

GENERAL PLANNING RENEWAL FOR WINCHENDON

**A MASTER PLAN SUPPLEMENTARY REPORT BY THE
WINCHENDON PLANNING BOARD
WINCHENDON, MASSACHUSETTS
1976**

Prepared by
Edwin Gere Associates - Planning Consultants
North Amherst, Massachusetts

EDWIN GERE ASSOCIATES

Planning Consultants

Box 411, N. Amherst, Massachusetts 01059

413-549-3769

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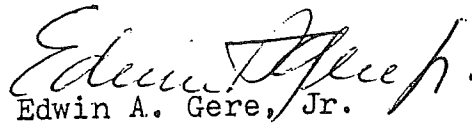
Mr. Donald M. Royea, Chairman
Winchendon Planning Board
Winchendon, Massachusetts

Dear Mr. Royea:

We take pleasure in submitting this supplementary report entitled General Planning Renewal for Winchendon. Although it was our responsibility to assemble the data and draft the report, the real contribution was made by the Board members, other town officials, and interested citizens who identified community goals, offered numerous ideas, and articulated specific components of the plan.

We have greatly enjoyed working with the Planning Board during the course of this study, and we hope that it will provide the basis of an updated, effective program of community growth and development.

Sincerely yours,


Edwin A. Gere, Jr.

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INTRODUCTION

I. Planning Development in Winchendon

A. General

The commitment, in every sense of the word, to planning as a positive mode of town development has emerged very slowly in Winchendon. In fact, it is not yet fully present in either the community as a political system or as a body of citizens. Some progress has been made. Community planning, in both formal and informal dimensions, clearly has taken place in town over the years; the record of institutional development of the planning process documents the formal growth. Yet the kind of concerted, coordinated, official dedication and activity necessary for sound, thoroughgoing planning is the missing ingredient. To put it another way, the town appears to have subscribed to the letter but not the spirit of planning as a strong tool for community development. The problem, however, is that effective community development requires both.

B. Planning as a Process

Planning is a twentieth century development in American local government. While various forms of municipal government have origins extending back to the beginning of the Republic, and even earlier, they were all in effect unplanned in a comprehensive sense, and with the possible exception of Pierre L'Enfant's physical layout of the District of Columbia, they largely developed on a hit-and-miss basis as circumstances and felt need

dictated that change and modification should take place. Many planners make much of the fact that Brigham Young in the nineteenth century laid out the streets of Salt Lake City in sufficient width to permit a Conestoga wagon to be turned fully around without being backed up. This was planning in a limited sense, yet there was nothing in this action to reflect or to meet the more comprehensive needs of this young, rapidly growing city at that time. The true concept of planning as seen today was born of the reform age of municipal government--those years falling at about the turn of the twentieth century and a decade or so thereafter--when the nation rose up against the excesses of bossism, the evils of corruption in city hall, and the cronyism engendered by a spoils system pervading the very heart-beat of American local government.

When this modern municipal reform commenced to bring about new professional methods of administration, merit systems, clean elections, and recall provisions for elective officials, it brought along at the same time the fairly revolutionary notion that the affairs of cities and towns ought to take place with some advance thought and care. Thus the idea of planning as a systematic process began to emerge. It started in the larger cities, chief among them being Hartford, Connecticut in 1907, and in the next twenty-five years spread rapidly across the world of local government, finding acceptance not only in the metropolitan and larger urban areas but in the middle-sized communities as well. By 1953, planning agencies had been established in almost 60 per cent of the nation's cities having over 10,000 population. By 1960, over 90 per cent of the cities in this category had set up such agencies.

The first major breakthrough in a statewide planning movement for local governments occurred in 1936 when the Legislature enacted a general permissive law authorizing cities and towns to establish planning boards under new conditions and, under later amendments, to prepare official maps, write master plans, and adopt subdivision control regulations. The law superseded the previous legislation on boards of survey and earlier planning boards and formed the basis for planning boards presently functioning in the cities and towns of the Commonwealth. Present-day zoning enabling legislation stems from the base statute enacted in 1954, although earlier laws authorizing zoning emerged in the 1930's, too. The current statute, amended over fifty times between its initial passage and 1974, now has been extensively revised and updated under Chapter 808, Acts of 1975.

C. Planning in Winchendon

Early Developments. With the establishment in 1954 of the first Winchendon Planning Board, the town's planning process was officially initiated. Since that time, the record shows a clear and regular commitment to the formal building blocks of the planning process. To bear this out, a zoning bylaw was drafted and adopted in March 1958 by a strong town meeting majority. Subdivision control regulations were placed in force at the same time. A full scale comprehensive master plan was also commissioned and published in 1959. This plan underwent a revision and updating in 1965. Finally, during the seventeen years since adoption of the zoning bylaw, it has been amended more than a dozen times to meet changing needs.

on to the building blocks cited above,
 be taken of the establishment of several
 during the twenty-two year period since
 board was established--agencies directly
 and vital to, the planning process.
 Conservation Commission, Housing Authori-
 Board of Appeals. Further recognition
 to the planning process is the town's
 the Montachusett Regional Planning
 the adoption in 1974 of an historic
 establishing the Old Centre Historic

ents. In 1973 the Planning Board, with
 from the town meeting, initiated a series
 designed to revise, update, and generally
 of the planning components of the town,
 y by the Fall of 1974 a thorough revision
 tly amended zoning bylaw of 1958 was
 The revision was completed by early 1975
 steps for placing it before the town
 en completed by Fall 1975. It now awaits
 voters at a town meeting in the near
 ptember 1, 1975, fully revised subdivision
 tions, as adopted by the Planning
 to effect. The larger part of this recent
 ge entailed a second updating of the ori-
 prehensive master plan. During 1975
 was in process and now represents the
 lanning Board evidence of its commitment
 s a central force in community affairs.
ations. Although the formal record setting
 titutional development of planning in Win-
 pressive, the working record is not. There

has been little real sense of commitment to the spirit of planning. This should be an issue of serious concern to the citizens of the community. A few examples at this point may illustrate the problem.

First, despite the commitment to an original comprehensive plan and two subsequent updatings, the plan has suffered the fate of so many similar documents elsewhere: it gathers dust. There has been no vivid evidence of attachment to the priorities and goals articulated in both the original plan of 1959 and the updated supplement of 1965. While it is not realistic to expect overwhelming adherence to the proposals of either plan, due to changing times, economics, and other circumstances, a reasonable support of comprehensive plan goals is fairly standard. Many of the recommendations offered in the original plan have been ignored, and some of those which have been considered were taken up in tardy fashion. For example, the 1959 plan recommended that the zoning by-law be studied and revised, yet this step was not carried out in full fashion for fifteen years. Meanwhile the bylaw was subjected to piecemeal amendments offered by pressure groups; the Planning Board authored few, if any, of the amendments adopted from 1958 through 1975. The 1965 updated plan placed a major emphasis on central business district renewal and thoroughfare development, yet not enough progress has been made toward either of these goals.

Second, citizen interest in the planning process has never been strong, despite town meeting financial support of the previously mentioned institutional building blocks. During the process of developing this

1976 updated plan and seeking to elicit citizen and other input for it, the Planning Board played to an empty hall, so to speak. It conducted its regular and special open meetings before an audience which never exceeded two to three persons. It held an open public hearing on the general plan renewal in June 1975 with six souls in attendance. The Board sent a questionnaire to virtually every town board and official asking what goals and priorities this renewed plan should project, and it sifted through thirteen replies. Gratefully, nevertheless, a sincere attempt has been made to accommodate and reflect in this plan the views of those few officials and citizens who did take the time to show their interests and concerns.

Finally, the planning process in Winchendon has not been well administered, and this is a matter clearly reflective of the earlier point that the town supports the letter but not the spirit of planning. The tools of planning and the controls of zoning are present and available; a serious intent to enforce and implement the various requirements on which the citizens have agreed is not so much in evidence. Too many cases of lax enforcement of the zoning bylaw have occurred in town; too many instances of divided jurisdiction in issuance of building permits have taken place. The new, revised proposed zoning bylaw tightens up enforcement procedures, and clearly pinpoints authority and responsibility, but in the meantime the casual practices of the past only serve to contribute to lack of citizen interest and faith in the local planning process.

Appraisal. It is easier to develop a chronicle of institutional events concerning the community planning process in Winchendon than it is to offer a comprehensive appraisal of exactly what such events tell us. One can examine the official records and thereby depict a pattern of planning activity, but it all must be blended with the experiences and judgments of those directly associated with this planning activity.

Some communities have been quite tardy, on a comparative basis, in becoming involved in their own planning. This is not completely true of Winchendon. Its community leaders acted properly and in timely fashion in the late 1950's to bring the town into the age of planning by commencing with the basic building blocks--zoning, subdivision control, and master planning. Once more, the missing ingredient appears to be a strong, underlying sense of commitment to the full, vigorous use of all those planning tools which for so long have been available to the town. When this quality finally has been captured, even if only in part, then the community will be well on its way to the effective use of planning in its fullest meaning. And this most definitely can be done.

II. The Nature of a General Plan

A. Characteristics

A general plan, sometimes referred to as a master or comprehensive plan, is an official public document, developed usually by the community planning agency, which seeks to bring together all of those individual town goals and objectives, possibly developed by individual departments and officials, and lay them out in an integrated, orderly fashion. A comprehensive plan,

then, is a rather full-scale statement of community goals, the intent of which is to provide policy guidance for decisions about community development in the years ahead. The plan indicates in comprehensive terms, with attention given to a scale of priorities, how the town should be developing in the next ten to twenty years and what steps should be taken to achieve this development. Properly drawn and utilized as the major planning guideline for the town, a comprehensive, or general, plan becomes one of the most critical of community documents. It is important, then, to describe the component features or characteristics of a comprehensive plan as seen by those involved in the planning process.

A comprehensive plan should be: (1) comprehensive, (2) general, (3) long-range, and (4) flexible. These qualities deserve some explanation and shall be taken up in order.

1. Comprehensive. The plan should be all-embracing in the sense that it should include the community at large--geographically, physically, and environmentally. It should address itself to all those functions and activities which bear upon the future development of the town. This does not mean necessarily that every conceivable planning aspect or possibility must be described and analyzed in the plan. Plans must and do have points of major focus, and therefore emphasis is placed on the more critical issues requiring attention. In a comprehensive plan revision or updating, this need for selectivity becomes quite important; by the time a revision of the plan takes place, the community has become fairly well set in its scale of priorities, and these

priorities become the focal point of the revised plan itself, and ultimately of direct planning action. The original comprehensive or master plan can provide a reasonable basis--albeit some data, goals, and priorities have been rendered out of date--while the updated renewal plan serves as the vehicle for revised goals and new priorities.

2. General. Another important quality of the plan is that it should be general, rather than specific, in tone. What this means is that the plan should deal with broadly described goals and objectives, with generally stated priorities and with emphases placed in such fashion that the importance of certain projects to the town is clearly stated without any attention at the moment to minute detail. The need for a new water supply source, for example, can be so critical that it clearly becomes a major planning goal, is accorded proper emphasis, and worked into the order of priorities. All of this can be accomplished in the plan in general terms, while procedural details, possibilities for site choices, and more specific questions can be left for the engineers and those charged with implementing a water supply decision. School and recreational needs can be emphasized in the plan in similar fashion without any need to identify specific school construction sites or the exact location of a tennis court.

The quality of being general permits a wide variety of decision-making by the town meeting and town officials within the framework of broadly stated goals. In this way, feasible alternatives can be presented to the decision-makers, and the best manner of achieving goals can be selected.

3. Long Range. A comprehensive plan, in order to be of any utility at all, must look to the future. This is really what planning is all about. The thinking of not only those in official posts but also of the community at large should be geared to the years ahead, preferably in a time span between ten and twenty years. In other words, a good plan seeks to look beyond the immediate day-to-day needs of the town, and on the basis of current and projected data, seeks to focus on things to come.

A major flaw of much comprehensive planning, however, is the practice of looking too far into the future. Any plan which attempts to lay out goals and priorities for thirty years ahead is unrealistic. The ability to predict accurately, or with reasonable accuracy, is no better than our ability to project population changes, water table depletion, or the rate of inflation. Thus, it is vitally necessary to be cautious about the extent to which we try to see ahead. Even the use of a ten to twenty year time span has its hazards. We need to plan, however, and we need to have some faith and to take chances. Therefore, we select what seems to be a plausible look ahead.

4. Flexible. The three characteristics of comprehensiveness, general tone, and long-range nature, cited above, all come together ultimately in a requirement that the plan be flexible. Unforeseen developments occur with regularity, and many of them have an impact on the implementation of a plan. Not too many years ago, almost every community carried out large scale, open burning at the local dump as a means of disposing of vast amounts of rubbish and other waste materials. Because of this, new acreage for

dump sites was not too critical a factor. Today, with state regulations now in force which severely limit open burning, existent dumping grounds are being used up at an accelerated pace because of the need for landfill procedures. As a consequence, new dump sites rise on the scale of priorities, and the comprehensive plan must absorb and accommodate this new need--a need largely unforeseen in general plans of fifteen and twenty years ago.

Thus, a sound general plan must be an elastic road map to community growth and development which can serve as a flexible guideline and which, over a period of years, can be adjusted to meet changing objectives and priorities of the town. The quality of being flexible will permit a plan to retain its value and utility as these adjustments are made.

B. Misconceptions of General Planning

General plans often fail to be properly used and end up gathering dust on a shelf because of some genuine misconceptions about what they are supposed to accomplish. First, a widespread belief prevails that the development of a general plan will automatically bring clean, new industry to the community. Nothing could be further from the truth. Some industries may prefer to locate in a town whose citizens and officials have a clear sense of civic direction, but there is nothing about a general plan itself which ipso facto will breathe new life into a community's sagging economy. A general plan, therefore, is no magnet guaranteed to draw industry to town.

Second, there is an assumption that the development of a general plan will improve a community in

aesthetic terms. Again, this is erroneous as a belief. The process of developing a general plan will assist in the identification of negative factors such as central business district decay, a high incidence of junk automobiles, and dilapidated neighborhoods, but a will to make improvements and to follow through must be present. The 1965 general plan supplement for Winchendon perhaps offers a clear example of this. The plan strongly emphasized the process of urban renewal, particularly for the downtown area. Yet the recommendations found few takers, and while some changes and facelifting have taken place, the downtown area today could still benefit more if some 1965 recommendations were more fully implemented.

