Fifth Annual Conference on the Adirondacks May 20 - 22, 1998

CONFERENCE ABSTRACTS

The Adirondack Project: Mapping Adirondack Communities

Cali Brooks, Coordinator, The Adirondack Project

Abstract

The Adirondack Mountains are a great experiment in the coexistence of humans and nature. the Adirondacks consists of six million acres, a patchwork of public and private lands managed in an innovative way to show the world that people and wilderness can coexist within the same area. Approximately 130,000 people live in the Adirondack Park which contains the largest unbroken wilderness east of the Mississippi River. Management of our great national parks has shown that wilderness can thrive in an environment void of people. Now it is time for those of us who care about the Adirondacks to prove that people and wilderness can thrive together.

Unfortunately, the preservation of Adirondack communities has not received the same attention that the forest preserve has received. The compelling saga of this huge state park is that money and energy attracted to the Park has been predominantly put toward environmental preservation. Many potential community builders have dedicated their energies to wilderness protection. For the experiment that is the Adirondacks to succeed we must find ways to equally nurture the communities therein.

Adirondack communities have a relatively short history, one marked by fierce weather, economic hardship, rural isolation and a lack of collaboration between towns and available resources. Efforts to build a web between neighboring towns and villages have been hampered by the implementation of an overarching state bureaucracy, and residents' perception that these agencies give priority to wilderness over community. By now, thirty years after the creation of the Adirondack Park Agency, local residents are beginning to recognize that they have the power themselves to help build healthier, sustainable communities from within.

The Adirondack experiment has reached a critical stage — the stunted community evolution threatens not only the vitality of Adirondack residents, but also the future of the Adirondack forest preserve and the environmental protection efforts of Harold K. Hochschild and others through the century. Only with the support of Adirondack residents will wilderness preservation move forward; only with the growth of a community preservation movement will wilderness preservation move forward; only with the growth of a community preservation movement will this great experiment in the balanced cohabitation of man and nature succeed.

Throughout my research I have witnessed an impressive array of people and organizations struggling with the tasks of community building. From the recent growth of local libraries to the creation of an Adirondack Community Trust, exciting steps toward sustainable communities are being repeated across the region.

At the same time, failures in coordination, communication and collaboration are hampering some efforts and dooming others to failure. One repeated concern from people I interviewed was a fear of reinventing the wheel or duplication of efforts. My greater fear is that the lack of a communication network will prevent Adirondack communities from ever gaining the momentum necessary to achieve sustainability.

In my research of the economic, social, cultural and environmental conditions within the Adirondack Park, I saw the scenario of creative, energetic and exciting local projects stifled by a lack of a supportive regional network, access to needed resources and inter-regional collaboration. I have also witnessed isolated examples of cooperative success. I hope this report will begin to capture some of the excitement and potential that I have seen throughout my conversations with dedicated and talented Adirondackers determined to build the communities of the Adirondacks into a cohesive and thriving region. Their talents are ample. their dedication and love for the Adirondacks are unchallengable. Their need for support, collaboration and connectivity is desperate.

The St. Lawrence Aquarium and Ecological Center: A Community-Based Ecological, Educational, and Economic Initiative

Julia R. Rose, Director of Program Development, St. Lawrence Aquarium and Ecological Center

An introduction to the community-led effort to create an environmental educational center and aquarium on the shores of the St. Lawrence River.

Introduction to the Northern Forest Center

Stephen Blackmer, Executive Director*,* Northern Forest Center

An introduction to the initiative to create an increased awareness of the shared interests of communities lying in the Northern Forest of Maine, New Hampshire, Vermont, and New York.

A Workshop on Collaborative Environmental Management in the Adirondacks

William D. Solecki, Montclair State University, *Robert J. Mason,* Temple University and *Sarah Michaels,* Tufts University

Abstract

This workshop is designed to engage conference participants in developing a place-based conceptualization of partnerships. By partnerships we mean collaborative efforts — involving such organizations as nonprofit groups, government agencies, and landowning parties — aimed at achieving shared management objectives. Our particular focus is on partnerships that have been voluntarily initiated and negotiated and that address one or more facets of ecosystem management. Ecosystem management is defined as a holistic approach designed to protect the integrity of native ecosystems over the long term.

In the Adirondacks, private-public collaboration goes back over a century. By trying to identify the current set of partnerships within the context of the Adirondack Park, we will be able to better understand how organizations co-exist, conflict, and cooperate with one another.

As an initial step in developing a comprehensive listing of partnership participants and their accomplishments, a mail survey targeting representatives of non-profit environmental organizations was conducted in the fall of 1997. Virtually all survey

respondents believe that partnerships address problems that benefit from cooperative solutions. Still, we learned that shared objectives need not be a signature element of partnerships; this was especially evident in the case of wolf reintroduction, where participants have widely diverging perspectives on the issue.

This workshop builds on the survey by inviting workshop participants to explain their involvement in Adirondack partnerships. The focus of the discussion will be on learning how partnerships come into being and exploring the extent to which ecosystem management concepts guide partnership activities.

N.Y.S. Citizen's Pollution Control Program

John V. Miller, President, New York State Federation of Lake Associations

Abstract

Two primary sources of non-point pollution which compromise NYS water quality are agricultural run-off and pollution from septic systems. Although several programs are in place to control agricultural run-off, there is no formally accepted method that addresses the problem of septic discharge.

