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An Internship Report Prepared for the Graduate  
Program in Urban Planning, University of Arizona

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AN APPROACH TO OPEN SPACE PLANNING

An Internship Report Prepared for the Graduate  
Program of Urban Planning, University of Arizona

Prepared by: Kevin D. Whittaker  
March 24, 1976

## ABSTRACT

This report is based on my work experience as a city planner in Keene, New Hampshire, from May 1973, to April 1976. The City of Keene is located approximately 30 miles north of the Massachusetts border and 20 miles east of the Vermont border.

Open space planning in Keene, as in most communities throughout the country, has only recently been interpreted as a process, as opposed to a project, approach towards preserving land. This report will demonstrate the techniques used in transforming the functional role of the Conservation Commission from a project orientation to a process orientation body; the constraints imposed by the political environment; and the empirical results accomplished in the preservation of open space.

The problem statement was supplied by Keene's Conservation Commission. It was to develop a definition of open space as related to the community and suggest various alternative methods of preserving open space. Implicit in this statement is that the purpose of such a report would refine the open space planning process in Keene and direct the efforts of the Conservation Commission toward a selective process of deciding preservation priorities.

The report concludes with an evaluation and analysis of Keene's open space planning process as related to the state of the art of open space planning.

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## INTRODUCTION

In 1968 the State Legislature of New Hampshire established a provision in the State Statutes which allowed local communities the option of creating Conservation Commissions for the purpose of preserving open space through a variety of methods. Keene was the first local community in the state to establish a Conservation Commission. The initial activities of the Commission were to acquire parcels of land on a project basis as a result of development pressure, with little regard for a continuous approach toward developing a cohesive longer range planning process for open space preservation.

The intent of this report is to articulate my role in the transition of the Commission approach to open space preservation from a discrete project approach to that of a continuous process method of carrying out the function of the Commission. The philosophic and conceptual goals for open space planning, in this community, were established through the Community Goals Report of 1967, which stated that fifty per cent, (50%) of Keene's total land area should remain as open space. Generally, this goal was based on the soil type, slope of the land,

the existing rural character of the community, and the availability of the city's water supply.

The Conservation Commission is a five member citizens' group, appointed by the mayor, which has the authority to act on behalf of the City to preserve open space through the acceptance of gifts and donations of land, land acquisition, purchase of conservation or development easements, and other acceptable methods. I have acted as staff liaison with the Commission in providing information, report writing, and suggesting direction in the refining of the goals of the Open Space Plan.

#### BACKGROUND

Keene was first settled in 1732 as a wood products and agricultural community. It is situated in a river valley with forested hillsides of deciduous and evergreen trees. The community has steadily grown over the years and presently has a population of 21,000 and a land area of 23,000 acres (36 square miles). Keene is the regional center of southwestern New Hampshire for shopping, education, employment, and cultural activities. It is the home of Keene State College, several nationwide insurance and precision instrument

companies. The economic base is diversified and provides a high standard of living for the residents of Keene. It is a typical New England town in that there is a common at the center of town and a predominance of Colonial and Victorian architecture. The social composition of the region is homogeneous in that there are no ethnic or racial minority groups.

The governmental structure is that of a City Manager form. In 1967, the City Manager initiated a citizens' committee to articulate the Community Goals. One of the Goal statements was that "Keene should maintain a wide range of opportunities for individual choice. However, to prevent overcrowded conditions, 50 per cent of the community area should be allocated for public and private open space." This goal took into account that the community could grow to a population of approximately 40,000, or double its present level, given the existing water supply. A population in excess of 40,000 would require the importation of water from surrounding towns.

In 1968, the Planning Department was formed to prepare a Comprehensive Plan for the community predicated on the Community Goals. The Land Use Plan dealt with the goal of

preserving open space. In completing the Land Use Plan, the soil/slope associations were analyzed and classified according to the type of development activity which could be best adapted to that association without causing erosion and siltation. Generally, the hillside lands surrounding the valley were designated as the least capable of supporting development activity from a physical standpoint. Areas within Keene's watershed were designated as undesirable for development due to the possibility of erosion, siltation, and pollution to the potential water supply. These lands were classified as open space on the Land Use Plan.

As previously stated, the gross land area is approximately 36 square miles; of this twenty per cent is developed or designated for residential, commercial, and/or industrial activity. Approximately sixteen per cent is in agricultural use or classified as wetland and water, thus leaving sixty-four per cent (64%) as undeveloped land.