Finally, a strong assumption prevails that a general plan will serve as a magic carpet for the community residents, and that all will be well once the plan has been completed and the sense of it adopted as the guideline to community well-being and growth. This assumption seems to place too much faith in the written word. The plan itself requires a firm commitment to its implementation, and a certain faithfulness and regularity in carrying out its provisions. "You can lead a horse to water, but you can't make him drink," goes an old saying. The same is true about the general plan; the recommendations are there, but there must be a strong follow-through.

C. Summary

In summary, then, a general plan is a number of things--a growing sense of community awareness, a concern for orderly development, a healthy respect for proper land use, and people working together for a

better future. It is also an expression of appreciation for good design and an impatience with ugliness and decay. But perhaps more than anything else, it is an expression of faith and confidence in the community's future. The citizens of Winchendon have always possessed this kind of confidence, from time to time understandably mixed with concern and reservation, and this report serves to express this confidence in renewed terms.

III. Winchendon General Plan: Components and Scope

The development of a general plan in original form is a slow and complex process, especially if the four fundamental characteristics of a plan as described above are to be faithfully incorporated into the document. The original general plan developed in 1959, then, entitled Winchendon Plans Ahead and known as a "comprehensive master plan," was the product of extensive and time-consuming effort. In similar fashion, the 1965 updating of the basic plan, entitled General Plan: Supplementary Report, also presumably required a lengthy period of time for its preparation, although it is a less comprehensive document than the original.

A. Components

This general plan renewal for 1976 constitutes an updating of the 1959 original in the fashion of the 1965 supplementary report. As such, it is by comparison with the 1959 plan a far less comprehensive document. This report assumes that all features of the 1959 and 1965 reports not rendered obsolete for any reason are presently viable and as much a part of the ongoing plan as the community wishes them to be.

This report adds new elements which should receive emphasis at this time, and it also suggests updated, timely scales of priorities to reflect current thinking. The plan is divided into five major sections, or subdivisions, which require some explanation.

1. Introduction. The introductory segment of this general plan is a very flexible part of the report which may be styled in a number of ways. Traditionally, the town's history and background of planning activities are set forth, as well as brief information on events leading to the commissioning of the study at hand. This has been done. Additionally, however, it was felt that the reader would like to see some explanation of what a general plan is or should be, and what it is not. So this is included here with the hope that it will enhance understanding and appreciation of why general, comprehensive plans need to be developed and maintained in current status.

2. General Planning Considerations. The section on general planning considerations brings out factors which bear on general plan development and which should be given distinct attention as plans are formulated. Serious community issues, such as the question of future water supply, would be included here. Topographical, climatological, and other natural resource factors are brought out in the same fashion. Winchendon's situation in an economically depressed region is a distinct consideration when drawing up the general plan renewal. These and related factors combine to make up major points which are really built-in portions of the local culture.

3. Community Characteristics and Resources. The basis of any plan or plan renewal must be found in the

quantity and quality of a variety of relevant data. This information rapidly becomes outdated and requires constant scrutiny so that its value may be maintained. Data on existing land use, soils suitability, population, housing, and a host of economic factors are vital to the development of a sound report. Additionally, a serious, professional interpretation of the data is equally as important to the quality of the report, and accordingly, such interpretations are made part of this section. General planning considerations of the second section also pertain to characteristics and resources; hence, the two sections are interrelated.

4. The Renewal Plan. The plan itself, that is, the recommendations for the future with respect to the best use of land and natural resources, and development of facilities, is portrayed in this section. This section is the heart of the matter; it is the central portion of the report. Here the future needs of the community are spelled out, and emphasis is placed as needed. A general theme about the major emphasis of the renewal is also developed and expressed in this section.

5. Implementation Proposals. The final chapter of the general plan renewal sets forth the means by which the recommendations of the fourth chapter may be accomplished. In treating the questions of implementation, focus is directed to available land use controls such as the zoning bylaw and subdivision control regulations, and the adequacy of the total planning process. A schedule for implementation of the general plan recommendations is offered, together with suggested scales of priorities, so that a well-balanced orderly process of meeting planning goals can be realized.

B. Scope

This report entitled General Planning Renewal for Winchendon is an extension of the basic 1959 comprehensive master plan Winchendon Looks Ahead, and a contemporary updating of that plan in the same fashion as the 1965 report entitled Winchendon General Plan: Supplementary Report.

The plan makes fresh, current inventory data available for planning--data on population, economic factors, housing, present land use, natural resource factors, and other vital pieces of information to aid in better planning.

The plan reaffirms the recommendations made in years past that Winchendon needs an economic shot in the arm and that its people should stage an all-out effort to bring about economic growth.

But the plan goes far beyond that to find its major focus in some fundamental truths about the Winchendon community which have always been present. The town's greatest riches and its strongest potentials have always rested in its natural beauty and the strength of its natural resources. In a year and a half of study, research, and report preparation, these great qualities endowed by nature have come through on every occasion. The town's gently rolling topography, its extensive open spaces, its abundance of water resources, and its geographical location somewhat away from the major traffic lanes create unique qualities very much to be envied in a state which has been highly urbanized for well over one hundred years.

This report's major emphasis, then, is that the natural beauties and resources of the community should

be recognized, appreciated, and converted into tangible, working plans for the preservation of open spaces, maximization of recreational and tourist facilities, development of retirement-style housing facilities, and such other related factors as will contribute to leisure services and opportunities.

GENERAL PLANNING CONSIDERATIONS

I. Considerations of Environmental Quality

Since the mid-1950's, following the housing boom of the post-World War II years, planners have become increasingly concerned about how to accomplish community and municipal plans for growth while still maintaining a sound environment. More than anything else, this reflects a growing concern with the quality of the environment as opposed to the issues of natural resource quantities to which earlier generations of physical planners and conservationists had addressed themselves. In some instances, this focused environmental interest in the realm of intangible values such as aesthetics and nature preservation which seemed to have little meaning within the marketplace. The normal economic tests which demonstrated whether one was efficiently producing or using the resources of the natural environment did not seem to apply to the quality issues.

It is doubtful that we are any better prepared today to assign economic value in dollars-and-cents terms to these intangible benefits which we expect to find in our daily lives. Yet the importance of planning for a quality environment is in no way lessened by the weakness of our economic tools to describe such values in terms of price or cost. The passage

of the National Environmental Policy Act in 1969 clearly demonstrated that the political arena is quite sufficient to influence national policy as well as state and local policy in the absence of economic depictions.

What does this mean with respect to the problems facing state and local governments? It certainly does not mean that local communities lie outside the social pressures for quality environmental planning. In fact, it is precisely the local level of government which receives the most direct pressures by citizens, and it is precisely the local government which has the most direct responsibility and power for controlling and guiding land use and resource use to protect and improve environmental quality.

A. Zoning: The Need for a New Approach

Being empowered to establish zoning bylaws, acquire easements, and acquire land and waters outright through the exercise of eminent domain, the local community is able to influence directly the nature of environmental actions in both the private and public sectors of the economy and society. Until recently, local communities had used these powers in a most mundane fashion. Zoning was seen as a device to separate certain forms of land use and to establish the density or the intensity of such designated uses on the land. In many instances zoning powers were used specifically to encourage selected forms of growth such as industrial and commercial development or to stimulate the activities in housing concurrent with population growth. Rarely was zoning seen as a means to protect

certain vital natural functions on the land, such as hydrologic flows and soil-water relationships. Moreover, very little was done to develop the zoning principles to provide for variety in residential styles. In fact, most zoning sought to make housing patterns more uniform within zones, thereby forcing a system of residential development which was strongly tied to arbitrary divisions of the land into lots without regard to essential natural features such as soils, topography, groundwater conditions, and flood-plains.

By and large, this old-fashioned approach to zoning has had a sad history. In most instances, zoning was only moderately effective in actually separating different kinds of uses such as residences from industry, and it is almost universally recognized that zoning has been of little practical long-run use in controlling the density with which the land is used. It is almost axiomatic that any zoned area which theoretically established a maximum density for occupation either in terms of dwelling units or people will show an increase above the maximum density as time progresses.

Because of weaknesses in the application of zoning concepts in the past and their failures to establish a physical basis for planning the best use of land and resources, most communities today are faced with grave problems with regard to the maintenance of water supplies, the treatment of waste, both liquid and solid, and are left with only the lowest quality and most poorly located lands and waters which can be used for public recreation and open space purposes.

The new zoning bylaw proposal for Winchendon has been designed to harmonize with environmental concerns by according maximum recognition to hydrologic matters in the enforcement process.

B. Ecology: The Source of New Planning Principles

In order to avoid repetitions of these past planning errors, communities and planners alike are coming to rely more and more upon the principles of ecology as a means to both interpreting the qualities of the landscape and providing criteria for directing the use of the landscape. One of the most critical ideas derived from an ecological interpretation is that the land with its water, soils, and vegetation accomplishes work which is beneficial to society.

C. The Importance of Water

As any resident of Winchendon will readily acknowledge, the most important area in which the landscape's workings are of benefit is in the area of hydrology. Water flowing on the surface of the earth and below the surface is obviously one of the most important resources for any society. It is vital to life not only biologically, but it is also fundamental to almost every economic activity which is carried out. Natural hydrologic systems are always cyclical, thereby providing, if uninterrupted, a continually renewing supply of water in any one place.

Two common difficulties arise in the use of water. One is the removal of water from its natural channels and basins or underground locations at a faster rate than the natural cycle can replenish it. The second problem arises from the diminution of water quality as successive users add polluting substances, often to

the point where water becomes essentially useless for any subsequent purposes.

One of the most important relationships affecting both water quantity and quality problem areas is that between soil and water. Soils and the vegetation helping to hold them in place provide a natural regulator for controlling the rate at which water moves across the surface of the land. The disruption of soil-water relationships is an almost inevitable outcome of any form of land use except strict nature preservation. The establishment of paved roads, driveways, and buildings upon the surface of the land restricts the total area in which precipitation may infiltrate the soil surface and then be fed slowly into its normal runoff channels. It is estimated that in a common 20,000 square foot lot size development, flooding will occur with only from one-half to two-thirds the amount of precipitation which caused equivalent floods prior to development. In many instances, normal surface runoff channels in the headwater areas of streams contain water only part of the year. A common error is to ignore these channels and treat them as though they were the same as surrounding land. Consequences of this are to promote flooded basements, yards, and small culverts during wet seasons of the year. Considering that standard development and construction add to the interference with temporary stream channels, the frequency of water entering the channel rapidly enough to cause floods will increase. In almost all instances, the cost for compensating the loss of normal runoff patterns falls upon the local community, and more often than not it represents a

continuing cost which is transferred from the developer to the community treasury, unless safeguards for the public are instituted.

Water below the surface in the form of underground aquifers and the soil water table are extremely important to most local communities, and particularly to the Winchendon community. In the first instance, the underground supplies are used directly for well fields. In the second instance, water moving below the surface of the ground is important in maintaining surface stream flows during dry periods as it moves from the soil into stream channels.

Wetland Resources

One of the most important characteristics of this soil and water relationship is found in the presence of wetlands. These resources appear as permanent landscape features or as temporary conditions, and they essentially fall into two broad hydrologic categories. The first and most important of these is the groundwater wetland in which the level of the standing water on the surface is directly related to water levels below the surface. Thus during the periods of high precipitation or the melting of snow and ice, this wetland serves as a reservoir which slowly recharges underground water supplies. The second type of wetland is less important and simply represents standing water perched on top of an impermeable soil layer. It is present only when there are periods of high precipitation or during the spring melt. These two types of wetlands can be likened, respectively, to water held in a very fine mesh sieve and water

held in a bowl. The recognition of the importance of wetlands not only for their obvious relationship to groundwater and stream flow but also for the protection of plant and animal life has been established in Massachusetts through several inland wetland protection acts. It is significant for local communities that the basic process of review in the implementation of the wetland laws has been transferred to local conservation commissions throughout the state.

In looking at the renewal of the general plan for the town of Winchendon, the intent will be to focus very strongly on the patterns formed by the hydrology of the town, both surface and subsurface. These patterns will provide many clues with respect to: (1) the maintenance of adequate water supplies, (2) the protection and improvement of water quality, and (3) in the development of methods for the preservation of a healthy, functioning hydrology. In relation to these, the maintenance of public open space and recreation lands as well as the preservation of natural communities of particular value to the town will be virtually automatic. The pattern of hydrology then will provide a basis for formulating various components of the renewal plan, chief among which would be an open space and recreation system consistent with the needs of the town, and the question of water supply itself.

D. Public Value and Ecology: A Vital Combination

Of great importance in the general plan renewal is the factor of community values as they relate to use of the natural environment. Such values are usually revealed through the process of public

participation in planning activities, but public input from Winchendon citizens has been difficult to secure.

In many instances the purposes to which lands are put to insure a sound ecology can simultaneously meet a variety of alternative social purposes which should be identified with local values. Thus there are no absolute rules derived from the application of ecological principles that deny certain kinds of land use and allow only specified other uses. In almost all instances, the question of use relates to how much use, the timing of the use, and the location for certain uses on any given parcel of land. Thus the common rules of thumb regarding zoned density which have produced such mixed results in the past can be partially turned aside, and sounder approaches can be taken to handling the density problem in relationship to natural features. These can include provisions for cluster housing, planned unit developments, and multiple unit dwellings--now encouraged in limited fashion in the new zoning bylaw--which may in their final development create the same density within a given zone which small lot developments may have produced otherwise. The essential differences would show in the location and site arrangement of dwelling units with respect to such natural features as stream channels, floodplains, units of natural vegetation, and groundwater recharge areas.