In the Adirondacks, most inhabited waterways do not have municipal sewage systems. Septic systems are used as the primary method of waste disposal. Unfortunately seepage or septic discharge of effluent into our waterbodies has become all too common. Aging systems, density, and the conversion of seasonal dwellings into year-round dwellings are just a few of the factors that contribute to the problem. The situation is further exasperated by the fact that code enforcement officers are so busy inspecting new development and answering isolated complaints, that they have little time to inspect the vast majority of pre-existing dwellings.

There has been, however, some success with pollution control efforts conducted by individual lake shore property owners associations. A formal, voluntary method of inspecting and dye-testing, as well as testing the waterbody itself for total and fecal coliform has become quite effective. Based on the methods used at Twitchell Lake, a formal "Citizen's Pollution Control Program" has been developed. The program has now been successfully conducted at various other lake sites, both within and outside the Park.

Currently the Citizens Pollution Control Program has also been evaluated by the NYS Department of Environmental Conservation and plans are now under way to establish it as a formal funded program employed by the NYS Federation of Lakes. As non-point pollution from septic systems is a persistent, state-wide problem, members of the Consortium may find a presentation of the Citizens Pollution Control Program a subject of interest and value.

Chateaugay Lakes Watershed Management Plan

Joe Racette, Chateaugay Project Manager, NYS DEC and *Lyle Raymond, Jr.,* Federation Watershed Advisory Committee, Local Government Program, Cornell University

Abstract

The NYS Federation of Lake Associations is engaged in fostering the development of

management plans for selected lake watersheds throughout New York State. The Federation, a citizens' umbrella organization of over 200 lake associations and other interested agencies and individuals, began this program in 1997. This program, utilizing funds provided by U.S. EPA, is being conducted through a contractual agreement with NYS DEC which provides technical assistance and staff support to the Federation in carrying out this program. The primary purpose of the effort is to promote the development of watershed plans for lakes to better position lake associations, local governments, and stakeholders to take advantage of funding opportunities to protect water quality and remediate known water quality problems. Another purpose is to test and refine workable models for developing lake watershed management plans. A principal feature of the model being used is the creation of three key positions for each watershed: a mentor, who keeps an eye on the "big picture,' a project manager, and a scientist. Development of each watershed plan is envisioned as proceeding through three stages: Stage 1, assembling a state of the lake watershed report (this is primarily the task for the scientist); Stage 2, developing recommendations for action from this report, which requires participation and agreement from all interested parties in the watershed; and Stage 3, incorporating the recommendations into a formal watershed management plan. Seven lake watersheds were chosen to represent a range in both lake sizes and geographic location within the state. These are Findley Lake, Chautauqua Co., Silver Lake, Wyoming Co., Owasco Lake, Cayuga Co., Oscawanna Lake, Putnam Co., Queechy Lake, Columbia Co., Cossayuna Lake, Washington Co., and Chateaugay Lake, Franklin and Clinton Counties. (Silver Lake has dropped out.)

This panel will focus on how this watershed management planning project is working for the Chateaugay Lakes watershed because it lies within the Adirondack Park, the primary interest of this Consortium. This will include a current perspective on how the tri-partite model is working for the Adirondack lake watershed and possible refinements suggested by the experiences that have been encountered in practice. The Chateaugay Lakes portion of this presentation will be presented in the context of four principal topics, which have been identified in the watershed: (1) Water quality issues; (2) Property values and economic issues: (3) Nuisance aquatic vegetation; and (4) Recreational issues. It is anticipated that a State of the Lake report will be completed by the time of the Consortium conference.

Realizing the Economic Potential of the Forest Preserve

Barbara McMartin

Abstract

Stop, you say, isn't that an oxymoron? How can a preserved forest have an economic potential? Well, it can. The Forest Preserve is the heart and soul of the Adirondack Park. It is the reason the Park is famous. It should be the basis of our tourist industry, but for one particular reason it is not — the Department of Environmental Conservation (DEC)has never approached the Forest Preserve from the perspective of how it can serve visitors and at present it lacks the resources to do so.

Our Department of Economic Development (DED)touts the High Peaks region and all the myriad attractions that line some of the park's roads and cluster in its towns. The DED can be faulted for not promoting trails and Forest Preserve attractions in many areas, but the real fault lies with the Department of Environmental Conservation which in many cases has not developed the necessary, short, family-oriented trails for hiking and cross-country skiing.

The trailheads to the mountains ringing the north side of the Fulton Chain are jammed every day in summer. These little mountains are what people want. People do visit the Big Moose area to hike — there is a network of trails of varying lengths and difficulties and interest. The restaurants and inns that use the trails in their advertising do realize an economic advantage. High Peaks users are funnelled through the Adirondack Loj parking area and the Adirondack Mountain Club. Neither the nearby towns nor the state benefit from hikers' dollars.

The snowmobile network, a twenty-five-year old gesture of conciliation quickly devised when snowmobiles were eliminated from the newly designated Wilderness regions, is a disaster. It lacks an overall scheme that reflects what snowmobilers want and that can be achieved within existing regulations.

