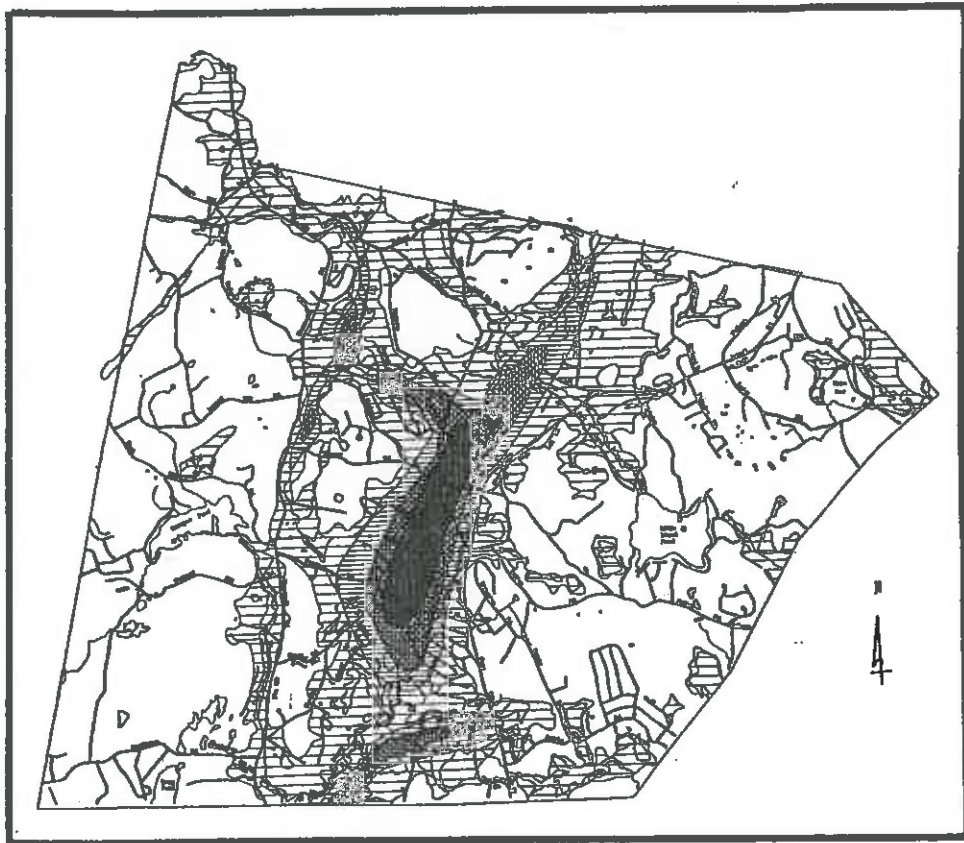
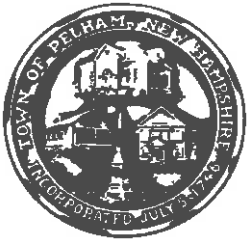


# **Town of PELHAM MASTER PLAN**



**Pelham Planning Board**

**1992**



Town of Pelham  
6 Main Street  
Pelham, NH 03076

Planning Department  
635-7811  
Assessor's Office  
635-3317

March 31, 1993

Linda Lavallee, Town Clerk  
Town of Pelham  
Town Hall  
Main Street  
Pelham, NH 03076

Dear Linda:

Attached please find a copy of Pelham's recently adopted Master Plan. It was adopted in January, 1993 and certified in March, 1993. Pursuant to RSA 675:6.III, the final step in the procedure to adopt this document, is to place a copy on file with the Town Clerk. I am requesting that you accept this Master Plan and retain it as required by law. Additional copies are on file in the Planning Office and Library.

Thank you for your cooperation in this matter. If you should have any questions, please feel free to contact me through the Planning Office.

Sincerely,

Paul Martakos, Chair  
Planning Board

cc: J. Tucker  
file

# PELHAM MASTER PLAN

Prepared by the

**PELHAM PLANNING BOARD**

With the assistance of the

**NASHUA REGIONAL PLANNING COMMISSION**

# PELHAM MASTER PLAN

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## CHAPTER I

### INTRODUCTION

The 1991 Master Plan update is the product of over two years of data collection, analysis, public comment and review. This chapter describes the master planning process as well as the content and structure of the Master Plan document and the components of the Plan that have served to guide its development. The guiding components of the plan include the perceptions and concerns of the Master Plan Committee, the Planning Board, the results of the 1988 Community Opinion Survey, and the goals and objectives that were subsequently developed. Although the Plan is far reaching in its analysis and conclusions, changing conditions will require an update of the Plan's basic components at five year intervals.

#### PURPOSE AND CONTENTS

Prepared in accordance with New Hampshire RSA 674:1 through 674:3, the 1992 Pelham Master Plan is a policy statement for guiding local land use regulation, transportation improvements, environmental protection and capital improvements for the 1990 to 2000 period. The Plan is also a resource for Pelham citizens, private business, and for state and regional officials. The components of the Master Plan document include chapters for Population, Natural Resources, Housing, Transportation, Economic Development, Community Facilities, Historic Resources, and Land Use. Each chapter contains a general discussion of relevant issues, information from a variety of sources presented in tables, graphics or maps, and the results of the analysis, conclusions and recommendations of the Committee. Chapter X, Conclusions and Recommendations, brings together the conclusions and recommendations of all plan components and provides direction for areas of further study.

As a political subdivision, the Town of Pelham does not exist in isolation, and must therefore consider the external forces which influence the community. Wherever possible, the information presented for Pelham in the document is done so within the context of the Nashua Regional Planning Commission region, Hillsborough County, the State of New Hampshire and other areas or regions as appropriate. Map I-1, on the following page, depicts Pelham in relation to the State and Region.

The master plan document represents a consensus of the community for addressing the issues and concerns which confront Pelham today and are anticipated to do so in the future. This document represents the final portion of the Town's long-term planning efforts for the 1991 to 2000 period. The Plan has been developed through the combined efforts of various Town Boards and Commissions, specific and separate planning studies, Town staff and through the assistance of the Nashua Regional Planning Commission. To guide the planning process, a series of goals were developed, as shown on page I-3.

GOALS AND OBJECTIVES

Overall Goals

1. Identify, protect and enhance the principal natural and man-made features of the Town which, collectively, define the character of Pelham.
2. Direct change and promote development consistent with the goals of the community within the constraints of Pelham's natural and man-made characteristics.
3. Foster and enhance a sense of community spirit within the Town.

Population

1. Provide for a moderate rate of growth, in keeping with the town's capacity to provide for community services, facilities and continued planning.
2. Provide for the changing needs of Pelham's population due to changes in certain segments of the population (school age children, elderly, handicapped, etc.).
3. Accommodate a reasonable share of the region's population growth.

Natural Resources

1. Preserve and protect the natural resources of the Town of Pelham in order to provide a safe and attractive community for current and future residents and to protect such resources from the adverse impacts of development. These natural resources include wetlands, floodplains, air, forest, soils, agricultural lands, wildlife habitats, open space, scenic vistas, ground and surface water, and other sensitive resources.
2. Maintain and create a clean, unpolluted environment free of air, water, visual and noise pollution.
3. Preserve and enhance the Town's prominent natural features.
4. Protect the quantity and quality of the Town's water resources.

Housing Goals

1. Encourage high quality residential developments which maintain and enhance the natural character of the land, promoting the enjoyment, health and safety of their residents.
2. Provide realistic housing opportunities for families of all income levels and household types (elderly, families without children, handicapped, etc.), where possible, within the natural and public facility constraints of the Town.
3. Maintain Pelham as a town of predominantly single-family houses, while accommodating a fair share of the region's need for housing elderly and lower income people.

Historic Resources

1. Preserve, protect and enhance historic buildings, structures, sites and areas.
2. Preserve and enhance the open, rural character of the land as well as its natural, historic and scenic resources.

Land Use Goals

1. Promote the preservation, protection and enhancement of well-balanced land use patterns capable of meeting present and future community needs in an efficient, environmentally sound, economical, equitable and aesthetically pleasing manner.
2. Promote land use patterns based on the developmental limitations imposed by prominent natural and man-made facilities of the community whenever possible.
3. Provide for a diversity of zoning districts to meet the community's need to broaden the tax base while retaining the rural/residential character of Pelham.
4. Provide for a transition or buffers between incompatible land uses.
5. Encourage the preservation of active agricultural lands.
6. Discourage "strip development".
7. Discourage scattered or premature development.

Community Opinion Survey

For a master plan to be effective, it is essential to provide for the participation of the Townspeople in its development. To provide for greater public participation, a community-wide opinion survey was conducted in 1988. The results of the community opinion survey were utilized throughout the planning process. A description of the survey and a summary of its results is provided below. A copy of the actual survey, raw results and a critique of the survey form is provided in Appendix A. The questionnaires themselves are stored at the Office of the Planning Department for individuals desiring to review the returns.

The Town of Pelham sent out 3,100 questionnaires as part of a survey seeking input into the Master Plan effort. In addition, an opportunity was afforded to pick up questionnaire forms for those taxpayers and residents who did not receive one through the Town's mailing system. Of the 3,100 forms sent out, 662 responded. This is an almost 22% return and is accepted as a statistically valid response to the survey. This is to say, that based on this response, the remaining 78% would have been in substantiation of the determined results.

The 1988 questionnaire results reflected sentiments similar to the survey conducted in 1980. Residents strongly favor the Town's rural atmosphere, are still concerned about the school system and its facilities, are not as concerned about the poor roads as in 1980, and as in 1980 responded overwhelmingly to reduce the rate of growth. As the questionnaire results show, sewer and water facilities were highest ranked among needs for the community and are of overwhelming concern. At the same time, people are concerned about the disappearance of agricultural land, they prefer single-family home development



## CHAPTER II

### POPULATION

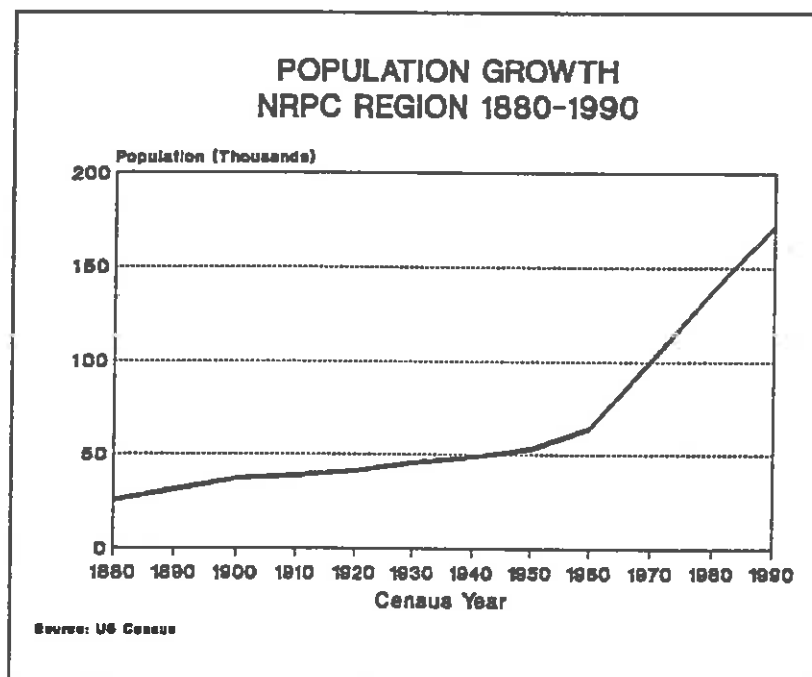
To plan effectively for a community, an understanding of the size, composition and distribution of the existing population is essential. An effective master plan must also include an analysis of potential changes in future population size, composition and distribution as well as a description of past trends. In some cases, the factors that influence population change are beyond the control of the community. In other cases, the Town can influence or manage future demographic changes through the adoption of policies based on community goals.

This chapter includes a description and analysis of existing demographic data as provided by the U.S. Bureau of Census, the N.H. Office of State Planning (OSP), and the Nashua Regional Planning Commission (NRPC) as well as background historical information from a variety of sources. While it is essential to review relevant demographic information and to include it in the Master Plan, it should be emphasized that all such information should not be taken at face value. This is particularly true for the population projections provided at the end of the chapter.

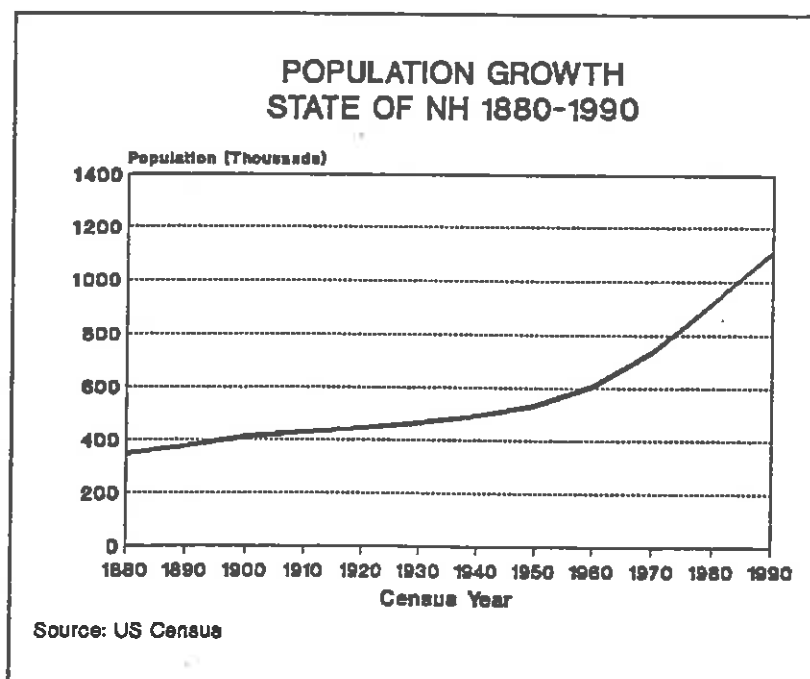
#### HISTORICAL TRENDS

During the mid-19th Century, Pelham like most rural New Hampshire towns, experienced the beginning of a long, slow period of population decline as populations migrated either west or to newly emerging industrial centers. This trend continued into the 20th Century. By 1890, Pelham's population had returned to its 1790 population level of 791 people. The Town did not surpass its 1859 peak population level of 1,071 people until 1950. Between the 1930's and 1960's, the population grew steadily and moderately. The 1960's, however, saw the beginning of a two-decade long period of rapid population growth spurred on by the growth of high-technology industries in the Nashua area and by ex-urban expansions of the Boston metropolitan area made possible by major improvements to the state and federal highway system. Between 1960 and 1970, Pelham grew by over 107%. In the following decade, the Town grew from a population of 5,408 to 8,090; and increase of approximately 49.6%. Since 1980, growth has occurred at a somewhat more moderate rate. The Town's 1990 population was estimated to be 9,408. This figure represents an increase of approximately 16% since 1980. Historical growth trends are depicted in Tables II-1, II-2, and illustrated in Figures II-1, II-2 and II-3 on the following pages.

**FIGURE II-1**

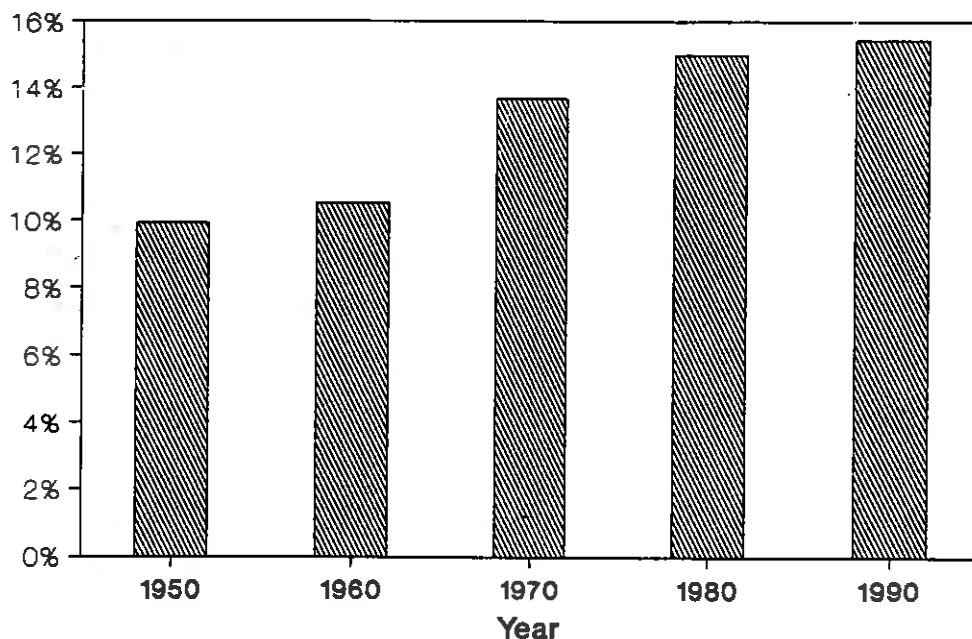


**FIGURE II-2**



**FIGURE II-3**

**NRPC REGION'S SHARE OF STATE POPULATION  
1950-1990**



Source: US Census

**POPULATION PROJECTIONS**

The projection of future levels of population and growth is an inexact science. While a number of projection methods exist, future population levels are subject to a host of unforeseen influences. A reasonable estimate of future population, however, is essential for planning purposes. The following projections for Pelham and the NRPC region were prepared by the N.H. Office of State Planning using a demographic/economic model called DEMOS.

TABLE II-4  
POPULATION PROJECTIONS - PERCENTAGE CHANGE  
1990-2010

Municipality	% Change 1990-2000	% Change 2000-2010	% Ave. Annual Chg. 1990-2010
Amherst	23.4	29.7	2.38
Brookline	40.5	28.5	3.00
Hollis	54.5	26.3	3.40
Hudson	27.2	14.3	1.89
Litchfield	28.4	31.9	2.67
Lyndeborough	33.0	29.0	2.74
Merrimack	36.4	41.1	3.33
Milford	31.5	26.0	2.56
Mont Vernon	31.9	16.2	2.16
Nashua	30.3	25.3	2.48
Pelham	11.5	6.9	0.88
Wilton	19.5	19.4	1.79
NRPC Region	30.4	25.5	2.49
Hills. Cty.	24.2	20.7	2.04
State of NH	25.5	21.8	2.14

Source: NH Office of State Planning, Population Projections, 1980-2010,  
May, 1987

TABLE II-5

POPULATION CHANGE: MIGRATION VS. NATURAL INCREASE

1980-1986

Municipality	1980-86 % Chg.	% Chg.	# Natural	% Natural Growth	# Migration	% Migration
Amherst	556	6.74	399	4.84	157	1.90
Brockline	246	13.83	129	7.30	117	6.63
Hollis	931	19.90	262	5.60	669	14.30
Hudson	3,224	22.99	1,066	7.60	2,158	15.39
Litchfield	784	18.89	479	11.54	305	7.35
Lyndeborough	123	11.50	101	9.44	22	2.06
Merrimack	4,691	30.44	1,476	9.58	3,215	20.87
Milford	1,488	17.13	557	6.41	931	10.72
Mont Vernon	199	13.78	101	6.99	98	6.79
Nashua	9,704	14.30	4,321	6.37	5,383	7.93
Pelham	463	5.73	571	7.06	-108	-1.33
Wilton	150	5.62	225	8.43	-75	-2.81
NRPC Region	22,559	16.34	9,687	7.02	12,872	9.32
Hills. Cty.	37,700	13.63	13,800	4.99	23,900	8.64
State of NH	106,398	11.56	39,000	4.24	67,398	7.32

Source: U.S. Census, 1980 and NH Office of State Planning

TABLE II-6

POPULATION DENSITY  
1980, 1990 AND 2010

Municipality	Area (Sq.Mi.)	Pop. 1980	Density /sq.mi. 1980	Pop. 1990	Density /sq.mi. 1990	Pop. 2010*	Density /sq.mi. 2010
Amherst	34.5	8,243	239	9,068	263	14,142	410
Brookline	20.1	1,766	88	2,410	120	4,349	216
Hollis	32.6	4,679	144	5,709	175	15,909	488
Hudson	29.2	14,022	480	19,530	669	29,055	995
Litchfield	15.1	4,150	275	5,516	365	8,638	572
Lyndeborough	30.6	1,070	35	1,294	42	2,237	73
Merrimack	33.0	15,406	467	22,156	671	38,372	1,163
Milford	25.9	8,685	335	11,795	455	19,122	738
Mont Vernon	16.8	1,444	86	1,812	108	3,342	199
Nashua	30.6	67,865	2,218	79,662	2,603	145,694	4,761
Pelham	26.7	8,090	303	9,408	352	11,397	427
Wilton	26.1	2,669	102	3,122	120	4,476	165
NRPC Region	321.2	138,089	430	171,478	534	296,733	924
Hills Cty.	876.0	276,608	316	336,073	384	520,132	594
State of NH	8,993.0	920,475	102	1,109,252	123	1,753,097	195

Source: U. S. Census, 1980 & 1990

\* NH Office of State Planning, Population Projections, 1980-2010, May, 1987

Table II-6 indicates that Pelham is a rural/suburban community with an overall population density that is higher than six of the region's communities, but lower than the regional or county averages. Development over the past few decades, however, has provided Pelham with a population density far higher than rural town such as Lyndeborough, Mont Vernon, or Brookline. This indicates that Pelham has increasingly become a suburban bedroom community. Nevertheless, it is important to note that Pelham has always had a higher population density than other rural areas in the region due to its location and availability of agricultural land within the town. Based on OSP population projections, Pelham's population density will increase only moderately by the year 2010. Should such a scenario be fulfilled, Pelham would achieve densities comparable to those of Litchfield, but far below the density of Hudson. Such a rate of development would make the Pelham of twenty years hence a place largely recognizable to present day residents. The Town of Pelham's existing infrastructure would also probably be capable of supporting population densities as high as those projected in Table II-6.

may provide more opportunities (through land use regulation) for the development of new housing suitable for the elderly. Litchfield on the other hand, contains a very small percentage in the 65+ group and a very high percentage in the 0 to 4 age group. Litchfield also contains a far higher percentage in the 25 to 34 age group. Clearly, Litchfield must be a rapidly growing community with a small supply of older housing. These figures also indicate that the town provides substantial opportunity for young families and first-time home buyers, but few for the elderly. Hollis generally is consistent with regional norms, an indication of a relatively stable community. The greatest differences between Pelham, the region, and surrounding towns is in the 65 and older age groups. This difference may warrant concern and may have policy implications, particularly in the area of housing. Otherwise, Pelham generally approximates the norm in other in most other categories.

#### **VITAL STATISTICS**

The U.S. Census provides estimates of the marital status of individuals aged 15 years and over. Within the region as a whole, 28% of the population over the age of 15 was single, 10% was widowed, divorced or separated, and 62% were married in 1990. Table II-8, provides marital status information for Pelham, the remainder of the region, and the state. As can be seen in the Table, Pelham's percentages within each category are generally consistent with the region as a whole and correlate closely to the composition of the population according to age. Communities with a high percentage of population in younger adult age groups generally contain a higher percentage of single individuals. Likewise, those communities with high percentages in older age groups, also have high percentages in the "widowed, separated or divorced" category. If the region continues to follow national trends, the percentages of the population in the "married" category is likely to continue to decrease. Marital status has obvious implications for household composition, and subsequently, for housing as well. The composition of households is depicted in Table II-9 on II-14 page.

TABLE II-9  
FAMILIES AND HOUSEHOLDS - 1990

Municipality	1 Person Households	Married Couple Households	Male Head Households	Female Head Households	Non-Family Households
Amherst	305	2,345	67	161	110
Brookline	90	617	21	45	38
Hollis	231	1,478	51	114	68
Hudson	882	4,581	215	522	430
Litchfield	77	315	12	22	25
Lyndeborough	996	5,362	181	499	401
Merrimack	984	2,567	148	454	310
Mont Vernon	67	448	15	33	19
Nashua	7,714	17,024	1,015	2,874	2,424
Pelham	278	2,191	109	212	177
Wilton	233	731	31	87	70
Nashua Reg.	12,006	39,002	1,914	5,141	4,078
State of NH	90,364	245,307	12,517	34,777	28,221

Source: 1990 U.S. Census



## CHAPTER III

### NATURAL RESOURCES

The geological, hydrological and biological characteristics of a community form the foundation and the framework within which development will take place. This natural resource base provides both opportunities and constraints for development. Failure to recognize the constraints or take advantage of the opportunities can result in a degradation of both the natural and built environment. For instance, soil conditions may preclude the use of on-site waste disposal systems; certain types and intensities of development over aquifers may threaten the quality of existing and future water supplies; and improper shoreline development may have negative impacts on water quality and the general character of the Town's lakes and ponds. In addition, the abundance and diversity of natural resources in Pelham: wetlands, lakes and ponds, streams, fields and forests, provide opportunities for a variety of land uses while contributing to the overall quality of life in the community. Therefore, a thorough understanding of the natural resource base is extremely important in guiding and determining the limits of future development in the community.

This chapter contains an inventory of Pelham's natural resources along with a discussion and analysis of current policies and regulations affecting resources conservation. Recommendations for future management of the Town's natural resources are made at the end of the chapter. In addition, the Pelham Water Resources Management and Protection Plan, prepared in 1988, deals specifically with surface water and groundwater resources. The information, analyses and recommendations of the Water Plan are a component of the Town's Master Plan and are incorporated by reference.

#### TOPOGRAPHY

Topography is the general form of the land surface, with elevation and slope as its major components. Elevation is the measure of the height of a given point of the land surface relative to mean sea level. Slope is a measure of the pitch or the steepness of the land between two points. Pelham's topography varies substantially. The western third of the Town is dominated by higher elevations and steep slopes which, sometimes abruptly, give way to the relatively flat land of the Beaver Brook valley bisecting the center of Pelham. The eastern third of the Town is also hilly, but with slopes and elevations that are more moderate than found to the west. Overall elevations range from approximately 120 feet above mean sea level (aMSL) near Beaver Brook in the south-central portion of Town, to 575 feet aMSL on top of Jeremy Hill, the Town's highest point. Elevation itself does not constrain development, however, higher elevations are more difficult to develop because they tend to have steeper slopes and shallower soils.

Slope is a critical determinant of the land's ability to support certain land uses. Slope is generally divided into four categories, 0-8%, 8-15%, 15-25% and greater than 25%. Increases in slope result in corresponding increases in the difficulty and cost of site development. Areas with 0-8% slopes are easily developed, however, problems with drainage may arise in areas with slopes less than 3%. Areas with 8-15% slopes have a moderate capability for development that will require additional engineering and construction considerations. While areas with 15-25% slopes are developable, shallow soils and increased potential for erosion require site specific considerations to alleviate negative impacts. Land areas with slopes greater than 25% are considered undevelopable because of shallow soils, increased erosion potential, complexity of road and site construction, and inability to support on-site waste disposal systems. Slope is

Another soil characteristic that is important to consider when siting septic systems is permeability. Permeability indicates the rate of downward movement of water through a saturated soil and is measured in number of inches per hour. The two permeability categories of concern are rapid and very rapid, 6-20 inches and more than 20 inches per hour respectively. Soil with these rapid permeabilities will transmit water quite fast; this means that contaminants can easily and quickly reach surface waters and groundwater. Because of this, soils with rapid and very rapid permeabilities are poor filters for septic system effluent as indicated in the Soil Survey. Soils in Pelham with rapid or very rapid permeabilities are marked with an asterisk in the following table.

TABLE III-1

PELHAM SOILS AND SEPTIC LIMITATIONS

<u>Very High Potential for Septic Systems</u>	
<u>Symbol</u>	<u>Soil Name and Slope</u>
CaB	Canton fine sandy loam, 0-8%
Cac	Canton fine sandy loam, 8-15%
CmB	Canton stony fine sandy loam, 3-8%
CmC	Canton stony fine sandy load, 8-15%
CnC	Canton very stony fine sandy loam, 8-15
<u>High Potential for Septic Systems</u>	
<u>Symbol</u>	<u>Soil Name and Slope</u>
CaD	Canton fine sandy loam, 15-25%
CmD	Canton stony fine sandy loam, 15-25%
WdA*	Windsor loamy sand, 0-3%
WdB*	Windsor loamy sand, 3-8%
WdC*	Windsor loamy sand, 8-15%
<u>Medium Potential for Septic Systems</u>	
<u>Symbol</u>	<u>Soil Name and Slope</u>
BdA	Bernardston Variant very fine sandy loam, 0-3%
BdB	Bernardston Variant very fine sandy loam, 3-8%
BdC	Bernardston Variant very fine sandy loam, 8-15%
BeC	Bernardston Variant stony very fine sandy loam, 8-15%
CpB	Chatfield-Pelham-Canton complex, 3-8%
CpC	Chatfield-Pelham-Canton complex, 8-15%
HsA*	Hinckley loamy sand, 0-3%
HsB*	Hinckley loamy sand, 3-8%
HsC*	Hinckley loamy sand, 8-15%
NnA	Ninigret very sandy loam, 0-3%

Important Farmland Soils

High quality or prime farmland is a valuable but limited resource. In an effort to protect quality agricultural land and to slow its conversion to other uses, the SCS developed a classification system to identify prime farmland based on soil properties, temperature, growing season and moisture supply. Prime farmland soils are those best suited to crop production, that will produce the highest yields with minimal inputs of energy and economic resources while causing the least amount of environmental damage. A community can use this information to identify important agricultural areas and to plan future management and protection strategies. Prime and statewide important farmland soils in Pelham are listed in Table III-2 and depicted on Map III-1.

TABLE III-2

PELHAM IMPORTANT FARMLAND SOILS

<u>Symbol</u>	<u>Soil Name and Slope</u>
Cab	Canton fine sandy loam, 0-8%
CaC	Canton fine sandy loam, 8-15%
PbB	Paxton fine loamy sand, 3-8%
PbC	Paxton fine loamy sand, 8-15%
Om	Occum fine sandy loam, high bottom
SsA	Scituate fine sandy loam, 0-3%
SsB	Scituate fine sandy loam, 3-8%
SsC	Scituate fine sandy loam, 8-15%
WoA	Woodbridge loam, 0-3%
WoB	Woodbridge loam, 3-8%

Source: Hillsborough County Conservation District, Soils Potentials for Development, Hillsborough County, March 1986.

Prime and statewide important farmland soils comprise a minimal percentage of the total land area in Pelham. These soils are scattered in relatively small pockets throughout the Town, which not surprisingly coincide with many of the Town's remaining active agricultural operations. In addition to its importance for crop production, agricultural land use is an important form of open space in a community. The open fields, farm buildings and activities provide a varied landscape for residents and visitors. Agricultural land uses are discussed in greater detail in the Land Use chapter.



MAP. III-1

FARMLAND SOILS

KEY

 Prime Farm Soil

 Statewide Farm Soil

Source:

UNH Complex System Research Center,  
from USGS Quads, as amended by NRPC, 1991.

USDA, SCS, Soil Survey of Hillsborough County,  
New Hampshire Eastern Part 1981.

Map is for reference only



0 4000  
feet

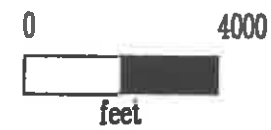
Town of  
PELHAM  
PRIME AGRICULTURAL SOILS



MAP III-2  
PERENNIAL STREAMS

Source:  
UNH Complex System Research Center,  
from USGS Quads, as amended by NRPC, 1991.

Map is for reference only



Town of  
PELHAM

CONSTRUCTION MATERIALS

The Soil Survey also provides information about soil as a source of construction materials, or sand and gravel. Soils are rated as probably or improbably sources of sand and gravel based on gradation of grain sizes, thickness of suitable material and rock content. The soils listed in Table III-3 are probable sources of sand or gravel in Pelham. Excavation of sand and gravel resources is regulated by municipalities under RSA 155E, Local Regulation of Excavations. The Statute requires that municipalities provide "reasonable opportunity for excavation" of construction materials on unimproved land within the community. Information pertaining to existing excavation operations is provided in Appendix B. Although not specifically referenced in the RSA's, it should be noted that potential sources of granite are known to exist in a number of areas in Town. Active quarries were operated on Ledge Road, off of Mammoth Road and in other locations.

TABLE III-3

PROBABLE SOURCES OF SAND AND GRAVEL IN PELHAM

<u>Symbol</u>	<u>Soil Name and Slope</u>	<u>Sand</u>	<u>Gravel</u>
CaB	Canton fine sandy loam, 0-8%	x	
CaC	Canton fine sandy loam, 8-15%	x	
CaD	Canton fine sandy loam, 15-25%	x	
CmB	Canton stony fine sandy loam, 3-8%	x	
CmC	Canton stony fine sandy loam, 8-15%	x	
CmD	Canton stony fine sandy loam, 15-25%	x	
CmE	Canton stony fine sandy loam, 25-35%	x	
CnC	Canton very stony fine sandy loam, 8-15%	x	
Cu	Chocora mucky peat	x	
DeA	Deerfield loamy fine sand, 0-3%	x	
DeB	Deerfield loamy fine sand, 3-8%	x	
HsA	Hinckley loamy sand, 0-3%	x	x
HsB	Hinckley loamy sand, 3-8%	x	x
HsC	Hinckley loamy sand, 8-15%	x	x
HsD	Hinckley loamy sand, 15-35%	x	x
Oc	Occum fine sandy loam	x	
Om	Occum fine sandy loam, high bottom	x	
PiA	Pipestone loamy sand, 0-3%	x	
PiB	Pipestone loamy sand, 3-8%	x	
Rp	Rippowam fine sandy loam	x	
Sm	Saco Variant silt loam	x	
Sn	Saugatuck loamy sand	x	
So	Scarboro mucky loam sand	x	
Sr	Scarboro stony mucky loamy sand	x	
Su	Suncook loamy fine sand	x	
WdA	Windsor loamy sand, 0-3%	x	
WdB	Windsor loamy sand, 3-8%	x	
WdC	Windsor loamy sand, 8-15%	x	
WdD	Windsor loamy sand, 15-35%	x	

Source: Hillsborough County Conservation District, Soils Potentials for Development, Hillsborough County, March, 1986.

## WATER RESOURCES

Lakes and ponds, rivers and streams, wetlands and groundwater are the most visible components of the hydrologic cycle. An understanding of the interrelationships between these components is essential for ensuring the wise use and management of Pelham's water resources. The quality and availability of surface water and groundwater is a determinant of the development capability of a community. An ample, high quality water supply can ensure successful development of land for residential, commercial and industrial uses. The water resource network of a community also provides fish and wildlife habitats, conveys and stores floodwater, recharges groundwater, generates power, provides numerous recreational opportunities and important scenic feature. This section discusses Pelham's water resources and the major issues confronting their use and management. Issues related to public water supply are discussed in greater detail in Chapter VII.