II. Winchendon and its Natural Region

Every community is part of several regions--natural and manmade--and Winchendon is no exception. It is one town of Worcester County which, despite its

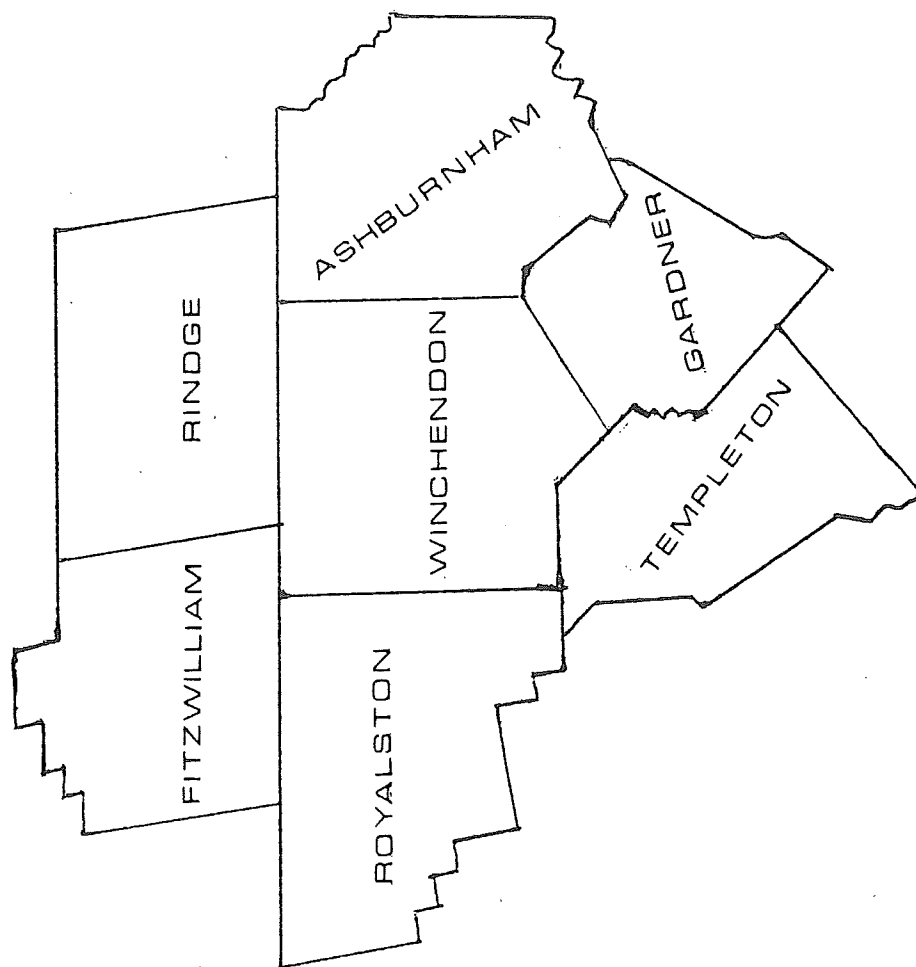
unrealistic and artificial boundaries extending from the Connecticut to New Hampshire borders, nevertheless must be viewed as a region of sorts. Political boundary lines making up the County condition certain regional characteristics in the form of governmental jurisdictions and services. Winchendon is also a member of the Montachusett Regional Planning Commission, another artificially established jurisdiction dedicated to the pursuit of common regional planning goals within the area that it forms. The town is undoubtedly involved in numerous other regional and district enterprises. In almost all of these cases, however, such regions are limited to units and territories within Massachusetts, which leaves Winchendon in every case at the northern regional extremity, and often at one end as well.

Because Winchendon geographically is situated at the northern boundary of Massachusetts, the tendency for manmade regions to end at the Massachusetts-New Hampshire line is understandable. Yet it must not be forgotten that there also are in existence certain natural regions formed by topography, river basins, common cultures, and common trading patterns. In this respect, Winchendon finds itself as part of a commercial trading area which includes Fitzwilliam, Rindge, and possibly Jaffrey, Troy, and other New Hampshire communities. Both the 1959 and 1965 master plans ignored this natural regional factor, placing emphasis instead on Winchendon's neighboring Massachusetts towns and cities, and making demographic, economic, and sociological comparisons only with them.

Figure 1 depicts Winchendon in its natural region among its contiguous neighboring communities.

FIGURE 1

WINCHENDON'S NATURAL REGION



Quite possibly, this failure to recognize Winchendon as part of a natural region all around it has contributed to the impotency of the previous master plans. In this general plan renewal, it is fully intended to bear in mind this factor and to view the town as a vital part of a natural region to the maximum extent feasible. The task of recognizing a natural region composed of portions of two states has its built-in difficulties, for the very existence of two different overhead political jurisdictions guarantees a variety of influences pulling in opposite directions. As will be seen later, the rate of population growth in Rindge and Fitzwilliam, Winchendon's two neighboring New Hampshire communities to the north, is vastly higher than its own or those of its immediate Massachusetts neighbors. Thus, this among other factors, tends to foster a regional centrifugal force militating largely against the unifying forces which the common trading area characteristics tend to build up.

In sum, then, it is important to recognize the natural region, even if a state boundary line cuts through it. Any beneficial spin-off from such recognition may be minimal, but nevertheless, the natural region must not be ignored. Interstate cooperative community cooperation and arrangements are a growing feature of local government life near state boundary lines, and they can very well be an important part of any town's long-range plans for the future.

III. Town Growth Policy Development

On December 22 of last year, Governor Michael Dukakis signed into law Chapter 807, Acts of 1975,

the Massachusetts Growth Policy Development Act. This statute was the first of its kind in the nation to provide for comprehensive community input into the development of statewide planning policy. The new law calls for the establishment, in early 1976, of local Growth Policy Committees in every city and town of the Commonwealth. Such committees are to be composed of a representative cross section of each community, including the chairmen of the Board of Selectmen, Planning Board, Conservation Commission, Housing Authority, certain other town officials, and a minimum of five citizens who are to be representative of the "disparate social, economic, and environmental interests" of the town.

Each Local Growth Policy Committee is charged with adhering to a tight timetable of activity during 1976, the purpose of which is the development, by means of public hearings with the citizenry and completion of a standardized questionnaire prepared by state officials, of a Local Growth Policy Statement which collectively with other such local statements will be merged into a Regional Report drafted by each Regional Planning Agency. Such Regional Reports in turn will be submitted to the Office of State Planning so as to form a basis for the ultimate development of a Final Report to the Special Commission on the Effects of Growth Patterns on the Quality of Life in the Commonwealth. The timetable for these activities as listed above calls for their completion by November 1976 and anticipated follow-through action by the General Court and the Governor.

The question of Winchendon's Local Growth Policy Committee and its role, then, is raised here as a

general planning consideration, because it must be clearly understood that the Committee's purpose and its relationship to the Planning Board and the General Plan development are completely harmonious and compatible. Under the terms of Chapter 807, community participation in statewide growth policy development is scheduled during the year 1976. Therefore, the local activity in this matter is short term, whereas the comprehensive general plan renewal is long-range.

In the process of generating input for the statewide growth policy, however, the town Growth Policy Committee has an opportunity to raise numerous questions about community development quite similar to those raised by the Planning Board as it proceeded with the General Plan renewal. In this respect, the Growth Policy Committee's work, although mandated by state law, may be seen as fully dovetailing with the work carried out by the Planning Board.

COMMUNITY CHARACTERISTICS AND RESOURCES

I. The Community of Winchendon

A. General Background and Characteristics

Winchendon is a small town in north central Massachusetts bordering on New Hampshire. Its character is essentially rural, and it exudes a quiet charm which bespeaks the beauty and appeal of typical New England towns. In the original town master plan, published in 1959, the community was described as follows:

Winchendon, a Town with a long history, situated in beautiful and scenic surroundings, is a Town which, with its many stately homes, churches and other buildings, and with its tree-lined streets, embodies the traditional popular idea of a New England community.

The statement is fully as applicable today as it was in 1959. Indeed, the beauty of the town, its non-urban setting, and its abundance of open space stand out as some of its more important qualities--qualities which apparently have not been fully appreciated and utilized in the past as distinct community assets.

The town's lengthy history extends back over 240 years. First settled in 1735, it was originally called the Plantation of Ipswich - Canada, since it was settled by persons from Ipswich who were descendants of a group involved in a Canadian expedition of 1690. Twenty-nine years later, on June 14, 1764, the

town was incorporated under the name of Winchendon. Its physical characteristics, topography and soil conditions marked the community at an early stage as an agricultural area, although even agricultural pursuits were difficult and time-consuming. Yet through the extensive clearing of forest lands for farming and general crop-raising, the careful use of timber and wood became a community practice, resulting in the manufacture of a wide variety of wood products, including shingles, furniture, and toys. Indeed, the town in the late 1700's was nicknamed "Shingletown" due to the extensive production of wood shingles. It retained this nickname until the development of toy manufacturing became so dominant that its character changed to that of "Toytown."

Winchendon is situated in rolling, hilly country with elevations ranging from 200 feet in its lowlands to the 1,287 foot summit of Mount Pleasant in the lower central part of town. The Millers River, rising in Ashburnham to the east, is easily the dominant water body in the town, draining completely through the entire community and continuing in a southwesterly course into Franklin County. Winchendon is abundantly endowed with water, not only by the Millers, but by Lakes Monomonac and Dennison, and Stoddard Pond, among others. Soils, although rich and of good texture in a few locations, are generally rough, stony, and not too well-suited for absorption purposes.

In 1970, Winchendon's population was 6,635, a figure representing a modest increase of 6.4 per cent over the 1960 population of 6,237, and considerably behind the regional, state, and national rate of

population increase. The town's population, in fact, has remained quite constant for at least the past 40 years, seemingly unaffected by factors of population growth influencing so many towns and cities elsewhere. Population increases are not necessarily plus factors; zero rate growth can be an advantage and often is a goal in some communities. Perhaps the most disquieting factor of the town's population, however, has been the reality of a continuous net outmigration over the years. What this actually means is that the only factor sustaining the small population increases which do occur is the excess of births over deaths. Winchendon's citizens, probably its young people, are moving elsewhere faster than others are immigrating to town.

B. The Crossroads Concept

The 1959 base master plan also pointed out that Winchendon is situated virtually in the heart of New England. While this is not quite true in a strict geographical sense, a quick reference to the New England regional map will bear out that the town is located at almost midpoint along the Massachusetts-New Hampshire line--a line associated with regional centrality. Many writers of the New England scene are fond of pointing out how the region is divided into a northern segment comprised of Maine, New Hampshire, and Vermont and southern segment embracing the three lower states, and how each segment is so vastly different from the other--in population density, degree of urbanization, political outlook, and industrial character. One would look, therefore, for Winchendon and its immediate neighboring communities

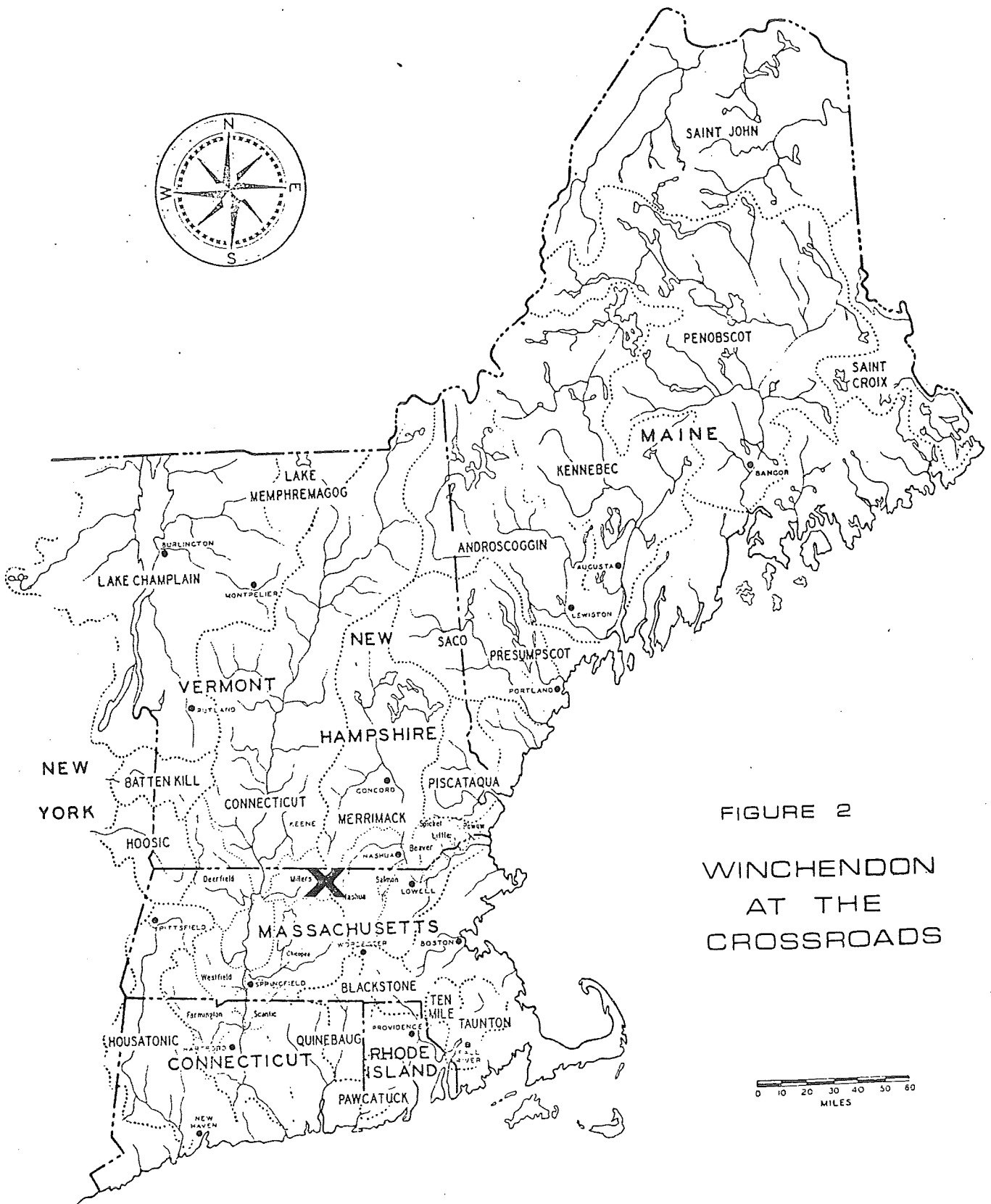


FIGURE 2
WINCHENDON
AT THE
CROSSROADS

to exude qualities seen in both northern and southern New England. Essentially, this is the case. While exhibiting a basically rural character, the town nevertheless has developed a manufacturing base, and its central business district is distinctly urban. Many of its citizens are farmers, at least in a part-time sense, and they commute to a regular factory or other job during the daytime hours. Country living is the mode in Winchendon, yet all the amenities of urban life are readily at hand a short distance away in Fitchburg, Gardner, Keene, and Worcester.