And if the visitor does not want to hike, what is there to do after driving up Whiteface and Prospect Mountains? Where are the picnic sites at view spots along our highways? These places work. Witness the visitors at the High peaks overlook in Newcomb? Where are the signs to Cheney Pond overlook? Why isn't there a trail to Coney Mountain, the best short hike in the Park? Very few lodges open in winter have cross-country trails that connect with state trails.

The solution lies in two things: A vision for recreation and the means to carry out the planning to make it possible. Two million dollars spread over five years would allow the DEC to complete the missing Unit Management Plans, with emphasis on those in Wild Forest areas. It would allow signage, new trail markings, a few trailheads, the beginning of the infrastructure that will attract tourists to the forest resource. That money is a drop in the bucket in DED's budgets for promotions, videos, advertising and the like. It is tremendous compared to DEC's planning budget, which has been cut to virtually nothing.

Tax Incentives and the Forest Landscape

Jon D. Erickson and Min Zhang, Department of Economics, Rensselaer Polytechnic Institute

Abstract

Currently, over 170,000 timber acres within Adirondack Park towns are under 480a exemptions where taxable value is reduced to 20% of assessed value. Over 475,000 acres remain under the old 480 program where assessment values are frozen. These programs have had mixed results in encouraging timberland retention and providing for community tax revenue, and have galvanized years of debate over property tax reform. This paper will report on an econometric study of the role of state tax policy on timberland retention in New York counties, with particular emphasis on Adirondack counties. A model is built on county-level forest inventory data and incorporates human population density, timber value and quality , soil productivity, and tax program enrollment as explanatory variables on the percent of land in timber production. Through a geographical information system (GIS), model output can be analyzed at the landscape level and simulated between state forest inventory years. Conclusions are drawn to estimate a tax incentive effect on timberland retention.

Historical Disturbances Impacting Adirondack Land in Franklin County, New York

Heidi Kretser, Graduate Student, School of Forestry and Environmental Studies, Yale University

Abstract

A look at the historical uses of land in the Adirondacks reveals that the landscape we see today occurs upon a legacy which is far from the 1700s image of a "rugged uninhabitable wilderness." From railroads to ice storms, numerous anthropogenic and natural stresses have impacted the Adirondacks and influenced the health of the ecosystems in the Park. An assessment of land-use history in Franklin County using literature review, review of old maps, and compilation of Geographic Information Systems (GIS) maps from the Department of Environmental Conservation (DEC) provided a spatial distribution of disturbances across the landscape. Comparison of the disturbances showed that the disturbances were widespread and had little overlap. Most of the disturbances had direct and obvious visual effects, however less evident disturbances may be another cause for concern. Airborne particulate matter, seepage into aquifers, and the constant flux of tourists in and out of Franklin County could have and could still be negatively affecting the ecosystem through slow cumulative impacts. The historical analysis of the disturbances in the Park suggests that the landscape we manage today may be completely different tomorrow. The future of the region depends on the interactions of socio-economic factors inside and outside the Blue Line as well as the force of Mother Nature. As a result, resource managers, politicians, tourists and residents must be willing to adapt to the changes and understand the Adirondacks as part of a dynamic ecosystem.

Bewildered: Defining Adirondack Great Camps as National Historic Landmarks

Michael S. Wilson, Associate Director, Sagamore Institute

Abstract

Under the auspices of the NYS Office of Parks, Recreation, and Historic Preservation, and with the support of the US Department of Interior's National Park Service, Adirondack Great Camps as a category, with Camp Sagamore in Raquette Lake and Camp Santanoni in Newcomb as individual listings, will be nominated as National Historic Landmarks this year. Since both camps are already listed in the National Register, they — and by association other Great Camps — have an established regional significance. Properly, persuasively to demonstrate their national significance by the NPS's stipulated standards and methodologies of current scholarship, however, requires a provocative re-evaluation of regional history in more comprehensive themes of American culture.

Within ten minutes, and using slides as illustration throughout, this paper will first briefly identify a few salient historiographic problems involved in this redefinition. Then the argument will outline a multidisciplinary, thematic context for regional culture that regards the national significance of great Camps as rooted primarily in their relation to a wilderness landscape, and as representing a still-incomplete transition in our culture's changing attitudes toward wild nature.

A Comparison of Wilderness Privacy within two New York State Wilderness Environments

Cathy L. Fuller, Paul Smith's College and Dr. Chad Dawson, SUNY - ESF

Abstract

This study is a comparison of psychological scale results to measure dimensions of privacy in two wilderness environments in New York state. In the summer of 1993, a field test was conducted at trailheads with hikers on lands having wilderness characteristics in the Adirondack forest preserve (Dawson & Hammitt, 1996). In the summer of 1997, a field test was conducted at landings with water craft users in the St. Regis Canoe Area which is managed as wilderness. Field interviews were carried out during the summer of 1997 from May 1 to September 15. A total of 328 boaters were contacted at 5 public boating access sites in the St. Regis Canoe Area. All boaters were sent a mail survey. Of the 324 surveys deliverable, 234 were returned for a 72.2% response rate. A comparison of these two studies should show similar factor analysis results since the areas are managed by the same agency, the clientele are from the small area, and that privacy seeking motivations are the same whether on water or land. The analysis of the 1997 study results is still in progress. The confirmatory factor analysis will be compared to the 1993 study results (Dawson and Hammitt, 1996) to test the validity and reliability of the privacy scales in different environments. The implications for researchers and wilderness managers will be discussed.