In late 1968, a Conservation Commission was formed to protect and preserve the open space areas. Funding was appropriated yearly by the City Council, and matching funds from the Bureau of Outdoor Recreation (B.O.R.)

were also utilized in acquiring land. During the first few years, parcels were acquired on a piecemeal approach, or as a reaction to development pressure. The first example of this was when a developer proposed to subdivide the face of a hill overlooking the central business district. This particular hill was designated as open space on the Land Use Plan and the Commission was opposed to the development of the hillside, but did not have adequate funds to acquire the 105 acre parcel. Public support was elicited by the Commission and donations were taken to preserve the hill. With donations, Council Funding and B.O.R. funds, the Commission bought the hill in fee from the developer in 1971. In the fall of 1973 the same type of situation arose. A parcel of land in a watershed designated as open space was proposed to be subdivided and developed as large lot single family homes.

#### THE NEED FOR A SYSTEMATIC APPROACH TO PRESERVATION

The parcel of land proposed to be subdivided was located in the Goose Pond Watershed. This pond could function as a potential source of drinking water for

the city in the case of an emergency or pollution of the existing reservoir. It is classified as a Class A water body by the state of New Hampshire Water Supply and Pollution Control Commission. This classification means that minimum processing is required before the water can be consumed by humans, The developers hired a professional soils engineer to locate potential lots and building sites which would not create a pollution problem in the watershed. After a through site analysis, 50 lots were proposed on a 260-acre site in the watershed. The developer, in presenting his proposal to the Planning Board, said he was providing open space, since the lots averaged five acres each. Legally the Planning Board could not prevent this subdivision since it more than fulfilled the requirements of the Zoning Ordinance and did not present any adverse effects in terms of the general health, safety, and welfare of the community.

The Conservation Commission took a strong stand in opposition to this proposal and said that this did not constitute open space. However, the definition of open space in the Land Use Plan stated that, "The intent of this category is to provide essentially undeveloped land to retain its natural character with little or no

development." The issue could be argued either way, since it was subjective as to how one perceived open space. The Commission had to develop more precise definitions of what constituted open space.

I submitted a document on open space which defined the various types of categories and suggested alternative methods of preserving open space. The Conservation Commission reviewed and adopted the document as a policy statement. The development proposal which initiated the need for the definitions was approved for only five lots, which were located outside the watershed. This was due to the efforts of the Conservation Commission and the strong support for open space voiced by the citizens of the community at the public hearing held by the Planning Board. Subsequently, the developer offered to sell the remaining 220 acres in the watershed to the Conservation Commission for the assessed value plus survey costs. The Commission has purchased this open space from the developer with the aid of matching funds from the Bureau of Outdoor Recreation.

#### FROM PROJECT TO PROCESS

In the Goose Pond experience it became evident

that the Commission had to rethink its approach to open space preservation and initiate a more positive direction, rather than being put into a reactive position by development proposals. I began the task of redefining the priority of the Community Goal of "preserving fifty percent of Keene as open space."

A major function of the report entitled The Use of Land: A Citizens Guide to Urban Growth, sponsored by the Rockefeller Brothers' Fund, is to expand the awareness of environmental sensitivity, help clarify basic environmental situations, and define steps for constructive action. Paralleling this theme in the development of a process approach to open space preservation, field trips were organized to all open space areas which were not clearly familiar to Commission members. As most members were life-long residents of the community, an intimate knowledge of the area already existed. This facilitated the process of narrowing down certain areas as related to environmental sensitivity. Informal discussions were held on these areas, relating to the physical characteristics of the parcels, aesthetic relationship to the community, and potential for development.

The areas under discussion were then designated,

broad brush style, on a map of the city. Each member was asked to study the areas under consideration, and then, without further discussion, list each area in order of the preservation priority that the particular Commissioner would like to see initiated. In comparing the lists, the location and ranking of the first five areas were almost unanimous. The remaining eight areas were discussed in terms of the average rank of the area, environmental characteristics, and possibility of future development. The complete priority listing of the thirteen critical areas was adopted by vote of the Commission.