Winchendon may be situated virtually in the "psychological" heart of New England, at the border line of two states quite different in overall characteristics, but it nevertheless is considered by some to be "off the beaten path" in terms of major transportation thoroughfares. This impression arises because the major northern east-west highway in Massachusetts is Route 2, which passes about ten miles south of the town's center. A factor too often overlooked, however, is a strong arterial situation created by the crossing of Routes 202 and 12 within the town. Additionally, Route 140 provides a new, widened, and relocated artery into Gardner. Route 202 links the town in a northerly-southerly direction with Route 2 to the south and Route 119 in New Hampshire to the north. Route 12 provides similar linkage southeasterly to Fitchburg and northwesterly to Fitzwilliam, Troy, and Keene.

Two railroad lines, those of the Penn Central and the Boston and Maine, run through the town, and in the past they have provided important connections to major regional cities such as Albany, Boston,

Springfield, Worcester, and also Montreal. The likelihood of a strong, governmentally sponsored rejuvenation, in whole or in part, of the nation's railroads is increasing. If this comes to pass, the railroads in the Northeast will be in the forefront of those receiving attention. It is fortunate, then, that the railroad beds have been here for some time, for the community stands to gain if they should be given "a shot in the arm" later on.

Communities elsewhere in the nation which lay claim to and/or enjoy any benefits of a "crossroads concept" usually can point to the presence of airport facilities, in addition to highways and railroads. Since Winchendon has no airport, the force of its crossroads theme is somewhat diminished. Not every community possesses an airport, nor is there a need for one in each municipality. Such facilities do, however, contribute to business and industrial strength, generate a modest number of jobs, and support such recreational activities as gliding, soaring, and sport parachuting.

C. Town Government

In a passage which has since been widely quoted, Thomas Jefferson long ago characterized the New England town meeting as the "wisest invention ever devised by the wit of man for the perfect exercise of self-government and for its preservation." Over the years, many other kind, and also unkind, words have been uttered about this venerable democratic institution of government. Indeed, for a tradition which had its origins over 300 years ago in an uncomplicated agrarian environment, the town meeting in Winchendon and elsewhere has exhibited an amazing resilience and a

capacity to meet the demands of changing times.

The town meeting is Winchendon's basic form of government. General characteristics of the town government are probably not much different from what they were 100 years ago: the town meeting coming together a few times a year to vote budgets and act on other legislative matters, a part-time board of selectmen handling general administrative actions, and numerous independently elected boards and officers carrying out their statutory duties in a strongly decentralized atmosphere. With the passage of time, new boards and commissions have been added to the structure as necessity or the state legislature has dictated, but these, too, generally have contributed to the decentralized character of town affairs.

Although the basic structure of the town government has experienced little outward change over the years, it has exhibited the same resilience as the town meeting in adapting to changing times and complexities of government. The secret to this resiliency often is the improvement of internal organization and procedures. Computers and data processors now perform functions previously carried out in laborious fashion by hand. Part-time jobs transition to full-time activities as town growth demands it. Amateurism in some areas of town administration changes over to professionalism. These and so many other internal features have been accomplished within the mold of the basic structure. Numerous communities, including Winchendon, have been able to keep pace with modern times through internal changes while preserving the town meeting and other age-old characteristics of the government. Some serious questions for

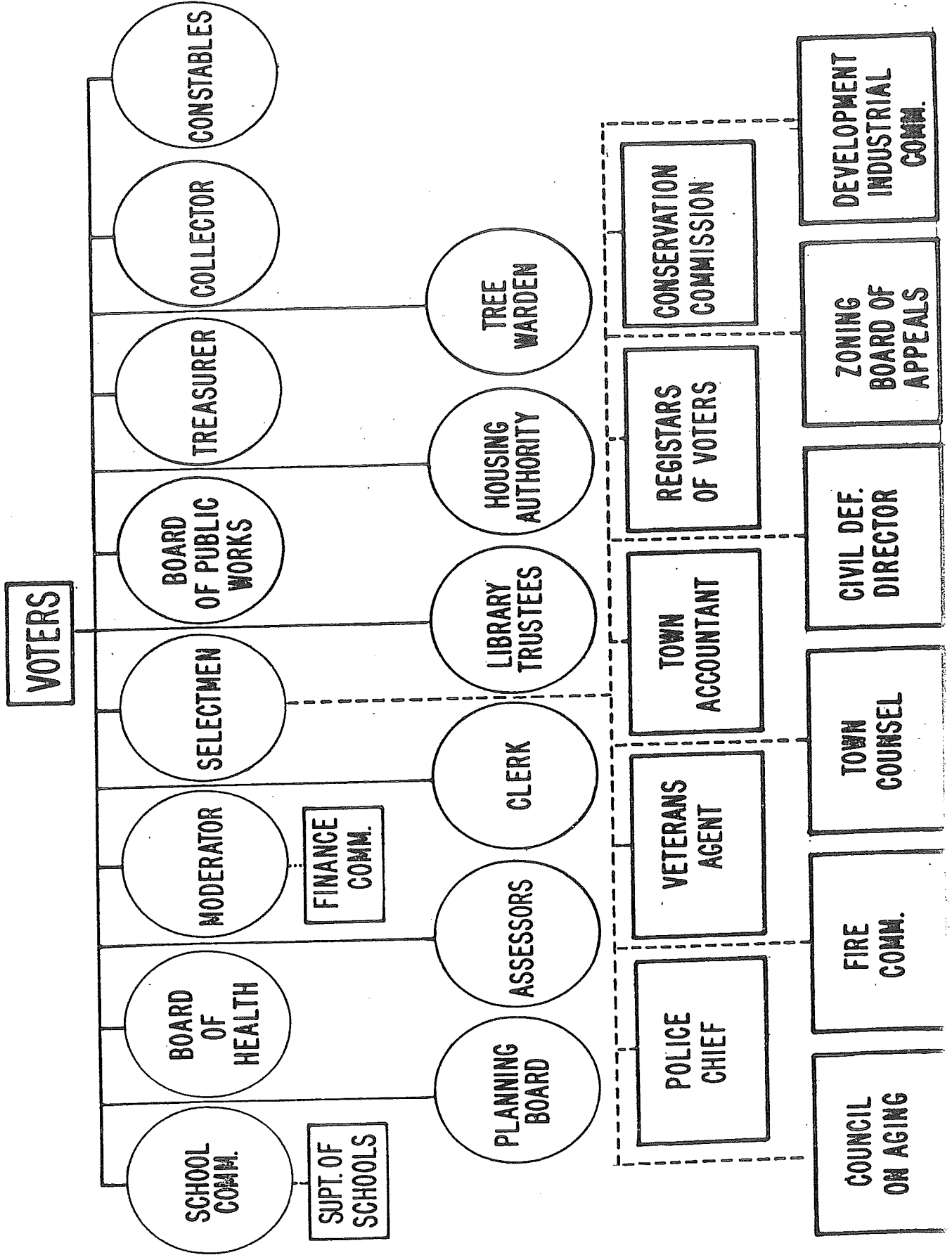
the town, however, in terms of future governmental productivity, are: (1) Will it be necessary in the near future to move toward more full-time town government, particularly a central professional administrator? and (2) Can the present dominant profile of decentralization in town affairs be preserved, or will it become necessary to centralize authority and responsibility to some extent?

When the question of implementing the General Plan Renewal is faced directly, the responsibility falls on the formal governmental structure, the internal administrative systems, and above all, the people who staff the offices, boards, and agencies of the town. These considerations and the commitment of the citizens ultimately influence in a very important way the pace and style by which the General Plan will be implemented. It is vitally important, therefore, to consider the town government itself as a factor in the General Plan development and implementation. Chart 1 portrays the Winchendon town government in basic structural form as it is seen today.

II. Population Characteristics and Trends

One of the most valuable types of information necessary to any sound planning effort is population information. Through the use of population data, comparisons with other communities can be made, and population trends over periods of time may be accurately identified. In addition to this, population data available today from the U. S. Census Bureau are vastly more accurate, detailed, and sophisticated than a few decades ago. More numerous categories and

CHART 1
WINCHENDON TOWN ORGANIZATION



breakdowns in population are now available. Categories such as those of school age, elderly, migration, and density are quickly available and useful.

In this section, data are presented that assist in identifying various population groups, and the basic census years utilized are 1960 and 1970.* This comparison over a ten year period provides some indication of how Winchendon has changed. The proper identification of population trends can often form the basis for projecting community needs. A town which has grown steadily in one decade, for example, is unlikely suddenly to cease all growth, although exact rates of growth may be expected to change, depending upon the presence or absence of various factors.

In making population comparisons among towns, it is important to remember that there is no model town or city. Winchendon could be compared with other towns in Massachusetts or elsewhere of similar population size, but the better scheme appears to be a comparison with the contiguous towns surrounding it. Such towns share the same regional influences, and the citizens of Winchendon are more familiar with them. In addition to the contiguous towns, reference will be made, when useful, to population changes in the state, region, and nation, so that changes occurring in Winchendon may be viewed in proper perspective.

The communities to be used for comparison with Winchendon are: Ashburnham, Gardner, Templeton,

*The 1975 Massachusetts state census is available but lists only a single total population figure for each city and town. No further breakdowns were compiled. Winchendon's 1975 population is 6,855, representing an increase of 220 over 1970.

Royalston, Rindge, and Fitzwilliam. Categories for comparison will be: (1) population changes, (2) population migration, (3) population density, (4) school age population, (5) elderly population, and (6) population by age, sex, and race.

A. Population Changes

In terms of population, Winchendon is high among the group of towns compared, although the presence of the city of Gardner in the grouping causes a hump in averages. With Gardner excepted, Winchendon clearly dominates the grouping for it has the largest population of the towns. Winchendon, Ashburnham, Gardner, and Templeton are members of the Montachusett Regional Planning Commission while Royalston is not.

In terms of population changes, all six towns and the city of Gardner increased population between 1960 and 1970. The most striking changes, as may be seen from Table 1, are the large gains made by Rindge and Fitzwilliam in New Hampshire. Such above average gains by two communities in the natural region suggest that additional factors--lower taxes, the rural appeal of northern New England, and the founding of Franklin Pierce College in Rindge in 1962, for example--are contributing to strong population changes. Of the seven communities, Winchendon is fifth in gains over the ten year period with 6.4 per cent, while Ashburnham is first among the Massachusetts members of the group with a runaway 26.3 per cent increase.

It is important to note also in Table 1 that only Ashburnham of the Massachusetts group exceeded the region, state, and nation in population gains between 1960 and 1970. Winchendon fell well below

these comparative percentages. Although planning is frequently associated with accelerated population increases, it is a vital factor for Winchendon and other communities experiencing greater stability and slower growth rates. The complexion of the population--if it is constantly changing within the community, and this is the case with Winchendon--and the resultant shifting values must find expression in the total planning process.

Table 1
POPULATION CHANGES: 1960-1970

Community	1960	1970	Percentage Change	Rank
Ashburnham	2,758	3,484	+ 26.3	(3)
Gardner	19,038	19,748	+ 3.7	(6)
Templeton	5,371	5,863	+ 9.2	(4)
Royalston	800	809	+ 1.1	(7)
Fitzwilliam	966	1,362	+ 41.0	(2)
Rindge	941	2,145	+131.1	(1)
WINCHENDON	6,237	6,635	+ 6.4	(5)
		1980 → 6898		
MRPC ¹	149,479	165,236	+ 10.5	
Worcester Cty.	583,228	637,969	+ 9.4	
Massachusetts	5,148,578	5,689,170	+ 10.5	
New England	10,509,367	11,847,186	+ 12.7	
United States	179,323,175	203,184,772	+ 13.3	

Source: U. S. Census of Population, 1970.

¹Montachusetts Regional Planning Commission--eighteen towns and cities. Only sixteen at the time were used in these computations.

B. Population Migration

Numerical population shifts are interesting to look at, but the nature and cause of such shifts are more important than the mathematics. A greater measure of growth than indicated would have taken place in Winchendon, for example, if population had not been lost through outmigration. Between 1960 and 1970, Winchendon experienced a net outmigration of 146 persons, placing it, as Table 2 indicates, sixth among its contiguous neighbors, a ranking which should be cause for concern. It is impossible to identify precisely what kinds of people have been moving out, although certain age groups can be spotted at times. The 1960 census disclosed that Winchendon had a net outmigration of 1,014 persons during the 1950-1960 decade and that much of this movement was attributable to young people leaving the community. It is a safe estimate that more recent outmigration is caused largely by young people, also, yet the dimensions of the exodus have been drastically reduced.

Table 2 reflects a wide range of migration patterns from town to town with Royalston, which retained a stable population from 1960 to 1970, almost on the dead center line in terms of any migration changes. Fitzwilliam and Rindge, with strong population gains, undoubtedly must attribute much of this increase to net immigration. These two New Hampshire communities, especially Rindge, exhibit unique population characteristics in almost every category under study.

Table 2
MIGRATION PATTERNS: 1960-1970

Community	Population Change	Natural Increase ¹	Net In or Out Migration	Rank
Ashburnham	+ 726	+ 247	+ 479	(2)
Gardner	+ 710	+ 1,144	- 434	(7)
Templeton	+ 492	+ 394	+ 98	(4)
Royalston	+ 9	+ 14	- 5	(5)
Fitzwilliam	+ 396	- 30	+ 426	(3)
Rindge	+ 1,204	+ 40	+1,244	(1)
WINCHENDON	+ 398	+ 544	- 146	(6)
Montachusett Region	+15,757	+15,191	+ 566	

Source: U. S. Census of Population, 1970, and town records.

¹Excess of births over deaths.