### Watersheds

A watershed is defined as that portion of the land area whose runoff contributes directly to the flow of a stream, river, lake or pond. Watersheds are generally delineated by first identifying the highest points in an area. Lines called drainage divides are drawn between these points based on the topography and the direction of water flow. Land uses and other activities that take place within the watershed of a watercourse or water body have a direct impact on water quality and quantity. Extensive paved areas will increase the volume of surface runoff from a site. Land clearing and construction activities will expose previously undisturbed areas to the erosive powers of rain and surface runoff. Delineation of the areal extent and boundaries of a watershed facilitates the identification and evaluation of existing and potential water quality impacts of land uses upon a water body. It is important when dealing with watercourses and water bodies that are exhibiting signs of stress, such as increases in turbidity or aquatic vegetation, to identify the source or sources of the problem and to ameliorate or eliminate the impact.

The entire Town of Pelham is located within the greater Merrimack River watershed which covers 5,010 square miles in New Hampshire and Massachusetts. In Pelham, the Beaver Brook sub-basin is the largest of the major watersheds within the Town, encompassing approximately 14,000 acres or 80% of the land area of the Town. Drainage areas for the smaller tributary streams and water bodies have been delineated and are discussed in the Pelham Water Resources Management and Protection Plan.

### Perennial Streams

Over thirty-five miles of perennial streams flow through Pelham, including a large portion of Beaver Brook and seven other named streams. Beaver Brook flows through Pelham for approximately 9.8 of its 26.8 miles while Golden Brook flows through Pelham for about 1.3 of its 5.8 miles. Major sections of Beaver Brook lie in Massachusetts and in New Hampshire to the north of Pelham. Other streams also cross municipal and state borders. As a result, the need for interstate as well as intermunicipal cooperation is essential to ensure effective management of these vital resources.

Water quality classifications are established by the legislature. The classification represents the desired level of water quality for the stream and does not necessarily reflect actual conditions. In many instances water quality

in a river or stream does not meet the standards of the legislative classification. All of the streams in Pelham have a legislative water quality classification of B. This means they either meet or have a goal to achieve the fishable and swimmable criteria established under the Clean Water Act. Characteristics of Pelham's perennial streams are summarized in Table III-4 and depicted on Map III-2.

**TABLE III-4**  
**PERENNIAL STREAMS IN PELHAM**

Name Number	Total Length in Miles	Miles In Pelham	Start Eleva- tion	End Eleva- tion	Order	Feeder Streams (miles)	Class
Beaver Brook	26.8	9.8	300	60	4th	62.6	B
Two-a	1.2	1.2	310	170	2nd	0.75	B
Three-a	1.2	1.2	260	140	1st	0	B
Four-a	1.2	1.2	270	140	2nd	1.3	B
Five-a	0.6	0.6	170	140	1st	0	B
Golden Brook	5.8	1.3	180	130	3rd	11.2	B
Seven-a	2.4	2.1	185	140	1st	0.1	B
Harris Pond Brook	—	0.8	160	150	2nd	0.8	B
Eight-b	0.8	0.8	190	150	1st	0	B
Island Pond Brook	1.7	1.7	140	130	2nd	1.1	B
Bartlett Brook	—	0.4	170	160	1st	0	B
Thirteen-a	5.5	4.2	190	120	2nd	3.2	B
Thirteen-b	1.3	1.1	140	130	1st	0	B
Thirteen-c	1.4	1.3	190	130	1st	0	B
Thirteen-d	0.5	0.5	140	130	1st	0	B
Tony's Brk.	0.9	0.9	150	130	1st	0	B
Fifteen-a	2.3	2.3	170	140	2nd	1.4	B
Gumpas Pond Brook	2.5	2.5	220	135	3rd	2.6	B
Eighteen-a	1.6	0.7	310	200	2nd	0	B
Nineteen-a	0.8	0.8	290	140	1st	0	B

Source: NRPC, Pelham Water Resources Management and Protection Plan, 1988.



### **Floodplains**

Floodplains are areas adjacent to water courses and water bodies that are susceptible to flooding during periods of excessive runoff. Major floodplains in Pelham are adjacent to Beaver Brook and its tributaries, including Golden Brook, and Little Island Pond and Brook. Other large floodplain areas are found adjacent to Gumpus Pond and Brook and Harris Pond and Brook. Floodplains comprise almost fifteen percent of the Town's total area, as depicted on Map III-3.

Floodwaters can cause significant damage to buildings, structures and land uses located in the floodplain. To prevent excessive loss from flooding, the U.S. Congress created the National Flood Insurance Program in 1968. As part of the program, the Federal Emergency Management Administration (FEMA) and the Federal Insurance Administration (FIA) prepared a series of maps identifying flood-prone areas in each community. The 100-year flood, a storm and resulting floodwaters projected to occur once in 100 years, was chosen as the base flood. The Flood Insurance Rate Maps (FIRMs) and the Flood Hazard Boundary Map (FHBMs) are used to determine the flood hazard area boundaries. The FIRMs divide the flood-prone areas into three zones: Zone A - Special Flood Hazard Areas inundated by the 100-year flood; Zone B - areas between Zone A and the limits of the 500-year flood; and Zone C - areas of minimal flooding.

The Pelham Floodplain regulations require a building permit for all development in a special flood hazard area. Encroachments are not allowed in the regulatory floodway of a watercourse if they would result in an increase in the level of the base flood. All new construction or substantial improvement must have the lowest floor elevated to or above the 100-year flood or be floodproofed to meet the established criteria. In addition, all water and sewer systems proposed in a special flood hazard area must be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

### **Lakes and Ponds**

Pelham contains four named ponds greater than five acres in size with a total acreage of approximately 416 acres. Long Pond in the Town's southwest corner includes 26 acres in Pelham with the remaining 94 acres located in Dracut and Tyngsboro, Massachusetts. These lakes and ponds form the headwaters and the receiving waters for streams creating an interconnected network of surface waters. All four water bodies are actively used for recreation. Much of the shoreland along Gumpas, Long and Harris Ponds and most of the shoreline along Little Island Pond, however, has been developed for seasonal and year-round residential use. The characteristics of the major lakes and ponds in the Town are summarized in Table III-5 and are also depicted on Map III-2.



MAP III-3  
FLOODPLAINS

# Town of PELHAM



Source: FEMA, 1980 FIRM Map as drawn by NRPC, 1991.

Map is for reference only

TABLE III-5

MAJOR LAKES AND PONDS IN PELHAM

Name	Area In Acres	Length (in Miles)	Eleva- tion	Avg. Depth	Max. Depth Sounded	Class	Feeder Streams	Type
Harris Pond	46	1.1	152	N/A	22	B	0	Nat'l Dam Raised
Little Island	155	4.8	145	-	55	B	0	Nat'l/ Dam Raised
Gumpas Pond	89	2.7	201	-	24	B	1.4	Nat'l/ Dam Raised
Long Pond	120	3	151	13	25	B	0.75	Nat'l/ Dam Raised

Source: NH Office of State Planning, Inventory of Lakes, Ponds, and Reservoirs, Biological Survey of Lakes and Ponds in Cheshire, Hillsborough and Rockingham Counties

Wetlands

Approximately 18% of the total area of Pelham is made up of wetland soils. Most of the wetlands are located adjacent to major streams. The Beaver Brook and Golden Brook wetland system is the most significant due to its size and relatively undisturbed nature and due to its relation to the Town's largest aquifers. These areas are relatively undeveloped and maintain much of their natural character. Pelham wetland soils are listed in Table III-6 and depicted on Map III-4.

TABLE III-6

WETLAND SOILS OF PELHAM, NH

<u>Symbol</u>	<u>Soil Name and Slope</u>
BoA	Borohemists, nearly level
BpA	Borohemists, ponded
Cu	Chocorua mucky peat
Gw	Greenwood mucky peat
LeA	Leicester Variant loam
LsA	Leicester Variant stony loam, 0-3%
LtA	Leicester-Walpole complex, 0-3%
LtB	Leicester-Walpole complex, 3-8%
LvA	Leicester-Walpole complex stony, 0-3%
LvB	Leicester-Walpole complex stony, 3-8%
PiA	Pipestone loamy sand, 0-3%
PiB	Pipestone loamy sand, 3-8%

TABLE III-6, cont'd

<u>Symbol</u>	<u>Soil Name and Slope</u>
Rp	Rippowam fine sandy loam
Sn	Saugatuck loamy sand
So	Scarboro mucky loamy sand
Sr	Scarboro stony mucky loamy sand

Source: Hillsborough County Conservation District, Soil Potentials for Development, Hillsborough County, March 1986.

Awareness of the important role wetlands play in the hydrologic and ecologic systems has increased significantly over the last decade. Important wetland functions include flood control and natural stream flow regulation, erosion and sedimentation control, water purification and wildlife habitat.

Historically, each agency had its own definition and method for delineating wetlands. At the federal level, controversy over the definition of wetlands continues. RSA 482-A:3 defines freshwater wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. RSA 482-A:4, as amended, further defines wetlands as all areas subject to periodic freshwater flooding and to shoreline areas adjacent to surface waters, swamps or bogs.

The Town of Pelham's Wetlands Conservation District (adopted in 1990) includes all wetland areas greater than 2,000 square feet, wetland areas of any size adjacent to surface waters, bodies of water, and all areas within fifty feet of the edge of any wetland or surface water. The following uses are permitted within the district if they do not result in the erection of a structure or alter the surface configuration by the addition of fill: forestry and tree farming, agriculture, water impoundments and wells, normal drainage ways, wildlife refuges, parks and recreation areas, conservation areas and nature trails and open space. Streets, roads, utility crossings or other access ways and water impoundments essential to the productive use of the land are only permitted by special exception. In addition, wetland areas cannot be used to satisfy minimum lot area requirements. All septic systems and leachfields are required to be setback a minimum of twenty-five, fifty or seventy-five feet from the district (75, 100 or 125 feet from the edge of wet) depending on the type of wetland soil. Structures cannot be placed within twenty-five feet of the district boundary or closer than fifty feet from the edge of wet.

Other regulatory and non-regulatory methods for protecting wetlands from degradation include: requiring and enforcing erosion and sedimentation plans for developments, establishing minimum setbacks for buildings, structures, septic systems and other site developments, maintaining a vegetative buffer directly adjacent to the wetland, general education on the importance of wetlands; and prime wetland designation. The regulatory and education methods have been discussed in the Pelham Water Resources Management and Protection Plan, thus, only prime wetlands designation will be discussed here.

RSA 482-A:15 authorizes a community to designate areas meeting established standards as prime wetlands. The criteria and the submission requirements are explicitly set forth in the administrative rules governing the Wetlands Board. The benefits of prime wetland designation include:

- o identifying and recognizing wetlands as locally significant based on their size, unspoiled character, diversity of flora and fauna, water storage capacity in combination with other characteristics; -
- o notifying landowners, developers and the New Hampshire Wetlands Board of the municipality's strong beliefs that certain wetlands should remain undisturbed;
- o and assuring that the Wetlands Board will give additional consideration to proposals for activities within a designated prime wetland.



Pelham has made major strides in identifying and protecting prime wetlands. In 1987, the Conservation Commission completed a comprehensive prime wetlands study which identified forty-six potential prime wetlands. Of these, seven have received prime wetlands designation. Each of these areas are described in the Pelham Prime Wetlands Study.



MAP III-4

WETLAND SOILS

KEY

-  Poorly Drained Soil
-  Very Poorly Drained Soil

Source:

UNH Complex System Research Center,  
from USGS Quads, as amended by NRPC, 1991.

USDA, SCS, Soil Survey of Hillsborough County,  
New Hampshire Eastern Part 1981.

Map is for reference only



# Town of PELHAM WETLANDS MAP

**Groundwater**

Groundwater from stratified drift deposits, unconsolidated till deposits and bedrock provides water for residential, commercial and industrial users in Pelham. Stratified drift aquifers are composed on well sorted sands and gravels which generally have the potential to yield large quantities of water. Approximately 11.5 square miles or thirty-six percent of the total Town area are underlain by stratified drift deposits as depicted on Map III-5. The 1987 United States Geological Survey study, Hydrogeology of Stratified Drift Aquifers and Water Quality in the Nashua Regional Planning Commission Area, described Pelham's stratified drift aquifers. The aquifers are also described in detail in the Water Resources Management and Protection Plan.





Till deposits contain a mixture of clays, sands and gravels of varying grain sizes. These deposits do not have the capacity to store or transmit large volumes of water; however, they can provide sufficient volumes of supply individual residences. Bedrock wells are drilled into rock containing fractures and can provide substantial volumes of water. Well completion reports for approximately 300 wells in Pelham, on file with NH DES Water Supply and Pollution Control Division, indicate a range in depth of 75 feet to 1,000 feet for bedrock wells. Additional information related to water supply and potential well locations is provided in Chapter VII.

MAP III-5

STRATIFIED DRIFT DEPOSITS

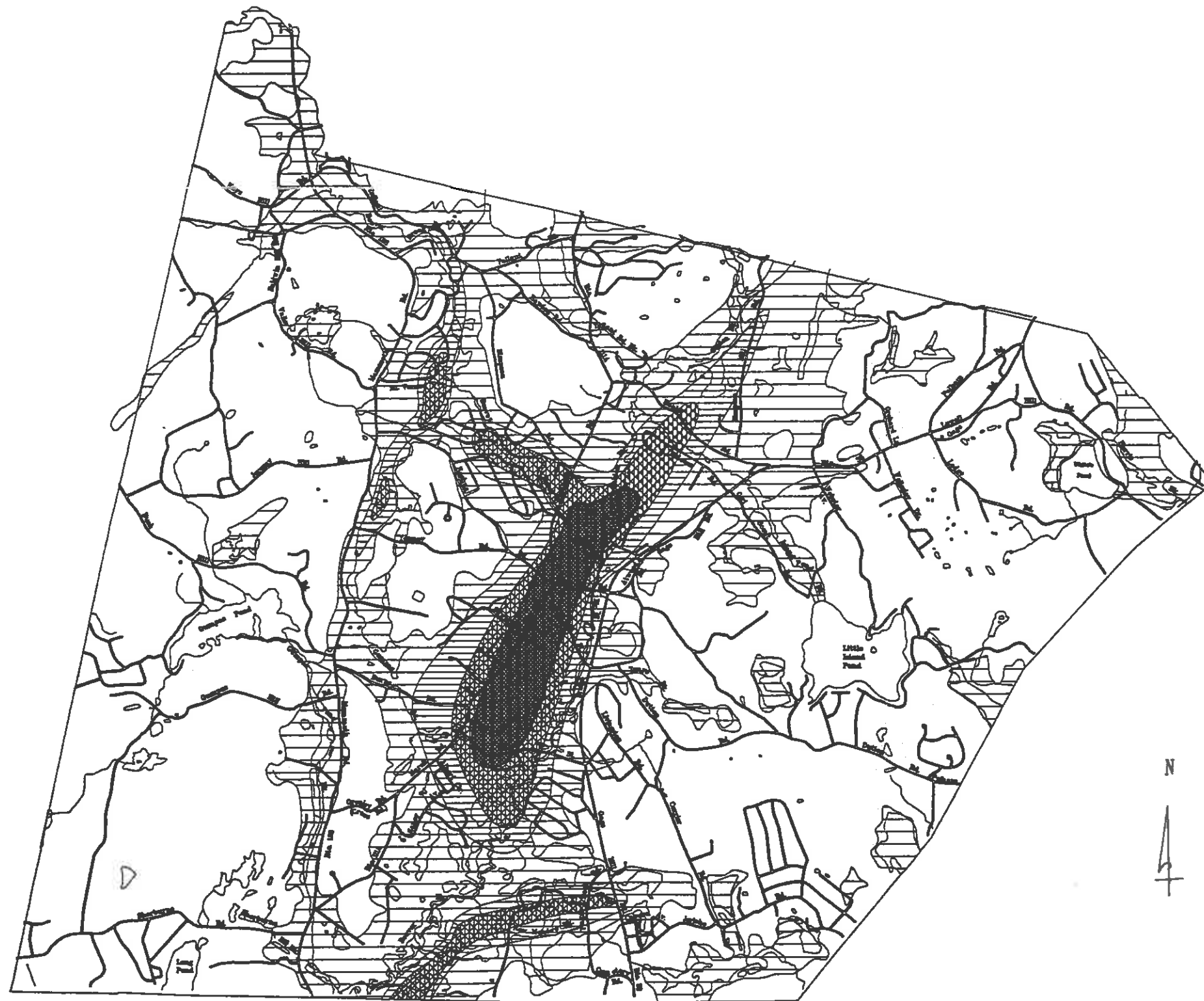
KEY

Transmissivity in Sq. Ft. / Day

-  less than 2000
-  2000 - 4000
-  4000 - 8000
-  more than 8000

Source: USGS Hydrogeology of Stratified Drift Aquifers and Water Quality in the NRPC Area, 1987.

Map is for reference only



N



0 4000  
feet

# Town of PELHAM AQUIFER MAP



### **WILDLIFE**

Pelham's natural resource base, and its wetland system in particular, provides habitat for many plant and animal species. A variety of habitats such as wetlands, forests, fields, rivers and streams are essential to support a diversity of species in quantities healthy enough to ensure continuation of the species. Maintenance of quality habitat is of great importance to all plant and animal species.

#### **Animals and Birds**

Animal species commonly found in Pelham include: raccoons, skunks, muskrats, beavers, porcupines, woodchucks, white tail deer, squirrels, mice, bats, fox, rabbits and other indigenous species that are adapted to living near humans and urban activities. The sighting of larger animal species, including moose has increased in Pelham as they have in other municipalities. Larger animals that require extensive habitat areas or species that require solitude such as black bear and lynx are less likely to be sighted in the Town. Bird species vary according to the season; however, they are also dominated by those species commonly found in southern New Hampshire. Species of doves, woodpeckers, chickadees and jays would be found throughout the year while warblers, sparrows, wrens, swallows, robins and several species of raptors are generally seasonal residents. Other species such as ducks and geese may nest in the wetlands and ponds and many pass through the town during the spring and fall migrations. In addition to the highly visible species, habitat for other less visible species such as turtles, frogs, toads, salamanders, snakes and numerous insects is present in the Town. Some small streams in Pelham are known to have populations of wild brook trout which are especially sensitive to environmental perturbations such as siltation and warming due to the removal of stream-side vegetation. In addition, Beaver Brook is stocked with trout by the State.

The New Hampshire Natural Heritage Inventory (NHI), a program of the Department of Resources and Economic Development, tracks threatened and endangered species and exemplary natural communities in the State. Using a ranking system developed by the Nature Conservancy, the NHI assesses the rarity of a species on a global and state level. The eastern box turtle and the banded sunfish are the only two animals listed with the NHI for Pelham.

#### **Plants**

Plants species in Pelham are again dominated by those species commonly found in southern New Hampshire. The NHI records indicate the presence of fifty-six threatened or endangered plant species in Town. In addition, NHI records found four important natural communities. These areas, identified by the dominant plants, vegetative structure and minor features of the physical environment, represent intact examples of New Hampshire's native flora and fauna. Among the most noteworthy of the Town's important natural communities is the unique collection of plant species found in the vicinity of Jeremy Hill. The unusually high number of plant species listed in Pelham is an indication of the uniqueness and importance of the Town's natural areas. A detailed listing of threatened or endangered plant and animal species is provided in Appendix B.

#### **Visual Resources**

The visual resources of a community are a major component of its image and sense of place, and have an impact on the quality of life for residents and the

perceptions of visitors. Some notable vistas include views from Jeremy Hill, Route 38 at the Pentecostal Church, portions of Currier Road, Long Pond and at Harris Pond. The Town of Pelham is well aware of the value of its natural resources: lakes, ponds, streams, wetlands and forests, but its built environment: active agricultural lands, town center, historic homes and other buildings and structures, is often less recognized.

Reasonable protection of outstanding views and vistas has withstood the test of the courts on numerous occasions throughout the country. Typical view protection regulations involve height limitations for buildings and structures and/or setbacks. Height limitations have been used to preserve views of natural features such as mountain peaks, park areas and river views, and for protecting the stature of historic structures and landmarks. The extent of Pelham's historic resources is discussed in the Historic Resources chapter.

Setbacks are commonly used to protect scenic roadways. The State of New Hampshire, recognizing the importance of its scenic roadways, enacted RSA 231:157 granting communities the authority to designate local scenic roads. Scenic road designation provides limited protection from cutting, removal of stone walls and other activities associated with road maintenance.

#### POTENTIAL THREATS TO NATURAL RESOURCES

A community's natural resources are stressed by most aspects of land use and development. Proper land management and development practices, however, can be utilized to minimize the impacts. Potential point and non-point sources of pollution in Pelham are summarized below. More detailed information can be found in the 1988 Pelham Water Resources Management and Protection Plan.

##### Road Salt

Road salt storage and application create the potential for sodium, calcium and chloride contamination of surface and ground waters. Elevated sodium and chloride levels in drinking water supplies can pose serious health threats for certain population groups as well as for animals and plants. In addition, high levels of chloride in surface waters can inhibit water mixing, cause stratification and salination of the bottom layers. A number of towns in the region, including Brookline and Merrimack have adopted reduced and/or no-salt programs in sensitive areas such as near public water supply wells, concentrations of individual wells and surface waters.

##### Subsurface Waste Disposal

Septic system failures from improper design, siting or maintenance allow nutrient rich effluent, particularly nitrogen and phosphorous, to leach into surface and ground waters. Excessive nutrient levels in surface waters create optimal conditions for growth of aquatic vegetation, which in turn, decreases levels of oxygen available for fish, impedes sunlight penetration and clogs waterways. Contamination can also result from high levels of bacteria contained in the effluent.

The entire Town of Pelham relies on subsurface waste disposal and the majority of the soils that receive the highest rating for septic systems have been developed. Great care needs to be taken in designing and siting septic systems since future development will take place on the more marginal soils. The Pelham Subdivision and Subsurface Disposal System Regulations contain more stringent requirements for separation of the system from ledge, bedrock,

impermeable layers and seasonal high water table than State standards. Requirements for setbacks from wetlands and surface waters now exceed the state regulations. Such setbacks should increase the filtration of the effluent before it reaches the waterbody and provide greater protection for the Town's surface and groundwaters.

#### Nutrients

Nutrients, particularly nitrogen and phosphorous, pose potential threats to surface waters. The addition of nutrients to surface waters can cause an increase in the growth of algae and other aquatic vegetation. The increase in vegetation inhibits light penetration while decomposition of the vegetation decreases the amount of oxygen available to fish and other aquatic species.

One source of nutrients is agricultural runoff. Fertilizers applied to crops and nutrients from animal wastes contained in runoff can enter water bodies. Increased awareness of the environmental impacts and economic savings have decreased the nutrient problems associated with agricultural uses. Urban residential development, however, is an increasing source of nutrient runoff. Fertilizers applied to individual lawns and gardens at improper rates and times can have a significant cumulative impact on nutrient levels in a water body.

Phosphates in detergents also contribute to the nutrient levels in surface and groundwater. This is particularly important since phosphorous is generally the nutrient that limits the growth of aquatic vegetation. A decrease in phosphorous from detergents is easily achieved through education and a simple switch from a powder to a liquid detergent. Proper siting of commercial sources, car washes and laundries for example, can decrease the nutrient load for surface and groundwaters.

#### Pesticides

Pesticides can have dramatic and lasting impacts on the natural and human environment. Some impacts are readily apparent, as in the case of a fish kill or vegetative death caused by a one-time application. The effect of other pesticides, for example DDT which accumulates as it progresses up the food chain, may only be evidenced over a longer period of time. As with nutrients, the amount and timing of pesticide application can have a significant impact on pesticides contained in runoff. Proper application of pesticides may reduce potential negative impacts to a negligible level; however, the long-term impact of pesticide residues retained in the soil and released into the groundwater has yet to be determined.

#### Urban Runoff

Runoff from roads, parking lots and other impervious surfaces carries with it road salt, gas, oil, anti-freeze, sediments and other chemicals deposited on the surface. These chemicals pose a serious threat to surface and groundwaters. The problems associated with urban runoff can be minimized by requiring drainage plans for subdivisions and site plans, and ensuring that the plans are properly carried out.

### Underground Storage Tanks

Leaks in underground storage tanks (USTs) are difficult to detect and can go unnoticed for a long period of time while causing extensive contamination of water resources. A small amount of a petroleum based product can contaminate thousands of gallons of water. UST facilities where the cumulative storage capacity is equal to or greater than 1,100 gallons are regulated by the NH Department of Environmental Services Water Supply and Pollution Control Division (DES-WSPCD). Facilities with a storage capacity less than 1,100 gallons, oil-transmission and oil-production facilities, motor fuel and heating oil tanks for on-site residential consumption and tanks storing non-petroleum based chemicals are not regulated by the State at this time. Given the rural history of Pelham, abandoned USTs may exist on many old parcels unknown to present owners.

### Erosion and Sedimentation

Erosion potential increases when the soil is exposed to the elements through agriculture, silviculture and construction activities. During land conversions, much of the protective vegetative cover is stripped from the site resulting in an increase in the velocity and volume of runoff. Soil particles are carried by surface runoff into rivers, streams, lakes and wetlands. Sediments increase the turbidity of the water, impede light penetration and cause siltation of water way. Erosion and sedimentation control plans can be required as part of the subdivision and site plan review regulations to control these negative impacts. Control methods range from simply retaining the natural vegetative cover to constructing complex drainage systems. Another method involves restricting development on steep slopes, generally those greater than fifteen percent, which have an increased susceptibility to erosion.

### NATURAL RESOURCES RECOMMENDATIONS

The Town of Pelham is endowed with a diverse natural resource base. While the Town has made substantial progress in the protection of the natural assets of the community, there is always room for improvement. The following recommendations are made to assist the Town in effectively managing its natural resources and maintaining a balance between competitive uses. The recommendations represent both regulatory and non-regulatory conservation methods.

#### Topography

1. Amend the zoning ordinance to require erosion and sediment control plans for all construction on 15-25% slopes, particularly in sensitive areas adjacent to wetlands or surface waters.
2. Conduct an investigation of alternative local land use regulation techniques for minimizing the negative impacts of development on slopes in excess of 25%.
3. Consider developing programs to protect and provide public access to the high elevation areas in the community. These locations often provide scenic views of the surrounding countryside.

**Mining and Construction Materials**

The 1989 amendments to the excavation regulations, RSA 155-E, require each Master Plan to contain a section on mining and construction materials. Excavations are a permitted use in the industrial district and are allowed as a special exception in all other districts of the Town. The Town's current excavation regulations are not in compliance with state statute.

1. Amend the excavation regulations to bring them into compliance with the recent amendments to RSA 155-E. Minor revisions are required to the definition section; the terminology needs to be changed throughout from restoration to reclamation; and abandoned excavations need to be defined and addressed.
2. Include setbacks for excavations and associated processing operations in the zoning ordinance to protect surface waters and wetlands.

**Wildlife**

1. Maintain the variety and quality of wildlife habitats to ensure a diverse combination of plant and animal species throughout the community.
2. Protect the habitats of threatened and endangered species. Limited information on the locations of these species and their habitats can be obtained from the NH Natural Heritage Inventory. Threatened and endangered species are extremely susceptible to changes in habitat. The continued presence of these species and communities within the Town depends upon the maintenance of their habitats.
3. Promote conservation of interconnected habitat areas that will provide wildlife corridors along which animals can travel from one area to another.

**Visual Resources**

1. Identify the significant visual resources within the community. The Conservation Commission could conduct an inventory of the views and vistas within the community.
2. Amend the subdivision and site plan review regulations to include consideration of the impact of the proposal on the identified significant visual resources. The review process can be used to evaluate placement of buildings and structures such that the ridgelines of hills or vistas of streams, lakes or ponds are protected.
3. Determine the need for obtaining conservation easements or fee simple ownership to protect important views and vistas.

**Existing Conservation Lands**

1. Continue to manage existing conservation lands to ensure continued quality of wildlife habitat, open space and recreation.

### Implementation Techniques

In order to protect wildlife habitats, scenic vistas, and other sensitive lands, several different methods of achieving conservation can be pursued at the local level. The appropriateness of any alternative depends on the nature of the resource, the financial constraints of the community and the willingness of the citizens. Some of the alternative which should be considered include the following:

1. Acquisition of sensitive lands.
2. Acquisition of protective or restrictive easements on sensitive lands such as wildlife habitat, farmland or scenic vistas.
3. Encourage voluntary contributions of sensitive land or easements upon them.
4. Encourage open space developments which are designed to conserve a minimum of 40% or 50% of the total land and within a development as open space. Such open space can include important sensitive lands.
5. Amend the Town's subdivision regulations to require contributions toward park land and open space as permitted under RSA 674:36.
6. Develop a transfer-of-development rights program which would allow the rights to develop a parcel comprised of sensitive lands, such as farmland or important wildlife habitats, to be transferred to a parcel comprised of less sensitive lands. The parcel to which the rights are transferred could be developed at a higher density without providing for an increase in overall density.

### Water Resources

The following recommendations are made to eliminate or minimize the potential negative impacts and to conserve the Town's water resources. The Town's Water Resources Management and Protection Plan prepared in 1988, contains additional recommendations for several specific areas related to water resources conservation.

#### Surface Water

1. Develop and adopt comprehensive shoreland protection regulations for Beaver Brook, and the Town's great ponds that will regulate permitted/prohibited uses, establish setbacks for structures, parking areas and other site developments, and restrict cutting along the shore for thinning and to create openings. This list represents some of the most important considerations for protecting shorelands; however, it does not encompass all activities with an impact on the shoreland zone. Shoreland regulations protect water quality by decreasing the potential for erosion, by providing buffers to filter sediments and nutrients from runoff, and by conserving the natural undeveloped character of the shoreline.
2. Require erosion and sediment control plans for all developments resulting in a significant disturbance of soils, particularly in areas adjacent to surface waters and areas with slopes greater than 15%. In addition, provide adequate inspection to ensure proper installation and maintenance of the control measures.

3. Develop and implement a comprehensive road salt application and management program to limit or prohibit applications in sensitive areas of Town.

Wetlands

1. Develop and adopt septic system setbacks from wetlands greater than those required by the State as follows:
  - a. systems located entirely or partially in highly permeable soils (a permeability of 6 inches per hour throughout as indicated in the USDA Soil Survey of Hillsborough County, NH Eastern Part, 125 feet;
  - b. systems located entirely or partially in somewhat poorly drained soils, moderately well drained soils or soils with a restrictive layer and a slope of 8% or greater - 100 feet.

Groundwater

1. Work with the adjacent communities to develop consistent regulations to protect the most productive intermunicipal aquifers. Protection of this groundwater resource will require cooperation and coordination between the communities with potential impact.
2. Examine the issue of establishing residential densities in the aquifer areas at a level sufficient to protect the groundwater from contamination by human wastes.
3. Conduct an underground storage tank (UST) inventory, that will supplement the information collected at the State level, to identify the location and contents of USTs in the community.

## CHAPTER IV

### HOUSING

During the 1980's, housing became an increasingly important issue as rents, home prices, and general real estate values escalated rapidly. Although this period of escalation was part of a national trend, housing price increases in New Hampshire and in the Nashua region in particular, substantially exceeded national averages. The relatively high price of housing and its escalation were caused by rapid population growth and rising affluence. As a result, concern for housing affordability in the state and region grew and a series of state and local housing initiatives were set into place.

As the rate of increase in housing prices began to climb statewide during the mid-1980's, the concern for housing affordability spread. In recognition of the municipal involvement with planning for housing and the regulation of housing development through local land use controls, the State Legislature amended RSA 674:2, III to require each new master plan or master plan update to include a housing section as described below. RSA 674:2, III reads as follows:

"III. A housing section which analyzes existing housing resources and addresses current and future housing needs of residents of all levels of income of the municipality and region in which it is located, as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47, II."

The Legislature, therefore, recognized not only the municipal responsibility toward housing for its own residents, but also for the residents of the region within which it is located. As a result, regional planning commissions were charged with preparing regional housing needs assessments under RSA 36:47, II, which reads as follows:

"For the purpose of assisting municipalities in complying with RSA 674:2 III, each regional planning commission shall compile a regional housing needs assessment, which shall include an assessment of the regional need for housing for persons and families of all levels of income. The regional housing needs assessment shall be updated every five years and made available to all municipalities in the planning region."

This section of the Pelham Master Plan is largely based on the 1989 Regional Housing Needs Assessment prepared by the Nashua Regional Planning Commission in accordance with RSA 36:47, II. The chapter is designed to provide basic housing information and analysis within the context of the region's twelve communities. While much of the focus is on issues related to housing affordability, emphasis is also placed on housing needs related to lifestyle and family type. It should also be stressed that issues related to housing cost and development are closely tied to changes in the local economy. Recent economic conditions have had a considerable impact on the housing market and housing prices in areas have stabilized or declined. While the data presented on the following pages are derived from a period of relatively high housing prices, the overall analyses and conclusions remain applicable.

Unlike many of the planning regions in New Hampshire, the NRPC region of which Pelham is a part, contains a mix of urban, suburban, and rural communities. Over the past two decades, the region has been rapidly urbanizing, reflecting the growth of the City of Nashua as an employment center as well as the growth of the greater Boston Metropolitan area (see Chapter VI). Pelham has also been affected by the growth of the Lowell area. The transformation of formerly rural communities into more urbanized communities within a relatively short period of



time has presented the challenge of providing for the housing needs of an increasingly diverse and expanding population. While the need for expansion of housing types for all of the region's population is clear, the difficulty of providing housing for lower income groups has been greatly hindered by the almost complete disappearance of state and federal housing development assistance. State and federal assistance for the expansion of urban support facilities such as public sewer has also virtually disappeared. In spite of the clear need, the relative affluence and prosperity of the Nashua region has led state and federal officials to deny most of the region's communities assistance from the sources that still remain.

For Pelham, this period of growth and change has presented several challenges. While the forces that have driven the real estate market are beyond the control of the Town, the natural beauty and recreational opportunities of Pelham coupled with the proximity to employment centers such as Nashua and Lowell, and access to I-93, have made Pelham a desirable residential community. As a result, the value of the Town's real estate escalated rapidly during the 1980's and the types of housing build within the community have been reflective of Pelham's desirability. The lack of more affordable and diverse housing types, however, has also detracted from the community, as household of many income levels are increasingly unable to obtain housing within the Town in spite of the lower prices of the past few years. The challenge to Pelham in the coming decade is to pursue alternatives that will broaden the housing base of the Town without detracting from the features that are central to the community or from the overall value of its residential properties.