The thirteen critical areas totaled approximately three thousand acres. After the selection process, information was obtained from the Tax Assessing Department relating to assessed values, property ownership, and exact acreage for each area under consideration. Using this information, the areas were again analyzed and categorized according to a method of preservation. Those areas, or portions thereof, which were considered highly desirable for permanent preservation, and to be utilized by the general public, were designated for fee simple acquisition. Other areas, or portions

thereof, which were considered critical, but were primarily hillsides surrounding the valley were designated for preservation through the form of an easement.

The final phase of the process development approach involved the preparation of the previously mentioned report which defined the various types of open space and served as a policy statement in expanding and publicizing the open space preservation efforts of the Commission. In conjunction with this, a schedule involving the implementation of the acquisition of the first four critical areas was developed. Selected property owners were contacted concerning the Commission objectives, given a copy of the open space definitions and asked if they would be willing to consider negotiating within the next five years.

#### RESULTS OF THE PROCESS APPROACH

The critical area selection, adoption of the policy statement on open space definitions and the formulation of a concentrated effort on the first four priority areas was completed prior to the budget request in January, 1974. Since that time significant progress

has been achieved in terms of insuring open space preservation. A total of three hundred ninety-three acres have been acquired in fee; and permission to cross private property along the banks of a river as part of a linear hiking trail-park system has been obtained, along with the right of first refusal when the property owner decides to sell his property.

Currently negotiations are pending for an additional two hundred seventy acres within the critical area category. These parcels, involving three property owners, have all received B.O.R. approval for matching funds. However, the price being offered for two of the parcels is meeting resistance from the owners. It is expected that these transactions will be complete prior to the end of this summer.

In developing the process approach, media coverage by the local newspaper and two radio stations was substantial. This publicity built strong community support, and although there was no documentation, I assume this played an important role in the City Council passage of the 1974 and 1975 budget requests in total. During these "recession" years, many budget cuts were made by the Council. Due to the increased community awareness of the Commission preservation

objectives two parcels of land, totaling one hundred fifty acres, were donated to the city. One parcel was a wetland area, and had been selected by the Commission as the third priority area for acquisition and preservation. The second parcel was not designated as a critical area, but was in an area designated as open space on the Land Use Plan, and subject to seasonal flooding. This kind of community response did not go unnoticed by the City Council in reviewing the budget appropriated for the Commission.

With a more lucid understanding of which areas should be preserved and why they should be preserved, the Commission has been able to develop a work program and relate it to anticipated budget appropriations and matching B.O.R. funds. The Planning Board also works closely with the Conservation Commission on subdivision proposals in the areas classified as open space on the Land Use Plan. These proposals are referred to the Commission for comments and recommendations prior to any action by the Planning Board.

Perhaps the most salient point evolving out of this open space planning process is the awareness

developed by those involved for the need to refine the original community goal relating to open space. The goal of preserving fifty percent of the community as open space is still valid; however, the interpretation of open space has changed from a single concept to a more complex combination of concepts. This refinement process, involving the definitions and mapping of the critical environmental areas, has also stressed the need to rely on mechanisms other than fee purchase to implement the goal of preserving open space.

Throughout the planning process, the reality of the statement in the task force report entitled The Use of Land: A Citizen's Guide to Urban Growth, sponsored by the Rockefeller Brothers' Fund became more vivid in approaching open space planning:

"Since no combination of federal, state and local land purchase is likely to acquire enough open space to satisfy demand, other techniques must be used as well; and since it is neither feasible nor acceptable for government to acquire vast agricultural and natural areas that ought to be conserved...mechanisms to protect privately held open space are essential."<sup>1</sup>

## EVALUATION

The residents of this southwestern New Hampshire community are well aware of the concept of megalopolis and its extension from southern Maine to Virginia. Advertisers, economists, and travel agents promote this region as being within one day's drive of thirty per cent of the United States' population. Planners, sociologists and many others associated with the forensic sciences have repeatedly stated that human development and nature existing side by side will no longer be visible, except at the rapidly receding urban fringes. William H. Whyte, author of The Last Landscape, in reference to megalopolis, states, "They are systems of cities, tied by high-speed rail and road networks, but they have not yet congealed into an undifferentiated mass. There is room outside of them for expansion. There is room inside of them. Whichever way is best, a measure of choice is still open to us."<sup>2</sup>