C. Population Density

Data from Table 3 indicate that Winchendon ranks third in population density among its neighbor communities. Gardner has the highest density with 897 persons per square mile, as would be expected, while Royalston has the lowest with 19. No alarm need be sounded among any of these communities, however, for none of the densities is of sufficient proportions to cause the slightest concern, especially in Winchendon. When population densities hover around 25,000 persons per square mile, as they do in Somerville and some other Boston metropolitan area cities and towns, then demographers should sit up and take notice. Meanwhile, the residents of Winchendon should revel in their quiet and uncongested environment.

Table 3
POPULATION DENSITY
Area in Sq. Miles

Community	Pop. 1970	Land	Water	Total	Density Per Sq. Mi.
Ashburnham	3,484	39.15	2.37	41.53	89
Gardner	19,748	22.02	.80	22.81	897
Templeton	5,863	31.49	.41	31.9	184
Royalston	809	41.99	.19	42.18	19
Fitzwilliam	1,362	35.5	1.42	36.92	38
Rindge	2,145	37.5	*	*	57
WINCHENDON	6,635	42.53	1.45	43.98	156
Total 253.18					

Source: Computed from available census data and town records.

*Unavailable

D. School Age Population

In Table 4 are shown population data on school age children. This category includes all youth between the ages of 5 and 17. From such data, future school construction needs may be assessed, and the information is also valuable in preparing operating budget estimates. But the statistics on school age population also serve as indicators of trends in youth age groups and the proportion of youth in the total community population. From the table, it may be seen that the Winchendon school age group comprises 27.1 per cent of the total town population, slightly above the Montachusett Regional average of 25.6 per cent. Thus, Winchendon's school age population falls within the normal range extending between 23 and 30 per cent of total community population. Approximately one quarter of a town's population should normally be made up of the school

age group. Winchendon meets this average. Again, Rindge departs from the norm by falling well under school age averages. In the 18-21 age group, however, there are 765 persons, once more reflecting the impact of Franklin Pierce College.

Table 4
SCHOOL AGE POPULATION
(Ages 5-17)

Community	Pop. 1970	School Pop. 1970	% of Total Pop.
Ashburnham	3,484	1,008	28.9
Gardner	19,748	4,576	23.2
Templeton	5,863	1,698	29.0
Royalston	809	245	30.2
Fitzwilliam	1,362	402	29.5
Rindge	2,145	377	17.6
WINCHENDON	6,635	1,795	27.1

Source: U. S. Census of Population, 1970, and town records.

E. Elderly Population

Winchendon ranks second highest in its elderly population as a percentage of the total population, as indicated by Table 5. Gardner is first with 14.7 per cent, while Rindge is lowest with 6.9 per cent. It is significant, then, that the town some time ago clearly recognized this factor and proceeded with the development of housing for the elderly, which is now well on its way to completion. The elderly age groups are increasing dramatically everywhere in their need for social programs, but they also are becoming a

significant force in the shaping of community programs, that is, in their group strength and capabilities for influencing local public policies. The elderly age group merits full consideration in any general plan development. High percentages of school age and elderly age groups, however, add up to a lower percentage of those in the labor force, that is, those between the ages of 18 and 65. This is partly why the net outmigration in town must be closely watched, because it generally must come from the labor force age group and particularly from the younger segment of the labor force.

Table 5
ELDERLY POPULATION
(over 65)

Community	Pop. 1970	Elderly Pop.	% of Total Pop.	Rank
Ashburnham	3,484	373	10.7	(4)
Gardner	19,748	2,902	14.7	(1)
Templeton	5,863	481	8.2	(6)
Royalston	809	81	10.0	(5)
Fitzwilliam	1,362	158	11.6	(3)
Rindge	2,145	148	6.9	(7)
WINCHENDON	6,635	843	12.7	(2)

Source: U. S. Census of Population, 1970.

F. Population by Age, Sex, and Race

Data portrayed in Table 6 show the population breakdown by median age, sex, and race. Winchendon's median age of 29.1 years is about middle range among the communities under comparison. Rindge, first among

the comparison towns in population growth, also has the lowest median age of 21.7 years. Gardner, with the highest percentage of elderly residents, has the highest median age of 35.9 years, as would be expected.

The population is about evenly divided by sex in each of the towns and Gardner. Totals are 19,930 males and 20,140 females. The only exception to this virtually even division occurs in Rindge where all population data are out of the ordinary. Men outnumber women here by 1,330 to 845. Racial breakdown data disclose a very small proportion of blacks and others to whites, except in Rindge, again, where blacks comprise about one per cent of the population.

Table 6
POPULATION BY AGE, SEX, AND RACE: 1970

Community	Median Age (yrs)	<u>Sex</u>		<u>Race</u>		
		Male	Female	White	Black	Other
Ashburnham	28.9	1,749	1,735	3,480	3	1
Gardner	35.9	9,469	10,281	19,642	47	59
Templeton	29.1	3,046	2,817	5,838	16	9
Royalston	27.7	414	395	809	0	0
Fitzwilliam	29.1	680	682	1,360	2	0
Rindge	21.7	1,330	845	2,146	22	7
WINCHENDON	29.1	3,242	3,393	6,623	2	10

Source: U. S. Census of Population, 1970.

Summary

Population data presented here provide the basis for a new kind of comparison--a comparison between Winchendon and its immediate surrounding communities in

both Massachusetts and New Hampshire. This represents a departure from the previous comparison between Winchendon and Worcester County, which simply had little meaning, largely because the County itself has little meaning as a regional unit.

Whatever the basis for comparison may be, population data on Winchendon itself indicate that the town for over 40 years has changed very little in outward population growth, maintaining a stable range of between 6,200 and its present 6,635. Within this small growth pattern, however, changes have been occurring in various age groups which should be accorded the most careful attention. Young people in the labor force are moving away while the elderly age group is increasing. The 1965 master plan revision took note of these factors, yet they must be reemphasized in this 1976 report.

Interpretation of population data always leads to the question of population projections. It is tempting to consider such projections and to offer them as a reliable benchmark for implementating the General Plan Renewal. The 1959 comprehensive master plan, it should be noted, offered population projections based on seven different criteria, including growth of (1) Worcester County, (2) Massachusetts, (3) the Nation, (4) absolute growth in Winchendon, and (5) natural increases in the town. For the 1970 forecasts, the projections were wrong on all counts. Estimating a 1970 population for the town of between 7,055 and 8,111, they didn't even come close. Sound planning for the future can be accomplished through use of actual population data, and this seems to be the better way to proceed.

In summary, it should be noted that the U. S. Census Bureau, through its 1975 Current Population Reports, observed the nation's population to be increasing at a higher rate in non-metropolitan than in metropolitan areas. This is a full-scale reversal of population trends of the past 30 to 40 years which saw metropolitan areas registering large gains. Now rural counties, non-metropolitan areas, and lightly populated states are gaining. New Hampshire, for example, increased in population by 10.9 per cent between 1970 and 1974. This relates directly to population changes in Fitzwilliam and Rindge between 1960 and 1970. Apparently these gains have been continuing, but data on individual towns are not available for substantiation. These new trends are caused overwhelmingly by migration patterns which in turn have been generated by disenchantment with the big city, changing personal and family values, and a reawakened yearning for rural life. There is strong evidence everywhere that large numbers of Americans, especially young people, want to be part of a "return to the soil." As this trend continues, it may very well have its impact upon quiet, rural communities such as Winchendon.

III. Economic and Social Characteristics

A. Housing

Adequate housing, in terms of both quantity and quality, is of vital concern to every community. It is more than ever a concern for every community in 1976 because of the "open community" rulings by the courts during 1975 whereby cities and towns must not make it impossible, through zoning or other land use

controls, for any group or class to take up residence. Although the actual development and construction of housing, together with all associated factors such as sales and home maintenance, comprise a major private sector industry, every city and town must consider its housing capabilities in a larger social sense, to assure that its low income, elderly, and other citizen groups have sufficient access to adequate, affordable housing.

Table 7 points to the total number of housing units in the comparison communities and discloses that Winchendon's population per available housing unit is 3.08 persons. This is about average for all of the communities under study and relates directly to information in Table 8 concerning units actually occupied.

Table 7			
TOTAL HOUSING UNITS: 1970			
Community	Pop. 1970	Total Units	Pop. per Available Unit
Ashburnham	3,484	1,562	2.23
Gardner	19,748	6,501	3.03
Templeton	5,863	1,683	3.48
Royalston	809	250*	3.23
Fitzwilliam	1,362	633	2.15
Rindge	2,145	933	2.30
WINCHENDON	6,635	2,153	3.08

Source: U. S. Census of Housing, 1960 and 1970.

* Estimate

The next table, Table 8, indicates the total number of housing units once more, but using this as a base, a comparison may be seen between the total number and the number actually occupied. From the household population, the average number of occupants per housing unit can be determined. This computation may be used to identify patterns of housing density and to determine housing needs. The data in Table 8 disclose that the towns compared are about the same in housing unit population. Ashburnham's unusual ratio of occupied units to total units stems from the large number of vacation and seasonal units in town. Again, Rindge continues to defy averages when it is seen that its occupied units level is low by comparison with its total population.

Table 8
POPULATION IN HOUSEHOLDS: 1970

Community	Total Housing Units	Occupied Housing Units	Household Pop.	Pop. Per Unit
Ashburnham	1,562	1,021	3,429	3.36
Gardner	6,501	6,284	18,381	2.93
Templeton	1,683	1,599	5,468	3.42
Royalston	250*	231	795	3.44
Fitzwilliam	633	435	1,347	3.10
Rindge	933	456	1,423	3.12
WINCHENDON	2,153	2,020	6,485	3.21

Source: U. S. Census of Housing, 1970

* Estimate

Winchendon has a relatively high proportion of elderly in its population, and the Housing Authority in recent years has laid out a sound program of new construction and renovation of existing units to meet the needs of this age group. Low income housing, too, has been accorded some attention, but a continuous priority should be placed on this housing category, for the lack of sufficient housing can be one of the reasons for young people moving away.

B. Income

Income, whether expressed in family or per capita terms, is always the crucial factor in seeking to develop a total profile of a community. The immediate concern about industrial well-being, levels of employment, and breakdown of the labor force by age, do not mean too much unless or until they are transposed into income terms. Most community issues assume "bread and butter" proportions when it comes down to taxpayer support or lack of it for public programs.

As may be seen from Table 9, Winchendon is down the list in income ranking among the communities compared. Among the sixteen cities and towns of the Montachusettts Regional Planning Commission, Winchendon is also well down the list, ranking 13th. The ranking is determined from the average family income data for 1970, although median income is a more realistic indicator, since it is computed from a high-low range within the middle range of income, rather than from an average which includes the very lowest and the very highest ranges.

Important as income statistics may be, they do not stand alone when an assessment is made of a

community's ability to pay. They must be considered with other factors contributing to the total community financial profile, for example, the total assessed valuation.

Table 9
MEDIAN AND AVERAGE FAMILY INCOME: 1970

Community	Median	Average Family
Ashburnham	\$9,152	\$11,329
Gardner	9,919	10,995
Templeton	9,675	10,276
Royalston	*	*
Fitzwilliam	8,899	*
Rindge	9,975	*
WINCHENDON	9,279	10,221
Montachusett Region	9,437	11,667

Source: U. S. Census, 1970, and New Hampshire Office of Comprehensive Planning.

* Unavailable

C. Manufacturing

Although Winchendon's general characteristics are those of a quiet, countrylike, rural community, it developed a manufacturing base many years ago. However, in the past two decades, it has lost most of this base. Its principal manufacturing industries at one time were textile mills, textile mill products, lumber and wood products, furniture and fixtures, paper and allied products, and machinery. In 1970, 2,719 residents of Winchendon were gainfully employed in

the labor force. Of this number 1,287, or 47.3 per cent were employed in manufacturing, either in Winchendon or elsewhere. Within the town, in 1972, a total of 139 firms employed an average of 1,537 persons, and these firms had an annual payroll of \$9,121,821. Of this number of persons employed, 966 of them, or 63 per cent were employed in manufacturing by 26 of the 139 firms. In the same year, 20 wholesale firms employed 116 persons, and 32 retail firms provided employment for 141 persons. On the basis of the foregoing data, supplied by the Massachusetts Division of Employment Security, it can be computed that from Winchendon's total labor force of 2,719 in 1970, almost 35 per cent of it was engaged in manufacturing within the town.

Between the years 1960-61 and 1970-72, the total number of manufacturing firms in the town declined from 147 to the previously mentioned figure of 139. The number of persons employed within the town, however, rose from 1,354 to 1,537. The major types of manufacturing in Winchendon in 1972 were home furniture, tubs and pails, paper cartons, boxes and crates, toys, restaurant furniture, ice cream and hand freezers, and wood novelties. The manufacturing base which the community long ago established has suffered sharp decline, but efforts continue to maintain its strength and uphold the character mix which makes it at the same time a quiet, rural community and a small scale manufacturing center.

IV. Physical and Natural Resource Factors

Since 1970, a new approach to local and regional planning increasingly has been implemented throughout

the country. This approach was generated in large part by the National Environmental Act of 1969 and subsequent state level environmental policy acts which have been patterned after the national legislation. The new approach to planning and development decision-making which has arisen from these statutes has been that of impact assessment. The essential characteristics of impact assessment approaches are those of expanding the awareness and accountability of individuals and organizations proposing action for effects which extend beyond their own projects and influence in some way, for better or worse, the lives and economic well-being of others. Environmental impact assessment simply concentrates this type of thinking on environmental effects. An impact assessment point of view, then, must be utilized as an integral part of the planning process if the proper use of Winchendon's natural resources and recreational open spaces is to be made.

A. Water Bodies and Resources

Water, more than any other resource, is perhaps the most effective indicator of all other qualities of landscape and the quality of the relationships between various landscape features. Water is the major transport mechanism by which essential nutrients for the maintenance of all forms of plant and animal life must depend. It is a reflection of the physical characteristics of landscape form and soil quality, and water is the most universally sought after and required natural resource for human health, economic activities, and recreation. From a planning perspective, water resources have been covered by a large body of laws and have a rich history of

institutional organization guiding their management and allocation. Therefore, planning considerations which focus on the proper maintenance of water resources in the community are likely to have the greatest strength with respect to institutional legitimacy and thus enforceability.