#### **INCOME**

The Department of Housing and Urban Development (HUD) categorizes households into income levels based on the median income for a municipality or region as provided by the U.S. Census. In 1989, the median family income for a family of four in the Nashua PMSA (Primary Metropolitan Statistical Area) was \$46,200. Households are categorized into one of five groups -- very low, low, moderate, middle income and higher income. Each of these categories is described in Table IV-1. For example, households earning below 50% of the median are categorized as very low income, whereas households earning over 150% of the median are categorized as higher income. As can be seen in the Table, family income categories change depending on family size. For example, a middle family income for a family of three is approximately 90% that of a family of four.

It is important to note that households in the categories of low and very low income are not necessarily below the poverty level. While the poverty level is a constant figure, median income levels vary widely throughout the United States, and therefore, are more significant than poverty levels in assessing local housing needs. The percentages of all households falling into each of the income categories described below are based on the 1980 U.S. Census. Approximately 35% of the region's households are considered to be either low or very low-income. The relationship between these income categories and housing affordability issues within the region will be discussed later in this chapter.

TABLE IV-1

INCOME CATEGORIES

FAMILY OF FOUR, NASHUA PMSA\*, 1989

CATEGORY	PERCENT OF MEDIAN INCOME	MEDIAN FAMILY INCOME
very low income	less than 50	less than \$23,100
low income	50 to 80	\$23,100 to 36,960
moderate income	80 to 120	\$36,960 to 55,400
middle income	120 to 150	\$55,400 to 69,300
higher income	more than 150	more than \$69,300

FAMILY OF THREE, NASHUA PMSA\*, 1989

CATEGORY	PERCENT OF MEDIAN INCOME	MEDIAN FAMILY INCOME
very low income	less than 50	less than \$20,800
low income	50 to 80	\$20,800 to 33,280
moderate income	80 to 120	\$33,280 to 49,920
middle income	120 to 150	\$49,920 to 62,400
higher income	more than 150	more than \$62,400

FAMILY OF TWO, NASHUA PMSA\*, 1989

CATEGORY	PERCENT OF MEDIAN INCOME	MEDIAN FAMILY INCOME
very low income	less than 50	less than \$18,500
low income	50 to 80	\$18,500 to 29,600
moderate income	80 to 120	\$29,600 to 44,400
middle income	120 to 150	\$44,400 to 55,500
higher income	more than 150	more than \$55,500

TABLE IV-1 (cont'd)

INCOME CATEGORIES

FAMILY OF ONE, NASHUA PMSA\*, 1989

CATEGORY	PERCENT OF MEDIAN INCOME	MEDIAN FAMILY INCOME
very low income	less than 50	less than \$16,150
low income	50 to 80	\$16,150 to 25,840
moderate income	80 to 120	\$25,840 to 38,760
middle income	120 to 150	\$38,760 to 48,450
higher income	more than 150	more than \$48,450

Source: NHHFA, February, 1989.

\* The Nashua PMSA includes the following communities: Amherst, Brookline, Pelham, Hudson, Litchfield, Londonderry, Merrimack, Milford, Mont Vernon, Nashua and Wilton.

HOUSING CHARACTERISTICS

The housing characteristics within a locality reflect the composition of the population in the vicinity. As with population characteristics, there are many types of housing characteristics that could be considered. For the purpose of this section, four of the characteristics most strongly related to housing availability and affordability are examined: number of units, density and permitted uses, housing projections, and housing costs and tenure.

1. Number of Units: The total number of housing units within Pelham or any other community is directly related to the level of its population. Deviations between the growth rates for population and for new housing units are due to both differing estimation methods and differing housing types. Clearly, different housing types are constructed for differing household types. The housing characteristics contained in Table IV-2 through Table IV-5 will also reveal a correlation to the age distribution information presented in Chapter II.
2. Total Units: Since 1970, the total number of housing units in the NRPC region has more than doubled; an increase of 32,672 total units. Between 1970 and 1980, the number of housing units in the region increased at an average annual rate of over 5% per year. Since 1980, growth has continued, but at a lesser rate of approximately 4.4% per year. However, as can be seen in Table IV-2, on the following page, the rate of increase in each individual community has varied widely in both periods. Between 1970 and 1980, Pelham was the sixth fastest growing community out of twelve in the region. Between 1980 and 1987, Pelham grew at a rate lower than all but one town in the region. Although Pelham avoided becoming transformed into a suburban community by growth, the Town's housing stock almost doubled during this period. Clearly, the new housing units added to the region's overall housing stock have not been distributed evenly or proportionately. Nor has the change in the growth rates of each municipality reflected a recognizable pattern. While changing tastes may have caused a shift in the desirability

of one community over another, changing local attitudes toward development expressed through the adoption of growth limitations and other local land use regulatory tools have probably had the greatest impact on shifting development patterns within the region. Pelham may have been spared a second doubling of total housing units during the 1980's due to the natural constraints of the Town's topography and soils, coupled with strengthened local regulations.

The result of shifting growth patterns within the region has been a redistribution of the overall housing stock. While the City of Nashua continues to contain the largest portion of the region's housing, the City's percentage of total housing units has declined from 57.1% in 1970 to 51.1% in 1987. Nashua, however, continues to absorb a larger share of new housing units annually than any other community. Pelham's share of the region's total housing units increased from 4.7% in 1970 to 4.9% in 1980. Since 1980, however, Pelham's total housing units have declined to 4.5% of total regional units, an indication that the Town has not kept pace with overall regional growth rates.

Since 1970, only four municipalities have shown an increase in their percentage of the region's total housing stock; and of these, the most significant increase has been in the Town of Merrimack. Six communities including Nashua, have shown a decrease with the most dramatic decrease having occurred in the Town of Wilton.

3. Single-Family Units: The largest segment of the region's housing stock, about 65%, consists of single-family dwellings (see Table IV-3). This figure has remained relatively stable since 1980. In general, the communities with the highest percentage of total units also contain the largest share of single-family homes. The City of Nashua has by far the most single-family homes in the region, over 17,000, followed by Merrimack, Hudson, and Amherst. Those communities demonstrating the highest overall growth rates have also shown the greatest increase in single-family homes.
4. Duplexes and Multi-Family Units: Duplexes and multi-family units are included in the same category by the NH Office of State Planning since both types of housing are assumed to involve higher densities than single-family homes and are often renter-occupied. It is recognized, however, that while most communities permit duplexes widely, far fewer permit extensive multi-family development. Multi-family and duplex units account for 32.5% of the region's total housing units; a slight decrease from 1970 levels. Between 1970 and 1980, the rate of increase for duplexes and multi-family units in several of the region's communities was rapid. Since 1980, only the towns of Merrimack and Hudson demonstrated significant increased growth within this category. In four communities, duplex and multi-family housing has decreased as a percentage of total units since 1970.

Pelham permits duplexes and provides limited opportunities for the development of multi-family housing. The percentage of total units made up by such housing types increased from 9.8 in 1970 to 14.3% in 1980 and then decreased to 13.6% in 1987. As shown in Table IV-4, six communities demonstrated sharp declines in growth rates for duplex and multi-family housing after 1980. While multi-family and duplex units became a larger percentage of total units in Pelham over the past two decades, the growth rate for such units during the 1980 to 1987 period was far lower than during the 1970 to 1980 period.

The greatest overall rate of increase in multi-family housing has occurred in Hudson and Merrimack. Although growth rates for duplexes and multi-family housing in Nashua have shown a relative decline, Nashua still has a majority (almost 70%) of the region's multi-family units. Of the region's twelve communities, only Nashua, Milford and Wilton come close to approximating the regional average of 32.5% of total units devoted to multi-family or duplex housing. All three of these communities have both public water and sewer.

5. Manufactured Housing: The percent increase in the number of building permits issued for manufactured housing from 1970 to 1980 and 1980 to 1987 has been far less than that of single-family and multi-family homes which both increased at over 30%. Five communities -- Hudson, Litchfield, Merrimack, Milford, and Nashua -- each have more than 100 units of manufactured housing, and account for over 80% of all manufactured housing in the region. Over 40% of the region's manufactured housing is located in the City of Nashua. Although Pelham's percentage of manufactured housing as a percentage of the total housing supply of the Town increased 0.3% in 1970 to 0.9% in 1980 (and then decreased to 0.8% in 1987) Pelham continues to have the lowest percentage of manufactured housing units of any community in the region.

Since 1970, the percentage of the region's housing stock made up of manufactured homes has steadily declined. As of 1987, the NRPC region had 2.5% of its housing units in manufactured housing, as compared to 3.5% in 1970. State legislation passed in 1986 responded to the exclusion of manufactured housing within many communities by passing an amendment to RSA 674:32, which now requires communities to permit manufactured housing in at least two of the following ways: individual lots, manufactured housing parks, or manufactured housing subdivisions. Furthermore, RSA 674:31 was amended to define manufactured housing as follows:

"Manufactured housing" means any structure, transportable in one or more sections, which, in the traveling mode, is 8 body feet or more in width and 40 body feet or more in length, or when erected on site, is 320 square feet or more, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to required utilities, which include plumbing, heating and electrical heating systems contained therein."

As communities begin to comply, opportunities for such housing may increase; however, high land values and other factors leave it doubtful that manufactured housing will ever become a significant portion of the region's housing supply.

**TABLE IV-2**

**TOTAL UNITS, NRPC REGION, 1970-1987**

TOTAL UNITS						% of Region's Units				
Municipality	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87
Amherst	1,621	2,598	3,112	60.3	19.8	5.1	5.3	4.8	0.2	-0.5
Brookline	355	587	843	65.4	43.6	1.1	1.2	1.3	0.1	0.1
Hollis	821	1,563	2,082	90.4	33.2	2.6	3.2	3.2	0.6	0.0
Hudson	2,963	4,533	6,509	53.0	43.6	9.4	9.3	10.1	-0.1	0.8
Litchfield	424	1,360	1,776	220.8	30.6	1.3	2.8	2.8	1.4	-0.0
Lyndeborough	287	376	464	31.0	23.4	0.9	0.8	0.7	-0.1	-0.0
Merrimack	2,293	4,711	7,546	105.5	60.2	7.3	9.7	11.7	2.4	2.1
Milford	2,268	3,287	4,406	44.9	34.0	7.2	6.7	6.9	-0.4	0.1
Mont Vernon	269	487	629	81.0	29.2	0.9	1.0	1.0	0.1	-0.0
Nashua	18,030	25,928	32,835	43.8	26.6	57.1	53.2	51.1	-3.9	-2.1
Pelham	1,486	2,411	2,892	62.2	20.0	4.7	4.9	4.5	0.2	-0.4
Wilton	775	926	1,170	19.5	26.3	2.5	1.9	1.8	-0.6	-0.1
NRPC Region	31,592	48,767	64,264	54.4	31.8					

Sources: U.S. Census 1980 and OSP Housing Projections, 1987.

TABLE IV-3

SINGLE FAMILY UNITS - NRPC REGION, 1970-1987

SINGLE FAMILY						% OF TOTAL UNITS				
Municipality	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87	1970	1980	1987	% Chg. 1970/80	% Chg. 1970/80
Amherst	1,486	2,427	2,871	63.3	18.3	91.7	93.4	92.3	1.7	-1.2
Brookline	311	480	714	54.3	48.8	87.6	81.8	84.7	-5.8	2.9
Hollis	700	1,423	1,877	103.3	31.9	85.3	91.0	90.2	5.8	-0.9
Hudson	2,215	3,472	4,223	56.7	21.6	74.8	76.6	64.9	1.8	-11.7
Litchfield	326	1,030	1,411	216.0	37.0	76.9	75.7	79.4	-1.2	3.7
Lyndeborough	261	339	421	29.9	24.2	90.9	90.2	90.7	-0.8	0.6
Merrimack	2,035	4,217	6,265	107.2	48.6	88.7	89.5	83.0	0.8	-6.5
Milford	1,231	1,733	2,517	40.8	45.2	54.3	52.7	57.1	-1.6	4.4
Mont Vernon	198	408	543	106.1	33.1	73.6	83.8	86.3	10.2	2.5
Nashua	9,227	13,372	17,605	44.9	31.7	51.2	51.6	53.6	0.4	2.0
Pelham	1,337	2,046	2,477	53.0	21.1	90.0	84.9	85.7	-5.1	0.8
Wilton	567	671	842	18.3	25.5	73.2	72.5	72.0	-0.7	-0.5
NRPC Region	19,894	31,618	41,766	58.9	32.1	63.0	64.8	65.0		

Source: U. S. Census, 1980: Current Estimates and Trends in New Hampshire Housing Supply Update - 1987, NH OSP, November, 1987.

**TABLE IV-4**  
**DUPLEXES AND MULTI-FAMILY UNITS,**  
**NRPC REGION - 1970-1987**

DUPLEXES AND MULTI-FAMILY UNITS						% OF TOTAL UNITS				
Municipality	1970	1980	1987	% Chg. 1970/80	% chg. 1980/87	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87
Amherst	87	123	187	41.4	52.0	5.4	4.7	6.0	-0.6	1.3
Brookline	21	70	88	233.3	25.7	5.9	11.9	10.4	6.0	-1.5
Hollis	80	97	125	21.3	28.9	9.7	6.2	6.0	-3.5	-0.2
Hudson	635	940	2,148	48.0	128.5	21.4	20.7	33.0	-0.7	12.3
Litchfield	29	226	258	679.3	14.2	6.8	16.6	14.5	9.8	-2.1
Lyndeborough	19	25	25	31.6	0.0	6.6	6.6	5.4	0.0	-1.3
Merrimack	153	386	1,168	152.3	202.6	6.7	8.2	15.5	1.5	7.3
Milford	827	1,364	1,613	64.9	18.3	36.5	41.5	36.6	5.0	-4.9
Mont Vernon	24	29	29	20.8	0.0	8.9	6.0	4.6	-3.0	-1.3
Nashua	8,375	11,926	14,550	42.4	22.0	46.5	46.0	44.3	-0.5	-1.7
Pelham	145	344	393	137.2	14.2	9.8	14.3	13.6	4.5	-0.7
Wilton	187	237	302	26.7	27.4	24.1	25.6	25.8	1.5	0.2
NRPC Region	10,582	15,767	20,886	49.0	32.5	33.5	32.3	32.5		

Source: U. S. Census, 1980: Current Estimates and Trends in New Hampshire Housing Supply  
Update: 1987, NH OSP, November 1987.



TABLE IV-5

MANUFACTURED HOUSING

NRPC REGION - 1970-1987

MANUFACTURED HOUSING						% OF TOTAL UNITS				
Municipality	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87	1970	1980	1987	% Chg. 1970/80	% Chg. 1980/87
Anherst	48	48	54	0.0	12.5	3.0	1.8	1.7	-1.1	-0.1
Brookline	23	37	41	60.9	10.8	6.5	6.3	4.9	-0.2	-1.4
Hollis	41	43	80	4.9	86.0	5.0	2.8	3.8	-3.3	1.1
Hudson	113	121	138	7.1	14.0	3.8	2.7	2.1	-1.1	-0.5
Litchfield	69	104	107	50.7	2.9	16.3	7.6	6.0	-8.6	-1.6
Lyndeborough	7	12	18	71.4	50.0	2.4	3.2	3.9	0.8	0.7
Merrimack	105	107	112	1.9	4.7	4.6	2.3	1.5	-2.3	-0.8
Milford	210	190	276	-9.5	45.3	9.3	5.8	6.3	-3.5	0.5
Mont Vernon	47	50	57	6.4	14.0	17.5	10.3	9.1	-7.2	-1.2
Nashua	428	630	680	47.2	7.9	2.4	2.4	2.1	0.1	-0.4
Pelham	4	21	22	425.0	4.8	0.3	0.9	0.8	0.6	-0.1
Wilton	21	18	26	-14.3	44.4	2.7	1.9	2.2	-0.8	0.3
NRPC Region	1,116	1,381	1,611	23.7	16.7	3.5	2.8	2.5		

Source: U.S. Census, 1980 Current Estimates and Trends in New Hampshire Housing Supply -  
Update: 1987, NH OSP, November, 1988.

DENSITY AND PERMITTED USE

Central to the issue of affordable housing are permitted densities and uses of residential land. In general, the small percentage of multi-family housing and other forms of higher density housing in many of the region's communities is due to minimal expansion of municipal water and sewer. Table IV-6, on the following page, depicts the amount of land in each NRPC community which has municipal water or sewer available.

Tables IV-7 and IV-8, on the following pages, depict the minimum density requirements for each community in the region by housing type. Tables IV-9 and IV-10 indicate the degree to which each of the region's municipalities provides for alternative types of housing. As is clear from the Tables, Nashua, Hudson, and Merrimack, which have larger portions of their communities served by water and sewer, also provide the bulk of the region's higher density housing. Although other communities have some sewered areas, these communities have experienced relatively minor increases in higher density housing types. Pelham completely lacks public sewer and has relatively few areas served by public water.

TABLE IV-6  
MUNICIPAL WATER AND SEWER AREAS  
NRPC REGION, 1988

	ACRES WATER	% WATER	ACRES SEWER	% SEWER
Amherst	1,365	6.2	15	0.1
Brookline	0	0.0	0	0.0
Hollis	198	1.0	0	0.0
Hudson	4,490	3.9	2,144	11.4
Litchfield	2,107	21.4	23	0.2
Lyndeborough	0	0.0	0	0.0
Merrimack	9,738	45.4	3,889	18.1
Milford	2,415	14.8	3,000	18.4
Mont Vernon	0	0.0	0	0.0
Nashua	16,428	81.0	11,066	54.5
Pelham	0	0.0	0	0.0
Wilton	921	5.6	832	5.1

Source: New Hampshire Office of State Planning, November, 1988.

TABLE IV-7  
MINIMUM LOT SIZES - SINGLE-FAMILY  
NRPC REGION

	1/4 less than 1/2 Ac.	1/2 less than 1/2 Ac.	1 Acre	2 Acres	3 to 4 Acres	5 Acres or More
Amherst	-	-	-	>50%	<10%	26-50%
Brookline	-	-	-	>50%	-	-
Hollis*	-	-	-	>50%	>50%	-
Hudson	-	11-25%	>50%	-	-	-
Litchfield	-	-	>50%	-	-	-
Lyndeborough	-	-	-	>50%	-	26-50%
Merrimack	-	11-25%	11-15%	<10%	-	-
Milford	-	-	>50%	-	-	-
Mont Vernon	-	-	-	>50%	-	26-50%
Nashua	-	11-25%	>50%	-	-	-
Pelham	-	-	>50%	-	-	-
Wilton	-	-	>50%	-	-	-

\* Four acre minimum lot size for back lots.

Source: NRPC review of zoning ordinances, 1989.

**TABLE IV-8**  
**MINIMUM LOT SIZES - DUPLEXES & MULTI-FAMILY**  
**NRPC REGION**

	DUPLEXES		MULTI-FAMILY	
	% Of Land Area Permitted	Minimum Lot Size	% Of Land Area Permitted	Minimum Density
Amherst	0	-	0	-
Brookline	>50%	2 Acres	0	-
Hollis	>50%	4 Acres	0	-
Hudson	>50 11-25%	2 Acres 1 & 1/2 Acres	<10%	1/4 Acre/Unit
Litchfield	>50%	1 & 1/2 Acres	0	-
Lyndeborough*	>50%	4 Acres	0	-
Merrimack	>50%	2 Acres	11-25%	1/4 Acres/Unit
Milford*	>50%	2 Acres	<10%	1/4 Acre/Unit
Mont Vernon	0	-	0	-
Nashua**	11-25%	1/2 Acre+	<10%	***
Pelham	>50%	2 acres	0	-
Wilton**	>50%	2 Acres	>50%	1/4 to 2 Acres

\* By Special Exception

\*\* Additional Areas Under Cluster Ordinance

\*\*\* 10,500 SF or 3,500/unit, whichever is greater.

Source: NRPC review of zoning ordinances, 1989.

**TABLE IV-9  
MANUFACTURED HOUSING  
NRPC REGION**

	<b>NEW PARKS ALLOWED</b>	<b>SUBDIVISIONS</b>	<b>INDIVIDUAL LOTS</b>	<b>% OF LAND AREA PERMITTED</b>
Amherst	No	Yes	Yes	>50
Brookline*	No	Yes	No	>50
Hollis	Yes	Yes	Yes	<10
Hudson*	Yes	Yes	No	>50
Litchfield	Yes	Yes	No	>50
Lyndeborough	No	Yes	Yes	>50
Merrimack	Yes	Yes	No	>50
Milford	No	Yes	Yes	>50
Mont Vernon*	No	Yes	No	>50
Nashua	Yes	Yes	Yes	26-50
Pelham	No	Yes	Yes	<50
Wilton	No	Yes	Yes	>50

\* Provisions within zoning ordinance severely limit permitted sizes.

Source: NRPC Review of Zoning Ordinance, 1989.

**TABLE IV-10**  
**CLUSTER HOUSING**  
**NRPC REGION**

**Cluster, PUD, or PRD Ordinances**

	Density Per Underlying Zone	Single	Duplex	Housing Types Multi-Family	Manufactured	Mixed
Amherst	Higher	Yes	Yes	Yes	Yes	Yes
Brookline	-	-	-	-	-	-
Hollis	Same	Yes	Yes	Yes	Yes	Yes
Hudson	Lower	Yes	Yes	Yes	No	Yes
Litchfield	-	-	-	-	-	-
Lyndeborough	-	-	-	-	-	-
Merrimack	Lower	Yes	Yes	Yes	Yes	Yes
Milford	Same	Yes	No	No	Yes	No
Mont Vernon	-	-	-	-	-	-
Nashua	Same	Yes	Yes	Yes	No	Yes
Pelham	-	-	-	-	-	-
Wilton	Same	Yes	Yes	Yes	Yes	Yes

Source: NRPC Review of Zoning Ordinances, 1989

Both minimum density requirements and permitted housing types have broad implications for housing affordability and diversity. The compositions of the populations of each community as described in Chapter II are closely correlated to the types of housing opportunities provided within each community. For example, the lack of opportunities for higher density development in a community could result in few opportunities for elderly housing development. This may be reflected by a relatively small percentage of elderly residents.

Pelham, like five other NRPC communities, allows for a one-acre minimum lot size and has a 200 foot frontage requirement for single-family homes. Unlike most communities, however, Pelham excludes all wetlands and steep slopes from the minimum lot size requirement and utilizes HISS standards (see Chapter III). Due to the extent of wetlands and steep slopes in Pelham, lot sizes in newer developments are generally greater than one acre. These requirements have a considerable impact on determining development patterns within the community. Also, unlike most communities, Pelham requires double the minimum lot size of a single-family home for duplexes. Duplexes are permitted, however, in all residential areas.

Multi-family housing is permitted in Pelham's Business Districts. The minimum lot size is three acres for each building with up to ten units. An additional 10,000 square feet is then required per bedroom for each unit over ten. While the density requirement is liberal for larger apartment houses, smaller multi-family buildings are clearly discouraged. An additional limitation on multi-family housing development is the relatively small portion of the Town which is included in the Business Districts and the lack of suitable, vacant developable land within the districts.

Manufactured housing is more limited in Pelham than any other housing type. Such housing, however, is permitted in all residential areas of the Town. Pelham is one of only a few communities that permits manufactured housing in less than 10% of the community and one of only three that permits such housing in less than 50% of its land area without the imposition of requirements which are not imposed on other single-family dwellings. It is also noteworthy that Pelham is one of the few communities that does not permit clustered housing or planned unit developments of any type. This limitation reduces the range of housing alternatives available in the Town while also precluding developments which would be more sensitively adapted to Pelham's unique natural features.

#### HOUSING COSTS AND TENURE

Rental units account for about one-third of the Region's total housing stock. The percentage of owner-occupied housing in the region corresponds closely to the percentage of single-family homes. Table IV-11 shows that as of 1980, most of the Region's rental housing units were in the City of Nashua, which also contains the largest percentage of multi-family housing. Nearly every community in the region has more than both the County and State percentages of owner-occupied units. As expected, the percentage of rental housing units in Pelham corresponds closely to the percentage of multi-family and manufactured housing units within the Town. In general, it can be expected that changes in the percent and number of rental housing units in the region will correspond with the trends previously discussed for housing types.

Table IV-12 depicts housing costs by type for the Nashua PMSA from 1983 to 1988. As can be seen in Figure IV-1, the cost of one- and two-bedroom rental units in the Nashua PMSA has increased steadily, while the cost of three-bedroom units has risen at a faster rate. The price difference between a one- and a two-bedroom unit is much smaller than the difference between a two- and a three-bedroom unit. The main reason that three-bedroom units are more expensive is a relative lack of supply and high demand. The cost of a three-bedroom unit in the PMSA is significantly higher than both County and State averages. To afford a typical three bedroom unit in the Nashua PMSA (average monthly cost - \$1,000), a household would need to earn \$36,000 a year (assuming 30% of income paid in rent). Unfortunately, due to the small number of rental units in Pelham, information related to the type and cost of rental units in Town are not available.

TABLE IV-11

NUMBER AND PERCENT OF OWNER- AND RENTER-OCCUPIED HOUSING UNITS

NRPC REGION, 1980

	Owner-Occupied		Renter-Occupier	
	Number	Percent	Number	Percent
Amherst	2,226	91.0%	220	9.0%
Brookline	475	84.7%	86	15.3%
Hollis	1,328	90.3%	142	9.7%
Hudson	3,372	79.9%	849	20.1%
Litchfield	1,045	81.4%	238	18.6%
Lyndeborough	290	83.8%	56	16.2%
Merrimack	4,041	92.2%	343	7.8%
Milford	1,904	60.5%	1,244	39.5%
Mont Vernon	400	88.1%	54	11.9%
Nashua	13,586	55.5%	10,903	44.5%
Pelham	1,966	84.2%	370	15.8%
Wilton	660	73.7%	235	26.3%
Nashua Region	31,293	68.0%	14,740	32.0%
Hillsborough Cty.	60,031	62.6%	35,789	37.4%
New Hampshire	218,823	67.6%	104,670	32.4%

Source: 1980 U. S. Census



TABLE IV-12

RENTAL COSTS (\$) IN THE NASHUA PMSA 1983-1988

ONE BEDROOM	1983	1984	1985	1986	1987	1988
Nashua PMSA	\$427	\$431	\$495	\$515	\$510	\$578
Hillsborough Cty.	\$387	\$431	\$488	\$470	\$518	\$578
State of NH	---	---	\$446	\$460	\$480	\$521
TWO BEDROOMS						
Nashua PMSA	\$488	\$654	\$567	\$598	\$601	\$644
Hillsborough Cty.	\$458	\$566	\$566	\$552	\$603	\$655
State of NH	---	---	\$535	\$543	\$581	\$636
THREE BEDROOMS						
Nashua PMSA	\$521	\$795	\$801	---	\$936	\$1000
Hillsborough Cty.	\$495	\$699	\$646	\$684	\$864	\$899
State of NH	---	---	\$585	\$658	\$691	\$736
ALL UNITS						
Nashua PMSA	\$452	\$490	\$588	\$578	\$587	\$627
Hillsborough Ct.	\$427	\$492	\$538	\$522	\$555	\$619
State of NH	\$407	\$455	\$498	\$507	\$538	\$589

Source: NHHFA, Residential Rental Cost Survey, 1983-1988

One of the most significant factors which affects rental prices is the vacancy rate. This rate is an indication of how housing supply is meeting demand. A four to five percent vacancy rate is considered to be a sign of a healthy market. Table IV-14 indicates that vacancy rates for rental units are extremely low throughout the State, an indication that the supply of rental units is far below the demand. The high demand and low supply of rental units have combined to drive up prices.

It should be noted, however, that the number of units surveyed is rather small (less than 10% of the rental units in the region). For this reason, more detailed information on rental housing prices in the City of Nashua has been provided in Table IV-15. Because the majority of the region's rental housing stock is located in the City, these figures also provide a good approximation of the rental housing available in the overall region. As can be seen in the Table, the rental rates for the City correspond closely to those of the PMSA as depicted in Table IV-13.

Overall, two-bedroom units comprise 48% of total units offered for rent in the region. Units with three or more bedrooms comprise only 18% of the total units offered for rent, most of which are higher priced single-family homes or condominiums. A disproportionate percentage of three-bedroom apartments and one-

bedroom apartments are located within the City, 83% and 84% respectively. This is also reflective of the concentration of lower-income families with children as well as small, one or two person households found within the City. It should be noted, however, that within each category of rental unit, the City of Nashua offers both inexpensive and more costly units.

**TABLE IV-13**  
**ESTIMATED VACANCY RATES FOR RENTAL UNITS**  
**SELECTED AREAS, 1987**

	# of Units Surveyed	Vacant Units	Vacancy Rate
Nashua PMSA*	1,361	37	2.72%
Nashua City	980	8	0.82%
Hillsborough County	3,261	54	1.66%
Concord City	1,298	25	1.93%
Manchester City	1,701	15	0.88%
Portsmouth City	1,044	40	3.83%
Manchester MSA*	1,764	16	0.91%
Portsmouth/Dover/Rochester MSA*	2,402	53	2.21%
State of New Hampshire	9,693	189	1.95%

Source: NH Housing Finance Authority Residential Rental Cost Survey,  
Nov. 1987.

\*PMSA - Primary Metropolitan Statistical Area  
MSA - Metropolitan Statistical Area

The New Hampshire Housing Finance Authority (NHHFA) maintains a data base which provides owner-occupied housing cost information for each of the communities in the State. NHHFA has been tracking the purchase price of homes since 1983, broken down by new and previously occupied homes. The NRPC communities' single-family housing costs are illustrated in Figure IV-1. As can be seen in the figure, single-family housing costs in Pelham were among the highest of the region's communities and substantially higher than the regional average. However, these figures are based on a small sample size, and the sale of a very expensive home can skew the average purchase price within a community.

TABLE IV-14

AVERAGE RENTAL PRICES (\$) - CITY OF NASHUA

Housing Types	7/88	9/88	10/88	11/88	12/88	1/89	2/89	2/89 Region	Diff Mas. vs. Reg.
2 Bdr SFH	862	940	922	916	907	900	850	730	120
3 Bdr SFH	971	1,052	1,055	1,042	1,115	1,092	895	907	(12)
4+ Bdr SFH	1,248	1,220	1,185	1,182	1,225	1,100	1,100	1,220	(120)
1 Bdr Condo	760	665	670	678	672	620	650	670	(20)
2 Bdr Condo	772	798	755	738	730	823	798	822	(24)
3 Bdr Condo	950	1,008	975	950	955	1,225	1,000	931	69
Efficiency	362	378	375	360	380	368	407	386	21
1 Bdr Apt.	420	513	490	481	495	518	497	500	(3)
2 Bdr Apt.	545	577	585	596	605	605	610	601	9
3 Bdr Apt.	627	614	655	695	695	750	709	747	(38)

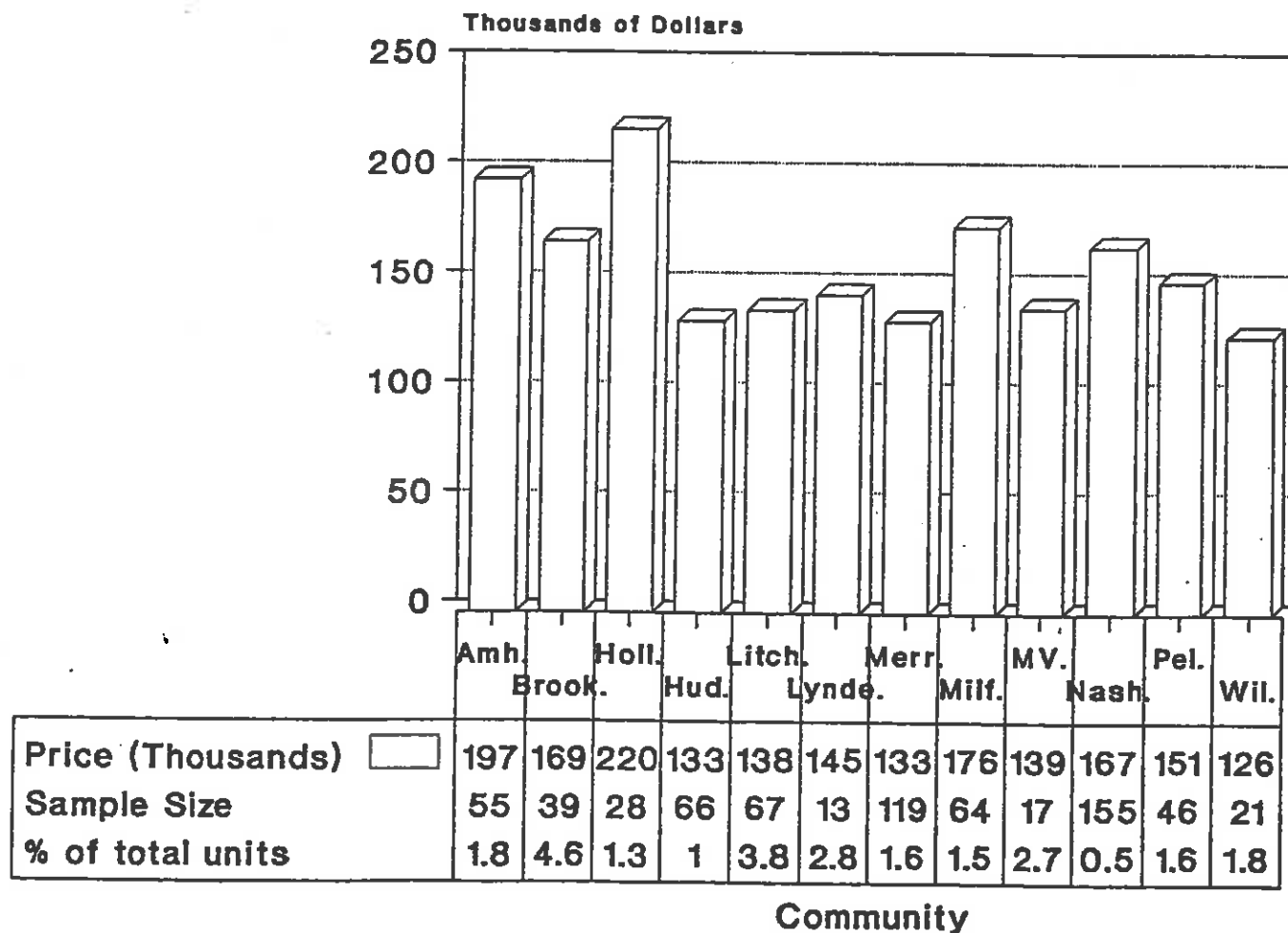
Housing Types	Range				Units Advertised				% Total in Nashua
	Nashua		Region		Nashua	%	Region	%	
2 Bdr SFH	850	850	645	1,000	1	1	11	4	9
3 Bdr SFH	750	1,095	660	1,200	8	5	17	7	47
4 Bdr SFH	1,100	1,100	1,100	1,350	1	1	5	2	20
1 Bdr Condo	575	750	575	750	3	2	5	2	60
2 Bdr Condo	625	1,095	625	1,200	23	14	39	16	59
3 Bdr Condo	1,000	1,000	850	1,000	2	1	4	2	50
Efficiency	300	585	200	585	15	9	22	9	68
1 Bdr Apt.	325	750	325	750	47	29	56	23	84
2 Bdr Apt.	400	850	400	1,000	45	28	68	28	66
3 Bdr Apt.	541	900	541	1,213	15	9	18	7	83

Table IV-16 compares the average selling prices of homes in greater Nashua with the selling prices of homes in other large cities in New Hampshire. Although the increases in Nashua's prices are slightly below those of other cities, its high prices in 1985 keep its prices ahead of the other cities and the State. Figures for 1988 indicate that overall selling prices have increased at a far lesser rate of about 5%. This decrease in overall appreciation rates may indicate that the region's housing market is stabilizing after successive years of substantial increases. Table VII-17 depicts average asking price for homes in the City of Nashua by type. This information indicates that while overall housing prices may have increased during 1988, the average price for smaller homes has actually declined during the period. The range of housing prices in the period together with the percentage of homes offered for sale in each category in Nashua, apart from the region, is also noteworthy: While overall average prices for Nashua are comparable to that of the region as a whole, the City has a far higher percentage of smaller, less expensive homes.