The dynamic forces of urban expansion cannot be controlled overnight by an open space program or by any single public action. However, by developing a comprehensive plan, which includes a

provision for the permanent preservation of selected open space areas, the forces of expansion can be channeled along more desirable patterns. Keene expects an increase in population from people leaving the highly urbanized areas of the east coast. Statisticians are revealing that more people are moving out of the Standard Metropolitan Statistical Areas (S.M.S.A.) than are moving in. A population analyst, Dr. Peter A. Morrison, of Rand Corporation, states that the current trend or shift in population is to "exurbia," areas beyond the city and suburbs. Since the beginning of the 1970's, ten of the nation's twenty-five largest S.M.S.A.'s have been losing population. During the 1960's, only one did. Boston's metropolitan area is not yet among the population losers, although the city itself lost 12,000 residents between 1970 and 1975.<sup>3</sup> Dr. Morrison states that during the same period the nation's rural areas have gained more population than cities or suburbs.

Within the context of planning for community growth, resulting from a shifting population from urban to rural areas, Keene's open space preservation

process plays an active role. Large parcels of land have been acquired and will be permanently preserved for future generations. A continuous acquisition process has been accepted by the Commission, and a schedule for acquiring selected parcels is being implemented. Considering the fact that this process approach has only been in effect since 1974, the efforts and results to date have been commendable. There are constraints, however, which inhibit the intensity of a bold momentum building approach, utilizing a variety of new methods, other than fee acquisition, for the preservation of proper amounts of open space as defined in the Community Goal of preserving fifty per cent of the total of the community.

Perhaps the most significant constraint, albeit the least visible, is the concept of current use assessment. This is a state of New Hampshire law which is purported to protect and preserve open space land through an assessment of that land based solely on what it is presently being used for, and not the potential use of the land. The law is

designed to keep New Hampshire's open space from being converted to more intensive development by pressures from property taxation. Land which may qualify for current use taxation includes farm and forest lands, wetlands, floodplains, wild lands, recreational lands and zoned open space land. The property owner must file an application on an annual basis in order that current use assessment be applied to his landholdings; if the status is altered to a non-qualifying use, a ten per cent change tax is levied based on a reassessment of the full value.

In New Hampshire there is no sales tax or state income tax. Therefore, revenue is almost exclusively derived from property taxes. Due to the high property taxes, landowners qualifying for current use assessment apply each year and their property's assessment is generally set at ninety per cent less than it would be under the full assessment method. The flexibility of the one year time period and the relatively insignificant tax levied on a change of use is very appealing to most large parcel land owners. It is the reason that Keene's Conservation Commission has been unsuccessful in the implementation

of alternative methods, other than fee acquisition, in preserving open space. The Commission is aware that the current use concept is, at best, a temporary method of preserving land in its natural state. In discussing scenic easements, conservation deeds, discretionary easements, and other more permanent methods of preservation, the property owner generally expressed a desire to sell in fee or retain all vested rights. To date, only two conservation easements have been granted to the city, and as long as current use exists, I do not foresee a promising future to preserve areas through an easement approach.

The life expectancy of current use is questionable as there is a group within the State Legislature advocating its repeal, on the basis that a minority of large land speculators are being subsidized by the rest of the taxpayers. Politically, it would not be in the best interests of the Commission to take a position on this issue at this time. This is due to the fact that the State of New Hampshire Association of Conservation Commissions, composed of eighty local commissions, supports the concept of current use. From my personal observation of the statewide association, current use is strongly supported by the

large majority of member towns, since they do not receive adequate funding through the town selectmen to initiate a functional acquisition program.

The question of private open space preservation in this community is addressed through the Planning Board in reference to specific development proposals. The mechanisms exist in the site plan and subdivision approval procedures to insure that open space will be incorporated and, in some instances, used as a density incentive, in the approval of development plans. This private open space directly serves the immediate residents of the development and indirectly benefits the community. In a community of this size, most subdivisions consist of three or four lots at a time, and the density incentive has not been used in the past several years in single family residential construction. Multifamily apartment units have been approved, which utilized a cluster principle to preserve private open space. As part of a total open space preservation approach, the private sector's role is insignificant due to the present lack of development. For this reason, I believe the public sector, through the Commission,

has to act as a catalyst and continue an aggressive acquisition program.

Keene has been fortunate in that it is isolated by the mountains from the Boston metropolitan area to the east and the Hartfield-Springfield area to the south. This has allowed the community time to prepare a responsive planning process as compared to the communities of the eastern section of New Hampshire which are rapidly increasing in population due to an outward migration from larger East Coast cities to the south. Continuing public acquisition, while in this state of relative slow growth, will be effective in accomplishing the preservation of certain priority areas and sustaining the awareness of the community toward open space should Keene experience a rapid influx from the urban areas.