Water uses and most land uses change water in two general ways. First, all water use in some fashion alters the amount of water appearing in any given place at a certain time. Thus, water uses either accelerate or retard flow. This is true whether one is considering surface water, such as ponds and streams, or groundwater. In most New England landscapes, and certainly in Winchendon, direct uses of water involving withdrawals and replacement of water from surface or underground aquifers result in changes in both surface and underground sources regardless of whether the withdrawal was made solely from the surface or from subsurface aquifers. This is because the two apparently different forms of water are, in fact, closely related and usually represent manifestations of the same water body where part of the water body is exposed and the remainder is below ground level. Exceptions are seen in what are known as perched-water wetlands. These wetlands occur where a shallow and impermeable basin rests on top of otherwise permeable soils and subsoils. Water collects in these basins and is separated from all other water. Perched water wetlands are undoubtedly found in Winchendon because they are common throughout the northeastern United States where there was glaciation. Groundwater wetlands are those which are

linked to overall soil and subsurface groundwater and neighboring bodies of surface water. Here the general level of the water table influences the level of water which is standing in the groundwater controlled wetlands. The higher the water table, the more water will appear above ground level where dips in topography represent discharge points for subsurface water and cause it to be apparent on the surface. Streams and lakes also respond in the same way to rises and falls of the ground soil water table as they also represent breaks in the otherwise continuous shape of the land. In most instances where connections between surface and subsurface waters are operating, it means that during high groundwater conditions water moves from underground aquifers into surface containments, and when water table conditions are lower, water moves from surface containments into the underground aquifer.

Because of this general exchange between the two apparent forms of water, it means that water quantity and quality factors are connected. Pollution in streams and lakes ultimately causes pollution of groundwater and vice versa.

Water quality changes are obviously the second kind of effect which most water and land use have upon the water resource. Water is both a physical and chemical medium for carrying all manner of materials which dissolve from mineral bases or are carried as suspended sediments in the flow of water. Dissolved substances are obviously the most difficult to remove once they enter water because they are not filtered mechanically by passage through soil screens. Suspended materials are removable because

they either settle out where water flows slowly or are screened out in the case of groundwater where it passes through natural filtering systems such as permeable gravels, sands, and silts. Vegetation is one of the most important screens for dissolved substances, particularly those which are nutrient bases for the plant life itself. Thus modern systems of waste water treatment often include the use of vegetation to advance secondary treatment to the tertiary level. In these cases, called land disposal, secondary treatment plant effluent is sprayed on vegetation either in the forest or cultivated meadows and therefore, phosphorous and nitrogen are taken out of the water by the growing plants.

From a planning point of view, it is important that there be recognition of the anticipated change in the quantity or quality of water which may result from the implementation of any proposed development. Most development can be expected to do any of the following: (1) remove natural stands of vegetation in order to make room for proposed structures; (2) change the general shape of the landscape due to grading; and (3) introduce into the soils solid and liquid materials which are in some degree and in some way polluting, once the buildings are erected and occupied with normal daily use.

All of these effects or impacts can reasonably be expected to occur with any development. Obviously, the larger the development or the more complex the use features which go with its operation, the greater environmental risk there will be. In terms of development proposal and approval, processes common to

planning board activities, it would be important then to require all development proposals to include specifically in their plan ways in which they would mitigate or eliminate expected risks. This would be part of the information supplied by a developer to the planning board, and the adequacy of the impact assessment would be criteria on which approval would be granted or denied. In some instances, as in the case of the Massachusetts wetlands legislation, there is already a requirement for application approval that makes the developer accountable for changes which may result in the character of wetland environments. The impact assessment approach with respect to water quantity and quality are merely extensions, in principle, of the same accountability.

The importance of water in Winchendon is obvious from a look at the base features depicted in Figure 3. The Millers River with its several reservoirs and channels represents a major water resource for the community. But it is a water resource already degraded from years of neglect and misuse. Whitney Pond, which has a potential of being a major environmental, recreational, and aesthetic asset to the town center has been degraded through runoff pollution for many years and is diminishing as a water body which can safely, in the health sense, provide for active recreation. In addition to the quality of uses of the immediate shoreline of the pond, a chaotic mixture of use and waste disposal has resulted which in turn has detracted from aesthetic value. Few communities in the Commonwealth have the potential of a major water body so close to their

business district as an aesthetic or recreational resource. Whitney Pond can be restored, at least in part, by encouraging the cleanup of its shoreline, by imposing shoreline and use restrictions, and by preventing further removal of vegetation from the nearshore area.

Throughout its length, the Millers River is subjected to two forms of influence on water quality, both of which tend to reduce the use potential and natural productivity of the stream. They are: (1) manmade pollution derived from human uses immediately adjacent to or in the floodplain of the river, and (2) a form of natural water quality degradation which is the result of so much of the Millers surface flow being derived from wetland drainage. This wetland drainage is from high acid soils and bog conditions and contains, especially during the spring flows and summer storm flows, high amounts of natural organic materials which act as a demand on the dissolved oxygen in the stream. The combination of human and natural pollution in the Millers River has lowered its productivity for recreation and fisheries development in Winchendon. In the reach of the Millers from the confluence of the Otter River to the town line, pollution is severe enough effectively to eliminate the river as a fishery in any real sense of the word. Of the remaining major water resources in the town, Lake Dennison and Stoddard Pond, only Stoddard Pond really has a high risk of future degradation. Stoddard Pond, however, is subject to future use pressures by virtue of its accessibility along the Baldwinville Road and thus should be especially

protected from immediate shoreline development and the inevitable contamination from continuous shoreline uses. The simplest and most effective interim control measure could be to establish a setback restriction on septic fields and housing of at least 200 feet from the shore. As a general rule, screening by soil and plants of septic fields effluent or surface runoff is effective in most northeastern soils over a 200 foot area. Clearly, this is only a rule of thumb, and a detailed analysis of the soils in the immediate vicinity of Stoddard and, indeed, of Whitney Pond might reveal that setbacks could be made closer to the shoreline or might have to be even further than 200 feet from the shoreline. Lake James, Lake Sal, and Mellen Pond seem less susceptible to development or excessive use because they are small, relatively isolated, and topographically discouraging.

Groundwater recharge areas are critical to Winchendon in terms of future expansion of public water supplies. The analysis of water supply potential developed for the town in 1974 raises a possible reliance on wells as opposed to a surface impoundment source at Burrageville. Fortunately, most of Winchendon's best and highest yield aquifers are in the Millers River Valley where the Corps of Engineers controls land uses within its inundation area for Birch Hill flood control dam. This offers a safeguard for such aquifers. Other Millers River associated aquifers are east of the center along Route 12. These areas are already under use but are potentially subject to more limited use under the town's proposed new zoning



FIGURE 4

SLOPE ANALYSIS

WINCHENDON, MASSACHUSETTS

WINCHENDON PLANNING BOARD

EDWIN GERL ASSOCIATES PLANNING CONSULTANTS IN AMHERST, MASSACHUSETTS

LEGEND

	0-10 PERCENT SLOPE
	10-15
	15-20
	20-25
	25+

SHADES OF GRAY INDICATE SLOPE



bylaw. New development proposals for recharge and aquifer areas generally shown in the Montachusett Regional Planning Commission's 1973 report on Future Land Use should include provisions for preventing aquifer pollution, particularly where current sewer facilities are not present in industrial and higher density zones.

B. Soils and Topographic Conditions

Soil quality in terms of texture, its structure from surface to bedrock, and its depth to bedrock are a major environmental indicator for estimating land use type suitability. Soils studies and mapping are normal preplanning activities. Detailed soils mapping is ideal for local level planning because the soils types are plotted for areas as small as one acre or less, thus allowing interpretation of soil qualities for individual building lots. Winchendon soils analysis has not been performed at the detailed level. Thus a major tool for land analysis and development control is absent. However, general soils characteristics are known from the Soil Conservation Service surveys. Most soils in the town are direct results of glacial action. They consist of deposits of glacial till (unsorted mixtures of materials such as clay, sand, gravel, and boulders) or thin, acidic podzolic soils developed from exposed bedrock following the glaciers' retreat. Only in the river valleys, where flowing waters have sorted and reworked the glacial deposits are there bedded layers of soil material. It is in these river areas that major groundwater aquifers are present and good soil drainage and fertility developed. In most all other areas,

Winchendon's soils are relatively poorly drained and are shallow to bedrock and/or "hard pan" layers.

This condition accounts for the moderate to severe limitations on the use of soils for septic systems and the prevalence of high water table and perched water wetlands covering large areas of the town. A generalized analysis of areas having severe soils limitations is given in the 1973 regional planning report Future Land Use. Thus far, the limitations on development posed by the poorly structured and drained soils have not been a significant problem for Winchendon because most of the town's residents are served by public water supply and sewer facilities. Future growth outside the public service areas should be rigorously monitored, however, to avoid serious failure of septic facilities and consequent health and environmental problems.

Development regulations should be brought up to higher standards, and reliance on the usual percolation tests for septic action suitability should be replaced by techniques providing better soil information. Where soils are known generally to have severe limitations for septic systems, developers could be required to present a detailed soils analysis of their property, including an adequate description of sub-soil depth, structure, and high water table conditions. Such information would allow effective assessment in advance of probable septic failure and other environmental impacts such as stream, pond, or wetland pollution. Encouragement should be given to the Conservation Commission to develop accurate maps of wetlands that are controllable by the Commission under the Massachusetts Inland

Wetlands Acts. This would give both the Commission and the Planning Board additional guidance in interpreting environmental problems arising from development and a stronger case for development control.

Topographic features are also of major importance for guiding decisions on development approvals. In general, Winchendon has a gently rolling landscape with slopes of less than ten per cent natural grade. However, in significant areas where steeper grades occur regulations might be developed to limit or restrict development unless the developer can show that expected problems such as accelerated runoff, erosion, sedimentations, and associated changes in surface water patterns can be avoided during and after construction. This could apply not only to the development property itself but also to all roads and byways constructed for development access that may eventually become part of the public circulation system. Figure 4 presents a slope analysis of topographic conditions in the town.

The combination of soils and topographic criteria for development control can be effective in regulating land uses and development processes that potentially have high environmental impacts.

Other adjustments possible are the establishment of low density zones in the environmentally sensitive areas. This is often only enough to create minimal safeguards against environmental damage because individual developments may still cause all the aforementioned impacts. Low density zoning simply means the problems will not occur very close together.

C. Vegetation

Vegetation is a working component of the landscape. It anchors and creates soils, cleans the air, and protects surface and groundwater by removing polluting levels of nutrients. In addition, it moderates micro-climates near homes and buildings as well as acting as a barrier to noise.

Winchendon is a well-vegetated community, as the detail of Figure 5 on Land Use--Vegetation depicts. Forests in various stages of growth, mostly young second growth, cover much of the land. This vegetation can be critical where it is associated with streambanks, shores of ponds and reservoirs, and on steeper slopes. Protection of water bodies is important to the town. Therefore, protection of vegetation is essential. Development proposals need to include provisions for safeguarding existing vegetation near or along water areas. Set back restrictions limiting the proximity to water of structures and septic systems should include constraints on vegetation removal as well.

D. Outdoor Recreation and Aesthetics

Most outdoor recreation needs of the community are being met through the presence of Lake Dennison State Park, town and school parks and athletic fields located in or close to the central area, and some privately owned facilities. There is much undeveloped land available to take care of future needs for recreational areas. Additionally, the Corps of Engineers' flood easement in the Millers River flood plain offers a guarantee that a major green space will continue to exist in the town. Areas of special

interest, such as particular stands of relatively mature and untouched vegetation, very well could require special protection in the future. Improvement of the shoreline around Whitney Pond definitely would add considerable aesthetic value to the town center as would preservation of vegetation near other water bodies within the community.

A big step toward enhancement of aesthetic values was taken within the past year through the establishment of the historic district in the old town center. This action will insure that the traditional architectural beauty of the old structures in that area will be preserved.

V. Existing Land Use

In order to plan wisely for the best future use of land, it is important to have knowledge of how such land is presently being used. The existing land use in the town of Winchendon reflects the impact of change, slow as it may be, in population growth rates of the town and the region. Population curves, in turn, reflect changes in employment opportunities, the pace of in and out-migration, and the desire of people for rural-style living.

The Montachusett Regional Planning Commission in 1973 published a report on current land use among the cities and towns of the MRPC region. It disclosed that Winchendon possesses the greatest land and water area of all MRPC member communities--a total of 28,150 acres. It also has the largest area of vacant land--24,415 acres. Vacant land, as the MRPC report brought out, is an "unfortunate terminology," because it includes state and community forests and generally conveys

the impression that all vacant land is actually unused land. Yet, if a premium is to be placed on open space, woods, forests, and isolated water bodies, then the use of land for such purposes leaves it far from being vacant.

Table 10 breaks down the use of land in specific categories and provides a relative basis of comparison with other communities, although land use data for Fitzwilliam and Rindge were unavailable. Total land in actual use in Winchendon amounts to 2,804 acres, or slightly more than ten per cent of all land in town. This is truly a reflection on the unspoiled, rural character of the community.

In geographic and physical terms, Figure 5 shows the extensive detail of land use in Winchendon, broken down into several categories generally paralleling those portrayed in Table 10. The map also presents further detail on wetlands, vegetation, and recreational land uses.

Table 10
EXISTING LAND USE: 1970¹
(in acres)

Community	Pop. 1970	Residential	Industrial	Commercial	Agricultural
Ashburnham	3,484	1,530	30	10	650
Gardner	19,748	1,710	385	155	180
Templeton	5,863	1,850	185	80	1,875
Royalston	809	95	*	*	1,230
Fitzwilliam	1,362	*	*	*	*
Rindge	2,145	*	*	*	*
WINCHENDON	6,635	1,450	130	50	1,170
MRPC ² Area	165,236	26,470	2,910	1,340	19,020

Table 10 (continued)

EXISTING LAND USE: 1970¹
(in acres)

Community	Total Land in Use	Vacant	Total Land Area	Surface Water	Total Area
Ashburnham	2,230	22,826	25,056	1,520	26,576
Gardner	2,528	11,565	14,093	510	14,603
Templeton	5,935	14,219	20,154	260	20,414
Royalston	1,336	25,538	26,874	120	26,994
Fitzwilliam	*	*	22,680	905	23,585
Rindge	*	*	24,000	*	*
WINCHENDON	2,804	24,415	27,220	930	28,150
MRPC ² Area	48,625	222,053	286,678	9,235	289,914

¹Adapted from Existing Land Use, a 1973 report by the Montachusett Regional Planning Commission. Figures rounded.