The Case of Wilderness Management Training in the Adirondack and Catskill Forest Preserve

Dave Gibson and Ken Rimany, The Association for the Protection of the Adirondacks

Abstract

Since 1885, New York State has set aside three million acres of Forest Preserve to be managed as wild forest lands, 1.1 million acres of which is to be managed as Wilderness lands. Although the state's land acquisition program has been active for a century, its programs of public education, information and management have lagged far behind. The Association for the Protection of the Adirondacks, founded in 1901, has long acted on the belief that protecting the Forest Preserve in perpetuity rests on a foundation of public awareness, information, education and training. In 1997, the Association convened a Wilderness Roundtable in the Adirondack High Peaks region, involving educators, Forest Rangers, land managers, authors, land planners, and representatives of outside training agencies. The Roundtable revealed that training in Forest Preserve management in New York State is currently non-existent, and badly needed. Virtually no training is provided in Forest Preserve history, values, philosophies, concepts and tools for management of resources and public use. For example, the bulk of training for the State Forest Rangers is for emergency rescue, forest fire and emergency incident response — all important subjects, but not to the exclusion of wilderness education and management issues. There are a variety of suggestions for the delivery of wilderness or Forest Preserve management training that would benefit public use, enjoyment and protection of the Forest Preserve created by law in 1885. The Association will summarize proposals and follow-up activities, and invite discussion.

Natural Disturbance as a Model for Silviculture in North-eastern Forests

Robert and Cheryl Fimbel, Wildlife Conservation Society and James Gibbs, SUNY-ESF

Abstract

The Wildlife Conservation Society initiated a program in 1997 to explore the ecological dynamics associated with a large-scale natural disturbance (wind blow-down), as a model for silviculture prescriptions promoting sustainable timber management and the conservation of biological diversity at the landscape level. Field work was carried out in the Adirondack Park in the vicinity of the Five Ponds Wilderness and adjacent privately owned lands. Twelve red spruce-mixed hardwood stands were investigated (three in each of the following states): a)old-growth, not blown-down; b) old-growth, with moderate blow-down; c) private forestlands in a mature state and slated for selective timber harvest in 1998; and d) private forestlands in a mature state, that will not be cut for the duration of the study.

Data were collected between May-September, 1997, to characterize the resident fauna: spiders, carabid beetles, ants, amphibians, birds, small and large mammals; and flora: fungi, bryophytes, herbaceous and woody plant species; and to describe the coarse woody debris and soil composition and pH of the 12 study sites. Preliminary findings reveal that for the taxa investigated, no rare, threatened or endangered species were encountered in the surveys, nor were any species identified as unique to old growth forest conditions. Furthermore, privately managed lands appear to have similar or higher species richness for all fauna and flora examined. The abundance and distribution of these species were variable across the study sites however. Finally, the blow-down sites contained nearly double the volume of standing and down coarse woody debris compared to the other study sites, while the soils were uniformly low in pH and available macro- and micro-nutrients regardless of the stand location.

Fire and Ice: Restoration or Requiem for an Ecological Preserve

Kenneth B. Adams and David Franzi, Plattsburgh State University

Abstract

The Altona, New York "Flat Rock," a 2000-hectare jack pine sandstone pavement barrens, is one of New York's best examples of a fire-dependent ecological community. This ecosystem occupies a droughty site and is dominated by flammable vegetation. Since fire is required to open jack pine's serotinous cones, jack pine is one of the most fire-adapted plant species in New York.

Initial surveys indicate that the January, 1998 ice storm caused extensive damage to jack pine, the major tree species in the ecosystem. A large proportion of the jack pine trees were broken and much of the canopy is now on the ground. The broken-off crowns constitute an unusually heavy and contiguous fuel buildup. These downed branches also contain several decade's accumulation of jack pine seeds with an uncertain long-term viability under these conditions.

Considering the natural susceptibility of the barrens to fire and the sudden and dramatic increase in flammable materials on the forest floor, a fire management plan should be developed. This plan should include wildfire contingency options and consider prescribed fires to maintain the health of the rare ecosystem. The fire management plan must be developed with close collaboration between the NYS Department of Environmental Conservation and private land owners. The ice storm has increased the urgency, risk, and cost of fire management at the Altona jack pine barrens. Using fire to maintain a preserve is difficult for many people to accept. However, the basic question remains,"how much is a rare ecosystem worth?"

Adirondack Mountain Forest Ecosystems and Environmental Change

Eric K. Miller, Dartmouth College

Abstract

Atmospheric environmental change is variation in atmospheric chemistry and climate resulting from natural and anthropogenic factors. This paper discusses observed and predicted effects of long-term changes in the atmospheric environment on forest ecosystems of the Adirondack High Peaks.