The Commission realizes that it is pursuing a fee acquisition and will continue to do so, in the near future, by default of realistic alternatives.

One alternative which other communities are experimenting with is the concept of transfer of development rights,(T.D.R.). This has been discussed

by the Commission and I have discussed it with a local farmer. The attitude at present is: wait and see if it works elsewhere. The concept of T.D.R. has been hailed by some as the panacea for land use problems and by others as an unworkable gimmick.<sup>4</sup> Under T.D.R., conservation zones are established where development is restricted, and the development potential is transferred to other parcels where a certain density bonus is allowed if the development rights are purchased.

The town of Sunderland, south of Keene, along the Connecticut River in Massachusetts, has a provision in its zoning ordinance for T.D.R. The intent is to use the concept to preserve prime agricultural lands along the Connecticut River. The first development which might make use of this concept is now in the negotiating stage.

The town of Chesterfield, New Jersey, adopted a T.D.R. ordinance in 1975. Instead of designating preservation and development districts, the ordinance would simply permit higher densities by clustering with T.D.R. Rights may be transferred from parcels of twenty-five acres or larger by dedication

for public open space, school site, or other public use, or dedication in perpetuity to agricultural use. The developer must actually own the parcels involved; hence, the transfer of credits, not the purchase of rights. The developer can then sell the restricted agricultural land back to a farmer at a price reflecting its agricultural value.<sup>5</sup>

In discussing the preservation of agricultural lands in Keene with a local farmer, the most positive reaction involved the purchase of development rights. This would be an extremely expensive proposition for this community to undertake. Presently the Commission has been paying up to \$300 an acre for undeveloped open space; the minimum amount necessary to purchase the development rights to prime agricultural land would be approximately \$5,000 an acre. Fortunately, the agricultural economy of this region is healthy at the present time, and the pressure to convert farmland to more intensive uses is not as significant as a few years ago. Ideally, this would be the time to secure the development rights, in the absence of the competitive bid from the developer; however, an educational process would have to precede any transaction of this nature, in order to insure community acceptance. With the present

appropriation for open space land acquisition and federal matching funds, perhaps ten acres of agricultural land could be purchased. If, however, strong community support could be generated and the residents were committed to preserving agricultural land as part of the overall goal of retaining the rural character of the community, as well as a degree of self-sufficiency in food production, a bond issue might be warranted for the acquisition of the development rights. Given the strong, at times irrational, Yankee independence, I would estimate that it would be five to ten years from now before the community would accept this approach, assuming it proves feasible where it is presently being implemented. The area most closely watched is Suffolk County, New York, which has been acquiring development rights to agricultural land for the past two years.

In his book The Last Landscape, William Whyte stresses the importance of treating open space and development as reciprocals. In summing up Keene's open space process, I would have to conclude that the most salient reason for the initial success has been the lead time that the public sector has had in purchasing several large parcels. This action has evolved

into a process, with a work program, for acquiring areas and has resulted in a coordinated effort with the Planning Board on subdivision proposals in open space areas as designated by the Land Use Plan. This linkage will formulate the reciprocal relationship between the open space process and land development in the future, when it will be imperative that the private sector contribute in a more significant way to the open space preservation process.