²Montachusett Regional Planning Commission.

* Unavailable

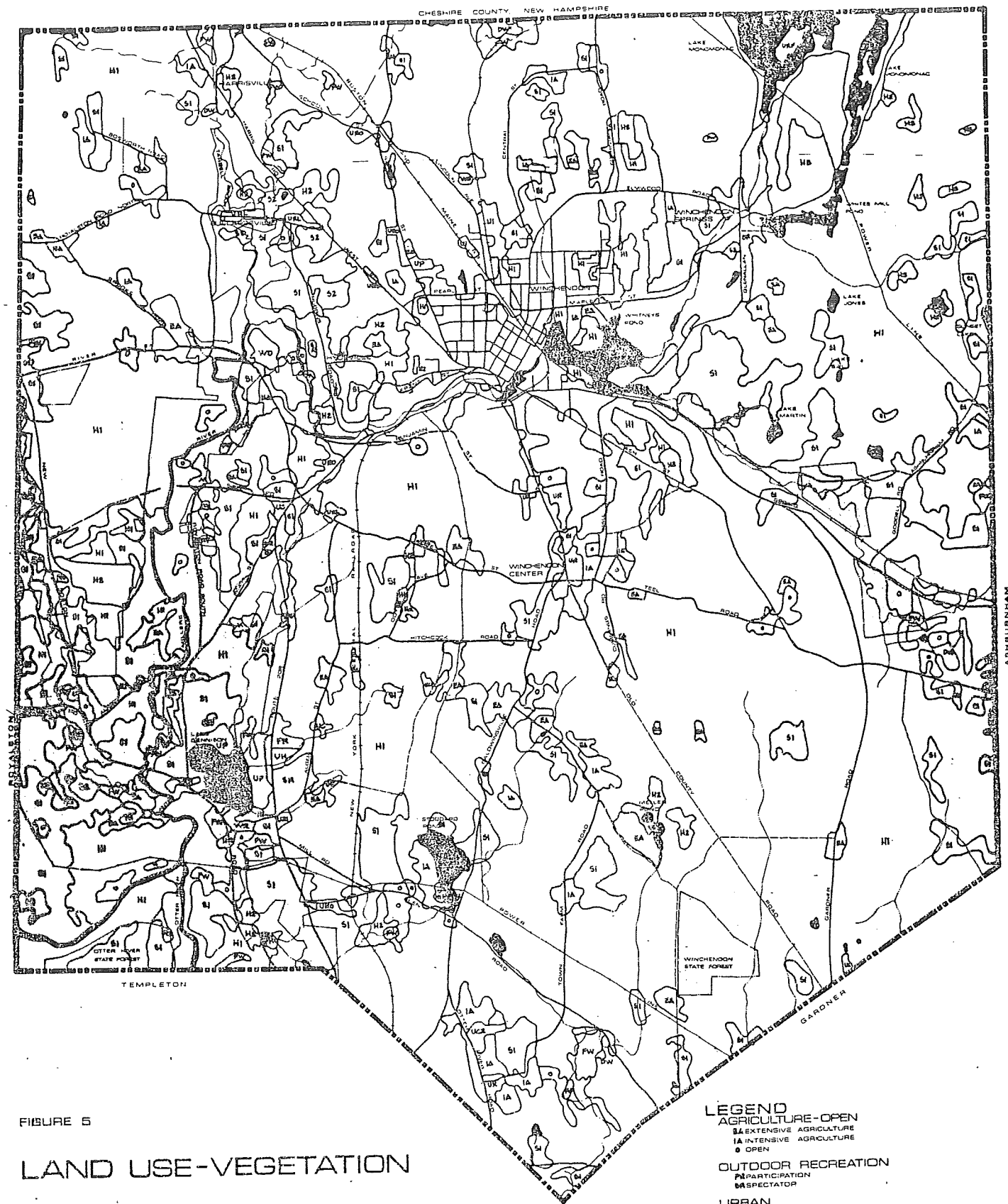


FIGURE 5

LAND USE-VEGETATION

WINCHENDON, MASSACHUSETTS
WINCHENDON PLANNING BOARD

EDWIN GERE ASSOCIATES · PLANNING CONSULTANTS · N. AMHERST, MASSACHUSETTS

- LEGEND**
- AGRICULTURE-OPEN
 - EA EXTENSIVE AGRICULTURE
 - IA INTENSIVE AGRICULTURE
 - O OPEN
 - OUTDOOR RECREATION
 - PR PARTICIPATION
 - BS SPECTATOR
 - URBAN
 - UC COMMERCIAL
 - UI INDUSTRIAL
 - UR RESIDENTIAL
 - MINING-WASTE DISPOSAL
 - AM MINING
 - WD WASTE DISPOSAL
 - FOREST
 - S1 SOFTWOODS 40'
 - S2 60'
 - H1 HARDWOOD 1-60'
 - H2 60'
 - WETLAND
 - FW SHALLOW FRESH WATER
 - DW DEEPER FRESH WATER



THE RENEWAL PLAN

As indicated in the first chapter, this general plan renewal constitutes an updating of the original 1959 comprehensive master plan in much the same fashion as the 1965 supplementary report. This renewal plan is also seen as a supplement--a supplement which seeks to update the available economic, social, and physical data pertaining to the town, and which also seeks to recognize and place emphasis upon new and timely factors brought on by changing conditions. Those goals and plans of the 1959 and 1965 reports not rendered obsolete for any reason continue to be viewed very much as part of the ongoing plan. This renewal plan focuses on elements which best express community goals at this time, and it also suggests a scale of priorities designed to reflect current thinking.

I. Community Goals

The goals of the town with respect to future land use, development of the economy, and encouragement of particularized public and private programs properly should form the basis of the renewal plan. It is important to attempt, through every possible means, to identify accurately the feelings of the citizenry and the priority scales which it holds in mind. Yet this is a difficult and often unsatisfying task because it is difficult accurately to catch

the citizens' moods. To grasp such moods and place them in a proper scale of priorities is always a hazardous undertaking. To the extent possible, the Planning Board has attempted to acquire a sense of community values through public hearings, questionnaires to the town officialdom, full roundtable discussions of comprehensive planning, and everyday, on-going, normal channels of communication.

From the devices listed above, the Planning Board has proceeded with an articulation of community goals, and while the popular basis of citizen support for such goals has not been expressed in as widespread or as strong terms as would be fully desirable, the Board nevertheless is confident that the goals expressed in this renewal plan are sound, are the proper ones for Winchendon, and are largely representative of community feelings.

A. Sound Economic Base

First, the people of Winchendon want a stronger economic base for the town. This goal is not only desirable; it is a strongly felt need. It has been expressed on countless occasions, and it has been with the town for a lengthy span of time. It remains a strong, firm, legitimate goal today, and quite properly there is no need to depart from this goal in any way. The economy of the town is down, the economy of the region is down, the level of the town's manufacturing base is down, unemployment is up, and because all of these factors continue relatively unabated, the young people in the labor force remain discouraged and tend to move elsewhere. Thus, the goal of economic betterment has not been met, and it remains uppermost in the

citizens' minds as a first priority objective. The question for this general plan renewal, then, is: Are there new, different, and previously untried means of achieving the goal of economic betterment?

B. Enhancement of Physical and Natural Resources

Second, the people of Winchendon want a greater recognition and appreciation of the town's rich natural beauty and physical qualities, and consequently, a greater return on them. The second major goal of this plan, then, is the enhancement of these community characteristics. The town's enviable topography, its extensive open spaces, its abundance of physical and natural resources, and its geographical location off the beaten path are attributes not only to be viewed with pride but in terms of community goals and future land use, to be maximized. A vigorous pursuit of this goal can very well produce an economic result, and this plan recommends that it be done. The other significant component of pursuing this goal, however, is the strengthening of the sense of community in Winchendon. Through increased attention to the careful use, development, and preservation of land and water resources, the strong pride in Winchendon which has always been evident can be renewed and expressed in action terms.

The two major community goals forming the basis of this renewal plan, therefore, are: (1) a stronger economic base, and (2) a stronger focus on physical and natural attributes. Virtually every detail of the renewal plan is intended as a means of pursuing one or both of these goals.

II. The Perspective of Regional Goals

In 1973, the Montachusett Regional Planning Commission published a statement of regional goals designed to represent and reflect commonly shared concerns and objectives of the member cities and towns. The goals statement very wisely recognized that collective regional goals do not blend in every detail with individual community goals, and in fact may be inconsistent, on occasion, with some local purposes. Yet, in a collective sense they also bring together the individual thinking of cities and towns, thereby providing a comparison and also a base for rethinking local goals. The 1973 statement, which is in force today in 1976 without modifications, centered on six major topics of regional concern, as follows: (1) a continued focus on balanced growth, at the decennial rate of about ten per cent in both jobs and population, with avoidance of any growth extremes and a reduction of youth outmigration; (2) a sharply increased respect for environmental quality, with protection of wetlands, limited development of flood plains, continued forestation of steep slopes, preservation of open space, reduction of pollution, and adherence to public health standards; (3) a maximization of individual opportunity with a reduction in unemployment, greater equality for all community elements, and equal access to jobs, housing, and transportation; (4) a new realism about public capabilities for service delivery and a corresponding effort to reduce property tax disparities and other fiscal unevenness from town to town; (5) an ongoing concern for maximum access to housing opportunities for all groups

through the availability of a variety of housing types in sufficient quantity and quality; and (6) a new focus on the transportation question, so that attention will be given not only to the surface on which vehicles travel but also the degree of access to vehicles of all kinds to maximize transportation opportunities.

These regional goals, to which the community of Winchendon through its membership in the MRPC is reasonably committed, should be very much a part of the Renewal Plan implementation as it proceeds. Such regional goals can be observed and respected while at the same time recognition is made of the primacy of community goals. From time to time inconsistencies may arise through an attempt to pursue both local and regional objectives, yet there is far greater harmony than discrepancy among the two. The Renewal Plan should be pursued with both in mind.

III. Future Land Use

A. General

Winchendon possesses the greatest amount of land of any city or town in the Montachusett region--28,150 acres. It also ranks first in the total amount of vacant land--24,415 acres. Given these factors, it can be concluded on a tentative basis that the town therefore has the greatest opportunity for land use expansion on all fronts. While this may be indicated in a raw sense, other factors at this point must also be recognized. First, all of the previously mentioned constraints upon the land--steep slopes, soil conditions, wetland and marshland factors--must be accorded increasing attention in every instance of

future land use. This will leave the town with far less available land for development than some simple arithmetic might otherwise suggest, but henceforth this must be a community fact of life for planners, developers, town officials, and indeed, the entire citizenry. Second, the Montachusett Regional Planning Commission, on the basis of regional projections, estimates that future land use in Winchendon will increase by only about 200 acres in all categories by 1995. Projections rarely turn out to be accurate, and unforeseen events may occur to alter drastically such projections. Yet the estimate itself points to the certain fact that even a full-scale boom and growth within the town would utilize only a fraction of its total land. This fraction, nevertheless, must be planned and permitted to develop with the greatest of care. In terms of general future land use, then, the following policy guidelines are recommended for the general plan.

Policy Recommendations

1. Future land use should be carefully guided through the wise usage of available land use controls. Such controls include federal and state legislation and guidelines on wetlands, marshlands, floodplains, flood hazard areas, the sanitary code and building code, and impact statement requirements for certain kinds of development. Local controls include the existent and proposed zoning bylaws, existent mobile home and park regulations, and the new subdivision regulations adopted in 1975. Above all, future land use should be guided by a new commitment to full but fair enforcement of all land use controls. Figure 6 is the proposed zoning map portraying a new category

of zoning districts, their locations, and dimensional requirements. The new districts represent only minor departures from current district lines.

2. An increased attention to environmental standards should emerge in the form of careful preservation of wetlands, forest lands, open space, and waterways. The bulk of future growth should be guided into sewered areas, either planned or in being. Non-sewered areas should be monitored most carefully.

3. Available information of a non-regulatory but still valuable nature should be fully utilized. An example would be the soil limitations maps produced for the town a few years ago and now in the hands of various town boards and departments. Attention to the constraints indicated on such maps would assist considerably in proper future land use.

B. Residential

It is estimated that of Winchendon's 28,150 acres, 1,450 of them were in use for residential purposes in 1970. Within the general interpretation of land set aside for residential purposes, however, an additional 1,170 acres are devoted to agricultural purposes. Over 50 per cent of the town's total acreage is presently zoned for residential purposes. It is estimated that by 1995 actual residential use will be about 1,560 acres, or an increase of 110 acres.

Policy Recommendations

1. Greater monitoring of residential growth should be accomplished through the revised dimensional and other requirements of the new proposed zoning by-law.

2. Cluster development will be possible and should be encouraged under the new bylaw. This is

unique and possibly an unfamiliar land usage for the town, but it offers a means of enhancing land use in complete harmony with the terrain and other factors.

3. New subdivision rules are now in force and should be carefully interpreted and followed.

4. Construction of new apartments and conversion of existent buildings to apartment facilities should continue to be encouraged but regulated under the proposed zoning bylaw. They are an important category of housing for people in certain age groups and/or circumstances, and they form a significant dimension of community residential growth.

5. Mobile home parks should be considered to be a fundamental category of housing, and possibly the only financially feasible category, for certain population groups in the town. They are provided for in the new proposed zoning bylaw and should be encouraged but carefully controlled in their development and operations. With 12.7 per cent of Winchendon's population in the over 65 age category, the desirability of mobile home parks becomes apparent.

6. The issues of low income and elderly housing have been pursued in a manner consistent with town needs. Winchendon has done well in the public housing category, but it should continue to be a planning goal for the community as further needs arise. In this respect, it should be kept in mind that the biggest outmigration from town is caused by the younger, working age group. Hence, adequate low income housing will always be one enticement for young people to stay.