**FIGURE IV-1**

**AVERAGE PURCHASE PRICES,**

**SINGLE FAMILY HOMES IN THE NRPC REGION, 1987**



**TABLE IV-15**

**AVERAGE RESIDENTIAL HOME SELLING PRICE COMPARISONS 1985-87**

Location	1985	1986	1987	% Change	
				1985-1986	1986-1987
Greater Nashua	\$107,786	\$137,730	\$155,880	27.8	13.2
Concord	\$ 78,412	\$102,363	\$115,000	30.5	12.3
Gtr. Manchester	\$ 93,783	\$122,804	\$138,357	30.9	12.7
Salem	\$104,193	\$134,816	\$148,408	29.4	10.1
State of NH	\$ 94,115	\$119,743	\$136,142	27.2	13.7

Source: NH Economic Indicators, Melanson, Greenwood & Co., Nashua Telegraph 4/10/88.

Table IV-17 indicates that a very high percentage of homes offered for sale (31%) are condominiums, most of these located in the City of Nashua. As can be seen in the Table, condominiums, like single-family homes, vary widely in price. Three bedroom single-family homes still make up the largest category of homes offered for sale in the region (34%), followed by four+ bedroom homes at 30%. Within both categories, prices vary over an expansive range.

**TABLE IV-16**

**AVERAGE HOME ASKING PRICES - CITY OF NASHUA**

Housing Types	7/88	9/88	10/88	11/88	12/88	1/89	2/89	2/89 Region	Diff. Nashua Vs Rgn
2 Bdr SFH	\$125,000	\$128,500	\$127,400	\$126,900	\$125,850	\$115,000	\$131,000	136,000	(5,000)
3 Bdr SFH	\$163,000	\$154,000	\$156,500	\$157,000	\$155,500	\$152,900	\$136,200	152,500	(16,300)
4 Bdr+ SFH	\$207,100	\$205,100	\$202,300	\$201,500	\$225,200	\$210,300	\$215,900	215,200	700
Det. Condo	\$137,000	\$135,000	\$134,600	\$133,800	\$131,500	\$127,400	\$155,800	150,900	4,900
1 Bdr Condo	\$ 76,000	\$ 71,000	\$ 71,500	\$ 71,600	\$ 70,600	\$71,200	\$ 85,700	75,700	10,000
2 Bdr Condo	\$ 99,100	\$100,800	\$ 99,600	\$ 98,000	\$ 96,500	\$96,900	\$103,700	101,200	2,500
3 Bdr Condo	\$127,000	\$130,600	\$126,500	\$121,300	\$119,200	\$110,400	\$150,000	142,700	7,300

TABLE IV-16, (cont'd)

AVERAGE HOME ASKING PRICES - CITY OF NASHUA

Housing Type	Range				Units Advertised				% of Total in Nashua
	Nashua		Region		Nashua	%	Region	%	
2 Bdr SFH	\$90,000	\$170,000	\$90,000	\$170,000	5	5	8	4	63
3 Bdr SFH	\$84,000	\$250,000	\$84,000	\$280,000	34	35	72	34	47
4 Bdr+ SFH	\$95,000	\$675,000	\$95,000	\$675,000	22	23	64	30	34
Det. Condo	\$123,000	\$215,000	\$121,000	\$215,000	6	6	7	3	86
1 Bdr Condo	\$82,000	\$92,000	\$56,000	\$92,000	3	3	6	3	50
2 Bdr Condo	\$65,000	\$140,000	\$65,000	\$145,000	23	24	46	22	50
3 Bdr Condo	\$130,000	\$170,000	\$104,000	\$180,000	3	3	7	3	43

Source: City of Nashua Planning Department - February, 1989.

HOUSING AFFORDABILITY

The average purchase prices for single-family homes in each community in the region as shown in Figure IV-1, can be translated to an approximation of the income needed to purchase a single-family home in each community in the NRPC region, as shown in Table IV-18. These figures are general, as there are many variables involved in the level of income needed to purchase a home. Some of these variables include the prevailing interest rate, the amount of down payment, the tax rate of each community, the amount of outside financial assistance, and the length of the mortgage.

As can be seen in Table IV-18, the approximate income required to purchase a home in Pelham is close to average for the region. The required income of \$76,000, however, is still substantially higher than the region's median household income of \$46,200 (see page IV-2). Obviously, only a minority of the region's households could afford to purchase a home in Pelham. If such trends continue, Pelham will increasingly become an enclave for only the higher end of the income categories.

**TABLE IV-17**

**APPROXIMATE INCOME NEEDED TO PURCHASE THE AVERAGE HOME IN  
NRPC COMMUNITIES, FEBRUARY, 1989**

Amherst	\$ 90,500	Merrimack	\$ 66,000
Brookline	\$ 78,000	Milford	\$ 57,500
Hollis	\$102,000	Mont Vernon	\$ 82,000
Hudson	\$ 62,000	Nashua	\$ 65,000
Litchfield	\$ 67,000	Pelham	\$ 76,000
Lyndeborough	\$ 58,000	Wilton	\$ 70,500

NOTE: Estimated incomes needed based on 90% loan, 11% APR mortgage for 30 years; insurance priced at \$6.00 per \$1,000 purchase price; no outside financial assistance.

Source: NRPC estimates.

Table IV-18 provides an estimation of the income required to purchase homes in the region by type. Table IV-19 provides similar information for rental housing in the region. Based on the information provided in these tables, it is clear that most households in the region can afford to either rent or own a home.

**TABLE IV-18**

**APPROXIMATE INCOME RANGE NEEDED TO PURCHASE A HOME IN  
NRPC COMMUNITIES, 1988-1989**

Unit Type	Price Range		Annual Income Needed	
	Low	High	Low	High
2 BR SFH	\$ 90,000	\$170,000	\$ 42,200	\$ 80,000
3 BR SFH	\$ 84,000	\$280,000	\$ 39,500	\$131,500
4+ BR SFH	\$ 95,000	\$675,000	\$ 44,500	*
Detached SFH Condo	\$121,000	\$215,000	\$ 56,500	\$101,000
1 BR Condo	\$ 56,000	\$ 92,000	\$ 26,000	\$ 42,000
2 BR Condo	\$ 65,000	\$145,000	\$ 30,500	\$ 68,000
3 BR Condo	\$104,000	\$180,000	\$ 48,500	\$ 84,500

\* Value not included.

Source: NRPC Estimates.

TABLE IV-19

APPROXIMATE HOUSEHOLD INCOME RANGE NEEDED TO RENT A HOME

IN NRPC COMMUNITIES, FEBRUARY, 1989

Unit Type	Price Range (monthly)		Annual Income Needed	
	Low	High	Low	High
2 BR SFH	\$ 645	\$1,000	\$ 25,800	\$ 40,000
3 BR SFH	\$ 660	\$1,200	\$ 26,400	\$ 48,000
4+ BR SFH	\$1,100	\$1,350	\$ 44,000	\$ 54,000
1 BR Condo	\$ 575	\$ 750	\$ 23,000	\$ 30,000
2 BR Condo	\$ 625	\$1,200	\$ 25,000	\$ 48,000
3 BR Condo	\$ 850	\$1,000	\$ 34,000	\$ 40,000
Efficiency	\$ 200	\$ 585	\$ 8,000	\$ 23,400
1 BR Apt.	\$ 325	\$ 750	\$ 13,000	\$ 30,000
2 BR Apt.	\$ 400	\$1,000	\$ 16,000	\$ 40,000
3 BR Apt.	\$ 541	\$1,213	\$ 21,640	\$ 48,520

Source: NRPC Estimates

ASSISTED HOUSING

In 1988, there were 1,695 units of assisted rental housing in the NRPC region. This assistance comes from one of four agencies: the New Hampshire Housing Finance Authority (NHHFA), the Farmers Home Administration (FmHA), the Department of Housing and Urban Development (HUD), or through the Housing Authority of Nashua. Figure IV-2 and Table IV-21, detail assisted housing data for the region.

FIGURE IV-2

ASSISTED HOUSING BY COMMUNITY IN THE NRPC REGION



Of the rent-assisted units within the region, 527 (31%) are available to elderly households or to non-elderly families, 286 (17%) are available only to non-elderly families, and the remaining 882 units (52%) are available solely to elderly households.

Rental assistance is provided through rental subsidies, vouchers, such as the Section 8 Program, or through low-income loans. The New Hampshire Housing Finance Authority notes that the waiting list for 2 and 3 bedroom units under the Section 8 Program in Hillsborough County is between one and three years. Although the demand for assisted family housing is far higher than the demand for subsidized elderly housing, as previously indicated, the number of assisted units available to non-elderly families is relatively low.

Pelham is one of only six NRPC communities which provide assisted housing of any type. Pelham Terrace's 24 units of elderly housing, however, make up only 1% of the region's assisted housing. Non-assisted housing for the elderly is available at Beaver Commons. While the provision of most assisted housing necessitates higher housing densities than normally permitted in Pelham, the development of subsidized housing, is possible, particularly in the Business Districts.

**TABLE IV-20**

**ASSISTED HOUSING IN THE NRPC REGION**

<b>Town</b>	<b>Name</b>	<b># of Units</b>	<b>Contract Type</b>	<b>Administration</b>
Hudson	Buttercup Hill	64	E	NHHFA
Litchfield	Darrah Village	40	F	FMHA
Merrimack	Wentworth Place	40	E	FMHA
	Wentworth Place II	40	E	FMHA
Milford	Beech Brook	40	E	FMHA
	The Mill	45	E	NHHFA
	Meadowbrook Park	56	F	FMHA
Nashua	Amherst Park Apts.	135	E/F	HUD
	Bayridge Apts.	85	F	NHHFA
	Bronstein Apts.	48	F	NHA
	Brook Village No.	160	E/F	HUD
	Coliseum Residence	100	E	HUD
	Fairmount St. Apts.	10	F	NHA
	Gatewood Manor	97	E	NHHFA
	Ledge St. Homes	30	F	NHA
	Major Dr. Elderly	10	E	NHA
	Maurice Arel Manor	132	E/F	NHA
	Maynard Homes	100	E/F	NHA
	18 Merrimack St.	15	E	NHHFA
	Pratt Homes	45	E	HUD
	Scattered Sites	17	F	NHA
	Sullivan Terr. No.	96	E	NHA
	Sullivan Terr. So.	100	E	NHA
	Temple St. Manor	43	E	NHA
	Vagge Village Apts.	50	E	NHA
	Village Gate	39	E	HUD
	Xavier House	34	E	NHHFA
Pelham	Pelham Terrace	24	E	NHHFA

**Note:** E = Elderly Units                      F = Family Units

**NHHFA:** New Hampshire Housing Finance Authority

**FmHA:** Farmers Home Administration

**HUD:** Dept. of Housing and Urban Development

**NHA:** Nashua Housing Authority

**Source:** NHHFA, Directory of Assisted Housing, 1988.

### HOUSING NEEDS

Housing needs are a reflection of tangible or measurable factors such as income and wealth, age or family size, as well as non-measurable factors such as taste and lifestyle. The following analysis is designed to evaluate the most significant definable factors related to housing (population and existing housing characteristics) to establish the housing needs of all income levels as well as needs defined by factors other than income. The categories of households addressed in this analysis are described on the following pages.

The population profile provided in Chapter II contrasts the diversity of household types in the region with that of Pelham. Each differing household type has a differing housing need. A comparison of the population breakdown of Pelham to the demographic breakdown of the region as a whole allows for an assessment of the types of housing available in the community. This assessment is based on the assumption that in a growing community, the availability of housing by type is the primary determinant of the composition of the population.

#### 1. Household Types by Income

As described previously, income levels are categorized into five groups based on the median income of the region. Income, family size and personal wealth are the most significant factors in establishing the housing choices of families and individuals. Personal or family assets, however, are not possible to determine as such information is not provided by the U.S. Census. For this reason, the following description provides an overview of housing needs by income level only. While income level alone does not account for important factors such as equity or personal savings, it is the principal method by which overall housing affordability can be assessed.

- a. **Very Low-Income:** Very low-income households are defined as those families earning less than 50 percent of the PMSA's median family income. This group includes households below the poverty line, families on some form of public assistance, and the unemployed, as well as households headed by young people just entering the work force. It is important to note that many very low-income households are headed by employed individuals who frequently fill occupations essential to the community. This category may also include a large percentage of elderly households on fixed incomes, handicapped individuals, single-parent headed households, and other households with special housing needs.

TABLE IV-21  
VERY LOW-INCOME CATEGORY BY FAMILY SIZE  
AND MAXIMUM PURCHASE/RENTAL PRICES

Family Size	Median Family Income	Can Afford:	
		Rent (monthly)	Own (purchase price)
Family of Four	less than \$23,100	\$578	\$49,400
Family of Three	less than \$20,800	\$520	\$44,000
Family of Two	less than \$18,500	\$463	\$39,500
Family of One	less than \$16,150	\$404	\$34,500

Source: NHHFA, 1989

The very low-income category includes those families with the most critical housing need. For most households within this income category, home ownership is not possible anywhere in the region. Home ownership in this income category is primarily limited to older individuals who have built substantial equity in property or to households headed by widowed or divorced individuals.

For some households in this category, manufactured housing in manufactured housing parks is a partial ownership option. Rental multi-family housing is by far the principal housing option for most households in this income category. For many, obtaining decent affordable rental housing at market rates is extremely difficult, particularly for those families with children. Only those households at the upper end of this income category are able to obtain rental housing at regional averages without spending more than 30 percent of their gross annual income for housing. As a result, a large percentage of renters within this income category spend more than 30 percent of their income on housing. In some extreme cases, up to 60 percent of the household's income is devoted to rent.

- b. **Low-Income:** Low-income families are those earning between 50% to 80% of the median income for the PMSA (see table IV-23). This income category accounts for approximately 19% of the region's households. The category includes households whose principal wage earners are employed in a wide variety of fields including both professionals and blue collar workers.

- d. **Middle-Income:** Middle-income families earn between 120% and 150% of the region's median family income. This income group, approximately 17% of the region's households, can afford to rent or purchase housing at market rates. In addition to rental housing, condominiums, manufactured homes and moderately priced single-family homes are all housing options for this income group. Depending upon the factors mentioned above, particularly interest rates and equity, a purchase price in the range of \$100,000 to \$160,000 is generally within reach. While many single family homes in Pelham are within reach of middle-income families, most such homes are older and are, therefore, becoming a smaller percentage of the housing stock.

**TABLE IV-24**

**MIDDLE INCOME CATEGORY BY FAMILY SIZE  
 AND MAXIMUM PURCHASE/RENTAL PRICES**

Family Size	Median Family Income	Can Afford:	
		Rent (monthly)	Own (purchase price)
Family of Four	\$55,400 to \$69,300	\$1,325-\$1,733	\$118,300-159,000
Family of Three	\$49,920 to \$62,400	\$1,248-\$1,560	\$106,700-133,300
Family of Two	\$44,400 to \$55,500	\$1,110-\$1,388	\$95,000-118,500
Family of One	\$38,760 to \$48,450	\$ 969-\$1,211	\$83,000-103,500

Source: NHHFA, 1989

- e. **Higher Incomes:** Higher income families are those earning more than 150% of the median family income. In all cases, people in this group can obtain owner-occupied or rental housing at market rates. Even some families in this income range, however, may have difficulty in purchasing a home in Pelham.

**TABLE IV-25**

**HIGHER INCOME CATEGORY BY FAMILY SIZE  
 AND MAXIMUM PURCHASE/RENTAL PRICES**

Family Size	Median Family Income	Can Afford:	
		Rent (monthly)	Own (purchase price)
Family of Four	more than \$69,300	\$1,733+	\$159,000+
Family of Three	more than \$62,400	\$1,560+	\$133,300+
Family of Two	more than \$55,500	\$1,388+	\$118,500+
Family of One	more than \$48,450	\$1,211+	\$103,500+

Source: NHHFA, 1989.

**2. Special Housing Needs**

In addition to housing needs based on income, a broad range of families and individuals have specialized housing needs due to age, disability, household type or lifestyle. Often these needs are aggravated by lower-income levels. Aside from income, many people may also have more than one housing related need, that is someone can be both elderly and handicapped. The special housing needs discussed on the following pages include both short and long-term needs. While special housing needs can include a diversity of categories, only those that bear a strong relation to municipal regulation are examined.

- a. **Handicapped:** This group includes both the physically handicapped and developmentally disabled. Handicapped people transcend all income and age groups. However, the difficulty of obtaining employment with severe physical or mental handicaps frequently confines handicapped people to lower-income groups. Aside from issues related to income, physically handicapped individuals face serious problems in finding housing designed with handicapped accessible entrances, hallways, kitchens, restrooms, and living areas. These problems are compounded for those individuals that are able to obtain only rental housing as few landlords would be willing or able to retrofit a housing unit for a handicapped tenant. The need for handicapped accessible housing has increased greatly in recent years due to a trend toward protecting the rights of the disabled to live and function as independent people. Recent federal legislation has addressed the need for increased multi-family housing for the physically handicapped; however, such measures along will not be sufficient to meet the need in the near future. Pelham does not currently either require or encourage new housing to be handicapped accessible.

Developmentally disabled individuals have housing needs related to their disability as well as to their income. Few individuals with serious developmental disabilities are capable of economic self-sufficiency. The need for medical care and therapeutic treatment, coupled with very-low income, creates a special and highly specific housing need. The problem of housing developmentally disabled individuals who are not under family care has been compounded by the trend toward de-institutionalization over the last several years. De-institutionalized individuals are faced with problems that result from their disability as well as the difficulty of adjusting to life outside of an institution. While some developmentally impaired individuals may require specialized housing for a short time to allow for the transition to independent living, others may never be able to live independently. Often, the developmentally impaired join the ranks of society's lowest strata--the nation's homeless.

- b. **Elderly:** Housing for the elderly is becoming an increasingly important issue due to longer life expectancies and changes in American lifestyles. The housing needs of the elderly are broad, as this group includes individuals of all income ranges and lifestyles. While many elderly individuals may never require specialized housing, the need for housing specifically designed for the needs of the elderly has grown dramatically in recent years.

In most cases, elderly households require smaller units, convenient locations, access to essential services, and in some cases, on-site maintenance and medical care. Congregate care facilities are one way to provide housing to meet a wide range of elderly households. For others, condominium units or conventional multi-family rental housing is sufficient.

Specialized housing for the elderly is required to meet the needs of single as well as two-person households under a variety of conditions. For lower-income elderly households, however, the need is particularly great. Obtaining decent housing at affordable rates for elderly households on limited incomes can be extremely difficult. Some of these needs can be met through single room occupancy (or rooming houses), accessory apartments, share housing (group homes), condominiums, or any other type of multi-family housing. The greatest problems confronting the development of housing suitable for or affordable to the elderly is the lack of appropriately zoned land.

While the Pelham Zoning Ordinance does allow for multi-family housing which could be developed for the elderly, the areas in which such housing could be built is highly limited. The Zoning Ordinance, however, does permit the development of congregate care housing and nursing homes in the Residential District. In addition, non-subsidized housing for the elderly of any type can only be developed under conventional means.

#### **CONCLUSIONS**

The population and housing characteristics described in this chapter present broad implications for the availability and affordability of housing in Pelham and within the region. In general, the City of Nashua and a few adjacent communities are providing the bulk of the region's new housing units as well as providing for the most diverse types of housing within the region. Pelham, like many of the communities in the region, is becoming less diverse as opportunities for housing types other than high priced, low-density single-family homes diminish.

Both the lack of alternative housing types as well as the lack of affordable housing in Pelham and the region are problems that are rooted in the rapid growth experienced during the last few decades. In communities such as Pelham, urban housing needs have been confronting essentially rural conditions and a lack of adequate infrastructural support. Any effort to expand housing opportunities requires first, a recognition and acceptance of the region's existing conditions, and second, an assertive attempt to direct development for the benefit of all of the region's residents into the areas best suited for differing types of development.

Market and geographical factors may play the greatest role in reducing the diversity of the housing stock of most of the region's communities. Another major influence, however, is local land use control. Local land use regulations have clearly had an impact on the distribution and availability of housing as can

be seen in the patterns of population growth and new housing construction presented in this chapter. While housing prices were rising in the early and middle 1980s, the rate of increase of new homes constructed declined. Likewise, the trend in previous decades toward a more varied housing stock was reversed within this decade, even though condominium prices and rents were increasing rapidly.

If housing were to be viewed in isolation of other factors, it may appear that local land use controls have had an undue influence on housing affordability and availability in Pelham. For Pelham, however, the development of local land use controls has been a lengthy and on-going process designed to restrain unchecked growth, retain its rural/agricultural and historic character, avoid the degradation of its natural resources and to generally preserve the essence of the Town. Land use regulations are designed to serve a variety of functions and often, to achieve what seem to be contradictory or conflicting goals. Such is the nature of regulation generally. Pelham's challenge is to expand its housing base without degrading its character, environment or economic structure.

#### **Strategies for Meeting Pelham's Housing Needs**

In recent years, the Town of Pelham has taken important strides in providing housing for the Town's younger families and elderly citizens, and others through the allowance for accessory housing (in-law apartments) in all residential areas. The Town also permits, as has been noted, some opportunities for multi-family housing. The relationship between changing lifestyles and housing, however, needs to be continually addressed. Several alternatives need to be examined to determine which maybe the most effective and realistic to broaden the housing base of the Town and better respond to the needs of its citizens. Of the alternatives described in the Regional Housing Needs Assessment, the adoption of an ordinance to permit the development of clustered housing (planned unit or residential development) appears to be the most promising. A general description of cluster is provided below:

#### **Planned Residential Developments**

Planned Residential Developments or Clustered Housing is a development pattern that allows residential developments to be designed in a way that "clusters" housing units together in a pattern that does not provide the same minimum lot size or setback requirements that apply to conventional developments. While the individual house lot or private yard area dedicated to each unit is usually smaller than those found in conventional tract developments, the overall density is usually the same. Densities are calculated by considering the total land area of the development, including common areas, in relation to the total number of units, rather than considering only the amount of land exclusively dedicated to each individual unit. Often, cluster development is provided for under ordinances using terms such as Planned Residential Development or Planned Unit Development.



## CHAPTER V

### TRANSPORTATION

A safe and efficient highway network is a necessary feature to all community development. The development trends that have occurred in Pelham have been largely the result of the highway system that has been established. The future potential for growth in the Town will strongly depend upon the future evolution of this network.

Planning for the future transportation needs should be carried out in a manner that not only accommodates the future growth that is projected to occur, but will help to ensure that development will proceed in a responsible manner. It should also set in place a highway network that can stand the test of time, i.e. major improvements should be carried out based on long-term needs, rather than simply offering "quick fixes" that may prove inadequate beyond the short-term.

The purpose of this chapter is to provide an inventory of Pelham's existing highway network, address key issues which exist with respect to transportation policy, identify any deficiencies in terms of safety, sufficiency or capacity of the transportation systems which now exist, and provide recommendations for future improvements, with particular emphasis on the Route 38 corridor.

#### HIGHWAY CLASSIFICATION

Within Pelham there are a total of 92.84 miles of roads and highways. Classification of the highway network is done functionally, which categorizes streets and highways by the role they play in vehicular travel, and by funding category, which indicates which funding sources individual streets and highways are eligible for.

#### Functional Classification

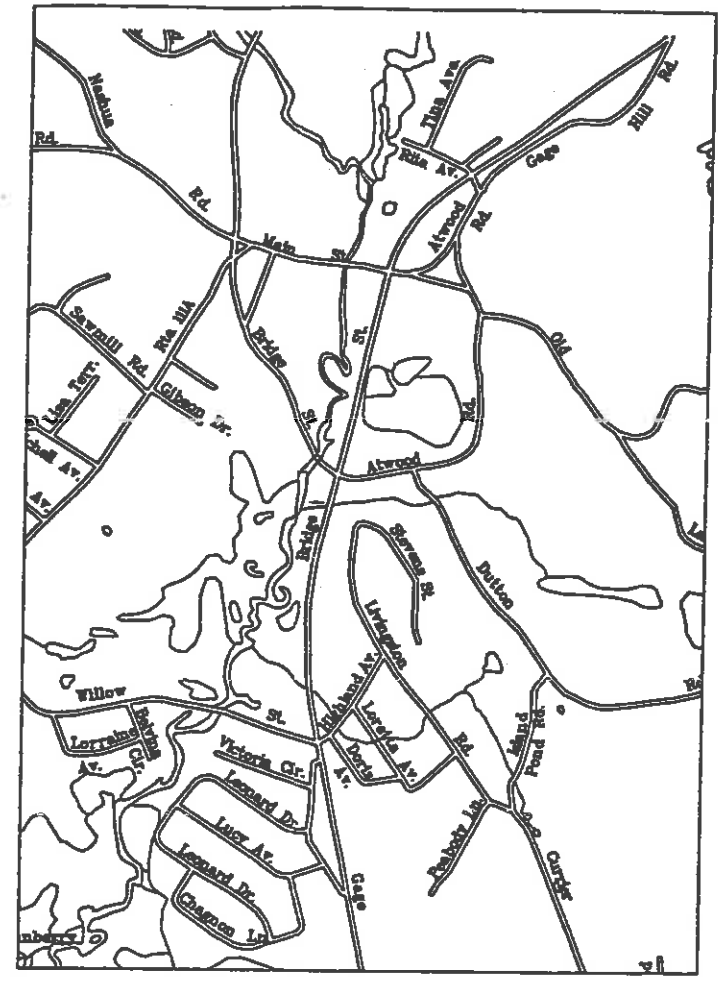
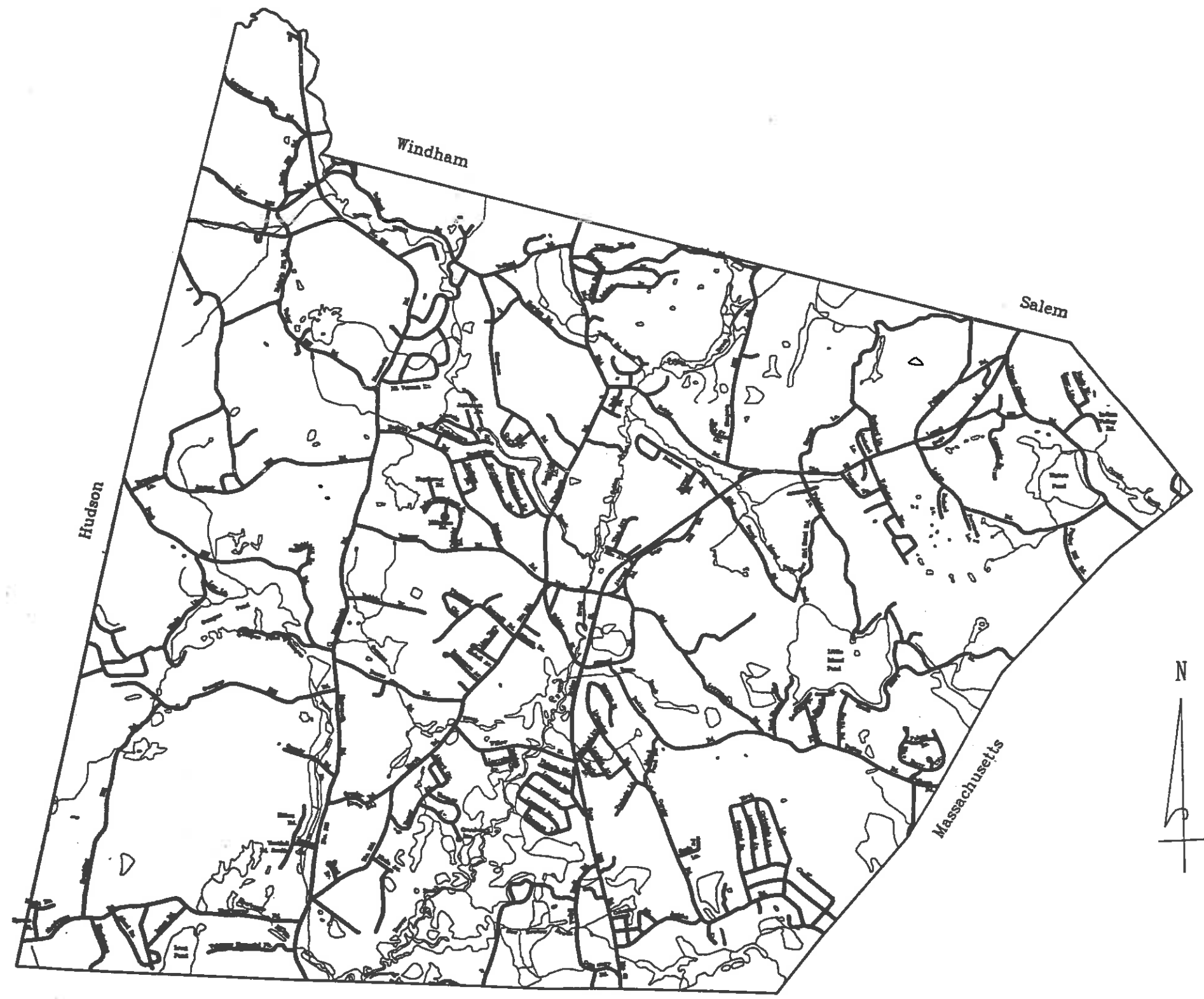
The following provides a description of the Federal Highway Administration's urbanized and small urban area functional classification system characteristics:

#### Functional System

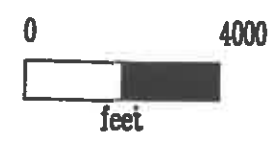
#### General Characteristics

##### Major arterial

1. Serves the major traffic movements within urbanized areas such as between central business districts and outlying residential areas, between major intercity communities, or between major suburban centers.
2. Serves a major portion of the trips entering and leaving the urban area, as well as the majority of the through traffic desiring to bypass the central city.
3. Provides continuity for all rural arterials which intercept the urban area.



Map is for reference only



# Town of PELHAM

- |                |  |
|----------------|--|
| Minor arterial | <ol style="list-style-type: none"><li>1. Serves trips of moderate length at a somewhat lower level of travel mobility than principal arterials.</li><li>2. Provides access to geographic areas smaller than those served by the higher system.</li><li>3. Provides intracommunity continuity, but does not penetrate identifiable neighborhoods.</li></ol> |
| Collector      | <ol style="list-style-type: none"><li>1. Collects traffic from local roads and channels it into the arterial system.</li><li>2. Provides both land access and traffic circulation within residential neighborhoods, commercial and industrial areas.</li></ol>   |
| Local          | <ol style="list-style-type: none"><li>1. Comprises all facilities not on higher systems.</li><li>2. Provides access to land and higher systems.</li><li>3. Through traffic usage discouraged.</li></ol>  |

Using these criteria, highways within Pelham are classified as follows.

Major Arterials	Route 128 Route 38
Minor Arterials	Route 111A Keyes Hill Rd. Bridge St. Main St. Willow St. Nashua Rd. Sherburne Rd.
Collectors	Old Gage Hill Rd. North Old Gage Hill Rd. South Dutton Rd. Tenney Rd. Burns Rd. Jericho Rd. Hobbs Rd. Jeremy Hill Rd. Currier Rd. Tallant Rd.

All other roads are classified as local roads.

Source: NRPC determinations.

Funding Classification

1. State-Aid

The State-Aid classification system has been defined by RSA 229-231 to determine responsibility for construction, reconstruction and maintenance as well as eligibility for use of State-Aid funds. The following is a description of the State-Aid system:

Class I, Trunk Line Highways, consist of all existing or proposed highways on the primary state highway system, excepting all portions of such highways within the compact sections of towns and cities, provided that the portions of turnpikes and interstate highways within the compact sections of those cities are Class I highways. In Pelham, there are no highways which fall into this classification.

Class II, State-Aid Highways, consist of all existing or proposed highways on the secondary state highway system, excepting portions of such highways within the compact sections of towns and cities.

All sections improved to the satisfaction of the Highway Commissioner are maintained and reconstructed by the State. All unimproved sections, where no state and local funds have been expended, must be maintained by the town or city in which they are located until improved to the satisfaction of the highway commissioner.

All bridges improved to State standards with State-Aid bridge funds are maintained by the State. All other bridges shall be maintained by the City or Town until such improvement is made.

In Pelham, Routes 128, 111A and 38 are Class II State-Aid Highways.

Class III, Recreational Roads, consist of all such roads leading to, and within, state reservations designated by the Legislature. The NHDOT assumes full control of reconstruction and maintenance of such roads.

Class IV Highways, consist of all highways within the compact sections of cities and towns listed in RSA 229:5, V. The compact section of any such city or town shall be the territory within such city or town where the frontage on any highway, in the opinion of the highway commissioner, is mainly occupied by dwellings or buildings in which people live or business is conducted, throughout the year. No highway reclassification from Class I or II to Class IV shall take effect until all rehabilitation needed to return the highway surface to reputable condition has been completed by the State.

Class V, Rural Highways, consist of all other traveled highways which the town or city has the duty to maintain regularly.

Class VI, Unmaintained Highways, consist of all other existing public ways, including highways subject to gates and bars, and highways not maintained in suitable condition for travel for five years or more.

Table V-1 summarizes the state aid classification road mileage in Pelham.

**TABLE V-1**

**STATE AID CLASSIFICATION ROAD MILEAGE**

**IN PELHAM OF JANUARY, 1988**

	<u>Road Mileage</u>	<u>Pct. of Total</u>
Class I	0.00	0.0%
Class II	19.45	21.0%
Class III	0.00	0.0%
Class IV	36.58	39.4%
Class V	32.27	34.8%
Class VI	<u>4.54</u>	<u>4.9%</u>
Total	92.84	100.0%

Source: N.H. Dept. of Transportation

**2. Federal Aid**

A second funding classification is the Federal-aid highway system. Highways which fall into this category are eligible for funds that are distributed by formula and programmed by the N.H. Department of Transportation for non-urbanized areas such as the portion of Pelham outside of the urban compact line. Route 38 is a component of the Federal-aid Primary System. Route 128 north of Greely Road is on the Federal-aid Secondary System. South of Greely Road Route 38 is part of the Urban System.