Atmospheric pollution is thought to cause a variety of effects, both beneficial and detrimental, on forest ecosystem health (1). Adirondack mountain forests, currently receive higher air-pollutant deposition than most locations in the country (2,3). Deposition rates were much lower earlier in this century, increased from 1950 through the 1980s, but have begun to decrease since the mid 1970s for elements such as sulfur, calcium and lead (4-6). Changes in the chemical climate of the Northeastern US have not impacted all forest ecosystems equally. Regional gradients exist in deposition of sulfur and nitrogen with low-elevation forests in the southwest of the region experiencing 1.5-2 times greater rates of atmospheric deposition than forests in the northeast (7). However, high-elevation forests experience atmospheric deposition rates 2-5 times the rate to surrounding low-elevation forests (2). The elevational enhancement of deposition, which is driven by many factors including wind, cloudiness, tree species and leaf area, amplifies the regional pollution gradient. Adirondack mountain forests experience sulfur and nitrogen deposition rates that are 2-3 times the deposition rates in the mountains of Maine.

High-elevation forests are subject to a variety of extreme climatic conditions relative to low-elevation forests. Extremes of both winter and summer temperatures may stress forests which occupy the zone of climatic tension between the alpine environment of northeastern summits and the temperate climate of valley floors. High-elevation forests may experience more significant inter-annual variance in moisture regimes than low-elevation forests due to climatic fluctuations which affect orographic enhancement of precipitation and cloud water deposition rates. Interactions between climate fluctuations and atmospheric deposition can result in large perturbations in elemental fluxes and cycling. Therefore, ecosystem stress from both climatic and pollutant agents is frequently maximized in high-elevation forests, allowing synergistic effects of air pollution and climate. For example, the interaction between acidic mist and extreme minimum winter temperatures has been demonstrated to reduce winter survival of red spruce foliage(8).

The Comparative Economic Strength of the Adirondack Park, 1990-1997

R. Withington and R. Christopherson with *D. Haas,* Plattsburgh State University

Abstract

There is often a knee jerk response to the question of whether or not strong economic growth occurs within the Adirondack Park. Few in northern New York feel there is much growth at all within the Park. Most do not know. The authors feel that any informed discussion of economic growth within the Park must be related to the economic context of the entire region surrounding the Park. In order to bring added

understanding to this issue, they will present economic data focusing on a number of northern New York counties both within the Adirondack Park and contiguous to it. Economic indicators compiled by the authors and presented (e.g. building permits, real estate activity, unemployment rates, net business formations) cover the period 1990-1997. The data have been collected as part of an ongoing project surveying economic activity in a ten-county region north of the New York State Thruway. These data allow for an initial appraisal of the relative strength of economic activity within the Adirondack Park, compared to the area surrounding it. This presentation builds on one delivered in 1997, and attempts to provide a better idea of the economic vitality of the Adirondack Park in the context of the Adirondack region.

What Ecological Economics Might Contribute to Forest Management in the Adirondack Park

Graham Cox, National Audubon Society

Abstract

The newly emerging discipline of ecological economics is now providing us with a different way to view natural resource choices and these ideas can be applied to the forest lands in the Adirondack Park as the debate intensifies over the management and future of the six million acres of public-private resource.

These ideas include viewing the market economy as only a part of a much bigger social and ecological system rather than the reverse; understanding the finite nature of our natural resource base; considering different rates for discounting future uses and values; considering ecological as well as economic time scales; following the advice of Aldo Leopold to "save all the pieces" before we tinker with the natural landscape; and setting ‘safe minimum standards’ to protect species in the forest, all of this based on a philosophy of minimizing regrets rather than maximizing profits or utility. Applying this kind of thinking is more likely to lead to the practice of sustainable forestry and result in sustainable development in the Adirondack Park than letting traditional neoclassical economic market rule the land use and resource use decisions in the region.

Neoclassical economics sets up the mechanism of the market to set the balance between supply and demand for a resource, with the price supposedly reflecting the values of the buyer and the seller. In the case of forests, however, only a limited value of the resources has been considered in the price — primarily the value of the forest for its timber and pulp products.

In today’s world, with an impetus from the Earth Summit in Rio in 1992, and with a growing appreciation what we are destroying most of the world’s forests very quickly and what is left should be managed sustainably, the public is demanding that all the other values or forests should be considered in the prices we pay. In fact, the values that cannot be given a price — because there is no market to set one — should also be factored into forest value decisions. These values include option and existence values, including values for scenic enjoyment and for wildlife. their value in soil conservation and water purity, and values for products other than timber, such as medicinal plants, herbs, mushrooms, branches for Christmas wreaths and much more. An ecological economics perspective allows us to bring all these other values into play in decision making for the Park’s resources and communities.

Increase in Tourism: Development Problem or Solution? The Example of Lake George in Upstate New York

Jose J. Vazquez, Sabine O'Hara and Sigrid Stagl, Rensselaer Polytechnic Institute

Abstract

Like many rural areas, Lake George in upstate New York has experienced dramatic changes over the past few decades. Characterized by its natural beauty, with its clear lake and mountain scenery, Lake George is a tourist attraction. Compared to many other rural areas, this seems to place the Lake George area at a distinct advantage compared to those which have far fewer attractions to offer. Yet, while tourism has often been hailed as a prime development option for rural areas, close to nature tourism based development does also have its down sides. Beside the more widely known concerns about the environmental impacts of tourism there are economic concerns as well. For the Lake George area the changes in economic structure, which have paralleled the increase of tourist related activities, has meant a change from a mixed economy to one almost solely based on retail and services.