#### CONCLUSION

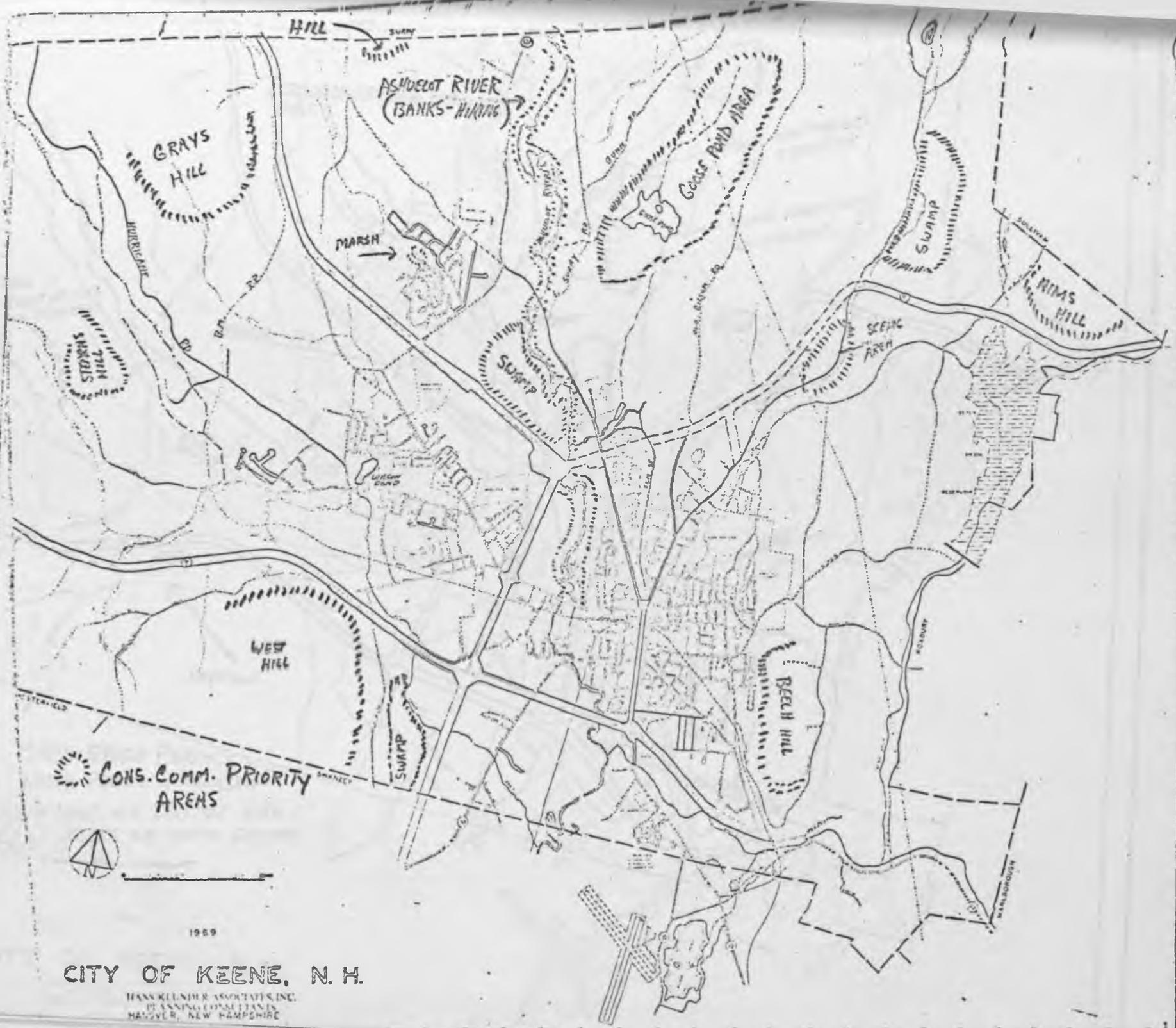
I would express a basic optimism regarding Keene's effort to insure that future generations will live in an environment with protected areas in their natural state. The process approach is working and continues to receive community support. I expect that the tax structure for the State of New Hampshire will be amended within the short-term future to lessen the dependence on property taxes as the sole source of revenue. Until this occurs, I do not foresee significant progress being made in the implementation of conservation easements, scenic easements, or development rights purchase.

Our attitude toward land and the rights associated with its ownership has developed over centuries. Histor-

ically, we have perceived these rights as coming from the individual's possession of the land. It is only since the late 1960's that we, as a society, have been so actively pursuing land preservation as part of the whole that contributes to the quality of life. Significant progress has been made, especially in the designation of wilderness areas, and the techniques employed in preservation are going through a refinement process. It will be an incremental process, radicalized at times by crisis situations, which, I am confident, will result in an attitude that recognizes land as a basic non-renewable community resource.