**SCENIC ROAD DESIGNATION**

Communities are enabled by state legislation to designate roads other than state highways as Scenic Roads. This law protects such roads from repair or maintenance which would involve the cutting or removal of medium and large-sized trees, except with the written consent of an official body. The law is a very important tool in protecting the scenic qualities of roads. The large trees and stone walls that line many rural roads contribute heavily to the New England character of the region's towns.

To protect and preserve the stone bridge over Beaver Brook, a portion of Old Bridge Street north from the Rt. 38 intersection to the Rt. 111A intersection was designated a Scenic Road in 1990. The town should consider greater use of the law to protect the character of its roads. Roads which appear to have the characteristics for consideration are Old Bridge Street, Jeremy Hill Road, Valley Hill Road and Old Gage Hill Road.

**EXISTING HIGHWAY CONDITIONS**

**Traffic Volumes**

Traffic count data for the Pelham road network are derived from two basic sources. First the N.H. Department of Transportation (NH DOT) conducts short-term traffic counts along highways on a periodic basis. Secondly, the Nashua Regional Planning Commission (NRPC) has an ongoing traffic count program for its member communities. These counts are presented in Table V-2. Table V-3 provides traffic count trends at various locations in Pelham during the 1980's. These figures indicate a substantial upward trend through most of the decade.

**TABLE V-2**

**WEEKDAY TRAFFIC COUNTS IN PELHAM**

<u>Street</u>	<u>Location</u>	<u>Year</u>	<u>Mo.</u>	<u>Weekday Traffic</u>	<u>Daily Traffic</u>
Bowman Lane	S. of Jeremy Hill Rd.	1990	10	292	
Bridge St.	W. of NH 38	1991	4	7,522	7,541
Burns Rd.	off NH 111A	1991	4	1,391	1,391
Bush Hill Rd.	at Hudson Town Line	1990	10	455	
Dutton Rd.	at Mass. State Line	1990	9	1,503	
Dutton Rd.	S. of Atwood Rd.	1990	10	429	
Gage Hill Rd.	at Beaver Brook	1990	10	4,412	
Hayden Rd.	off NH 111A	1991	4	685	632
Hobbs Rd.	at NH 38	1991	4	2,170	2,071
Jericho Rd.	at Mass. State Line	1990	9	550	
Keyes Hill Rd.	at Hudson Town Line	1987	5	4,592	
Main St.	W. of NH 38	1991	4	5,717	5,538
Old Gage Hill Rd.	at Mass. State Line	1990	10	2,623	
Sherburne Rd.	at Hudson Town Line	1987	5	4,407	
Tallant Rd.	W. of NH 111A	1990	10	507	
Willow St.	W. of NH 38	1991	4	4,827	4,832
NH 38	at Mass. State Line	1991	4	14,791	14,897
NH 38	at Salem Town Line	1991	4	7,878	7,950
NH 38	South of Main St.	1991	4	9,240	9,270
NH 111A	at Windham Town Line	1990	10	3,836	
NH 128	at Mass. State Line	1990	10	8,402	
NH 128	N. of Bush Hill Rd.	1989	6	4,597	
NH 128	N. of Sherburne Rd.	1990	10	10,558	

Source: Nashua Regional Planning Commission

TABLE V-3

WEEKDAY TRAFFIC COUNT TRENDS IN PELHAM

Old Gage Hill Rd. at Mass. State Line				NH 111A at Windham Town Line				NH 128 at Mass. State Line			
Yearly				Yearly				Yearly			
Mo.	Total	%	Change	Mo.	Total	%	Change	Mo.	Total	%	Change
1980									5,854		
1981											
1982											
1983											
1984											
1985								7,675	5.6%		
1986											
1987	5	2,341						8	7,797	0.8%	
1988				8	3,810			8	8,906	14.2%	
1989								6	9,588	7.7%	
1990	10	2,623	3.9%	10	3,836	0.3%		10	8,402	3.7%	
1991											
Ave Yrly %			3.9%				0.3%				3.7%
*****											
NH 38 S. of Main St.				NH 38 at Salem Town Line				NH 38 at Mass. State Line			
Yearly				Yearly				Yearly			
Mo.	Total	%	Change	Mo.	Total	%	Change	Mo.	Total	%	Change
1980									11,031		
1981											
1982											
1983											
1984											
1985								11,368	0.6%		
1986											
1987								8	15,265	15.9%	
1988								8	13,589	-11.0%	
1989								10	13,388	-1.5%	
1990	9	7,004		9	7,341			9	13,053	-2.5%	
1991	4	9,240	31.9%	4	7,878	7.3%		4	14,791	13.3%	
Ave Yrly %			31.9%				7.3%				2.7%
*****											

Source: NRPC, 1980-1991

### Highway Capacity Analysis

Using the observed traffic count data, it is possible to evaluate the performance of highway facilities through the use of highway capacity analysis. The principal objective of highway capacity analysis is the estimation of the maximum amount of traffic that can be accommodated by a given facility. It not only provides tools for the analysis and improvement of existing facilities, but for the planning and design of future facilities as well.

"Level of Service" (LOS) is a term which denotes the type of operating conditions which occur along a roadway or at a given intersection for a given period of time, generally a one-hour peak period. It is a qualitative measure of the effect of a number of operational factors including roadway geometrics, travel delay, freedom to maneuver and safety. Level of service categories for roadway segments and descriptions are explained below.

Level of Service "A" represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.

Level of Service "B" is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is still relatively unaffected.

Level of Service "C" is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. Occasional backups occur behind turning vehicles.

Level of Service "D" represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a below average level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

Level of Service "E" represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform level. Freedom to maneuver within the traffic stream is extremely difficult, and is generally accomplished by forcing other vehicles to give way. Congestion levels and delay are very high.

Level of Service "F" is representative of forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point, resulting in lengthy queues.

Table V-4 indicates the relationship between traffic volumes and level of service for each roadway type. A volume to capacity ratio for the roadway segment is also calculated by dividing the two-way volume into the highway's total capacity. Table V-5 presents the calculations for highways in Pelham.



TABLE V-4

MAXIMUM DAILY TRAFFIC FOR EACH LEVEL OF SERVICE BY ROADWAY TYPE

(Per Two-Way Single Lane Volume)

<u>Roadway Type</u>	<u>LOS A</u>	<u>LOS B</u>	<u>LOS C</u>	<u>LOS D</u>	<u>LOS E</u>
Major Arterial	2,500	5,150	8,350	14,200	24,000
Minor Arterial	2,250	4,550	7,600	12,900	22,700
Collector	2,000	3,850	6,450	11,000	21,000

Source: Derived from procedures in the 1985  
Highway Capacity Manual

TABLE V-5

LEVEL OF SERVICE AND VOLUME-TO-CAPACITY RATIOS

ALONG PELHAM STREETS AND HIGHWAYS

<u>Street</u>	<u>Location</u>	<u>Weekday Traffic</u>	<u>Roadway Type</u>	<u>Vol./ Cap.</u>	<u>LOS</u>
Bridge St.	W. of NH38	7,522	Minor Art	.33	C
Burns Rd.	off NH111A	1,391	Collector	.07	A
Dutton Rd.	at Mass. State Line	1,503	Collector	.07	A
Gage Hill Rd.	at Beaver Brook	4,412	Collector	.21	C
Hobbs Rd.	at NH38	2,170	Collector	.10	B
Jericho Rd.	at Mass. State Line	550	Collector	.03	A
Keyes Hill Rd.	at Hudson Town Line	4,592	Minor Art	.20	B/C
Main St.	W. of NH38	5,717	Minor Art	.25	C
Old Gage Hill Rd.	at Mass. State Line	2,623	Collector	.12	B
Sherburne Rd.	at Hudson Town Line	4,407	Minor Art	.19	B
Tallant Rd.	W. of NH 111A	507	Collector	.02	A
Willow St.	W. of NH38	4,827	Minor Art	.21	C
NH 38	at Mass. State Line	14,791	Major Art	.62	E
NH 38	at Salem Town Line	7,878	Major Art	.33	C
NH 38	South of Main St.	9,240	Major Art	.38	D
NH 111A	at Windham Town Line	3,836	Minor Art	.17	B
NH 128	at Mass. State Line	8,402	Major Art	.35	C/D
NH 128	N. of Bush Hill Rd.	4,597	Major Art	.19	B
NH 128	N. of Sherburne Rd.	10,558	Major Art	.44	D

Source: Nashua Regional Planning Commission, 1992

TRAVEL PATTERNS

An examination of travel patterns in and through Pelham is important in identifying existing and future priorities for the implementation of transportation improvements. In addition to U.S. Census data on journey-to-work patterns, the NRPC conducted an origin-destination survey of traffic inbound to Pelham from Massachusetts as part of a corridor planning study.

Journey-To-Work

Information on origin and destination patterns for travel to work from place of residence is available from U.S. Census data. Unfortunately, such data are now ten years old and total commuter trips have risen significantly since that time. This is evident not only from the estimated population growth figures for this decade, but even more so from actual traffic count trends that have occurred along major arterials in the region. Since 1990 data have not yet become available, estimates of commuting patterns have been developed from 1980 data factored by the approximate growth rate for the region for the 1980-1990 period. Table V-6 presents these journey-to-work data. About one-third of the population (34%) commutes to Massachusetts, 18% works within Pelham and 7% commute to Nashua.

TABLE V-6

ESTIMATED COMMUTING PATTERNS FROM PELHAM

<u>Place of Work of Pelham Residents</u>	<u>Number of Persons Commuting (1990)</u>	<u>Pct. of Total Commuters</u>
Pelham	784	17.7%
Nashua	296	6.7%
Hudson	235	5.3%
Milford	13	0.3%
Salem	95	2.1%
Windham	31	0.7%
Derry	18	0.4%
Merrimack	10	0.2%
Litchfield	4	0.1%
Other N.H.	38	0.9%
Massachusetts	1,507	34.0%
Unknown	1,398	31.6%
	-----	-----
TOTAL	4,429	100.0%

Source: 1980 U.S. Census Data factored to 1990.

### Origin-Destination Survey

Origin-destination surveys of persons driving northbound on Route 38 were conducted at the Pelham/Dracut line in October, 1990. The findings reveal that the City of Lowell, Massachusetts provides the major place of origin for northbound trips on Route 38 at the Pelham line, accounting for about 45% of the total. Other Lowell Area communities, including Dracut, Chelmsford, Billerica and Tewksbury, provide another 39% of the total. Work trips make up nearly half (48%) of the trip purposes. Route 38 locations in Pelham provide the destinations for 46% of these trips, while only 1.7% travel to Route 38 locations in Salem. Other Pelham locations account for 29.5% of destinations, followed by non-study area locations in New Hampshire (13.0%) and other Salem locations (8.7%).

### KEY HIGHWAY ISSUES

#### Access To Roads And Highways

The maintenance of safe and convenient access to roads and highways is an important element of transportation systems planning. To achieve this end, the following standards are recommended:

- o The safest possible location for access shall be selected (NH RSA 236:13).
- o There must be adequate drainage and grades to permit a safe and controlled approach to the highway in all seasons of the year (NH RSA 236:13).
- o For all access points, the following American Association of State, Highway and Transportation Officials standards should be applied:

<u>Type of Road</u>	<u>Speed Limit, or if None, Typical Speed</u>	<u>Minimum Safe Sight Distance</u>
(a) minor roads	30 mph or lower	200 feet
(b) through roads	31 - 40 mph	275 feet
(c) through roads	41 - 50 mph	350 feet
(d) major roads	50 - 60 mph	475 feet

#### Right-of-Way and Travelway Width

A right-of-way (ROW) width of fifty feet (minimum) is recommended for all local roads in town, with the exception of private ways and drives. This will allow the upgrading of any roadway, if necessary, should development occur in a manner that was not anticipated. A greater width may be required for arterial and collector streets.

TABLE V-7

ORIGIN-DESTINATION SURVEY SUMMARY: NH 38 AT PELHAM/MASSACHUSETTS LINE

Results Factored to 6500 Inbound Vehicle Trips

Origin	Destination:	Pelham		Pelham		Salem		Salem		Other		Other		Mass.		TOTAL	PCT.
		Total	Pct.	Total	Pct.	Total	Pct.	Total	Pct.	Total	Pct.	Total	Pct.	Total	Pct.		
		85	1.3%	156	2.4%	7	0.1%	7	0.1%	45	0.7%	0	0.0%	0	0.0%	300	4.6%
	Methuen/Lawrence Area	13	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13	0.2%
	Northeast Mass.	6	0.1%	7	0.1%	0	0.0%	0	0.0%	13	0.2%	0	0.0%	0	0.0%	26	0.4%
	No. Shore Mass.	130	2.0%	240	3.7%	0	0.0%	20	0.3%	65	1.0%	7	0.1%	7	0.1%	462	7.1%
	Greater Boston	20	0.3%	26	0.4%	0	0.0%	0	0.0%	7	0.1%	7	0.1%	7	0.1%	60	0.9%
	South of Boston	6	0.1%	39	0.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	45	0.7%
	Worcester Area	1385	21.3%	806	12.4%	52	0.8%	312	4.8%	325	5.0%	32	0.5%	32	0.5%	2912	44.8%
	Lowell	1111	17.1%	416	6.4%	52	0.8%	189	2.9%	299	4.6%	20	0.3%	20	0.3%	2087	32.1%
	Dracut	169	2.6%	202	3.1%	0	0.0%	26	0.4%	72	1.1%	7	0.1%	7	0.1%	476	7.3%
	Chelms/Billerica/Tewk	33	0.5%	7	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	40	0.6%
	Tyngs/Pepp/Dunstable	26	0.4%	20	0.3%	0	0.0%	13	0.2%	20	0.3%	0	0.0%	0	0.0%	79	1.2%
	W. of Lowell																
	TOTAL	2984	45.9%	1919	29.5%	111	1.7%	567	8.7%	846	13.0%	73	1.1%	73	1.1%	6500	100.0%

Travelway width may vary depending on the type of roadway and the nature of the traffic. A minimum single lane width of nine feet is recommended for each direction of traffic traveling at slow speeds. Higher speeds or traffic volumes will require a wider lane width for each lane of traffic. Generally, the center line of the travelway should coincide with the center line of the ROW. The fifty-foot minimum ROW, however, not only allows upgrading of the roadway as stated earlier, but also allows for the diversion of the roadway to avoid difficult or sensitive natural formations during the course of construction.

The N.H. Department of Transportation Minimum Geometric and Structural Guide for Local Roads and Streets provides more detailed standards, and should be adhered to in street design.

#### Pavement Management

An ongoing issue for communities is how to best maintain their road systems. All too often, road maintenance is conducted on a "worst first" basis, but there is no system in place that encompasses the entire road network. The Town of Pelham should consider implementation of a pavement management system for targeting roads for maintenance, resurfacing and reconstruction. The benefits of such a program are improved pavement conditions, reduced long run costs and establishment of a permanent data base for the road network conditions. The N.H. Department of Transportation has adopted a pavement management system and conducted an analysis for the State highways. The results of the analysis for Pelham's state highways are detailed in Table V-8. A brief explanation of analysis criteria is provided. Ratings rank from 0 (worst) to 5 (best).

Surface Distress Index (SDI) - A measure of the surface pavement structure.

Ride Comfort Index (RCI) - Indication of how the public views a road.

Pavement Service Index (PSI) - A total measure of the quality of the pavement, through combining the SDI and RCI.

The Town of Pelham could utilize the same pavement management system for analysis of its town highway network. NH DOT equipment for performing the road inspections is made available to those who have been properly trained by State personnel. Alternative pavement management systems, such as the Army Corps of Engineers PAVER system, could also be employed.

TABLE V-8

#### PAVEMENT CONDITIONS ALONG STATE HIGHWAYS IN PELHAM

<u>Route</u>	<u>Section</u>	<u>Length</u>	<u>RCI</u>	<u>SDI</u>	<u>RRI</u>	<u>Resur- facing Date</u>
NH 38	Mass. Line to Willow St.	1.52	3.77	3.91	3.94	7/90
NH 38	Willow St. to Old Gage Rd. S.	1.51	3.48	3.56	4.43	7/90
NH 38	Old Gage Rd. S. to Wellesley	1.74	3.39	1.91	4.62	8/88
NH 38	Wellesley Rd. to Salem line	1.32	3.43	1.93	4.16	8/88
NH 111A	South of Windham line	3.06	3.52	3.23	4.24	7/89
NH 128	Entire length	6.40	3.22	1.89	4.29	6/88

Source: 1990 Pavement Management Report, New Hampshire Dept. of Transportation

**Pedestrian and Bicycle Access**

The construction of sidewalks at locations where the separation of pedestrian and vehicular traffic is desirable is an important safety consideration. Where the construction of a sidewalk is not feasible, a pedestrian way may be provided, i.e. an extension of the roadway pavement separated by a solid line. While not as safe as a sidewalk, a pedestrian way will allow for pedestrian and bicycle use in areas where a curb is not desirable. Sidewalks and pedestrian ways must be free from obstacles and accessible to handicapped persons. Funds may be set aside by the Town in order to implement this policy. Private developers of commercial and/or industrial property may also be required to construct sidewalks along the frontage of their property.

**NH ROUTE 38 CORRIDOR PLAN**

Recognizing the rapid rate of growth that is occurring along the NH Route 38 Corridor, the NH DOT funded a corridor study for the purpose of developing a plan for highway improvements. This section details the analysis of conditions and corridor recommendations.

**Intersection Capacity Analysis**

Level of service can be calculated for intersections, whether signalized or unsignalized, as well as for highway links. Also calculated for signalized intersections are volume-to-capacity (V/C) ratios, which indicate the degree to which individual lanes have excess capacity for accommodating additional volumes.

The following is a summary of the capacity analysis of unsignalized intersections within the study area.

- o NH Route 38/Old Gage Hill Road North - Shared left and right turns from Old Gage Hill Road are made at the lower end of LOS "D" (approaching "E") during the Saturday peak period. Delay is somewhat less during the weekday afternoon peak hour.
- o NH Route 38/Hobbs Road - Delay during the Saturday peak is about the same as at the Old Gage Hill Road intersection. The weekday p.m. peak is at the upper end of LOS "D", indicating only somewhat longer than average delays.
- o NH Route 38/Jericho Road - Right turns can be made from a separate lane on Jericho Road, thus allowing easy access onto Route 38 at LOS "B" for this turning movement. Left turns are made at the mid-range of LOS "E", indicating long delays and little remaining capacity for the intersection to acceptably operate unsignalized.

An evaluation of the operational conditions at the signalized intersections along the highway is provided below.

- o NH Route 38/Main St. and Old Gage Hill Rd. South - All approaches operate at LOS "B" during the peak hours, indicating only minor intersection delays. The highest volume/capacity ratio occurs for the northbound through/right lane approach on Saturday, where still only about 60% of the lane group capacity is utilized.

- o NH Route 38/Bridge St. and Atwood Street - The intersection as a whole is pushed just into the LOS "C" range during the weekday afternoon peak, with a total average delay of 15 seconds. This still represents good intersection performance, since LOS "C" indicates only average levels of delay. The V/C ratios indicate sufficient remaining capacity for the major approaches for all peak periods.
- o NH Route 38/Willow St. and Highland Avenue - The intersection operates at LOS "B" during the weekday afternoon and Saturday peak hours, and LOS "A" during the weekday morning period. The only turning movement which shows signs of approaching the upper end of its capacity is the northbound left/through lane on Route 38. The Saturday peak hour V/C ratio for this lane group is .82. The fact that the right lane, which is designated for right turns only, has a V/C of .14 indicates that there is a significant capacity imbalance. It would be expected in such a situation that many drivers desiring to continue through the intersection who are behind a stopped left turning vehicle would pull into the nearly vacant right turn lane in order to continue through. This was observed to occur throughout the time periods studied. The high V/C for the left/through movements indicates that this lane group will experience a capacity breakdown well before the intersection as a whole will be overloaded. This suggests that lane modifications should be considered in order to provide a better balance of capacity utilization.

#### Short Range Highway Improvements

Based upon the intersection capacity and visual observation of intersection deficiencies, the following short term recommendations were developed for Route 38 intersections.

- o Old Gage Hill Road North - Improve signage, reduce vegetation and install a flashing beacon to mitigate limited sight distance from Old Gage Hill Road.
- o Main Street and Old Gage Hill Road South - Widen the Route 38 southbound approach and stripe for a separate right-turn lane. Provide pavement markings for a right turn lane on Main Street, along with some widening for storage. Improve the striping for left turns from Route 38 in both directions.
- o Willow Street and Highland Avenue - Change the lane configuration on Route 38 to provide exclusive left and joint right/through lanes. Widening and realignment of the intersection will be required to implement this. Widen the Willow Street approach somewhat to provide better separation of left and right/through traffic.
- o Jericho Road - The paved shoulder on the Route 38 southbound approach should be widened, or a separate turn lane constructed, to allow through traffic to pass stopped vehicles turning to Jericho Street. Curbing should be provided in order to achieve safer driveway access to the convenience store.

### Development Policy Recommendations

A set of development policy recommendations were made for governing future growth along the Route 38 corridor, as detailed below.

- o Prohibit the construction of dead-ended streets which are designed to remain so permanently.
- o Strengthen setback requirements to New Hampshire Department of Transportation standards. A 100 foot setback would be required for the Route 38 corridor.
- o Increase frontage requirements in order to minimize curb cuts along Route 38.
- o Work toward the construction of service roads running parallel to Route 38.
- o Encourage "planned commercial development", whereby several business are served by a single access point.
- o Review multi-commercial developments as subdivisions, utilizing generally accepted engineering standards for the regulation of parking areas and traffic circulation.
- o Require new commercial developments along Route 38 to provide access to a local collector street, where possible.
- o Consider the formation of a Driveway Access Review Committee to review all proposals for safety and compatibility.
- o Enact stricter landscaping standards.
- o Establish a municipal impact fee district for the Route 38 corridor.

### Long Range Highway Improvements

Considerable growth along the Route 38 corridor is forecasted for the twenty year study period. Based upon capacity analysis of the future projected conditions, the following long-range corridor plan is recommended.

- o Route 38 should eventually be widened to a three or four-lane cross section through its major activity centers from the Massachusetts border to just north of Main Street.
- o Consideration should be given to the signalization of the Jericho Road intersection.
- o A complete upgrade of the Old Gage Hill Road North intersection should be considered. An alternative would be to prohibit left turns onto Route 38 and direct traffic to Young's Crossing for this purpose.
- o Maintain an updated capital improvements program with a transportation improvements component.
- o Consider improvements to enhance access to the industrial park at Mammoth Road.



## CHAPTER VI

### COMMUNITY FACILITIES

The provision of facilities and services for the protection of the public health, safety and welfare and for the education of children is the central function and purpose of municipal organization. Pelham, like most municipalities, provides for police and fire protection, libraries, education, recreation and general town government. In addition to town and school district staff, local government also includes the services of and facilities for volunteer board or commission members such as the Selectmen, School Board, Planning Board, Zoning Board of Adjustment, Conservation Commission and several others. Volunteers are also heavily relied on for other town services such as fire protection. This chapter examines each of the major areas of local government based upon information derived from the 1980 Master Plan, 1986 Community Facilities Study, the Town's annual reports and other sources. Although a variety of subjects are examined, a particular emphasis is placed on the space needs of municipal facilities.

The future space needs of various town departments and services are determined largely by the demand for the services they provide. Demand for services is objectively determined by the size of the community as measured by population, number of housing units, and geographical size. Other factors also influence the demand for local government services, such as resident expectations, State and Federal mandated programs, and the local government's ability to pay for service expansions. While this last factor, financial capability, can be measured and maximized through a sound Capital Improvements Plan, other unmeasurable factors should be considered. Resident expectations for future service levels have been partially measured through the community opinion survey which indicates that there is no strong sentiment for a broadening of local government's services and general satisfaction with current levels of service provision. Both State and Federal levels of government, however, may mandate new or expanded levels of service from local units regardless of popular sentiment.

#### TOWN HALL FACILITIES

The traditional Town Hall functions of Pelham are distributed between the main Town Hall and the Town Hall Annex (former police/fire station). The main Town Hall houses the town clerk, assessor's office and the planning and building department. The second floor is devoted to the district court and is also used for public meetings. Together, both floors provide 4,784 square feet of total space. The structure is over ninety years old, however, and there are flaws in the structure of the building and deficiencies in the electrical, heating, and other systems which may hinder the ability of employees to use higher technology equipment.

Although the structure suffers from several problems, the most severe physical problem is with the septic system. The ten year old replacement system which currently serves Town Hall is located on an abutting parcel through the benefit of an easement. The site of the Town Hall is not large enough to replace the system. The heating system is also inconsistent, as an old system often is when used for several small, enclosed areas. The interior of the structure has suffered from relatively poor past renovations which were unsympathetic to the historic building. Several additional parking spaces have been recently added, however, bringing the total to fifteen.

The offices that are currently in Town Hall must remain in close proximity to each other because each of them shares maps, files or equipment with the others. The relocation of the Selectmen's and administrative offices to the Town Hall Annex alleviates the overall space in the Town Hall, but reduces the

With the increasing technology used by library patrons and staff, there are an insufficient number of electrical outlets, primarily on the main floor. Also on the main floor, the lighting is poor. Contrary to standards of library design, the lighting fixtures are perpendicular, rather than parallel to the shelving. The library also lacks any water supply of its own. Presently, the building is served by the well of the adjacent Congregational Church. There are currently four parking spaces in the library parking lot which are used for patron parking. On-street parking and the lot of the adjacent Congregational Church is available for staff and patrons when not in use by the church.

The daily operation of the library is essentially independent of general town government so that its location away from other services is not critical. In fact, because of the high volumes of traffic generated by a library, it may be better located away from other town functions. The library, however, does provide meeting space for some Town committees and a central location is traditional for library facilities.

Utilizing the ALA guidelines in Table VI-2 and the population projections from Chapter II, the space requirements calculated for the Pelham Library are listed in Table VI-2. Population estimates of 10,414 and 10,730 are used for the years 1995 and 2005 respectively. Although the population projections utilized in Table VI-2 are the most recent available, it should be emphasized that they are estimates only. Before a specific facility or expansion is proposed, new population estimates and projections should be used to determine actual space needs.

**TABLE VI-2**

**GUIDELINES FOR DETERMINING MINIMUM SPACE REQUIREMENTS FOR SMALL LIBRARIES**

**Shelving Space:**

15,000 volumes plus 3 books per capita for population over 5,000.

One linear foot of shelving for every 8 books.

One square foot of floor space for every 10 books.

**Reader Space:**

23 seats plus 4 seats per 1,000 population over 5,000.

30 square feet reader space per reader seat.

**Staff Work Space:**

Three full time staff plus 1 for every 2,000 population over 5,000.

500 square feet plus 150 square feet for every additional full time staff member.

**Estimated Additional Space Needed:**

1000 square feet for circulation desk, heating and cooling system, multi-purpose room, stairways, janitors' supplies, toilets, etc.

**Parking Spaces:**

One for every full-time equivalent employee and .75 for every adult patron utilizing the library at the peak use hour.

The total space need projected for 1995 is 6,379 square feet. The current facility has 2,504 square feet of usable space, or less than 40% of the calculated need for 1995. By 2005, a total of 6,531 square feet of total space will be needed.

TABLE VI-3  
LIBRARY SPACE NEEDS, 1985-2005

	Current Space (square feet)	Additional Space Need By:		Total Space Need
		1995 (sq.ft.)	2005 (sq.ft.)	
Floor Space for shelves	1,304	1,820	1,918	3,222
Reader Space	250	1,100	1,129	1,379
Staff Work	350	555	580	930
Add'l Space	600	400	400	1,000
Total	2,504	3,875	4,027	6,531
Parking Spaces:				
Employee	0	6	6	6
Public	4	19	20	24
Total	4	25	26	30

Current peak hour use of the library was estimated at 20 adults by the director in 1985. Peak hour use is calculated for the future years by assuming that the same proportion of total Town residents would use the library during the peak hour in those years as did in 1985. Thus, 20 of 9,000 residents is 0.22%. Applying this same ratio to the projected populations of 10,414 and 10,730 the total number of adult patrons at peak hour in 1995 is 23 and 24 in 2005. Utilizing ALA minimum guidelines 19 additional patron spaces are needed by 1995 and 20 additional patron spaces will be needed in 2005. With employee parking, 26 additional parking spaces are needed by 2005 to provide a total of 30 parking spaces.

The inadequacy of the septic system, the need for a permanent water supply, building expansion and additional parking all require additional land area. The current site is not large enough to make all four of these corrections. Some additional space does exist for an on-site expansion, however, such an addition would fall far short of the library's long-term space needs.

#### POLICE DEPARTMENT

The Pelham Police Department employs a chief, four sergeants, nine officers, four special officers, a full-time and part-time animal control officer, a clerk, secretary, three full-time dispatchers and two part-time dispatchers. Both the Police and Fire Departments share a joint public safety center.

The structural condition of the public safety facility is good. The structure is sound and the roof was replaced during 1984. The operational systems of the building are reported to be adequate as well. A few small problems do exist. One of them is common in a building with many small rooms; closed off areas and closed doors create some inconsistency in the temperature

throughout the building. The office area becomes very warm when the heat is in use and the cellblock area is very cold. In addition, the water is considered to be undrinkable, although it is adequate for all other purposes. Finally, because there is a lack of windows, circulation of air is poor when neither the heating nor the cooling system is in use.

Although the safety center is far newer than the Town Hall or Library, the Police Department is overcrowded and lacks space for some facilities which are central to its operation. Some areas are sufficient for the use for which they are intended, however, overflow from other areas has created a general shortage of space throughout the department. While the current public lobby area is sufficient, the communications area located within the lobby is too small to service both the police and fire departments, though it is adequate for one department. The main office, with 130 square feet, is very small for all the functions it must currently serve - reception, filing, storage, typing, and booking. Some of these deficiencies were accommodated by the recent addition of a mobile office unit. The chief's office is sufficient, but there is one room of 120 square feet which must serve 9 officers (3 per shift, 6 at shift change) as a locker room, day/dining room, classroom, briefing room, for writing reports, and for interviewing victims, suspects and witnesses.

Evidence storage is also a problem as evidence must be held for quite some time and it continues to stockpile. Currently, evidence is stored in 24 square feet in the police station and at many locations in other town buildings which are not secure. The photo/darkroom has been taken over for evidence storage and the equipment is currently sitting unused in yet another town building. There is one cellblock with two cells in it. There are not separate facilities for holding women, or for holding juveniles separately from adults, as required by state law. The two existing restrooms are sufficient, as well as the area for janitorial supplies and the heating/cooling system. Currently there is garage space for one vehicle; the remaining garage space is used for storage. There are 8 parking spaces for police department use at the public safety facility.

Fairly exacting standards exist for police station planning. There is one source that most others seem to be derived from, and the standards, as they are applicable to Pelham, are listed in Table VI-4.

**TABLE VI-4**  
**POLICE STATION PLANNING AND SPECIFICATIONS**  
**FOR TOWNS OF 10,000 TO 12,500**

Public Lobby:  
120 square feet  
Communications Center:  
120 square feet  
Main Office:  
1 secretary and 2 clerks for 10,000 population, plus 1 clerk for each additional 2,000 population  
200 sq. ft. for 2 employees and files plus 50 sq. ft. per additional employee  
Chief's Office:  
140 square feet  
Uniformed Police Officers' Areas:  
1.45 full time officers per 1,000 population  
Locker room and dayroom/dining room:  
120 sq.ft. for 10 officers plus 20 sq. ft. for each additional officer.  
Interview Rooms:  
2 at 64 sq.ft. each for 10,000 population, plus one for each additional 5,000 population  
Briefing/Report Writing and Classroom:  
40 sq.ft. per officer on largest shift  
Detectives' Office:  
1 detective for 10,000 population plus 1 for each additional 5,000 population)  
120 sq. ft. per detective  
Cellblock Area:  
For men: 2 cells at 42 sq.ft. each  
For women: 1 cell at 42 sq. ft. plus 15 sq.ft.  
For juveniles: 2 cells at 42 sq.ft. each plus 30 sq.ft.  
Evidence Storage:  
170 sq.ft. per 10,000 population plus 50 sq.ft. per 2,500 population  
Photo/Darkroom: 60 sq. ft.  
Restrooms: 2 at 36 sq.ft. each  
Janitor: 28 sq.ft.  
Heating/Cooling System: 112 sq.ft.  
Booking Area: 100 sq.ft.  
Armory Room: 80 sq.ft.  
Garage: 20 sq.ft. for cars plus 550 sq.ft. for equipment storage  
Secure Garage for receiving Prisoners: 144 sq.ft.  
Parking Spaces:  
1 for each employee on largest shift and 4 public for 10,000 population plus 1 for each additional 2,500 population

Source: Police Station Planning and Specifications by Joshua H. Vogel,  
Architect. University of Washington Press, Report #128, Bureau of  
Government Research and Services.

These detailed specifications allow a very clear picture to be drawn of the space requirements for the police department for the next twenty years. The personnel required at each threshold point which are necessary in deriving the space requirements are shown in Table VI-5. In addition to the space requirements detailed in Table VI-4, the police chief has requested a fitness room, which is included in the space needs outlined in Table VI-6.

**TABLE VI-5**

**TOTAL PERSONNEL REQUIREMENTS FOR THE PELHAM POLICE DEPARTMENT**

	<u>1995</u>	<u>2005</u>
Chief	1	1
Secretary	1	1
Clerks	2	2
Detectives	1	1
Officers	15	18

TABLE VI-6

POLICE STATION SPACE NEEDS, 1985-2005

	Current Facility (sq.ft.)	Additional Space Need By			Total Add. Space Need	Total Space Needed Thru 2005
		1985	1995	2005		
Lobby	130					130
Communications*	65	130			130	195
Main Office	145	55			55	200
Chief's Office	144					144
Officer's Locker/Day Rm		180	40	60	280	280
2 Interview Rms @ 64 sq.ft.		128			128	128
Briefing/Report Writing/Classroom	120	80	40	40	160	280
Detective's Off.		120			120	120
Cellblocks						
2 Male	84					84
1 Female		57			57	57
2 Juvenile		114			114	114
Evidence Storage	24	144		50	194	218
Photo/Darkroom		60			60	60
Restrooms (1 ea.)	72			72	72	144
Janitor	28					28
Heat/Cool, etc.	112					112
Booking Area	100				100	100
Fitness Room		120			120	120
Armory Room		80			80	80
TOTAL INDOOR	924	1,368	80	222	1,670	2,594
Garage/Cars	100	100			100	200
Garage/Equipment	275	275			275	550
Receive Prisoners Salleyport (secure garage)		144			144	144
TOTAL GARAGE	375	519	0	0	519	894
Parking Spaces:						
Employee	8	1	1	1	3	11
Public	0	4		1	5	5
TOTAL SPACES	8	5	1	2	8	15

\* Current area is shared with Fire Department.