This paper gives an overview of the changes in economic structure over the past 40 years. The analysis focuses on three related issues (1) demographic change (2) socio-economic change and (3) environmental change. It is argued that often sited tensions between economic development, environmental quality and social stability cannot be adequately addressed without considering the homogenization of the economic structure the area has experienced. Re-diversifying the area's economy may yield a more resilient economic structure as well as social and environmental stability. This parallels the experience of other (generally urban) areas that have benefitted from diversification.

An Update on Experimental Watershed Studies in the Adirondacks

Christopher P. Cirmo, State University of New York at Cortland

Abstract

The Adirondack Region has a rich history of research and study centering on the effects of anthropogenic disturbance upon many components of aquatic and terrestrial ecosystems. Much of this work has been the result of interest in the impacts of acid deposition upon wildlife and vegetation of economic interest to the region. Relatively little effort has been put into the establishment of reference or baseline studies designed to treat the "watershed" as the fundamental landscape functional unit. The inclusion of aquatic (rivers, streams, groundwater), terrestrial (vegetation, soils, wildlife, bedrock) and ecotonal systems (wetlands, riparian zones, soil/water/atmospheric interactions, etc.) in the establishment of reference and study watersheds makes such studies inherently difficult to establish, hard to maintain and highly intensive in terms of both infrastructure and personnel.

These drawbacks make it difficult to attract funding to "watershed-focused" research. Several sites in the Adirondacks are currently being used intensively for both research and teaching, but there is little coordination between them and few studies are organized to compare work across watershed "types." A review of historical watershed work in the region will be followed by updates of several current projects which lay the foundation for the establishment of a major database and watershed-study resource in the region. A proposed experimental watershed in the central Adirondacks that has

been the center of recent work will be discussed in the context of this regional effort. This effort would be inherently interdisciplinary, and would encourage communications between scientists, watershed managers and the public in promoting education and research at the watershed scale.

Water Lily Decline in the Adirondacks: Spatial and Causal Factors

Rebecca Schneider et al., Cornell University

Abstract

Observations by landowners indicate the gradual disappearance of the water lilies, and particularly the yellow spatterdock water lily, *Nuphar variegatum*, from Adirondacks lakes over the past decade. In the summer of 1997, we examined this problem in 28 lakes distributed throughout much of the Adirondacks. Water lily health in each lake was quantified based on leaf number per lily bed, leaf size, and observed differences in leaf coloration ranging from bright green to deep reddish-purple, Replicate leaf tissues were sampled for concentrations of macronutrients and trace metals and these values were compared statistically with the morphological features. Two environmental parameters were examined for their relationship to the observed patterns in lily health. Shallow sediment samples associated with the lilies were collected at the time of each lily sampling and concentrations of macronutrients and trace metals quantified. Long-term surface water chemistries were also obtained for each lake and the relationship to lily health examined. Spatial, GIS analyses thus far indicate that the lily decline exhibits a SW-NE gradient with the greatest decline in the southwestern corner of the Adirondack Park. Population in the southeastern portion show the fewest signs of ill health. Ongoing data analyses suggest that cumulative changes in sediment chemistry resulting from previous acidic deposition may be one mechanism causing the decline.

The Adirondack Clean Waters Initiative:State of Knowledge about Water Quality in Adirondack Lakes

Michael R. Martin, Executive Director, Adirondack Aquatic Institute

Abstract

The waters of the Adirondack Park are among its most prized attributes, with approximately 2,800 lakes and ponds adding to its wilderness image and recreational opportunities. In spite of the pristine image of the Adirondacks, many human activities can and have resulted in substantial environmental degradation over the last century, with direct and serious consequences for the natural and economic future of the Park. One of the things we discovered early on was that the focus of research has been on acid precipitation and therefore little information exists on the trophic status of Adirondack lakes and ponds and what information exists is often inadequate, out-of-date, or both. Most recently, we have recognized that between dams, fish-stocking, lake reclamation, road salt, nutrients, liming, shoreline development, and acid precipitation, there may be only a handful of lakes in the Adirondacks that could truly be called pristine — untouched as it were.

In order to begin to address this, AAI established the Adirondack Clean Waters Initiative. As part of this Initiative, we computerized morphometric, management, and water quality information on nearly 1,415 lakes and ponds and incorporated that

information into a regional Geographic Information System. The GIS database was used to prepare a summary of the status of water quality information and an analysis of anthropogenic impacts presented here.

In Search of a Pristine Adirondack Lake

Thom Sanger and J. Curt Stager, Paul Smith's College

Abstract

Despite the Adirondack Park's huge size and apparently wild character, it is extremely difficult to find an Adirondack lake which has not experienced significant impacts from human activity during the past century. Such impacts include acidification, invasion of non-native species, reclamation, fish stocking, liming, road salt damage, and cultural eutrophication. Identification of "pristine" Adirondack lakes is important because it can provide examples of "control" conditions for comparison to disturbed or manipulated lakes, and because it can help to focus extra attention on waters that are especially worthy of protection from future disturbances. In this study, we examine the paleolimnological record of a small, mid-elevation lake in the Huntington Forest near Newcomb, New York. We present evidence that the aquatic ecosystem today is much like it was during the nineteenth century, and that acid deposition and human activity in the watershed have had only minimal long-term effects on the lake and its inhabitants.

