U.S. Bureau of Census, state labor departments, education departments etc. and often reported on the nightly news. We have no equivalent baseline information and continuous monitoring for ecological information. What ecological information do we have tends to be geographically fragmented. It usually comes from information collected for specific projects that are geographically limited. What is the possibility for improved storage and retrieval of baseline data to be accumulated and synthesized over space and time from ongoing small research projects conducted through out the Adirondack Park? This question has been raised by many over time, but so far seems intractable for a solution.

2. Occasionally a problem is viewed as big enough to demand the funding necessary to make enlightened decisions. For example, decisions regarding lampricide in Lake Champlain were seen as sufficiently important as to have funding for collaboration between scientists and decision makers and for applied research that was brought to bear on the policy process, both through enlightening the dialogue and directly informing policy makers. What is the possibility of the future of this special Park being centered on the science needs for one of the State’s major assets? Who should take the initiative — the scientific community, Adirondack Research Consortium, the Department of Environmental Conservation, or the Adirondack Park Agency?

3. Research and good science must play a significant role in enlightening the dialogue. Absent reliable information, confusion reigns among fact, perception, and opinion. Most importantly, while we are all entitled to our personal opinions, reliable information will improve chances of us understanding each other’s perceptions and help us to agree on the facts. A simple comparison of fact, perception and opinion might be helpful in making our point. Fact, it is 15 degrees Fahrenheit outside today. Perception, “I am from Florida and 15 degrees seems cold to me.” Opinion, “I hate it.” Unless we have agreed upon facts then we will have trouble understanding perception and opinion. When will we as citizens decide that it is in our best interest to have the support of research and science behind snowmobile plans, Unit Management Plans, APA decisions on protecting shorelines, or weighing the ecological, aesthetic, fiscal, or economic impacts of a particular application for development? Of course, one must recognize that at times it is in the best interest of advocacy groups to make bold claims where the information is unavailable to refute them.

4. Last, when will the Adirondack Research Consortium move beyond the hard work of a very few people to put on wonderful annual conferences to a real collaborative consortium that supplies the informational backbone for decision-making for a national treasure like none other, The Adirondack Park?