Source: Police Station Planning and Specifications by Joshua H. Vogel, Architect. University of Washington Press, Report #128, Bureau of Government Research and Services.

The day-to-day operation of the police department is fairly independent of other government offices, so that its location away from other government services is not relevant. The dispatch system and the gasoline pumps are shared with the fire department, but these facilities could adequately service both departments even if the departments were located in separate facilities. There is little room for expansion of either parking or building expansion on the present site, and there is no possibility that the fire department will be able to give up any part of their portion of the building.

#### **FIRE/AMBULANCE DEPARTMENT**

The largely volunteer Fire Department includes a chief, assistant chief, two deputy chiefs, three captains, four lieutenants and twenty-one firefighters. As previously mentioned, the Police and Fire Departments share a joint facility.

The structural condition of the public safety facility, as noted in the previous section, is good. The structure is sound and the roof was replaced during 1984. The operational systems of the building are reported to be adequate as well. A few problems, however, do exist. One of them is common in a building with many small rooms; closed off areas and closed doors create some inconsistency in the temperature throughout the building. In addition, the water is considered to be undrinkable, although it is adequate for all other purposes. Finally, because there is a lack of windows, circulation of air is poor when neither the heating nor the cooling system is in use.

The daily operation of the Fire/Ambulance department is essentially independent of the rest of town government so that its location away from other services is irrelevant. The dispatch system and the gasoline pumps are shared with the police department, but it is possible that these facilities could adequately service both departments even if the departments were not located adjacent to each other.

There are currently four full-time employees of the department: the chief, his secretary and two firefighters. The remainder of the firefighting force of 21 are all on-call volunteers. Currently, only two offices totaling 290 square feet are available to the fire department and they are used by the chief and his secretary. There is no office space for the remaining officers. There are six apparatus bays, 12 parking spaces and a training room of approximately 800 square feet.

As long as the nature of development in the Town and the maximum service radius does not change, volunteer firefighters will probably be able to adequately service the town. The use of the volunteer force, however, is dependent on the willingness of townspeople to volunteer. In Pelham, like many other towns, the number of volunteers has declined. The maximum radius will not change unless land is annexed to the Town. Since there is no unincorporated land adjacent to the town, this is highly unlikely. There are no service standards available which indicate at what population threshold a volunteer force is no longer effective and there are volunteer departments servicing municipalities three and four times the size of Pelham.

Because there are so many variables involved, (service radii, population, development density, traffic, response time of fire fighters), very few standards are available for long term planning of volunteer fire departments. Some general guidelines can be extracted, however, from the Federal Emergency Management Agency, and those are incorporated here. In addition, some norms are established here through an examination of towns with current populations similar to those projected for Pelham.



Office space is currently lacking for the deputy and lieutenants, who do some paper and reporting work. Two offices of approximately 120 square feet will be sufficient for the next several years because these officers generally are not all working there simultaneously. Space needs generated by the on-call volunteer force will be limited to the need for more training room space; an additional room of approximately 400 square feet should accommodate this need through the end of the study period. Approximately two more apparatus bays (or one bay and two garage spaces) will be needed in the twenty year study period to accommodate additional equipment.

After fires and during training sessions there are frequently twenty and occasionally up to fifty individuals present at the facility. Even though there is some parking available around the station, the existing twelve parking spaces are currently insufficient. Parking spaces should be available to service at least the "frequent" level of individuals present at these times; eight more, or a total of twenty spaces are needed.

The size of the building leaves little room for expansion on the site of the public safety facility for office, parking or apparatus storage, but the potential does exist for the fire/ambulance squad to expand into the police section of the building, if the police department is moved to another facility.

#### RECREATION

The Town of Pelham provides for a wide range of active and passive recreational opportunities through town and school sponsored programs, at town and school district owned properties and facilities and through private facilities, sites and programs. Currently, over 900 acres of public and privately owned lands are available for recreation within the Town. Of this total, approximately 235 acres have been developed or improved for recreation. This figure, however, includes substantial privately owned sites and facilities.

Private recreational facilities provide recreational opportunities for members of specific groups (including non-residents) as well as for the general public. The largest of these is Camp Runnels, a 320 acre Girl Scout camp on Little Island Pond. The Camp provides campsites, a ballfield, beach and extensive trails. A baseball diamond, football field, playground equipment, and basketball court are provided at St. Patrick's School. Pine Valley Golf Links, Inc. operates a 95 acre, 9 hole course adjacent to Camp Runnels. Shooting ranges are available at the Pelham Fish and Game Club. Two other indoor facilities which serve both general and specialized needs include the American Legion Hall and the Senior Center. Although these privately owned facilities are often available to the general public on a fee or non-fee basis, private recreation is only a partial substitute for public recreation. Table VI-7, below, lists the Town's major public recreational facilities and sites.

**TABLE VI-7**

**PUBLIC RECREATIONAL SITES AND FACILITIES**

<u>NAME</u>	<u>Facilities</u>	<u>Acres</u>
Pelham Veterans Memorial Park	Town beach, 2 tennis courts, basketball court, function hall, picnic areas and trails.	56
George M. Muldoon Park	Soccer field and trails, 2 baseball diamonds (lighted), skating pond and shelter with concession stand, storage and restrooms.	50
Golden Brook Park (Newcomb Field)	Softball field (lighted)	2.5
Elmer G. Raymond Park	Scout Lodge, Athletic fields being developed.*	75
Pelham High School	4 tennis courts, football field, softball field and two multi-purpose fields. Indoor basketball/gymnasium.	75
Memorial School	Soccer field, softball field and gymnasium	
Sherburne School	2 softball fields, playground equipment, picnic areas.	
Jeremy Hill State Forest	No facilities	63
Town Forest	No facilities	

\* Development problems may preclude the use of athletic fields.

The Town's public recreational facilities and programs are administered by a full-time Recreational Director and secretary. The recreation department is housed in the Town Hall Annex but moves to Pelham Veteran's Memorial Park during the summer. Other recreational activities are administered by the schools and through the efforts of volunteer recreation and athletic groups. In addition to traditional active recreational activities such as Little League and softball, the Town also offers tennis and swimming lessons and programs for senior citizens. Providing for the full range of recreational needs in the community requires the participation and cooperation of the town administration, the schools, private recreational facility provides and a large number of local volunteers.

Planning for future recreational needs requires an in-depth analysis of community preferences, physical conditions, local demand and the use of standards. Since a comprehensive study of recreational facilities and local needs is beyond the scope of the Master Plan, and such a study has not been conducted in recent years, a reliance on standards is necessary. Current state standards

for recreational facility provision are provided in Table VI-8. The table also indicates the total facilities Pelham would need to meet the demands of the projected year 2005 population level of 10,750.

**TABLE VI-8**  
**RECREATIONAL FACILITY STANDARDS**

<b>Facility</b>	<b>Standard Per 1000 Persons</b>	<b>Total Facilities Needed by 2005</b>
Archery Range	.1	1 to 2
Baseball Diamond	1.1	11 to 12
Basketball/Hard Courts	.8	8 to 9
Boat/Fishing Access	.1	19
Football Fields	.1	1 to 2
Golf Courses (18 hole)	.04	0 to 1
Gymnasiums	.25	2 to 3
Ice Hockey Rinks	.05	0 to 1
Ice Skating Area	.14	1 to 2
Open Space/Natural Area (acres)	51.0	539
Picnic Tables	8.0	85
Community Parks (acres)	6.0	63
Playgrounds	.5	5
Playgrounds (acres)	2.10	22
Shooting Ranges	.08	0 to 1
Skiing (cross country)	.1	1
Soccer Fields	.16	1 to 2
Swimming (Beach)	.5	5
Swimming (outdoor pools)	.14	1 to 2
Tennis Courts	.95	50
Track	.04	0 to 1
Hiking Trails (miles)	2.2	23

Source: New Hampshire Office of State Planning, 1988.

As discussed previously, a wide range of factors influence the need for future recreational facilities. Generalized standards are limited in that they do not account for local interests, conditions or participation levels. However, based upon the standards alone, it can be concluded that the Town should place a high priority on the provision of additional beach areas, perhaps at least one at each major pond, additional tennis courts, athletic fields and playground areas. Additional access to natural areas in general and to surface waters in particular, should also be a high priority.

### SCHOOLS

The School Department is governed by a five member locally elected school board with a superintendent shared with the adjacent Town of Windham. Pelham provides three public schools: E. G. Sherburne School (grades 1-4), Memorial School (grades 5 to 8), and Pelham High School (grades 9-12). St. Patrick's School, a parochial school, offers education for grades K-8. Other private schools also offer kindergarten and pre-school programs.

All three of Pelham's schools are centrally located on Marsh Road near the center of Town. The school sites are large and provide a combined total of approximately 95 acres of recreational land. Since the completion of Pelham High School in 1974, however, there have been no significant expansions of any of the school buildings. Sherburne School surpassed its capacity of 550 students during the 1989 to 1990 school year. With an enrollment of 612 for the 1991 to 1992 school year, the schools is operating at over 111% of capacity. Memorial School is expected to reach its capacity of 600 students by the 1994 to 1995 school year. With a capacity of 800, however, the High School will remain below 75% of capacity for at least the remainder of the decade. Table VI-9, on the following page, provides actual enrollment figures for the 1983-84 through 1991-1992 school years. Projected figures are provided for the school years after 1992.

Due to the high cost facility expansions and the constraints imposed by core facilities, building sites and other considerations, a long-range study of school facility needs is essential. Currently, three alternatives are under consideration to alleviate the space shortage at the Elementary School. These include the use of portable classrooms, shifting some grade levels to the High School or the building of an addition. Consideration is also being given to the concept of year-round schooling.

TABLE VI-9

ACTUAL AND PROJECTED SCHOOL ENROLLMENTS

E. G. Sherburne					Memorial					Pelham High							
YEAR	1	2	3	4	ST 1-4	5	6	7	8	ST 5-8	9	10	11	12	ST 9-12	GT 1-12	ST 1-8
83-84	135	105	120	91	451	143	141	170	140	594	126	138	138	135	537	1582	1045
84-85	167	112	122	115	516	129	106	153	137	525	181	132	137	118	568	1609	1041
85-86	136	134	111	122	503	114	128	113	147	502	138	176	132	132	578	1583	1005
86-87	155	117	135	106	513	122	119	130	111	482	135	133	171	120	559	1554	995
87-88	157	114	125	126	522	108	117	128	126	479	106	132	132	145	515	1516	1001
88-89	174	121	111	124	530	133	114	122	122	491	105	106	132	108	451	1472	1021
89-90	202	124	123	114	563	129	135	112	120	496	131	107	103	112	453	1511	1059
90-91	198	140	142	124	604	126	135	141	116	518	121	123	114	99	457	1579	1122
91-92	173	157	142	140	612	129	130	131	143	533	116	110	112	112	450	1595	1145
92-93	184	130	162	141	617	147	133	131	130	541	143	111	108	104	466	1624	1158
93-94	189	138	134	160	621	148	151	134	130	563	130	137	109	100	476	1660	1184
94-95	186	142	142	133	603	168	152	153	133	606	130	125	134	101	490	1699	1209
95-96	206	140	146	141	633	140	173	154	151	618	133	125	123	125	506	1757	1251
96-97	193	155	144	145	637	148	144	175	152	619	151	128	123	114	516	1772	1256
97-98	0	145	160	143	0	152	152	145	173	622	152	145	125	114	536	0	0
98-99	0	0	149	158	0	150	157	154	144	605	173	146	142	116	577	0	0
99-00	0	0	0	148	0	166	155	159	152	632	144	166	143	132	585	0	0
00-01	0	0	0	0	0	155	171	157	157	640	152	138	163	133	586	0	0
01-02	0	0	0	0	0	0	160	173	155	0	157	146	135	152	590	0	0

Source: Superintendent's Office

Source: Superintendent's Office

### SOLID WASTE

The Town of Pelham is an independent Solid Waste Management District as provided for under RSA 149:M. The Town owns and operates an incinerator and recycling program at a 14.34 acre site on Windham Road. The facility was constructed in the early 1970s as a drop-off center to replace reliance on a private landfill. The main building consists of 3,200 square feet accompanied by a 1,000 square foot recycling facility. The incinerator is open to all Town residents at no cost. Commercial users pay a tipping fee. Pelham does not provide municipal trash pick-up.

In recent years, it has become apparent that the age and capacity of the incineration facility limits its potential to continue to meet the needs of Pelham residents. Furthermore, contemporary state and federal regulations and standards and other factors have greatly increased the costs of new small-scale incinerators. For new incineration facilities to be economical, they must have the capacity to handle large quantities of solid wastes. In addition to concerns related to the use of the incinerator, changing solid waste disposal and environmental regulations greatly influence solid waste disposal decisions. Composting activities must now be expanded since leaf and yard wastes will no longer be permitted to be disposed of at the incinerator. Increasingly, differing components of the waste stream will have to be separated and managed distinctly.

In light of the need to identify viable alternatives for solid waste disposal, and under state mandate, the Town of Pelham prepared the long range Solid Waste Management Plan in 1990. This document outlines alternatives for meeting the current and future solid waste disposal needs of the Town for a fifteen to twenty year period. The alternatives include participation in a regional facility with one or more neighboring towns, use of a remote facility with a local transfer station and recycling center and an examination of local disposal options. All of the alternatives, however, involve costs far higher than currently borne by the Town.

### WATER SUPPLY

Although Pelham lacks a public water system, the development of a public water system has been an issue discussed and studied within the town at length. As described in Chapter III, much of the town is underlain by high yield stratified drift aquifers which have the potential to supply Pelham as well as other communities. This section describes and analyzes the water supply potential of Pelham's stratified drift aquifer groundwater resources. The information presented below is taken primarily from the 1988 Pelham Water Resources Management and Protection Plan, which in turn, utilized data from the 1987 United State Geological Survey (USGS) Water Resources Investigations Report 86-4358 entitled Hydrogeology of Stratified Drift Aquifers and Water Quality in the Nashua Regional Planning Commission Area, the 1983 Metcalf & Eddy, Inc. report entitled Nashua, New Hampshire Regional Groundwater Investigation and the Davis, Benoit, and Tessier Facilities Plan. Map III-4 illustrates Pelham's stratified drift aquifers.

The most significant stratified drift deposit present in the town is located along the center axis of the watershed which occupies approximately 14,000 acres in the central portion of the Town. The aquifer extends from the mouth of Golden Brook southward along Beaver Brook. Saturated thickness as much as 100 ft. and a transmissivity of more than 8,000 ft.<sup>2</sup>/d make this area of central Pelham the best available location for developing groundwater supplies for the Town. The school-system well yields more than 400 gal/min. from this aquifer.

Along Beaver Brook to a point northwest of its confluence with Golden Brook, the stratified drift consists of coarse sand and gravel. This aquifer is not as extensive and does not have a great storage capacity as the lower Beaver Brook area; however, it does have a transmissivity greater than 6,000 ft<sup>2</sup>/d. Wells could be located in the permeable materials of this area and designed to induce recharge from Beaver Brook.

The elevation of the water table in the aquifer ranges from 160 ft. to 120 ft. In general, groundwater flows in the direction of surface water features to which groundwater is generally discharged. In this watershed the flow is towards Island Pond brook, Golden Brook, and Beaver Brook.

All of the groundwater quality sampling done in the 1983 Metcalf and Eddy study was done in this watershed. The following description of the results of the work performed is taken directly from the Metcalf and Eddy study.

The groundwater in Pelham is of acceptable quality for potable use with the following exceptions. The sample from one USGS monitoring well (PEL GW11) contained iron and manganese levels which exceeded the secondary standards for these compounds by factors of 57 to 10, respectively. If this area of the aquifer is to be developed for a potable supply, treatment for iron and manganese may be warranted. Arsenic was detected in this well at 50 ug/L which is the primary drinking water standard for arsenic. The priority pollutant bis (2 ethyl hexyl) phthalate was detected at a concentration of 900 ug/L. The additional quality control analyses data indicate that the sample was not contaminated during the sample analysis. The well is a PVC, solvent installed well, which may be the source of bis (2 ethyl hexyl)phthalate, although this compound was not detected in any of the other four PVC wells samples in this study. The well is located in an undeveloped, wooded area of Pelham, near no known sources of contamination. A possible source of bis (2 ethyl hexyl) phthalate in this sample is the sampling equipment. The sample from another USGS well in Pelham (PEL GW10) contained manganese at a concentration of 336.5 ug/L, which exceeds the secondary standard for manganese by a factor of 6.7.

Outside of the Beaver Brook/Golden Brook aquifer area, there are three areas; principally around Harris Pond and south and east of Little Island Pond, with some potential for public water supply. These areas, however, are relatively small pockets of sand and gravel of limited saturated thickness and transmissivity for the deposits is less than 2000 square feet per day.

Currently no average daily withdrawal and discharge information is available through the Water Resources Division of the Department of Environmental Services. A "Summary of Well Completion Report Data for the Town of Pelham" obtained from the Water Resources Division of the Department of Environmental Services, indicated a total number of 210 wells were completed between February, 1984 and January, 1988.

The USGS Aquifer Delineation Study, described above, considered all of the stratified drift deposits in the town, for suitability as water supply sources during the course of its investigations. Aquifers determined to have potential as municipal supply sources were then "modeled" using results of their analysis given below for the Beaver Brook/Golden Brook aquifer. This aquifer is the only one determined by the study to have potential as a supply source. The following description is taken directly from this study.

The aquifer, located along Beaver Brook is central Pelham extends from the mouth of Golden Brook on the north, to Willow Street on the south. Well W-63 pumps approximately 400 gal/min. from the central part of this aquifer. The logs of several test borings (W-57, W-55, W-62, and A-4) in the central part of the valley west of Beaver Brook indicate favorable conditions for well construction. Additional pumping from six locations in the aquifer as simulated.

The model area has a recharge boundary on the east to simulate Beaver Brook and a barrier boundary on the west to simulate the stratified-drift till contact. The northern and southern boundaries were left "open" to simulate continuous aquifer deposits beyond the model area. Saturated thickness ranges from 30 to 100 ft. and transmissivity averages 9,000 ft<sup>2</sup>/d (pl. 6) in the modeled area.

Modeled results indicate a potential total yield of 3.8 Mgal/d from six wells within this aquifer; this represents an increase of 2.3 Mgal/d over the current yield. The measured stream-flow in Beaver Brook during base-flow conditions at the down-stream end of the modeled area was 11.5 ft<sup>3</sup>/s, if all pumped water is used consumptively.

The water quality of the aquifer, although not extensively studied, is considered good with the exceptions previously noted, and the possible high iron content cited in the Davis, Benoit, and Tessier Facilities Plan. However, as discussed further below, a great number of incompatible land uses exist above the aquifers. Current use of the groundwater is limited to individual wells and small community water systems.

As described further in Chapter IX, the larger part of the existing residential development in the Town of Pelham, the Town Center, schools and almost all of the Town's commercial and industrial development is located in the Beaver Brook Valley and above the major stratified drift aquifer. The extent of the wetlands and floodplain areas within the Valley indicates the most new development will occur outside of the Valley and outside of the Beaver Brook Watershed. A few large tracts of land with good development potential remain in the southwestern portion of the Valley and in the area north of the confluence of Beaver Brook and Golden Brooks. Most of the land with limited development potential is recommended for public or private open space or conservation lands. In the southern and northwestern extremes of the valley, increased industrial development is recommended. It should be noted, however, that Pelham does have an aquifer protection ordinance.

The 1980 Facilities Plan and the 1974 study conducted by Fenton G. Keyes Associates provided a good overview of water quality and potential water supplies. These studies, however, must be updated and expanded to determine whether groundwater supplies remain of a quality suitable for a public water source. In addition, a survey of underground storage tanks with capacities below 1,100 gallons should be conducted. Hydrology studies would also allow the Town to determine the extent to which wetland areas within the watershed serve as groundwater recharge areas.

#### SEWER

As with public water supply, there is currently no public sewage system in Pelham, however, the provision of a sewer system has been contemplated for specific portions of the Town. Investigation into the possibilities of providing sewer have been prompted by a concern that public water supply should be developed coincidentally with public sewer to avoid impacts on the water table.



Other justifications for investigation into the development of a sewer system are based on the proper development of existing commercial and industrial areas and uses and the need to provide alternatives to individual subsurface disposal system in high density residential areas and areas with a high potential for septic system failure.

In 1979, the Facilities Plan was prepared for the Town by Davis, Benoit & Tessier, Inc. The plan investigated and analyzed a number of alternative waste water treatment alternatives, including the development of a public sewer system for portions of the town. Although the plan did not recommend that a sewer system be developed, a limited system was found to technically feasible. Such a system could potentially service the central portion of town including the business and industrial districts along Route 38, almost all of the Town's municipal and school district facilities and higher density residential areas such as the Little Island Pond area.

The advantages of a town sewer system are multiple. A public sewer system extending through the central portion of town, the Little Island Pond area and the commercial and industrial areas along Route 38 would accommodate the town's major water users and would significantly reduce the contamination threat to the Town's major aquifer areas, surface waters and wetlands. A sewer system would also allow higher densities and a wider variety of commercial and industrial uses which would encourage economic growth as well as allow for a wider range of alternative housing types. The principal disadvantage is cost.

In the Facilities Plan, two major options for sewer treatment were identified: the development of a small local treatment plant and the use of a regional facility. Although a thorough technical, regulatory and financial investigation into these alternatives is beyond the scope of the Master Plan, it is probably safe to conclude that regulatory and cost factors would preclude the development of a local treatment plant. The costs associated with connections is one of the regional facilities within reasonable distance of Pelham (Salem, Nashua and Lowell) would also be considerable. It may be possible, however, to connect to the Lowell facility through the connections already serving the town of Dracut. Prior to any recommendation, a thorough study of all of the sewer related alternatives should be pursued. Such a study must identify and assess the technical, legal and financial feasibility of each alternative. It would also be necessary, based on estimated costs, to estimate the demand or interest level of potential users and to determine the level of general support within the community at large.

#### CONCLUSIONS AND RECOMMENDATIONS

Although substantial growth is not anticipated over the next decade, Pelham is nevertheless faced with needed public facility expansions and improvements for most municipal functions and for the school district. Furthermore, as is underscored elsewhere in the Master Plan, the future of the town in many ways hinged on its ability to provide public water and sewer service to its commercial, industrial and densely developed areas. The following recommendations are intended to address these key areas.

1. A town water and sewer commission should be formed to investigate public water and sewer implementation alternatives. The commission should be adequately staffed and supported.

2. A comprehensive space needs study and plan is necessary to allow future public facility expansions and improvements to be made in a timely and cost efficient manner. The existing town and school district committees and boards should be supported and encouraged to complete their efforts.
3. The Planning Board should amend its subdivision regulations to require that parks, playgrounds or open space of adequate proportions be provided as a part of residential subdivision development where appropriate.

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## CHAPTER VII

### ECONOMIC DEVELOPMENT

Planning for a vigorous, balanced and enduring local economy is perhaps one of the most difficult aspects of the development of a master plan since most of the factors governing economic development are beyond the control of the Town. Pelham's economy is but a small portion of the regional economy which, in turn, is only a portion of the greater economies of the Boston Metropolitan area, the State of New Hampshire, the Northeastern United States and the Nation as a whole. Furthermore, the majority of Pelham residents are employed outside of the Town's boundaries. Nevertheless, planning for the needs of the community over the next ten years requires an analysis of commercial and industrial land uses, the needs for and of such uses, and the potential impact of non-residential uses on the local tax base. To the extent that it is possible, it is also incumbent on the Town to attempt to provide employment and business opportunities for its citizens and to minimize future tax burdens through planning for the development of a sound tax base. The need for employment generation in Pelham is particularly critical due to the Town's relatively high unemployment rate.

As with all New Hampshire municipalities, Pelham derives most of its revenues from local property taxes. Property taxes in 1990, accounted for over 84% of combined town and school district revenues. The remaining portion is derived from fees, motor vehicle registration, and other sources. Revenues from the state or federal government amount to less than 5% of combined average Town and School District revenues. Clearly then, an analysis of the Town's tax base, or its net local assessed valuation, is central to any issue related to local economy. The influence on the value of the land and buildings within its jurisdiction that a municipality can have is limited. Property values are largely determined in the marketplace. Within the constraints of the market and the greater regional economies, however, the Town can influence the strength of its tax base through the adoption of appropriate local land use regulation.

In addition to the controls the Town can have on the strength of its tax base, a municipality can also, to some degree, control its spending. The degree to which this is possible, however, is also limited by factors outside of the control of the Town. The provision of basic services such as education, public safety, and road maintenance, for example, are required of a municipality. The decisions a town makes related to the level of facility and service provision within these areas is also limited by state and federal standards and requirements, industry standards and issues related to liability. Furthermore, many of the major expenditures facing the Town, such as for solid waste disposal, are largely based on state mandates and intermunicipal agreements and are beyond the discretion of the Town.

The chapter is designed to focus primarily on the issues related to the local economy that are largely within the jurisdiction of the municipality. First, the economy of Pelham is examined within the context of the State and regional economies, the tax base is then analyzed and compared to other communities. Based on this latter analysis, implications for development, which, in turn, have implications for future land use regulation decisions, are assessed.

**EMPLOYMENT**

Over the past three decades, the Nashua region has emerged as an important manufacturing and employment center. The growth of the local economy has been driven, principally, by the high technology electronics and defense industries as well as traditional manufacturing industries related to the production of a wide variety of durable and non-durable goods. Similar trends drove the economy of Lowell metropolitan area of which Pelham is also a part. For several years, the region led the nation in job creation, growth and employment rates. The recent downturn in the electronics industry and defense related industries, however, has resulted in a decline in major regional industries and a significant loss of jobs. This, in turn, has had a ripple effect through the regional economy and has led to further declines in areas such as financial and real estate services and the construction industry. Table VII-1, details employment within the Nashua Primary Metropolitan Statistical Area (PMSA) by industry for the year 1987. Although Pelham is a part of the Lowell PMSA, the data for the Nashua PMSA is generally applicable to the whole NRPC region. Tables VII-2 and VII-3 provide similar, but less detailed information for Hillsborough County and for the State for 1990.

As can be seen in Table VII-1, two manufacturing industries, electrical products and machinery, account for 26.9% of total regional employment (14% and 12.9% respectively). No other industries come close to providing as high a percentage of total employment. The next largest employers include local government (6.1%), eating and drinking establishments (6.0%), construction and minim (5.8%), health services (5.5%), and business services (5.0%). Manufacturing employment accounted for 43.3% of total employment, a figure drastically higher than the County average of 29.7% and the State average of 27.2%. This deviation from State and County employment statistics has had a major impact on the regional economy as is discussed in the following section.

**TABLE VII-1**  
**EMPLOYMENT AND EARNINGS**  
**NASHUA PMSA - 1987**

<u>Sic Code</u>		<u>Average Annual Employ.</u>	<u>Percent of Total Employ.</u>	<u>Average Total Wages</u>	<u>Waddy Wage</u>
	<b>Total of All Industries</b>	83,600	100.0%	\$1,906,737,147	\$438.61
	<b>Manufacturing</b>	36,184	43.3%	\$1,060,508,876	\$563.63
	<b>Durable Goods</b>	29,908	35.8%	\$891,138,660	\$573.00
24	Lumber & Wood Products	996	1.2%	\$21,530,833	\$415.58
25	Furniture & Fixtures	411	0.5%	\$8,624,279	\$403.37
32	Stone, Clay, Glass & Concrete	466	0.6%	\$12,458,080	\$514.67
33	Primary Metal Products	1,382	1.7%	\$33,461,038	\$465.53
34	Fabricated Metal Products	1,056	1.3%	\$24,013,798	\$437.25
35	Machinery, except Electrical	10,824	12.9%	\$368,970,753	\$655.52
36	Electrical Products	11,667	14.0%	\$336,726,575	\$555.02
37	Transportation Equipment	84	0.1%	\$1,794,482	\$411.23
38	Instruments	2,476	3.0%	\$71,111,662	\$552.41
39	Miscellaneous Manufacturing	546	0.7%	\$12,447,160	\$438.74
	<b>Non Durable Goods</b>	6276	7.5%	\$169,370,216	\$518.99
20,31	Food & Kindred; Leather Prod.	976	1.2%	\$35,393,472	\$697.20
22	Textile Mill Products	332	0.4%	\$7,933,380	\$459.53
23	Apparel	199	0.2%	\$3,547,165	\$343.22
26	Paper & Allied Products	1,403	1.7%	\$44,504,410	\$610.13
27	Printing, Publishing & Allied	1,298	1.6%	\$30,025,084	\$444.73
28	Chemicals & Allied Products	753	0.9%	\$19,650,268	\$501.90
30	Rubber & Plastics	1,315	1.6%	\$28,316,437	\$414.16
	<b>Non-Manufacturing</b>	47,416	56.7%	\$846,228,271	\$343.21
	<b>Construction &amp; Mining</b>	4,833	5.8%	\$11,785,091	\$468.66
14	Mining	86	0.1%	\$2,086,495	\$465.67
15	Building Construction	1,704	2.0%	\$47,082,769	\$531.41
16	General Contractors	318	0.4%	\$8,193,394	\$496.01
17	Special Trade Contractors	2,726	3.3%	\$60,422,433	\$426.33
	<b>Transport. Commun. &amp; Utilit.</b>	2,013	2.4%	\$40,404,695	\$385.92
41	Passenger Transportation	394	0.5%	\$4,267,695	\$208.21
42	Trucking	1,062	1.3%	\$23,124,030	\$418.67
45	Air Transportation	29	0.0%	\$613,391	\$407.93
47	Transportation Services	205	0.2%	\$3,143,743	\$294.96
48	Communications	97	0.1%	\$2,674,555	\$529.79
49	Electric, Gas, Sanitation Svs,	226	0.3%	\$6,581,425	\$559.82

TABLE VII-1 (cont'd)

<u>SIC Code</u>		<u>Average Annual Employ.</u>	<u>Percent of Total Employ.</u>	<u>Average Total Wages</u>	<u>Weekly Wage</u>
	Trade	20,718	24.8%	\$313,020,637	\$290.55
50	Wholesale Trade: Durable	2,680	3.2%	\$81,849,999	\$587.35
51	Wholesale Trade: Nondurable	863	1.0%	\$22,420,415	\$499.61
52	Retail Trade: Building Matl's	655	0.8%	\$14,163,782	\$415.69
53	Retail Trade: General Mdse	2,237	2.7%	\$22,636,709	\$194.63
54	Retail Trade: Food	3,488	4.2%	\$34,583,263	\$190.69
55	Retail Trade: Automotive & Gas	1,786	2.1%	\$44,756,284	\$481.94
56	Retail Trade: Apparel	1,075	1.3%	\$9,824,308	\$175.71
57	Retail Trade: Furniture	916	1.1%	\$18,048,869	\$378.75
58	Retail Trade: Eating & Drink.	4,976	6.0%	\$38,608,317	\$419.20
59	Retail Trade: Miscellaneous	2,042	2.4%	\$26,137,691	\$246.16
	Finance, Insurance, Real Est.	3,643	4.4%	\$80,699,446	\$426.06
60	Banking	1,153	1.4%	\$21,224,589	\$353.93
61	Credit Agencies	644	0.8%	\$14,652,156	\$437.65
62	Security & Comm.Dealers, etc.	55	0.1%	\$2,264,106	\$796.47
63	Insurance Carriers	255	0.3%	\$5,864,557	\$441.99
64	Insurance Agents	383	0.5%	\$9,815,427	\$493.27
65,67	Real Estate: Holding/Invest.	1,153	1.4%	\$26,878,611	\$448.34
	Services and Other	16,209	19.4%	\$292,318,258	\$349.18
70	Hotels	1,171	1.4%	\$12,293,565	\$201.91
72	Personal Services	858	1.0%	\$10,076,960	\$225.97
73	Business Services	4,219	5.0%	\$85,904,568	\$391.53
75	Automotive Svs. & Garages	530	0.6%	\$9,869,657	\$358.17
76	Misc. Repair Services	111	0.1%	\$2,180,344	\$378.31
78	Motion Pictures	92	0.1%	\$735,586	\$154.32
79	Amusement & Recreation	686	0.8%	\$7,339,353	\$205.70
80	Health Services	4,579	5.5%	\$97,161,976	\$408.04
81	Legal Services	500	0.6%	\$13,731,713	\$528.67
82	Educational Services	778	0.9%	\$10,706,358	\$264.81
83	Social Services	852	1.0%	\$9,636,573	\$217.53
86	Membership Organizations	387	0.5%	\$3,099,729	\$154.16
88	Private Households	6	0.0%	\$43,393	\$151.72
89,99	Miscellaneous: Non-classified	774	0.9%	\$22,036,686	\$547.40
01,02	Agriculture: Crops; Livestock	182	0.2%	\$2,151,083	\$226.88
07,08	Agriculture Svs. Forestry	525	0.6%	\$7,350,714	\$269.26
	Local Government (not included in above figures)	5,108	6.1%	\$108,868,690	\$409.85

Note: Numbers may not add due to rounding error.

Source: NH Department of Employment Security

TABLE VII-2

EMPLOYMENT BY INDUSTRY  
STATE OF NEW HAMPSHIRE - 1990

	<u>Annual Average Employment</u>	<u>Percentage of Total Employment</u>
Manufacturing	105,608	22.4%
Durable Goods	73,449	15.6%
Non-durable Goods	32,159	6.8%
Non-Manufacturing	323,922	68.7%
Construction & Mining	22,844	4.8%
Transportation, Commun. & Utilities	17,861	3.8%
Trade	129,202	27.4%
Wholesale	22,638	4.8
Retail	106,563	22.6%
Finance/Insur/Real Est.	30,410	6.4%
Service & Other	120,190	25.5%
Agriculture	3,416	0.7%
Local Government	42,163	8.9%
TOTAL	471,693	100.00%

Source: NH Employment Security, 1990

TABLE VII-3

EMPLOYMENT BY INDUSTRY

Hillsborough County, 1990

<u>Industry</u>	<u>Annual Average Employment</u>	<u>Percentage of Total Employment</u>
Manufacturing	43,543	27.2%
Durable Goods	32,855	20.5%
Nondurable Goods	10,688	6.7%
Non-manufacturing	105,163	65.7%
Construction & Mining	6,036	3.8%
Transportation, Commun. & Utilities	6,729	4.2%
Trade	40,344	25.2%
Wholesale	7,665	4.8%
Retail	32,680	20.4%
Finance/Insur./Real Est.	11,372	7.1%
Services & Other	39,770	24.9%
Agriculture	912	0.6%
Local Government	11,296	7.1%
Total	160,002	100.0%

Source: NH Dept. of Employment Security, Employment & Wages by  
County in NH Annual Averages for 1990

Table VII-4 depicts the total number of persons employed within each of the twelve NRPC communities. Nashua clearly remains the employment center of the region, although the town's share of regional employment has declined consistently since 1972. The second and third largest employment centers are Merrimack and Hudson. Pelham's percentage of the region's employment increased substantially between 1980 and 1987. Between 1987 and 1990, however, the percentage declined back to 1980 levels.