Eighty Percent of New Jobs Created: A Cost-Effective Approach to Wood Products Development in the Adirondack North Country Region?

Timothy P. Holmes, Research Director, Holmes & Associates

Abstract

Although the Adirondack North Country region has the timber resources to support a vibrant wood products industry, and has a long tradition in manufacturing wood products, employment in the industry has remained relatively flat over the past ten years. Presently, there are entire counties in the area with little or no employment in the secondary wood products industry. However, based on the findings of this 1997 research, there was a general optimism with the region's wood products industry. The apparent confidence in future viability was somewhat greater in the secondary than it was in the primary wood products sector.

This presentation highlights the findings of "Working with Wood: An Eight County Wood Products Development Strategy for the Adirondack North Country Region." The Strategic Plan is firmly based on the needs and interests of 129 wood products business owners who participated in the survey research.

Problems with Rural Land Subdivision in the Absence of a Regional Planning Agency: The Case of the Catskills

Richard F. Lamb, Suny Plattsburgh

Abstract

Only by comparing land development in unregulated, or locally regulated, environments can the full impact of the Adirondack Park Agency be illuminated. The Catskill region of New York State is such an environment. Land subdivisions in the Catskills have had significant adverse environmental and fiscal impacts, effecting both the communities involved and individual consumers (land purchasers). Problems include: (a) the creation of unbuildable lots on steep slopes, on extremely poor soil, or on lands with other physically limiting characteristics, (b) the carving up of large open space parcels into unusable "bacon strip" style lots laid out along existing roads, (c) poorly constructed subdivision roads, with no provision for future maintenance, (d) soil erosion affecting the quality of streams, (e) traffic hazards, and (f) negative fiscal impact upon town budgets. High densities of development have been permitted on steep slopes and other unsuitable terrain, that if located within the Adirondack Park would have been designated as Resource Management, permitting only very limited development. The density provisions of the Adirondack Park Agency Act, together with the APA's project review and permit system, have prevented the problems of the Catskills from occurring in the Adirondacks. (This paper is based upon a report prepared by the author and published by the Catskill Center for Conservation and Development titled "Subdividing the Catskills: The Environment and Fiscal Impacts.")

Simulating Land-Use Change in the Lake George Watershed: An Impact Assessment and GIS Development

Vivek Shandas and Jon Erickson, Rensselaer Polytechnic Institute

Abstract

Geographic Information Systems (GIS) and dynamic simulation are both useful tools for aiding land management decisions. A number of GIS applications to watershed management have gone beyond producing static maps, by incorporating a connection to economic, policy variables and trend analysis. In this study, historical economic data is used to calculate probability estimates of land development scenarios in the Lake George Watershed. Using simulation, stochastic models of development scenarios are analyzed. Simulation output is used to develop a GISfor a visual display of development patterns on a township scale. The economic information relates directly to the important development attributes, at a scale useful for policy-makers and local citizens to make improved land-use decisions.

Building Upon and Institutionalizing Local Capacity to Solve Problems of the Environment and the Economy

David Kay, Tahnee Robertson and Mary Schlarb, Cornell University

Abstract

The Adirondacks is a unique region in which conflicts over land use, economic development, natural resource management and environmental policy are common. As Elizabeth Thorndike asserts in her recent position paper, "collaborative, rather than adversarial processes, are more likely to result in joint gains for the environment and the economy; gridlock is costly to both." Building upon and institutionalizing local capacity to solve public problems constructively is a pragmatic key to breaking down gridlock. There are many institutions in which local public problem solving capacity or potential exists. Our ongoing project is intended to identify and enhance the

collaborative problem solving capacity and potential of two specific local institutions that serve every county in New York: Cooperative Extension (CCE)and Community Dispute Resolution Centers (CDRCs).

Based on interview responses from all of New York's counties we are enumerating the issue and program areas in which each institution is involved: 1) the range of intervention roles played by staff; institutional stakes in neutrality versus advocacy; challenges and opportunities to the organization represented by involvement in controversial issues; interest in developing further capacity further plus related specific needs, and 2) current and potential relationships between CCE and CDRCs; and the nature of involvement of each kind of organization with controversial issues within the county. Preliminary results will be summarized, with results from the Adirondack counties highlighted.

New York State Faces Major Land Purchase Opportunities in the Adirondack Park in 1998

Graham L. Cox, National Audubon Society

Abstract

For the first time in many years the environmental organization with an interest in the Adirondack Park have joined together to encourage the governor and the state legislature to support what they are calling the Adirondack Land Initiative. Twenty major properties totalling more than 360,000 acres — some 10 percent of the private-held land inside the Blue Line — are currently on the real estate market. The state has the funds available for their purchase through the Clean Water/Clean Air Bond Act and the Environmental Protection Fund.