C. Industrial

Industrial usage of land in 1970 was 130 acres, and the 1995 projection is for an increase in that

figure of only ten acres. Industries require numerous facilities such as water supplies, waste water disposal features, access to highways, and good land. Much of the presently zoned industrial land is wet, marshy, and otherwise unsuited for actual industrial use. Accordingly, the new proposed zoning bylaw designates a second major industrial zone in the eastern end of town between Routes 12 and 140. However, there is neither water nor sewer service in this area, so industrial development will have to be carefully monitored.

Policy Recommendations

1. The designation of industrial zones should be under one heading in accordance with the new zoning bylaw and map. Under the new bylaw, the present Industrial and Limited Industrial designations are merged under one term--Industrial.

2. Town agencies responsible for designing future water and sewer extensions should take into account the industrial zones under the new bylaw and plan, to the extent feasible for the extension of such utilities services to these zones, which run along Routes 12 and 140.

D. Commercial

In 1970 the estimated commercial land usage in town was 50 acres, and no increase in that figure is anticipated by 1995, according to projections of the MRPC. This forecast of no gain presumably is linked to population projections, since the two are related to each other. If Winchendon fails to increase significantly in population--and it is not expected to do so--then no appreciable increase in commercial

usage would be expected, either, unless unique or unforeseen factors were to arise. Such a unique factor might be the steadily increasing growth of Franklin Pierce College in Rindge. This new institution, founded in 1962, already is making a small but distinctly noticeable impact upon Winchendon. Retail commercial growth, and possibly housing development, might very well be influenced by the College as its radius of impact widens. Another unique factor might be an enlargement of Winchendon's own radius of impact as a recognized trade center. If one or both of the factors cited above increases in the near future, then the projection of no gain in commercial land usage would quite clearly be altered.

Policy Recommendations

1. Commercial development should be promoted and governed under the new single General Business designation of the proposed zoning bylaw.
2. Enhancement of commercial opportunities should include possibilities for wholesale, as well as retail, commercial growth.

IV. Economic Development

A. General

The citizens of almost every city and town in the nation would like to see their community's economic status improve. Failing this, they would like to see a general uplifting of their regional economy, a development which would have some "filtering down" effect upon them. It is an economic fact of life, nevertheless, that most tangible steps toward this end must be taken largely by those in the private

sector. Owners of factories must make the decision on where to locate. Shopkeepers must make their own decisions about location, expansion, and relocation. Government itself has no such direct involvement, nor should it, given the nature of our democratic capitalism. Despite this, a proper role for government does exist in the matter of economic development, particularly on the community scene. This proper role is one of creating the best possible environment within which business and industry might live and prosper.

A town with up-to-date, modernized government, sound fiscal management, and an energetic commitment to planning administration will be a more likely candidate for the location of an industry on the move than a town which has none of these attributes.

As a facilitator of a healthy environment for business and industry, then, any community can make its own decision as to how far it wishes to proceed in this direction. What has Winchendon done in this respect? What does Winchendon want to do in this respect?

Three considerations should be recognized in covering economic development for the town. First, the natural trade region, previously mentioned, is a fairly strong concern for Winchendon. The community should think of itself more and more as the center of this natural trade region taking in parts of two states. The more that it becomes a bit of psychological regionalism, the greater will be its impact. The New Hampshire state line must not be a barrier which might impede the development of this regional concept. Rindge and Fitzwilliam to the north, and Ashburnham to the

east, have experienced some recent growth and some positive changes. This will have an impact upon Winchendon. Second, a new focus on small, individually owned businesses has been emerging in the United States. The orientation is around the arts and crafts, and these businesses also center on families, young people, and handmade products. It is linked to a feeling for a return to older values and also a new disenchantment with the city and large metropolitan areas. The recent high rates of unemployment probably are a factor in this movement, also. Zoning bylaws and governmental attitudes which accommodate this type of commercial development will permit a community to benefit from it. Third, if Winchendon indeed is situated virtually in the heart of all the New England states except Maine, then the "crossroads" concept could be fostered for any benefits it might return in the form of tourism, regional and district offices or distribution facilities for large companies, or transportation interchange.

Policy Recommendations

1. The Development and Industrial Commission, somewhat inactive in the town, should be rejuvenated and should develop an active program consistent with its purposes. The existence of a development and industrial commission works no magic, for virtually every community in the nation competes with others for industry and business. Yet certainly the existence of such a commission in limbo form contributes nothing at all.

2. The Development and Industrial Commission should proceed with the activities for which it was

established by law, namely: (a) the promotion and development of the industrial resources of the town, (b) a research program on industrial conditions, available manpower skills, and similar data, (c) investigation and assistance in the establishment of educational and commercial projects, including projects involving the private sector, (d) the coordination of all group activities centering on expanding and strengthening the local economy, and (e) advertising, preparing, and printing books, maps, charts, and pamphlets designed to further the industrial and commercial well-being of Winchendon.

3. The Development and Industrial Commission should take the lead in planning for an industrial park in town.

4. The Development and Industrial Commission should, in establishing an advertising program as in 2(e) above, emphasize such considerations as described in IV. A. above.

V. Open Space and Recreational Development

A. General

For almost two decades, the nation has been experiencing a new focus on leisure time activities, as more leisure time and more disposable income has become available to its citizens. In terms of private sector development, this thrust has resulted in a boom in the manufacture, sales, and use of boats, skimo-biles, recreational vehicles, camping equipment, and athletic goods. As a further consequence, land, particularly unused and undeveloped land, and the waterways of the nation underwent vastly increased usage

and misuse. Government of necessity had to step in to enforce existent zoning laws and other regulations, and also to revise and update numerous controls over land and water use.

The thrust toward leisure time activities appears to be settling in as a permanent part of our national habits, and this being the case, it is important to recognize this thrust and to consider it as very much a factor in community planning. People looking for leisure time activities are looking for second homes and vacation places. Others are looking for public and private camping and recreation areas. A great number of people, contrary to popular conception, simply want a place in the rural areas, not necessarily on a body of water.

Another population group directly related to the leisure time thrust is the retired group. In addition to the standard leisure time facilities and opportunities, however, people in this category are also seeking other features and services. The retired group in the population largely pays its own way. Retired persons do not contribute to the school population yet contribute to school support. Retirees do not invade the job market in the manner that younger people do and therefore do not compete as vigorously for available jobs. Retirees look for affordable, attractive housing, good shopping facilities, many of the same leisure time opportunities that younger people seek, and reliable public transportation. In particular, retirees seek housing accommodations in apartments, condominiums, small single family houses, cluster developments, and public elderly housing projects.

The issue of preserving and developing green belts, general open space areas, public parks, and leisure-related facilities is directly associated with the incidence in our population of increased numbers of retirees and those who seek recreational facilities. Winchendon for many years has enjoyed the splendid Clark Memorial recreational and athletic facility, used by all town citizens in conjunction with other school and public athletic and recreational facilities. But the town also has vast acreage in open space as well as a strong need to turn some areas into green belts or parks for leisure and beautification purposes. Such needs should be a distinct part of the general plan.

Policy Recommendations

1. Recommendations of the 1965 general plan supplement concerning conservation and land acquisition matters should be followed through. A strip of land around Whitney Pond should be acquired and developed as a green belt or open park area. This is a highly visible area to both citizens and passers-by, and stands in dire need of beautification.
2. Additional land acquisition efforts should be pursued so as to develop the Tannery Pond area for park and green belt purposes.
3. The Conservation Fund previously established by the town meeting should be utilized for a program of land acquisition.
4. Gifts of land to the town should be encouraged. Such grants could be used for conservation, open space, and recreational purposes.

5. Landowner pledges to preserve specific tracts of land in undeveloped form, consistent with overall land use goals, should be encouraged.

6. Following adoption of the proposed new zoning bylaw, emphasis on its provisions concerning mobile home parks, apartments, and cluster developments--those housing facilities accommodating retirees and the elderly groups--should be made.

VI. General Government Development

A. General

General or comprehensive plans often ignore the status of a community's basic government. Particular recommendations for change or revision might be made, such as the institution of a capital improvements program, yet the organization and structure of a town or city is ordinarily omitted from any serious consideration. In reality, this factor should be one of the first considerations, for the general well-being of a town often can be determined by the form and tempo of its government. Indeed, one of the fundamental goals of any city or town should be an ongoing scrutiny of its organization and procedures. Coupled with this should be an equally important understanding that continuous examination and critique do not mean by themselves that any drastic changes, or any changes at all, would be automatically forthcoming. The Winchendon Town Government Study Committee, established two years ago, to some extent has been facing the question of town government form and procedures. Additional steps toward a continuous governmental review could also be taken.

Policy Recommendations

1. The Home Rule Charter Commission question, recommended by the Town Government Study Committee but kept off the ballot in 1976 through procedural delays, should be voted by the electorate in 1977. The formation of a charter commission suggests absolutely no prejudgment of a change in town government. Instead, the commission's establishment would provide the greatest possible opportunity for exploration of all choices and options, including the option of no change at all. A charter commission can examine the length and breadth of town government in a nonpartisan, unbiased fashion, and in comprehensive rather than piecemeal manner.

2. The proposed new zoning bylaws should be adopted and administered with a new spirit of enforcement.

3. The new bylaws prepared by the Bylaws Revision Committee should be adopted, implemented, and administered in thorough fashion.

4. The town now has a large enough number of employees in all departments other than the schools to warrant distinct attention to the personnel question. Therefore, steps should be taken toward the development of a personnel bylaw and establishment of a personnel board or other organizational means of personnel administration.

B. Public Facilities

The construction of public facilities is always an ongoing issue for community leaders, and each leadership segment has its own priorities for development. Not only the construction of public facilities but also the acquisition of large items of equipment constitute heavy expenditures for the town, and they

must be dovetailed into an overall plan with priorities established on the basis of a comprehensive overlook. In short, a capital improvements program should be initiated. Until this can be accomplished, however, a small number of capital projects are described here as recommendations for the next few years.

Policy Recommendations

1. New municipal physical facilities, recommended in the 1965 supplement, should continue to be part of a long range plan. Necessary land should be acquired, or available public land should be earmarked, and preliminary financial and architectural planning should commence.

2. The question of adequate water supply for the town should be addressed in the near future. Water usage in Winchendon from Upper Naukeag Lake in Ashburnham now equals and often exceeds the allocated one-half million gallons daily. An engineering report on the town water supply and demand issued in February 1974, made specific and detailed recommendations for developing new water supply sources and the construction of additional storage facilities. All viable alternatives for increasing the town water supply and enlarging storage facilities should be examined.

3. Municipal physical facilities, water supply facilities, extension of water and sewage lines, and other items of major expenditure inevitably lead to the issue of a long-range capital improvements program. Without such a program, projects are undertaken on a crash basis and often according to unrealistic and unfair scales of priorities. A six year

capital improvements program, therefore, should be developed and carefully implemented. The six year period has turned out to be the most realistic span of time over which capital programs can be monitored and administered with the least amount of revision and priority changes.

IMPLEMENTATION PROGRAM

The following is a proposed timetable for implementation of policy recommendations set forth in chapter four, The Renewal Plan, scheduled over a period of ten years. Agency responsibility for execution of recommendations is stipulated where possible for the years 1976 and 1977.

A. Stage I: 1976

1. Town agencies associated with the planning process embark on a new spirit of enforcement and administration concerning: (a) state laws on inland wetlands and other environmental matters, (b) the state sanitary code, (c) the state building code, (d) floodplain and flood hazard area restrictions on development, (e) constraints on land use indicated by soils limitations maps, and (f) the zoning bylaw.

Soils maps are publicized anew. Building inspector and agencies involved in the permit process make maximum use of maps when acting upon permit applications. Maps are reproduced and distributed as necessary.

3. Board of Selectmen rejuvenates Development and Industrial Commission. Commission members initiate aggressive program of research and associated action under provisions of general laws.

4. Special town meeting adopts proposed new zoning bylaw.

. B. Stage II: 1977

1. Development and Industrial Commission makes recommendations on the desirability of an industrial park to be located in best available industrial site within Industrial districts of new zoning bylaw, preferably in former Limited Industrial area between Routes 12 and 140.

2. Conservation Commission, Planning Board, and other environmental agencies move to acquire Whitney Pond strip for greenbelt and park area.

3. Conservation Commission requests 1977 annual town meeting for enlarged commitment to, and appropriations for the Conservation Fund, so as to support land acquisitions.

4. Conservation Commission proceeds with cleanup of Whitney Pond, adhering to cautions and considerations outlined in chapter three.

5. Board of Public Works proceeds with question of increasing water supply sources and storage facilities.

6. Voters at annual town election in 1977 act upon establishing home rule charter commission to frame a charter for the town.

7. Development of a capital improvements program is authorized by the annual town meeting.

8. Bylaws revised and prepared by the Bylaws Review Committee are presented to the annual town meeting for adoption.

9. Board of Selectmen asks annual town meeting for a committee to develop a personnel bylaw, such bylaw to include the establishment of a permanent personnel board, or other organizational means of fixing responsibility for the personnel function.

C. Stage III: 1978-85

1. Consider recommendations of Development and Industrial Commission for an industrial park (1978).
2. Vote on adopting home rule charter proposal (1978).
3. Adopt and commence implementation of personnel bylaw developed by ad hoc committee (1978).
4. Review and revise as necessary the subdivision control regulations adopted in 1975 (1980).
5. Develop specifications for municipal physical facilities (1979-80).
6. Follow through on 1965 recommendations for greenbelt area along Millers River course and Tannery Pond area.
7. Implement plans for increasing town water supply and water storage facilities (1978-83).
8. Review and revise as necessary new zoning bylaw adopted in 1976 (1981).
9. Adopt capital improvements program developed during 1977. Adhere carefully to its schedule and priorities. Update to current budget year on annual basis (1978-85).
10. Implement provisions of home rule charter as appropriate (1978-85).
11. Continue to support Conservation Fund for land acquisitions and other conservation purposes (1978-85).
12. Develop specific plans for enhancement of present greenbelt areas, acquisition of additional park land as necessary, and development of neighborhood outdoor park and recreation facilities (1978-85).