APPENDIX

A-1



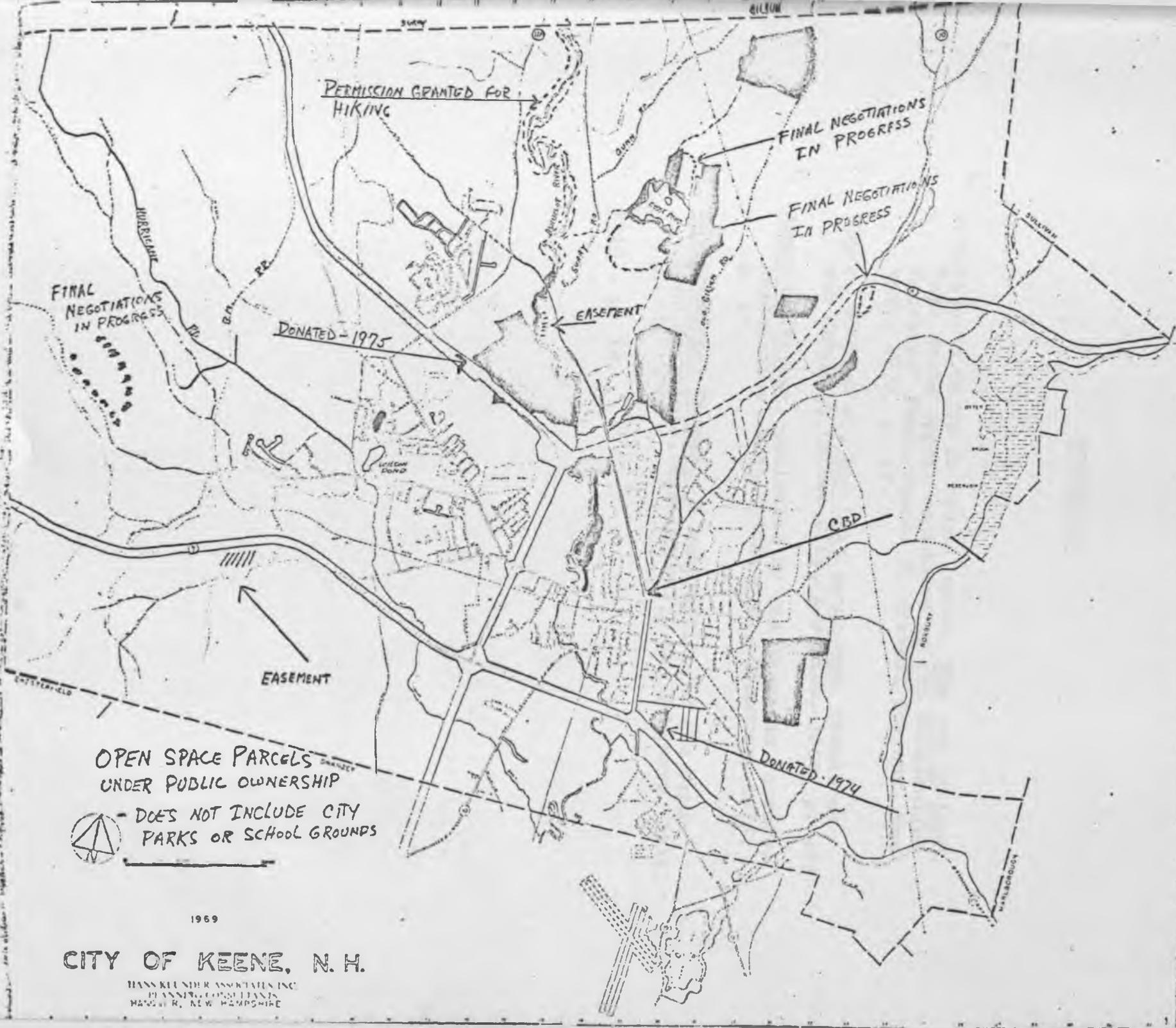

 CONS. COMM. PRIORITY AREAS



1989

CITY OF KEENE, N. H.

HANK KLINDER ASSOCIATES, INC.  
 PLANNING CONSULTANTS  
 HANOVER, NEW HAMPSHIRE



1969

CITY OF KEENE, N. H.

HASS KLEINER ASSOCIATES INC.  
PLANNING CONSULTANTS  
MANASSAS, VA. NEW HAMPSHIRE

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## FOOTNOTES

1. A Citizen's Guide to Urban Growth, The Use of Land, Task Force Report sponsored by the Rockefeller Brothers' Fund, Thomas Y. Crowell Company, New York, 1973, p. 19.
2. Whyte, William H., The Last Landscape, Doubleday and Company, Garden City, New York, 1968, p. 332.
3. American Forest, published by the American Forestry Association, Washington, D.C., December, 1975, p. 17.
4. Environmental Comment, A Publication of the Urban Land Institute, Washington, D.C., February, 1976, p. 13.
5. Ibid., p. 14.

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