The environmental organizations have met recently with the governor, the State DEC Commissioner and the chairman of the Assembly Environmental Conservation Committee to gain their support for these purchases. Almost every property is identified on the state's own Open Space Conservation Plan as priority properties to add to public ownership or protect in some manner from development pressure. Two thirds of the total acreage would remain in private hands as working forests, with the state purchasing conservation easements on these lands rather than buying them in full fee and adding them to the Forest Preserve. This would help bolster the economy of the Park and retain and create jobs in the traditional Park businesses of forest products, tourism and recreation.

The governor has already indicated his commitment to some of these purchases with the announcement Dec 22, 1997, of the state purchase of part of the Whitney Estate and with the state DEC announcing its intention to bid on the Champion International properties. Other properties on the accompanying list include ones whose purchase is near to completion by third party real estate interests such as the Open Space Institute, The Nature Conservancy and the Adirondack Land Trust. All they will take is a firm commitment from the state to complete the deals.

An application of a Multi-Criteria Decision Model to Open Space Conservation Choices

Melinda Kane, Graham Cox and Jon Erickson, Rensselaer Polytechnic Institute

Abstract

Each fiscal year, the New York State Department of Environmental Conservation (DEC) and the Office of Parks, Recreation and Historic Preservation (OPRHP) make decisions about purchasing land and granting conservation easements in the hopes of conserving an adequate amount of open space so as to ensure that New York preserves its natural resources and heritage. Because they typically do not have the budget to acquire all the land they would like to preserve, the DEC and OPRHP have developed a partial system to prioritize parcels of land which they which to protect for open space. For these purposes, open space is defined as any land area which is not intensively residential, commercial or industrial. This paper reformulates the land purchase decision to allow for prioritizing of parcel attributes in a goal programming model. Goal programming is a decision tool useful for analyzing multi-criteria decisions. In section one, the goal programming model is formulated. Section two discusses the results and extensions to actual land-buying decisions. Conclusions are drawn in relation to the current Adirondack land market and open space protection.

Identification of a Priority Conservation Zone Between Algonquin Park, Ontario and the Adirondack Park, New York

P. Quinby, S.C. Trombulak, T. Lee and J. Lane, Greater Laurentian Wildlands Project

Abstract

We analyzed social, biological, and geographical features between Algonquin Park in Ontario and the Adirondack Park in northern New York to identify the best region between these parks to serve as a wildlife movement corridor. From the list of species that could potentially serve as focal species for the design of a movement corridor, we selected the timber wolf (*Canis lupus*) — a wide-ranging top-level carnivore that is native to both areas. The wolf possesses relatively general habitat requirements and is currently a species of conservation interest in both parks.

Data sets including road density, presence of major roads, human population density, land use and proximity to water were analyzed using a geographic information system. Using a series of weighting schemes for these five parameters, cells corresponding to land within the study area were ranked according to "favorability" for wolves. By selecting cells with the highest favorability, we identified a composite movement corridor design that is continuous and minimizes "bottlenecking."

Algonquin to Adirondacks: Making the Link

Michelle Lee, Shealagh Pope and John Wegner, Carleton University

Abstract

No park is an island. Even parks as large as Algonquin and the Adirondacks cannot stand alone. They are affected by activities outside their boundaries (e.g. acid rain, land clearing for agriculture, and urbanization), as well as pressures from within (e.g. logging, recreational use, and roadways). The goal of the Algonquin to Adirondacks (A2A) initiative of the Ottawa Valley Chapter of CPAWS is improved connections between these two large protected area so as to improve the ecological viability of the parks as well as the intervening landscape. We wish to maintain and enhance landuse

that allows for the movement of flora and fauna between the parks so as to sustain viable populations of native species, adequate habitat, and ecological processes.

CPAWSintends to build on existing initiatives in the region and to learn from similar large-scale conservation projects such as the Yellowstone to Yukon Wildlands Project. Our focus is ensuring the long-term connectivity of the landscape from Algonquin to Adirondacks through good land management in existing parks, on crown land, and on private land. Our focus is not on making new parks but on making the parks we already have functional over the long term.

We will present the biological rationale for this project and discuss the efforts undertaken to support and enhance land stewardship in the region between the two parks.

Institution Building: Will the Real Adirondack Park Please Stand Up ?

Moderator*: Elizabeth Thorndike,* Cornell University

Abstract

New York State's 106 year-old Adirondack Park is a six-million-acre patchwork of public and private ownerships, of interlocking ecosystems, of populated communities, and of uninhabited open spaces. It is also the only Park in the world where public lands are constitutionally protected as "forever wild" and where private land use and development are controlled by a state-mandated regional zoning act.

Despite these unique circumstances, which are intended to protect the Park's natural resources, encourage recreation and tourism, and permit development where it will have the least environmental impact, there has never been a distinguishable Adirondack Park "administration."

Various state agencies have specific program and regulatory responsibilities in the Park. Nearly all have administrative boundaries that overlap and/or segment different areas of the Park. Over 100 municipal and county governments have taxing, planning, legal or administrative authority in their local jurisdictions.

Is the present system workable? Why or why not? What would be the effect of uniform state agency administrative boundaries? Is it important to have a single Park "administration"? Are there advantages to keeping agency jurisdictions fragmented? What impact would consolidated administration have on the Park's communities? Its residents? Tourists and recreational users? Economic vitality? Ecological integrity?