As can be seen in Table VII-5 the tremendous increases in employment of the past two decades have been significantly eroded during the 1987 to 1990 period. Between 1987 and 1990, the region lost 6,268 jobs, or 7.7% of total employment. Pelham suffered the second largest percentage decrease during the period. It is likely that additional jobs were lost between 1990 and 1992.



TABLE VII-4  
PERCENTAGE OF REGIONAL EMPLOYMENT BY COMMUNITY  
1972-1990

Municipality	1972		1980		1987		1990	
	Count	%	Count	%	Count	%	Count	%
Amherst	369	1.1	1,274	2.3	3,312	4.1	2,694	3.6
Brookline	78	0.2	179	0.3	425	0.5	345	0.5
Hollis	117	0.4	399	0.7	1,159	1.4	1,277	1.7
Hudson	1,712	5.2	5,086	9.3	8,236	10.2	8,437	11.3
Litchfield	34	0.1	85	0.2	202	0.2	303	0.4
Lyndeborough	15	0.0	32	0.1	62	0.1	53	0.1
Merrimack	1,626	4.9	8,041	14.8	11,582	14.3	11,044	14.8
Milford	2,372	7.2	3,426	6.3	5,143	6.3	4,905	6.6
Mont Vernon	25	0.1	38	0.1	128	0.2	67	0.1
Nashua	25,508	77.6	33,921	62.3	47,627	58.5	42,909	57.4
Pelham	514	1.6	954	1.8	1,719	2.1	1,370	1.8
Wilton	483	1.5	1,031	1.9	1,443	1.8	1,366	1.8
NRPC Region	32,853	100.0	54,466	1.00	81,038	100.00	74,770	100.0

Source: NH Department of Employment Security

TABLE VII-5  
REGIONAL EMPLOYMENT BY COMMUNITY  
1987 - 1990

Municipality	1987 Count	1990 Count	# Change	% Change
Amherst	3,312	2,694	- 618	-18.7
Brookline	425	345	- 80	-18.8
Hollis	1,159	1,277	118	10.2
Hudson	8,236	8,437	201	2.4
Litchfield	202	303	101	50.0
Lyndeborough	62	53	- 9	-14.5
Merrimack	11,582	11,044	- 538	- 4.6
Milford	5,143	4,905	- 238	- 4.6
Mont Vernon	128	67	- 61	-47.7
Nashua	47,627	42,909	-4,718	- 9.9
Pelham	1,719	1,370	- 349	-20.3
Wilton	1,443	1,366	- 77	- 5.3
NRPC Region	81,038	74,770	-6,268	- 7.7

Source: NH DES

TABLE VII-6  
TOTAL EMPLOYMENT IN PRIVATE INDUSTRY COVERED BY UNEMPLOYMENT INSURANCE  
NRPC REGION, 1980 - 1990

MUNICIPALITY:	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	% CHANGE 1980-1990 (%)	AVERAGE ANNUAL CHANGE
AMHERST	1,274	1,264	1,512	1,850	2,577	2,660	3,108	3,312	3,077	2,979	2,694	160.0%	14.6%
BROOKLINE	179	212	207	212	241	246	303	425	423	386	345	137.4%	13.1%
HOLLIS	399	466	525	586	686	744	903	1,159	1,247	1,277	1,277	190.5%	16.5%
HUDSON	5,086	5,105	5,271	5,814	6,614	7,221	7,776	8,236	8,897	8,762	8,437	61.9%	7.1%
LITCHFIELD	85	104	119	114	150	169	198	202	249	249	303	137.6%	13.2%
LYNDEBOROUGH	32	26	27	25	26	46	52	62	70	64	53	93.8%	9.9%
MERRIMACK	8,041	8,725	9,081	9,258	9,607	10,606	10,702	11,582	12,645	12,471	11,044	44.0%	5.4%
MILFORD	3,426	3,631	3,512	3,851	4,481	4,480	4,642	5,143	5,187	5,290	4,905	50.1%	6.0%
MONT VERNON	38	34	36	56	47	57	79	128	145	76	67	236.8%	18.9%
NASHUA	33,921	35,989	36,156	38,304	42,923	44,529	45,751	47,627	46,876	45,183	42,909	40.4%	5.0%
PELHAM	954	1,143	1,081	1,270	1,326	1,423	1,567	1,719	1,747	1,540	1,370	80.2%	8.8%
WILTON	1,031	1,060	1,050	1,148	1,271	1,355	1,377	1,443	1,575	1,547	1,366	40.0%	4.9%
NRPC REGION	54,466	57,759	58,577	62,488	69,949	73,536	76,458	81,038	82,138	79,824	74,770	48.8%	5.8%

Source: NH Department of Employment Security

**UNEMPLOYMENT**

During the "boom" years of the mid 1980's, unemployment rates in New Hampshire, the Nashua Region and the Lowell area were substantially lower than national averages. Although unemployment remained higher in Pelham than in other communities, these rates were still below national averages. As a result, job creation was not a significant issue for Pelham or for the region. The economic downturn of the late 1980's and early 1990's, has pushed concern related to unemployment into the forefront. As can be seen in Table VII-7, unemployment rates increased dramatically in the State, region and in the Town, between 1987 and 1992. Table VII-8 depicts unemployment rates for the Lowell PMSA for the years 1989 and 1990. The regional nature of unemployment problem is evident in both tables. It is also evident that Pelham suffers from a particularly high unemployment rate.

The unemployment rate in Pelham is substantially higher than that of either the Nashua or Lowell PMSA's. Indeed, Pelham has had the highest rates in the State of New Hampshire. It should be noted, however, that the adjacent towns of Hudson, Salem and Windham also have relatively high unemployment rates.

Unemployment can have a devastating impact on individuals and families, and for that reason alone, the problem warrants public concern. A high unemployment rate, however, can also have wide reaching impacts throughout the community. Such high rates impact local businesses and depress local real estate values, which in turn, results in greater economic hardship. While unemployment related issues are regional in nature, the impact of the recent economic downturn on Pelham specifically is an indication that it is an issue that must also be of town concern.

TABLE VII-7  
ANNUAL AVERAGE UNEMPLOYMENT RATES

	1987	1988	1989	1990	1991	1st Qtr. 1992
Pelham	5.5	5.0	6.5	9.8	10.8	11.1
Nashua PMSA	2.7	2.8	3.7	6.2	7.4	7.6
State of NH	2.6	2.5	3.4	5.7	7.2	7.6
United States	6.1	5.5	5.3	5.5	6.7	-

Source: NH Department of Employment Security

TABLE VII-8  
LABOR FORCE DATA BY COMMUNITY, LOWELL PMSA  
1989 AND 1990

	1989 Labor Force	Annual Employ.	Average UUnemp.	Average Unemp. Rate	1990 Labor Force	Annual Employ.	Average Unempl.	Average Unempl. Rate
Billerica	23,323	22,487	835	3.6	22,411	21,075	1,336	6.0
Chelmsford	19,968	19,360	609	3.0	19,266	18,213	1,053	5.5
Dracut	15,549	14,852	697	4.5	15,626	14,548	1,077	6.9
Dunstable	1,271	1,233	38	3.0	1,264	1,194	70	5.6
Lowell	54,639	51,676	2,963	5.4	52,560	48,342	4,218	8.0
Pepperell	5,500	5,306	193	3.5	5,635	5,308	327	5.8
Tewksbury	15,587	14,962	624	4.0	15,399	14,459	940	6.1
Tyngsborough	4,951	4,746	205	4.1	5,071	4,762	309	6.1
Westford	9,239	8,916	323	3.5	9,164	8,730	434	4.7
Lowell PMSA	150,025	143,538	6,488	4.3	146,395	136,630	9,764	6.7
Pelham, NH	5,600	5,240	360	6.4	5,490	4,950	540	9.8
LOWELL PMSA TOTAL	155,625	148,778	6,848	4.4	151,885	141,580	10,304	6.8

Source: NH Department of Employment Security

WAGES

Earlier in this Chapter, the high percentage of the region's labor force employed in manufacturing is of great significance to the regional economy. Table VII-9, below, illustrates the importance of manufacturing jobs based on wages. Durable manufacturing followed by nondurable manufacturing industries are provided with the highest wages of all industry categories. Manufacturing jobs provide 55% of total wages paid in the region while accounting for 43.3% of employment. The exceptionally high percentage of manufacturing employment within the region has led to a relatively high level of overall affluence. Therefore, the growth of employment experienced in the region in recent decades, and in manufacturing in particular, was driven not only by the creation of jobs per se, but by the creation of relatively high paying jobs. This trend had the effect of further driving other industries such as housing, retail and services. Growth fueled by the increase in manufacturing jobs also stimulated the growth of the third highest wage industry: construction and mining. As a result of these trends, the growth of jobs in the region not only employed and attracted greater number of people, but also increased the relative affluence of the population. In recent years, however, the opposite trend is in progress. A significant number of manufacturing jobs have been lost since 1987 which has a direct impact on overall wages and the relative affluence of the labor force.

TABLE VII-9

REGIONAL EMPLOYMENT AND EARNINGS

	NASHUA LMA 1982		NASHUA PHSA 1990	
	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WEEKLY WAGES	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WEEKLY WAGES
TOTAL	59,528	\$310.09	78,658	\$508.03
MANUFACTURING	31,568	\$389.62	30,930	\$700.69
Durable goods	24,970	\$396.17	25,154	\$721.72
Non-durable goods	6,598	\$364.82	5,776	\$609.10
NON-MANUFACTURING	27,960	\$227.19	47,728	\$383.17
Construction	2,426	\$316.25	2,968	\$519.26
Trans., Comm., & Util.	1,543	\$272.51	2,233	\$462.71
Trade	12,047	\$193.04	20,768	\$308.17
Fin., Ins. & Real Est.	1,965	\$260.54	3,235	\$475.60
Services & Other	9,979	\$233.20	18,523	\$419.72

Source: NH Employment Security

**TABLE VII-7**  
**ANNUAL AVERAGE UNEMPLOYMENT RATES**

	1987	1988	1989	1990	1991	1st Qtr. 1992
Pelham	5.5	5.0	6.5	9.8	10.8	11.1
Nashua PMSA	2.7	2.8	3.7	6.2	7.4	7.6
State of NH	2.6	2.5	3.4	5.7	7.2	7.6
United States	6.1	5.5	5.3	5.5	6.7	-

Source: NH Department of Employment Security

**TABLE VII-8**  
**LABOR FORCE DATA BY COMMUNITY, LOWELL PMSA**  
**1989 AND 1990**

	1989 Labor Force	Annual Employ.	Average Unemp.	Average Unemp. Rate	1990 Labor Force	Annual Employ.	Average Unempl.	Average Unempl. Rate
Billerica	23,323	22,487	835	3.6	22,411	21,075	1,336	6.0
Chelmsford	19,968	19,360	609	3.0	19,266	18,213	1,053	5.5
Dracut	15,549	14,852	697	4.5	15,626	14,548	1,077	6.9
Dunstable	1,271	1,233	38	3.0	1,264	1,194	70	5.6
Lowell	54,639	51,676	2,963	5.4	52,560	48,342	4,218	8.0
Pepperell	5,500	5,306	193	3.5	5,635	5,308	327	5.8
Tewksbury	15,587	14,962	624	4.0	15,399	14,459	940	6.1
Tyngsborough	4,951	4,746	205	4.1	5,071	4,762	309	6.1
Westford	9,239	8,916	323	3.5	9,164	8,730	434	4.7
Lowell PMSA	150,025	143,538	6,488	4.3	146,395	136,630	9,764	6.7
Pelham, NH	5,600	5,240	360	6.4	5,490	4,950	540	9.8
LOWELL PMSA TOTAL	155,625	148,778	6,848	4.4	151,885	141,580	10,304	6.8

Source: NH Department of Employment Security

**WAGES**

Earlier in this Chapter, the high percentage of the region's labor force employed in manufacturing is of great significance to the regional economy. Table VII-9, below, illustrates the importance of manufacturing jobs based on wages. Durable manufacturing followed by nondurable manufacturing industries are provided with the highest wages of all industry categories. Manufacturing jobs provide 55% of total wages paid in the region while accounting for 43.3% of employment. The exceptionally high percentage of manufacturing employment within the region has led to a relatively high level of overall affluence. Therefore, the growth of employment experienced in the region in recent decades, and in manufacturing in particular, was driven not only by the creation of jobs per se, but by the creation of relatively high paying jobs. This trend had the effect of further driving other industries such as housing, retail and services. Growth fueled by the increase in manufacturing jobs also stimulated the growth of the third highest wage industry: construction and mining. As a result of these trends, the growth of jobs in the region not only employed and attracted greater number of people, but also increased the relative affluence of the population. In recent years, however, the opposite trend is in progress. A significant number of manufacturing jobs have been lost since 1987 which has a direct impact on overall wages and the relative affluence of the labor force.

**TABLE VII-9**

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	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WEEKLY WAGES	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WEEKLY WAGES
TOTAL	59,528	\$310.09	78,658	\$508.03
MANUFACTURING	31,568	\$389.62	30,930	\$700.69
Durable goods	24,970	\$396.17	25,154	\$721.72
Non-durable goods	6,598	\$364.82	5,776	\$609.10
NON-MANUFACTURING	27,960	\$227.19	47,728	\$383.17
Construction	2,426	\$316.25	2,968	\$519.26
Trans., Comm., & Util.	1,543	\$272.51	2,233	\$462.71
Trade	12,047	\$193.04	20,768	\$308.17
Fin., Ins. & Real Est.	1,965	\$260.54	3,235	\$475.60
Services & Other	9,979	\$233.20	18,523	\$419.72

Source: NH Employment Security



The results of growth in relatively high wage industries also has the effect of raising wages generally. As can be seen in Table VII-10 below, not only are average wages in the Nashua area higher than any other labor market area in New Hampshire, Nashua's wage levels for manufacturing jobs themselves are also significantly higher than elsewhere. Nashua's wage levels for manufacturing jobs themselves are also significantly higher than elsewhere. Nashua's average weekly wage of \$700 in 1990 was \$131 Higher than the State average of \$569. While high growth in high wage industries has resulted in substantial benefits for the region, the recent decline of key regional industries may have a degrading impact on the regional economy that surpasses the stimulating effect caused by previous years of growth. In other words, the impact of the original action may be outweighed by the impact of the reaction.

**TABLE VII-10**

**AVERAGE WEEKLY WAGES**

**NEW HAMPSHIRE LABOR MARKET AREAS - 1990**

<b>LMA</b>	<b>Average Wage All Industry</b>	<b>Average Wage Manufacturing</b>
Berlin	\$338.52	\$527.93
Claremont	\$421.67	\$475.58
Concord	\$423.48	\$474.96
Keene	\$405.40	\$503.09
Laconia	\$356.90	\$431.09
Littleton	\$304.11	\$352.25
Manchester	\$449.12	\$542.98
Nashua	\$508.61	\$700.69
Ports/Dover/Roch.	\$410.47	\$550.90
NH/Lawrence/Haverhill	\$436.38	\$634.86
NH/Lowell	\$333.16	\$454.11
State of NH	\$432.37	\$569.02

Source: NH Department of Employment Security

Although the recent downturn in the regional economy, and indeed, in the economy of United States in general, has been too recent an event to be fully quantified, attention to these events cannot be overlooked in this Master Plan due to the potential long term consequences. As has been indicated previously, the Nashua region is highly dependent on manufacturing jobs. Most of these jobs are concentrated in a handful of key industries, of which many have recently experienced large labor force reductions. The jobs lost are among the most high paying in the region and the State. An almost immediate impact has been seen in the housing market as prices and rents have fallen, and related (high wage) industries such as construction, real estate and financial services have declined.

The loss of high wage jobs will certainly continue to ripple through the local economy and impact most industries including retail, entertainment, health services, business services and even local government. The severity of the ripple effect is also likely to be compounded since much of the expansion of non-manufacturing businesses and services that occurred as a response to growth has been heavily financed through debt. Additional layoffs will aggravate the situation. While other industries may eventually emerge to replace lost jobs, few industries can provide wage levels that can equal the wage levels of the jobs lost. Furthermore, since the Nashua Labor Market is the second largest in the State and accounts for over 16% of all jobs, its impact on the State's overall economy is significant.

#### **EXISTING TAX BASE**

The Net Local Assessed Valuation is the base upon which the real property tax rate is levied. This is the tax base of the Town. To understand the significance of the tax base, or its relative strength, it is necessary to compare the assessed valuation to other communities. Since all communities are at different assessment ratios, a direct comparison is not possible. To facilitate comparison, the State conducts an annual equalization survey. Each municipality in the State is compared as if each community was at an assessment ratio of 100%. The resulting figure for each community is the equalized assessed valuation. The local tax rate of each community is computed similarly to obtain a figure known as the full value tax rate. Because all municipalities' assessed valuations and tax rates are estimated at the 100% assessment ratio level, comparison between communities is possible.

Table VII-11 provides the assessed valuation, equalized evaluation, local tax rate, and full value tax rate for each municipality in Hillsborough County for 1988. As a measure of the strength of each community's tax base, the equalized evaluation per capita is provided. In order to determine if the size of a town may influence the strength of a local tax base, 1988 population estimates have also been provided. Finally, each community's local assessment for 1988 per capita is also indicated to allow the relationship of the strength of a local tax base to its expenditures to be compared, and to assess the relative tax burden of individuals within each community. To facilitate further comparison, each community was ranked according to its full value tax rate, its equalized assessed valuation per capita, and its local assessment per capita. These ranks are depicted in Tables VII-11, VII-12, and VII-13.

**Full Value Tax Rate**

As depicted in Table VII-II, Pelham's full value tax rate ranked 18 out of the 31 municipalities in Hillsborough County, that is, 17 communities had a higher full value tax rate and 13 had a lower rate. Of the 13 communities that had a lower tax rate, only two (Nashua and Bedford) are larger than Pelham. The remaining 9 communities are all substantially smaller than Pelham, farther from an urban center, and significantly more rural in character. Pelham's full value tax rate of 14.66 was, therefore, relatively low and lower than the average rate for the county.

TABLE VII-11

1988 Equalization Survey  
Select Figures for Hillsborough County  
Ranked by Full Value Tax Rate

TOWN	POPULATION	ASSESSED VALUATION	EQUALIZED VALUATION	FULL VALUE TAX RATE	LOCAL TAX RATE	EQUALIZED VALUATION/CAPITA	EXPENDITURES/ CAPITA TAX RATE ONLY
Greenville	2,137	75,681,790	75,356,405	21.50	21.50	35,263	761
Deering	1,417	36,444,100	79,855,072	19.92	44.26	56,355	1,138
Litchfield	5,541	269,001,832	266,178,133	18.70	18.70	48,038	908
Hillsborough	4,016	112,902,004	225,286,905	17.98	36.70	56,097	1,032
Mont Vernon	1,868	102,500,290	104,433,530	17.62	17.98	55,907	987
Hannchester	100,600	816,415,060	4,679,970,454	17.12	100.70	46,521	817
Antrim	2,493	70,233,340	128,205,314	16.77	31.05	51,426	875
Weare	5,081	114,544,429	308,216,961	16.48	44.53	60,661	1,004
New Ipswich	3,492	38,982,425	168,489,393	16.46	71.57	48,250	799
Hudson	18,191	361,208,250	1,133,355,717	16.42	52.97	62,303	1,052
New Boston	2,660	61,703,451	187,011,480	16.34	49.50	70,305	1,148
Herrimack	24,215	628,790,284	1,488,526,347	16.25	38.69	61,471	1,005
Amherst	9,024	404,384,949	731,211,174	16.23	29.50	81,030	1,322
Goffstown	13,941	665,908,277	662,565,318	16.16	16.16	47,526	772
Bennington	1,199	18,005,797	66,311,924	15.88	58.83	55,306	883
Temple	1,062	67,431,224	67,392,525	15.48	15.48	63,458	929
Milford	11,236	700,317,395	699,113,010	14.90	14.90	62,221	983
Pelham	8,869	234,052,465	533,502,444	14.66	34.10	60,154	900
Peterborough	5,162	95,484,600	396,559,248	14.55	60.63	76,823	1,122
Hollis	5,655	406,414,482	513,948,672	14.19	17.96	90,884	1,291
Bedford	12,836	1,069,695,745	1,137,587,889	13.85	14.73	88,625	1,228
Greenfield	1,111	26,790,687	87,491,899	13.20	43.99	78,751	1,061
Nashua	80,694	2,218,194,416	5,115,463,364	13.16	30.60	63,393	841
Brookline	2,220	44,623,905	175,889,437	13.05	52.19	79,229	1,049
Nancock	1,262	102,778,508	120,574,007	12.27	14.43	95,542	1,175
Francestown	1,099	47,865,249	113,025,535	12.02	28.61	102,844	1,246
Mason	917	37,721,776	88,041,276	11.74	27.96	96,010	1,150
Wilton	2,896	89,822,051	206,987,462	11.72	27.26	71,474	845
Lyndeborough	1,292	40,380,720	85,952,369	11.64	25.30	66,527	791
Sharon	230	6,365,435	22,678,860	9.65	34.46	98,604	954
Windsor	102	6,370,750	6,783,870	8.74	9.30	66,509	581

SOURCE: NH Department of Revenue Administration 1988 "Equalization Survey"  
Office of State Planning 1988 Population Estimates

TABLE VII-12  
1988 Equalization Survey  
Select Figures for Hillsborough County  
Ranked by Equalized Valuation Per Capita

TOWN	POPULATION	ASSESSED VALUATION	EQUALIZED VALUATION	FULL VALUE TAX RATE	LOCAL TAX RATE	EQUALIZED VALUATION/CAPITA	EXPENDITURES/ CAPITA TAX RATE ONLY
Francestown	1,099	47,865,249	113,025,535	12.02	28.61	102,844	1,246
Sharon	230	6,365,435	22,678,860	9.65	34.46	98,604	954
Mason	917	37,721,776	88,041,276	11.74	27.96	96,010	1,150
Hancock	1,262	102,778,508	120,574,007	12.27	14.43	95,542	1,175
Hollis	5,655	406,414,482	513,948,672	14.19	17.96	90,884	1,291
Bedford	12,836	1,069,695,745	1,137,587,889	13.85	14.73	88,625	1,228
Amherst	9,024	404,384,949	731,211,174	16.23	29.50	81,030	1,322
Brookline	2,220	44,623,905	175,889,437	13.05	52.19	79,229	1,049
Greenfield	1,111	26,790,687	87,491,899	13.20	43.99	78,751	1,061
Peterborough	5,162	95,484,600	396,559,248	14.55	60.63	76,823	1,122
Wilton	2,896	89,822,051	206,987,462	11.72	27.26	71,474	845
New Boston	2,660	61,703,451	187,011,480	16.34	49.50	70,305	1,148
Lyndeborough	1,292	40,380,720	85,952,369	11.64	25.30	66,527	791
WindSOR	102	6,370,750	6,783,870	8.74	9.30	66,509	581
Temple	1,062	67,431,224	67,392,525	15.48	15.48	63,458	983
Nashua	80,694	2,218,194,416	5,115,463,364	13.16	30.60	63,393	841
Hudson	18,191	361,208,250	1,133,355,717	16.42	52.97	62,303	1,052
Milford	11,236	700,317,395	699,113,010	14.90	14.90	62,221	929
Merrimack	24,215	628,790,284	1,488,526,347	16.25	38.69	61,471	1,005
Weare	5,081	114,544,429	308,216,961	16.48	44.53	60,661	1,004
Pelham	8,869	234,052,465	533,502,444	14.66	34.10	60,154	900
Deering	1,417	36,444,100	79,855,072	19.92	44.26	56,355	1,138
Hillsborough	4,016	112,902,004	225,286,905	17.98	36.70	56,097	1,032
Mont Vernon	1,868	102,500,290	104,433,530	17.62	17.98	55,907	987
Bennington	1,199	18,005,797	66,311,924	15.88	58.83	55,306	883
Antrim	2,493	70,233,340	128,205,314	16.77	31.05	51,426	875
New Ipswich	3,492	38,982,425	168,489,393	16.46	71.57	48,250	799
Litchfield	5,541	269,001,832	266,178,133	18.70	18.70	48,038	908
Goffstown	13,941	665,908,277	662,565,318	16.16	16.16	47,526	772
Manchester	100,600	816,415,060	4,679,970,454	17.12	100.70	46,521	817
Greenville	2,137	75,681,790	75,356,405	21.50	21.50	35,263	761

SOURCE: NH Department of Revenue Administration 1988 "Equalization Survey"  
Office of State Planning 1988 Population Estimates

TABLE VII-13

1988 Equalization Survey  
Select Figures for Hillsborough County  
Ranked by Expenditures Per Capita

TOWN	POPULATION	ASSESSED VALUATION	EQUALIZED VALUATION	FULL VALUE TAX RATE	LOCAL TAX RATE	EQUALIZED VALUATION/CAPITA	EXPENDITURES/ CAPITA TAX RATE ONLY
Amherst	9,024	404,384,949	731,211,174	16.23	29.50	81,030	1,322
Hollis	5,655	406,414,482	513,948,672	14.19	17.96	90,884	1,291
Francestown	1,099	47,865,249	113,025,535	12.02	28.61	102,844	1,246
Bedford	12,836	1,069,695,745	1,137,587,889	13.85	14.73	88,625	1,228
Hancock	1,262	102,778,508	120,574,007	12.27	14.43	95,542	1,175
Mason	917	37,721,776	88,041,276	11.74	27.96	96,010	1,150
New Boston	2,660	61,703,451	187,011,480	16.34	49.50	70,305	1,148
Deering	1,417	36,444,100	79,855,072	19.92	44.26	56,355	1,138
Peterborough	5,162	95,484,600	396,559,248	14.55	60.63	76,823	1,122
Greenfield	1,111	26,790,687	87,491,899	13.20	43.99	78,751	1,061
Hudson	18,191	361,208,250	1,133,355,717	16.42	52.97	62,303	1,052
Brookline	2,220	44,623,905	175,889,437	13.05	52.19	79,229	1,049
Hillsborough	4,016	112,902,004	225,286,905	17.98	36.70	56,097	1,032
Herrimack	24,215	628,790,284	1,488,526,347	16.25	38.69	61,471	1,005
Weare	5,081	114,544,429	308,216,961	16.48	44.53	60,661	1,004
Mont Vernon	1,868	102,500,290	104,433,530	17.62	17.98	55,907	987
Temple	1,062	67,431,224	67,392,525	15.48	15.48	63,458	983
Sharon	230	6,365,435	22,678,860	9.65	34.46	98,604	954
Milford	11,236	700,317,395	699,113,010	14.90	14.90	62,221	929
Litchfield	5,541	269,001,832	266,178,133	18.70	18.70	48,038	908
Pelham	8,869	234,052,465	533,502,444	14.66	34.10	60,154	900
Bennington	1,199	18,005,797	66,311,924	15.88	58.83	55,306	883
Antrim	2,493	70,233,340	128,205,314	16.77	31.05	51,426	875
Wilton	2,896	89,822,051	206,987,462	11.72	27.26	71,474	845
Nashua	80,694	2,218,194,416	5,115,463,364	13.16	30.60	63,393	841
Manchester	100,600	816,415,060	4,679,970,454	17.12	100.70	46,521	817
New Ipswich	3,492	38,982,425	168,489,393	16.46	71.57	48,250	799
Lyndeborough	1,292	40,380,720	85,952,369	11.64	25.30	66,527	791
Goffstown	13,941	665,908,277	682,565,318	16.16	16.16	47,526	772
Greenville	2,137	75,681,790	75,356,405	21.50	21.50	35,263	761
Windsor	102	6,370,750	6,783,870	8.74	9.30	66,509	581

SOURCE: NH Department of Revenue Administration 1988 "Equalization Survey"  
Office of State Planning 1988 Population Estimates

**Equalized Valuation Per Capita**

Equalized valuation per capita is used as a measure of the tax base of a community. Generally, a community that has a relatively large tax base can levy a lower tax rate to generate the same level of revenue as that of a similarly sized community with a smaller tax base. As is depicted in Table VII-12 the communities in Hillsborough County with the strongest tax base are once again small rural towns. Pelham ranks 21st out of the county's 31 communities. This is an indication of a relatively weak tax base.

The results of Table VII-12 seem to defy the conventional wisdom that increasing commercial and industrial development is necessary to improve a local tax base. While the figures presented in these Tables cannot be completely conclusive, and some communities do not appear to fit into a pattern, some conclusions and potential explanations can be derived:

1. **Town Size and Character:** The communities that have fared the best on Tables VII-12 and VII-13 are among the County's smallest and most rural. This most likely is because the residents of these communities demand fewer of the facilities and services common to more urban areas. These communities are also less burdened by problems associated with traffic, crime and other factors common to more developed communities. Furthermore, the density of housing is low in such towns, and substantial areas remain that are undeveloped. While undeveloped land provides little addition to the tax base, it places no demand on services. As a community grows and changes, its population changes, and newer residents may place additional requirements on local government. Such a conclusion is of little value to Pelham, however, since the town does not have the option of becoming smaller and more rural.
2. **Growth:** Rapid growth in itself may also result in substantial short-term burdens as communities struggle to service new development. Of the Nashua region's communities included in Table VII-11, those with a lesser tax base are also frequently the fastest growing. Growth, however, is not the only factor. Nashua, for example, has experienced levels of growth comparable to other NRPC communities, but has provided for a wide range of housing types and land uses. While Nashua remains at an average level on all of the tables, it may well be in as good a position as is possible for a large community.
3. **Residential Property Values:** Even for communities with high concentrations of commercial and industrial development, the largest portion of tax revenues is still derived from residential property. Aside from a few of the very small rural communities, the municipalities with the strongest local tax bases are those with the highest property values. While Towns such as Hudson, Merrimack and Milford may contain high concentrations of non-residential uses, these communities also have relatively low average property values (see Chapter IV). It is noteworthy that the communities with the highest residential property values have generally succeeded in retaining much of their traditional New England character through historic preservation and open space conservation.
4. **Housing Types:** Development as a residential or bedroom community clearly places an excessive strain on a local economy. Basically, this is due to the tax drain placed on a community by extensive single-family home development. Smaller rural and traditionally based communities usually contain a mix of housing types and land uses. With extensive single-

family development, this balance is shifted in favor of a single housing type and land use. Generally, single-family homes (due primarily to the generation of school-age children) provide less tax revenue than they demand in municipal and school district expenditures. Furthermore, as single-family homes come to increasingly dominate a town's housing, fewer housing opportunities are provided for families without children such as the elderly, single individuals, and married couples without children. Communities with high concentrations of multi-family housing, for example, tend to have high concentrations of single-person and non-family households. Such family types place no burden on a community's educational system, and thus, usually generate more tax revenue than they demand.

5. **Commercial and Industrial Impacts:** Commercial and industrial uses are generally sought after as they are provided with relatively high land and building values and do not generate school related expenditures. There are, however, long term costs, as well as benefits, associated with commercial and industrial development that are not often anticipated. The most obvious cost associated with non-residential development is due to the need for traffic related improvements. The need for such improvements has certainly been evident in a number of the region's communities and is one of the most significant problems confronting the region's commercial and industrial centers.

Commercial and industrial centers also increase the need for public safety. As traffic increases, so do accidents; as commercial development increases, so does associated crime such as shoplifting and burglaries. New emergency service demands are placed on communities as the type and nature of fires and other emergencies change as well as increase. In addition, a new daytime population of employees and shoppers must be serviced. In addition to the direct costs associated with commercial and industrial development, there may be indirect impacts that are far less apparent. Poorly planned commercial and industrial areas may contribute to relatively lower residential property values.

Finally, it should be noted that commercial and industrial development occurred as rapidly as residential development in many of the region's towns. It may be then that, just as unchecked residential growth placed direct and indirect tax burdens on a community, so has unchecked non-residential growth. While many communities have adopted growth management measures for residential growth, few have attempted to manage non-residential growth.

From Tables VII-11 and VII-12, it is also clear that there is a relationship between the level of a community's tax rate and the strength of its tax base. Those communities with a high tax base generally have a lower tax rate. This, however, is not consistently true. Discrepancies in ranking between Table VII-11 and VII-12 can largely be explained by differing levels of expenditures per capita as depicted in Table VII-13. As can be seen in Table VII-13, the towns with the strongest tax bases are also frequently the ones that have the highest expenditures per capita. Pelham, however, ranks 21 out of 31 on both the tax base and expenditure tables. It appears, therefore, that the Town generally spent within its means.



### **CONCLUSIONS**

The economic well-being of a community is dependent on a broad range of influences, most of which are beyond its control. While Pelham is only a small part of the economies of the Nashua and Lowell regions, it nevertheless has a role to play in the area of economic development for the benefit of the region generally, and for its citizens in particular. Of principal concern to the Town is the necessity of providing expanded business and employment opportunities for Pelham residents. Expanded business and employment opportunities require sufficient and appropriately zoned land and adequate infrastructure support. Of primary importance to commercial and industrial growth are transportation, water and sewer improvements. In order to strengthen the tax base, however, it is also essential that commercial and industrial development occur in a manner that does not detract from the rural and residential qualities of Pelham which enhance its desirability. Specific recommendations to address these local concerns are provided below. The following recommendations necessarily overlap with those provided in other portions of the plan.

#### **Employment**

Pelham's high unemployment rate is the result of job losses within the Town as well as within the region. It is essential that the town provide expanded opportunities for business and industry to benefit town residents and region as a whole. Expanded business opportunities imply the need for additional appropriately zoned land that is adequately serviced by public facilities. Specifically, the Town should implement the following:

1. Appoint a sewer and water commission to actively pursue and manage the development of a public water and sewer system to service existing and potential commercial and industrial areas within the Town.
2. Consideration should be given to expanding the depth of existing business and industrial districts to ensure that sites of adequate proportion are available to attract potential businesses and industries as well as to provide for the expansion of existing enterprises. The linear expansion of business and industrial districts on Route 38, however, should be avoided.

#### **Wages**

In addition to concern for employment generally, attention must be paid to type of employment gained or lost in relation to wages and income. Average wages in manufacturing are approximately 38% higher than in non-manufacturing industries. Jobs in this sector, however, have declined at a higher rate than non-manufacturing over the past few years. To attract higher-paying manufacturing jobs, it is necessary to provide relatively large sites with good access to the highway system which can be developed with minimal interference from less intensive land uses.

Other types of industries which the Town should seek to attract include research and development enterprises and business and professional offices. While retail and service sector employment is an important part of the economy, such businesses are relatively low-paying and are already well represented in the community.

**Tax Base**

The strength of a local tax base is dependent on the value of the land and buildings. Land uses are assessed differently for tax purposes. Differing land uses also result in differing burdens on the municipality to provide facilities and services. For a predominantly residential community such as Pelham, it is important to broaden its commercial and industrial base. Residential development, however, will continue to be the largest portion of the tax base for the foreseeable future. The strength of the tax base, therefore, also depends on enhancing the value of all types of development. To attract higher quality development, Pelham must maintain an attractive and desirable environment within which to live and work. An emphasis should be placed on the conservation of Pelham's important natural and historic features which contribute to its character. Consideration should also be given to the aesthetic impact of newer development.

In addition to building up its tax base through balanced development, Pelham should also consider the financial impacts of growth. Appropriate land use controls can minimize such burdens by discouraging development patterns which result in excessive public service or facility costs. Scattered or premature subdivision development, for example, can require a town to provide services in a highly inefficient manner. Poor site planning for commercial developments can result in unnecessary expenditures for public safety and road improvements. Both residential and non-residential developments can also be expected to pay their fair share of improvements which are required as a result of their impact on the community. Required off-site improvements as well as impact fees are permissible under state law when applied under appropriately developed local ordinances and regulations.

## CHAPTER VIII

### HISTORIC RESOURCES

A plan for Pelham's future would not be complete without a look to its past. In terms of planning, historic structures and sites should be considered an integral part of the community's environmental resources for, like other resources of this nature, they are non-renewable. It is the responsibility of each community to plan a program of historic and cultural protection based on local needs and desires. The purpose of this chapter is to provide some background on important historic structures and sites in Pelham, to discuss the preservation tools available to local citizens, to summarize the status of preservation activity and to make recommendations for the future.

#### HISTORICAL BACKGROUND

According to local tradition, in 1719 a group of settlers passed by Pelham on their way to Derry and cleared a spot to observe the Sabbath. That location is today known as Pulpit Rock. The first building erected in Pelham was reportedly a garrison house built near Mammoth and Sherburne Roads in 1719, erected by the Masonian Proprietors for the purpose of opening up the land they claimed to own for settlement. In 1721, Jonathan Tyng of Woburn, Massachusetts, deeded land in nearby Dunstable, Massachusetts to John Butler. The land was located in the western part of town, known as the Gumpus District. Butler built his house on the eastern side of Mammoth Road, near the intersection of Bush Hill and Burns Roads in 1721; his wife and nine children followed two years later. The cabin stood for more than eighty years.

The north and west part of what is today Pelham was historically part of the ancient township of Dunstable while the south and east part was included in the Dracut District. Trouble over the Mason and Wheelwright grants and disagreement over the New Hampshire/Massachusetts line discouraged many from wanting to settle here. The state boundary was finally settled in 1741. In 1746, a group of local citizens including John Butler, Thomas Gage and Ephram Cummings, tired of being claimed and therefore taxed by both the towns of Dunstable and Londonderry, requested and were granted a separate town charter by Governor John Wentworth. Pelham was named after the Duke of Newcastle, Thomas Pelham Holles. The first meetinghouse was located about 15 rods southeast of the Pelham Junior High School in the open triangle on the opposite side of Marsh Road and near where the "Block" now stands. A second meetinghouse was erected in 1751. In 1819 the town was divided into five school districts - the Center (#1), Gumpas (#2), North Pelham (#3), Gage Hill (#4), and Currier Highland (#5). A sixth school was later established on Spaulding Hill Road.

The desire to establish a more direct highway between Concord and Lowell resulted in the establishment of the Mammoth Road through Dracut, Pelham, Windham, Londonderry, Manchester and Hooksett beginning in the 1820's. Despite opposition by Londonderry and Manchester, the road was finally completed in the 1830's, only to be replaced by the railway a few years later. Among the inns which became established along the stage route was that owned by the Foster family on Mammoth Road (known as the Gibson House across from Hartley's farm), which hosted dignitaries including Daniel Webster and President Andrew Jackson.

Farming was for many years the principal occupation of residents. Although not a single dairy farm remains today, in 1898 over 500,000 gallons of milk were produced on Pelham's hundred and fifty farms. The advent of the Northeastern Electric Railway in 1902, connecting Pelham Center with Nashua, Lawrence, Salem Haverhill, and Lowell, greatly expanded employment and entertainment opportunities for Pelham residents and in many ways resulted in the gradual decline of farming. Some found work in the cities at mills and stores, on the

electric cars and at the Pelham Car Barn and Power Station. Students were able to travel more easily to high school in Nashua or Lowell, and families could enjoy a weekend outing to the amusement park at Canobie Lake or to Hampton Beach. A collision in Pelham in 1903 killed four passengers and injured forty, although service on the line continued until 1923.

After reaching a population peak of 1,071 persons in 1850, Pelham, like most of the rural towns in the region, began a long, slow period of population decline. Westward migration, the inability of New Hampshire farms to compete with midwest farms and the availability of jobs in urban centers all contributed to this statewide trend. Pelham's population hit a low point at 791 people in 1890, comparable to its 1790 population level. The population hovered near 900 between 1900 and 1940, finally surpassing its 1850 peak population level with a population of 1,317 in 1950. The Town witnessed a period of rapid population growth beginning in the 1960s, encouraged by the development of high-technology industries in the Nashua area and the expansion of the Boston metropolitan area made possible by major improvements to the state and federal highway systems. From a population of 2,605 in 1960, Pelham's 1990 population was 9,408 persons according to the U.S. Census.

#### **SIGNIFICANT HISTORIC RESOURCES**

Pelham's location on the old Massachusetts/New Hampshire state line as well as on the Mammoth Road connecting Concord and Lowell makes its history distinctive from others in the region. The many fine, old residences along the Mammoth Road from North Pelham to the state line remind the visitor of when this was the main highway to Concord. The road was dotted by taverns and public houses for the weary stagecoach traveler. Many of the large 2-1/2 story clapboarded structures along the route date to the early 19th Century. They display elements of the Georgian, Federal and Greek Revival styles of architecture, including handsomely molded entranceways. Gumpas (Gumpus) Cemetery, also on Rt. 128, was the first cemetery in town and contains the graves of many early settlers, including John Butler who died in 1759. The first person to be buried there was Sarah Butler, John's daughter, who died in 1723.

The main concentration of historic structures in town has always been Pelham Center, located at the junction of the Windham Road (Rt. 111A) and Nashua Road. The Pelham Public Library is a hip-roofed brick building, erected by the town in 1896 to commemorate the 150th anniversary of the incorporation of the town. Pelham's present Town Hall replaces an earlier town hall which burned in 1906. It was located near the present fire/police station. The Butler Monument, located on the town common, was erected in 1886 by the descendants of John Butler, the first settler of Pelham. Other historic structures in the Town Center include the Congregational Church (1842) and a number of older homes ranging in age from the mid 19th Century to the early 20th. The old muster grounds, now owned by St. Patrick's church (1913), were also the area occupied by the street railway earlier in the century. On the northeast section of Gage Hill Road is the old Grand View House.

In addition to residences, public buildings and cemeteries, a wealth of interesting historic sites are also found throughout Pelham. A bronze marker at the Pulpit Rock Site on Route 38 marks the outcropping on which the first sermon was preached in Pelham in 1719. A granite marker on Nashua Road, off Rt. 128, marks the location of the old bound stone between Pelham and Hudson, an area which was part of Massachusetts prior to 1741. Another marker on Colburn Avenue, off Rt. 38, known as the Mitchell Bound, marks the starting point from which Massachusetts and New Hampshire were first surveyed. Pelham's only remaining old stone bridge, the Abbott Bridge over Beaver Brook, is unique in the region. The bridge was built in 1837 with \$3,800 of surplus revenues from the government.

According to the 1990 Census, there were 301 dwelling units (or 9.7%) in town constructed prior to 1939. Compared to other communities in the region, Pelham ranked as the fourth lowest, behind only Hudson, Litchfield and Merrimack, in terms of percent of housing units built before 1939. Rapid growth over the past twenty years serves to make surviving historic structures even more precious.

**PRESERVATION ACTIVITIES TO DATE**

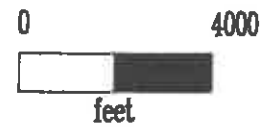
Much of the responsibility for historic preservation is undertaken by private individuals or groups. The Pelham Historical Society was established in 1969. Its collection of objects related to the town's history are stored in a room in the Pelham Senior Citizens Community Center. Projects the Society has been involved in include the preservation of the Old Bridge Street (Abbott) Bridge. There is also interest in updating the town history and a historic site list has been prepared. To protect and preserve the historic stone bridge over Beaver Brook, a portion of Old Bridge Street North, from the Rt. 38 intersection to the Rt. 111A intersection in Pelham Center was designated as a Scenic Road in 1990. In 1986 Pelham celebrated the 240th Anniversary of its incorporation at which time the contents of the Butler Monument's original 1886 time capsule were opened and new time capsules buried. The Town will celebrate its 250th Anniversary in 1996.

The town does not currently have any resources listed on the National Register and has not conducted an historic resources survey, although there was an effort to identify pre-1850 houses in 1976. An historic district commission was established in 1974. A subsequent proposal to establish a local historic district, however, met with defeat. The following discussion provides information on some of the tools available to the town to assist with the preservation of its historic resources. A list of potential historic sites is provided in Table VIII-1. Other sites are illustrated on Map VIII-1 on the following page.

**TABLE VIII-1**

**POTENTIAL HISTORIC SITES, PELHAM**

1. Gibson Family Home
2. Gumpas (Gumpus) Cemetery
3. Pulpit Rock Site (Route 38)
4. Abbott Bridge
5. Butler Monument
6. Wyman House
7. Stickney House
8. Atwood Cemetery
9. Old Gage House
10. Gibson Cemetery - back section
11. North Pelham cemetery
12. Old Cotton Mill
13. Hilman's Corner - Hilman Factory (Sherburne Road)
14. Webster Farm
15. Bedard's Quarry
16. Old Stone Cottage
17. Sexton's House
18. General Sam Richardson House
19. First Block House Site
20. Cranberry Bog



Town of  
PELHAM  
HISTORIC RESOURCES  
Map is for reference only

**HISTORIC RESOURCES SURVEY**

Preservation through documentation is the most basic and essential of preservation strategies. There are several reasons for undertaking an historic resources survey. In addition to providing a permanent written and photographic record of a town's architecture, a good inventory is the foundation for other preservation tools. It can be of service to the historic district commission and can be used to prepare nominations for listing of historic structures in the National Register of Historic Places. Data gathered in a survey may encourage a greater appreciation of historic structures and sites by local citizens. Historic resource assessments are also necessary for accomplishing environmental reviews required in projects receiving federal funding, such as highway projects. As the beginning of a comprehensive historic preservation strategy, information gathered should act as a firm foundation for future decisionmaking, by identifying buildings suitable for and worthy of preservation and/or rehabilitation.

A complete historic resources survey can help a community weigh proposed actions more carefully, so that it does not inadvertently expend its long-term assets in realizing immediate objectives. If a comprehensive townwide survey is not feasible, Pelham would be wise to at least begin to survey areas which may be critical to future road improvements.

**NATIONAL REGISTER OF HISTORIC PLACES**

The National Register of Historic Places is the official list of the Nation's resources worthy of preservation. Established by the National Historic Preservation Act of 1966 and administered by the National Park Service within the Department of the Interior, the Register lists properties of local, state and/or national significance in the areas of American history, architecture, archaeology, engineering and culture. Resources may be nominated individually, or in groups, as districts or as multiple resource areas and must generally be older than 50 years.

The primary benefit of National Register listing is the recognition it affords and the appreciation of local resources which is often stimulated through such recognition. The National Register also provides for review of effects which any federally funded, licensed or assisted project, most notably highway projects, might have on a property which is listed on the Register or eligible for listing. Register standing can also make a property eligible for certain federal tax benefits (investment tax credits) for the rehabilitation of income-producing buildings and the charitable deduction of donations or easements.

Contrary to many commonly held beliefs, National Register listing does not interfere with a property owner's right to alter, manage, dispose of or even demolish his property unless federal funds are involved. Nor does National Register listing require that an owner open his property to the public. A National Register district must have the approval of a majority of property owners in the district. For a single, privately-owned property with one owner, the property will not be listed if the owner objects. National Register listing can be an important catalyst to change public perception and increase historic awareness but cannot in itself prevent detrimental alterations or demolition. Yet, it remains an important first step toward historic awareness, respect and protection.

Statewide there are nearly five hundred National Register listings of which approximately fifty are districts. Twenty individual buildings or sites and four districts in the region are listed on the Register. Pelham does not currently

have any properties listed on the Register although there are locally significant sites and structures which are potentially eligible.

#### **LOCAL HISTORIC DISTRICTS**

The term "historic district" can refer either to an historic district established by town meeting vote, or has been previously discussed, to a National Register Historic District. Both are useful preservation tools but differ in the way in which they are established and the protection they afford. An historic area may be both a locally designated historic district and a National Register District. Several communities within the region, including Amherst, Hollis, Mont Vernon and Nashua have enacted local historic district ordinances.

The most comprehensive preservation tool available to local governments under New Hampshire state law is the creation and administration of a local historic district (RSA 674:45). The purpose of an historic district is to protect and preserve areas of outstanding architectural and historic value from inappropriate alterations and additions which might detract from an otherwise distinctive character. Historic districts should not attempt to "freeze" time but should preserve what is significant to a district while accommodating change and new construction in accordance with regulations based on a local consensus.

Historic districting can be an effective technique for protecting the character of an area. Unlike zoning which focuses on land use, an historic district emphasizes exterior appearance and setting. Yet unlike site plan review, historic districts allow officials to exercise authority over construction and alteration of single family dwellings. However buildings alone need not comprise a district. Effective district preservation should involve streetscapes, landscapes, contributing views and viewsheds as well as buildings. It should be noted that historic districting is not an appropriate method for protecting all historical resources in an area, especially where properties are widely scattered. Historic districting also may not be the most effective means of protecting a significant land area, but districting can be effectively combined with other techniques.

#### **LOCAL HERITAGE COMMISSIONS**

In 1992, the Legislature enacted RSA 674:44-a to enable towns or cities to establish heritage commissions "for the proper recognition, use and protection of resources, tangible or intangible, primarily man-made, that are valued for their historic, cultural, esthetics or community significance within their natural, built or cultural contexts".

The statute defines the power of the commission and authorizes acquisition of property in the name of the town. Heritage commissions may, if authorized by the town assume the composition and duties of historic district commissions or the municipality may choose to maintain separate and distinct commissions. If separate, the heritage commission is advisory to the historic district commission, the planning board and other local boards.

The town may appropriate funds and the proper handling of these or other related funds is specified in the statute. The makeup of members is similar to other local boards, and a planning board member may be a member of the heritage commission.

The requirements for meetings, disqualification of a member, abolition of heritage commissions, effect of abolition, transfer of documents are the same as for other local boards.



The statute also amends the historic district statutes to incorporate references to cultural and community values as a public purpose, and authorizes creation of more than one district in a municipality.

### **HISTORIC BUILDING REHABILITATION FEDERAL TAX CREDITS**

The rehabilitation of older buildings, frequently less expensive than new construction, is a cost-effective solution benefiting the tax base while filling older structures with a new life. The Economic Recovery Act of 1981, as amended, provides incentives in the form of Federal investment tax credits for the substantial rehabilitation of income-producing older buildings. The act was passed to support preservation by eliminating certain tax incentives which encouraged the demolition of historic structures. In order to receive the credits, owners are required to furnish detailed rehabilitation plans for review and certification by the National Park Service. Municipally owned structures are not eligible for these credits.

Currently the tax incentives take two forms:

<u>Credit</u>	<u>Building Use</u>	<u>Eligible Properties</u>
10%	Commercial/Industrial	40 years and older
20%	Commercial/Industrial	50 years and older
	Income Residential	

To be eligible for the larger federal tax credit, a building must be a certified historic structure, either listed individually on the National Register, or contributing to a National Register or certified local district. Certified rehabilitation work must adhere to the Secretary of the Interior's Standards for Rehabilitation, a list of ten standards developed to ensure that significant features of a building will not be compromised. In order to qualify for any of the tax credits, rehabilitation expenditures must exceed \$5,000 or the adjusted basis of the property (cost of the building excluding the value of the land less depreciation), whichever is greater.

The investment tax credits provide some incentive to rehabilitate older buildings instead of undertaking new construction. Unfortunately because these credits do not cover privately-owned, non-income producing residences which constitute the majority of Pelham's resources, their use in town is somewhat limited. Larger structures with income-producing potential could benefit from the use of the credits, which would also insure the sympathetic rehabilitation of the buildings.

### **HISTORIC MARKERS**

Markers are an easy, inexpensive way to tell both residents and visitors about significant people, places and events in a community's past. The State Marker Program was originated by the New Hampshire Legislature in 1955. The aim of the program is the erection of appropriate markers designating events, people and places of historical significance to the State of New Hampshire. Communities who would like to be considered for a marker submit a request for consideration by the State Highway Department and Division of Historical Resources. There is generally no cost involved for a marker on a state-maintained road. There is a charge of \$1,100 for a marker on a private road. Statewide there are approximately 160 historical markers. Few have been erected in NRPC communities. There are no markers of this type in Pelham.

The sole purpose of the marker program is recognition. The program is non-restrictive; it does not protect historic sites nor does it obligate owners in any way. The criteria which apply to marker selection are also much less stringent than those for getting a property listed on the National Register. A marker may be used to point out historic sites which have changed considerably over time or even to commemorate events for which there is no standing evidence, anything which has historical significance to a community. For the simple recognition of an historic property, the historical marker program may be a better tool than the National Register, more readily visible and much easier to use.

Another type of marker which has found widespread use involves the placement of wooden date markers on houses. Such a program was initiated in Pelham back in 1976 as part of the Bicentennial celebration.

#### **EASEMENTS**

Across the country, preservation easements have proven to be an effective tool for protecting significant historic properties. An easement is a property right that can be bought or sold through a legal agreement between a property owner and an organization eligible to hold easements. Just as a conservation easement can be used to protect open space, scenic areas, waterways, wildlife sanctuaries, etc. from incompatible use and development, an architectural easement protects the exterior appearance of a building.

Easements provide property owners with two important benefits. First, the character of a property is protected in perpetuity. In addition, the donation of an easement may make the owner eligible for certain tax advantages. If the property is listed in the National Register, in return for giving an easement, an owner is eligible under the Tax Treatment and Extension Act of 1980 to make a deduction from his taxes. Donation of an easement may also reduce estate and local property taxes.

Easements are also extremely beneficial to a community. The costs of acquiring easements may be significantly lower than buying properties outright to protect valuable resources, particularly when easements can be acquired by donation. Significant resources can remain in private hands but are protected from inappropriate alteration as the organization holding the easement is given the right to review any proposed changes to the structure or property.

If properly administered, easements are a superior method of conserving and protecting land, water and historic resources; perhaps better and longer than zoning or locally designated historic districts.

#### **PROTECTION OF ARCHAEOLOGICAL AREAS**

Although much of this chapter deals specifically with architectural resources, it should be recognized that the preservation of areas of high potential for prehistoric and historic archaeological sites poses unique problems. In comparison to historic structures, archaeological resources are more difficult to identify and protect. Each site is unique and fragile. Once a site is disturbed, information is lost. While there is often an urgent need to keep the location of an important archaeological resource confidential, the same confidentiality will often preclude public awareness. Acquisition of the land or land development rights is often the only way to effectively preserve archaeological resources. Ironically, increased appreciation may also represent a very real threat to archaeological resources.

Rapid growth is the greatest threat to archaeological resources. The few applicable laws that protect archaeological resources are primarily federal. As a result of these laws, large highway projects or projects which require review by a federal agency usually have a review of impacts to cultural resources. In addition, there are mining laws which allow review of projects for impacts and there is the possibility of review within the dredge and fill process.

However, since much of the region's growth is from private rather than public sources, archaeological evaluation is not required. In some cases in the state, cooperative developers have permitted recording of archaeological data which would otherwise be destroyed. The State Division of Historical Resources has very limited ability to review private projects for impact on archaeological resources. However, local officials should consult the Division if a proposal will impact a known archaeological resource or if a project is in a location with a high probability of archaeological potential such as areas with proximity to water. In extreme cases, the town may wish to ask developers to fund recovery of archaeological data by hiring a professional archaeologist as a consultant to evaluate a property for archaeological potential and/or survey the area for unknown archaeological sites. This procedure is dictated by law in many neighboring states but is not currently required in New Hampshire.

#### **RECOMMENDATIONS**

- o Conduct a comprehensive townwide historic resources survey. Information should be updated periodically to indicate changes to buildings, including remodeling, fire, demolition or changes to surroundings.
- o The Town should continue to encourage the protection, enhancement and rehabilitation of significant architectural and historic resources such as the Town Hall, Library, Butler Monument, Town Common and cemeteries. Any building changes, site improvement or other alteration (especially to town owned buildings) should respect the historical qualities of the structure.
- o The Town should consider the establishment of a heritage commission to encourage the protection and appropriate use of Pelham's cultural and esthetics as well as historic resources. Attention in particular, should be focused on Town Center.
- o Historical interest and pride should be promoted in a variety of ways including:
  - photographs and exhibits in public places;
  - markers and dates at historic structures;
  - brochures describing local history;
  - tours of historic structures and sites;
  - local history courses in the school curriculum;
  - oral history projects;
  - support of the Pelham Historical Society;
  - celebration of the Town's 250th anniversary in 1996.
- o Copies of literature from the State Historic Preservation Office regarding appropriate rehabilitation techniques should be placed on file in the Town Hall and made available by the Historical Society to encourage the sensitive rehabilitation/renovation of older homes and buildings.
- o Encourage National Register listing for eligible local structures, including appropriate private residences.

- o Continue to locate, identify, catalogue, preserve and protect town records, documents, manuscripts and artifacts and provide a suitable and safe repository for them. Early handwritten records should be reproduced (transcribed or microfilmed but not photocopied) and copies kept in more than one location. Make collected historical information (in a protected environment) accessible to town residents and future generations.
- o Encourage the use of innovative land use controls including cluster development and partial development to conserve open space and minimize the visual impact of new development on significant historic areas, open space and scenic views.
- o Consider the acquisition of available, significant property for conservation and preservation purposes in limited but critical cases.
- o Promote the donation of easements by historic property owners to a designated authority such as the conservation commission, or established land trust such as the Society for the Protection of New Hampshire Forests.
- o Encourage archaeological investigation/documentation in Pelham including historic and prehistoric sites and cemeteries.
- o Promote the work of the town cemetery trustees and the preservation and protection of the Town's historic graveyards and private burying grounds including retention of the natural vegetation, preservation of the dry laid stonewalls and retention of the small stones used as footstones and children's headstones.
- o Promote the collection, preservation and protection of oral histories and early photographs and encourage the continued recording of townspeople and structures for permanent reference.

## CHAPTER IX

### LAND USE

Planning for existing and projected uses of land within the Town is the central component and culmination of the master plan. The content of the preceding chapters of the plan are essentially layers of a comprehensive land use plan which is implemented through local land use regulations. This chapter describes and analyzes the ways in which the people of the Town have shaped the landscape in relation to its natural constraints and features, to its road system and to other aspects of the community which influence or are influenced by land use. Based upon an examination of existing land use patterns and projected community needs, recommendations for a future land use plan are provided at the end of the chapter.

#### HISTORIC DEVELOPMENT PATTERNS

The rich and varied history of Pelham is reflected in existing land use and continues to influence development patterns. The steep slopes and extensive wetlands that dominate much of the community channeled development during Pelham's early agricultural years into scattered parcels of available farmland. The Town's major thoroughfares, also designed with respect to natural constraints, contributed to the spread of development to all corners of the community. Although a Town center was established in the geographic center of Pelham, the center has never been the primary concentration of the Town's population. As described in Chapters II and VIII, Pelham remained a relatively stable and prosperous farming community throughout its first one hundred and fifty years or so of existence. Non-agricultural commerce was oriented toward travelers on the Town's important highways as well as toward local needs. Industry, which was scattered throughout the Town, was generally geared toward the needs of the local community and was of the variety typical for rural New England towns of the era.

During the early years of this century, low land values as a result of rural depression and decades of out-migration, coupled with improved transportation, led to the extensive development of the shorelines of Pelham's larger ponds for seasonal homes. This was particularly true for Little Island Pond. In many cases, the so called "camp lots" or "coffee lots" were actually given away as part of consumer product promotions. As housing prices began to escalate dramatically during the 1960's and 1970's, most of the seasonal homes on the camp lots, often as small as 1,600 square feet, were converted to year-round residences. Such development, accompanied by the subsequent conversions, led to the aesthetic degradation of the shorelines and resulted in persistent water quality problems due to high densities and inadequate sewage disposal. The camp lot areas, however, will remain a part of Pelham for the foreseeable future and provide housing of a type and price level that contrasts sharply with the remainder of the community.

Beginning in the 1960's, development in Pelham began to change and increase rapidly. Due to the proximity of the Town to the growing employment centers of Lowell and Lawrence, Massachusetts and Nashua, New Hampshire, Pelham emerged as a predominantly bedroom community. At the same time, agriculture declined due to both changes in the farm economy and to development pressures. New residential development, generally on lots of about one acre, spread throughout the Town wherever developable land was available. Unfortunately, due to Pelham's terrain, much of the development consumed farmland or encroached precariously on the Town's sensitive wetland and hillside areas.

In addition to residential development, automobile dependent commercial uses also began to grow. Commercial development spread primarily along the Route 38, the Town's most significant highway. Prior to the emergence of the newer "strip" commercial developments, the Town's more widely scattered traditional businesses and industries had already declined or disappeared. Much of the new commercial development encroached into sensitive wetland areas adjacent to Beaver Brook. New industries became concentrated in the Town's two industrial districts in the south-central and northwestern portions of Town. Much of the southern industrial district, like the Route 38 commercial areas, encompasses sensitive wetlands. The northern industrial district, in contrast, includes few wetlands but contains large areas of steep slopes.

In response to the development pressures of the past two decades, Pelham began a comprehensive reevaluation of its local land use regulations and policies in the 1970's and 1980's. The Town adopted highly restrictive Conservation-Recreation-Agricultural districts, began a prime wetlands designation initiative, adopted wetlands and aquifer conservation districts, revised its residential zoning regulations and adopted soils-based subdivision regulations. These measures, described on the following pages, will continue to allow residential developments to follow the course established since the Town's earliest years while avoiding the degradation of the Town's valuable natural resources. Substantial changes affecting the commercial and industrial districts, however, have not been made in recent years although additional districts were created in the 1970's and 1980's.






#### **RESIDENTIAL LAND USES**

As discussed previously, residential land uses have been developed throughout Pelham. Although steep slopes and wetlands impose significant constraints on development in several areas, the Town does not contain distinctly rural or urbanized areas. Residential development encompasses 2,400 acres of the Town or 13.8% of the total land area of Pelham and 75% of total developed areas. As can be seen on Map IX-1 on the following page, the greatest portion of residential land is developed for moderate-density single family homes. This category is also the largest land use class in Town.

Higher-density residential development includes two primary forms of development: multi-family and so called camp lot or coffee lot developments. Multi-family housing is permitted only in the Business Districts. The camp lot developments exist primarily in the vicinity of Little Island Pond and to a lesser extent in the area of Gumpas Pond. A few homes situated on small lots are also located in the vicinity of Town center. All types of higher density residential development encompass approximately 95 acres of land and account for less than 3.0% of developed land and 0.5% of the total land area of the Town. These areas are depicted on Map IX-1.



# KEY

-  High Density Resid.
-  Commercial
-  Industrial
-  Recreation/Open Space
-  Institutional

Map is for reference only



## Town of PELHAM LAND USE MAP

**RESIDENTIAL DISTRICT**

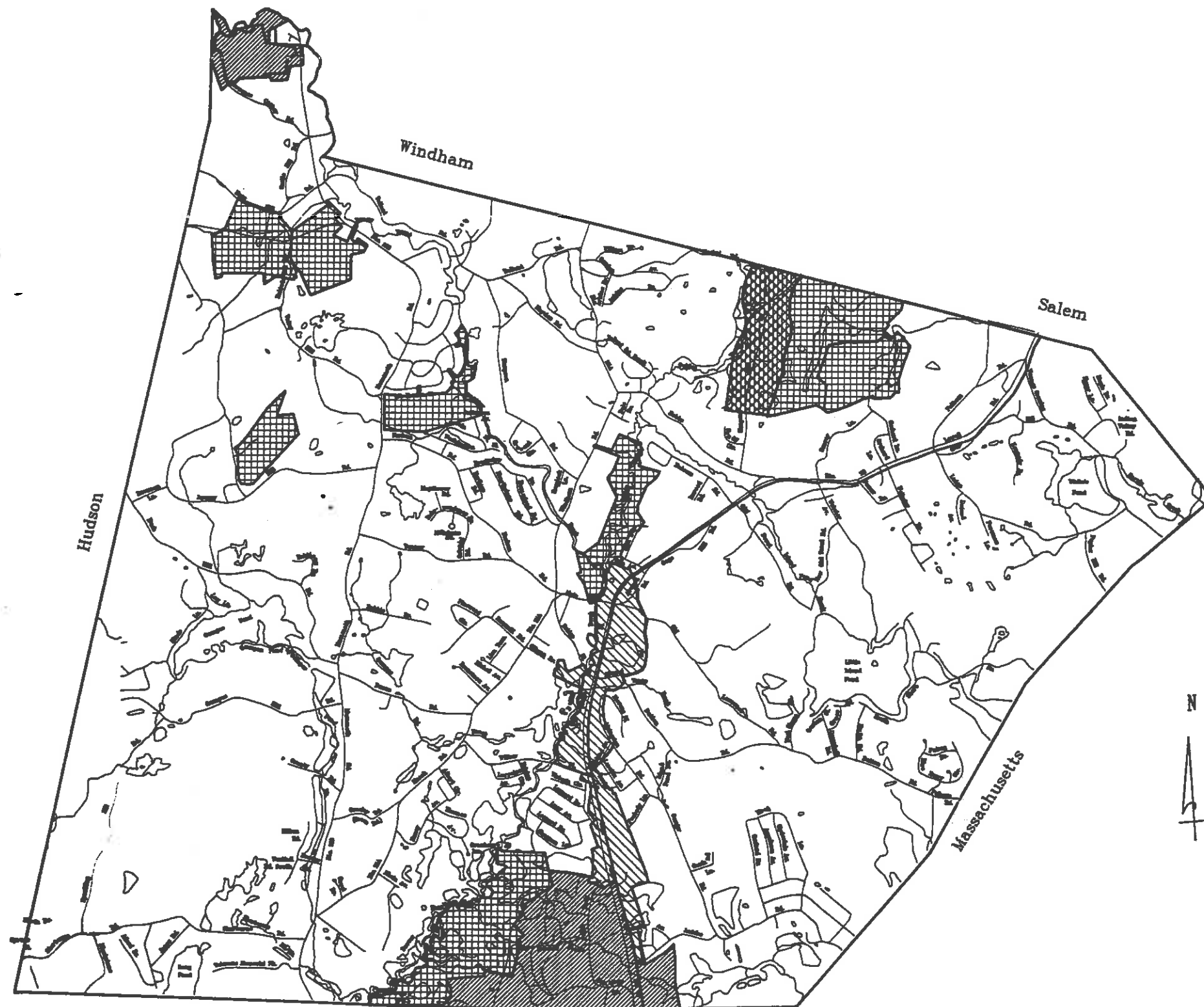
The Town of Pelham provides for a single residential zoning district which encompasses approximately 88% of the area of the Town. The business districts, however, and the Town's rural district also permit residential uses. Most of the requirements governing the Residential District were replaced entirely by a new section of the Zoning Ordinance at the March 1991 Town Meeting. The extent of the Residential District, along with the Town's four other types of zoning districts, are depicted on Map IX-2 on the following page. The basic requirements of the Residential District are described below.

1. **Permitted Uses:** Permitted uses within the District are limited to single and two-family residences, agricultural uses, farm stands, churches (with some additional requirements), and related accessory uses. Home occupations, accessory dwelling units, schools and day care facilities, hospitals and sanitariums, golf courses, radio, television and telephone facilities, are permitted by special exception. All uses permitted by special exception (excluding home occupations and accessory dwelling units) must have not less than 200 feet of frontage or direct access to an arterial or collector street.
2. **Setbacks:** Single and two-family residential structures must meet a thirty (30) foot setback from rights-of-way and fifteen (15) foot side or rear setback. All other structures must meet a forty (40) foot setback from rights-of-way or not less than a distance equivalent to three times the height of the building. Side or rear setbacks for other structures are thirty (30) feet or not less than a distance equivalent to two times the height of the structure.
3. **Frontage:** All uses permitted in the district must have at least two-hundred (200) feet of frontage on a public or private right-of-way except as indicated under special exception requirements.
4. **Lot Size:** A minimum lot size of one acre is required for single-family residences and two acres for two-family residences. While commercial lots must be least 60,000 square feet in area, it is unclear which lot size requirements apply to other uses permitted in the District by right or special exception. Areas of wetland soils and areas within the 100-year floodplain cannot be counted toward meeting minimum lot size requirements.
5. **Parking:** Off street parking is required for all uses permitted in the District. Uses permitted by special exception (excluding home occupations and accessory dwelling units) may not situate parking areas between a building line and a public right-of-way or within setback areas.

**RURAL DISTRICT**

The Rural District is a small zone located along Simpson Mill Road in the north-central extreme of the Town. The 161 acre district permits all uses allowed in the Residential and Business Districts. The District is the only zone which permits mobile homes. In addition to these uses, junk yards and dumps are also permitted upon approval from the Selectmen.










Massachusetts

0 4000  
feet

MAP IX-2

ZONING DISTRICTS

KEY

-  Residential District
-  Recreation-Conservation-Agriculture Dists.
-  Business Districts
-  Industrial Districts
-  Rural District

Source:  
UNH Complex System Research Center,  
from USGS Quads, as amended by NRPC, 1991.

Town of Pelham Zoning Map, 1991.

Map is for reference only

# Town of PELHAM ZONING MAP

### **COMMERCIAL USES**

An estimated 120 acres of land are developed for commercial uses within Pelham. Commercial development accounts for less than 1% of the total land area of the Town. The vast majority of business uses are located along the southern half of Route 38 within the Town's four business districts. A handful of grandfathered businesses, particularly along the northern portion of Mammoth Road, are situated within the Residential District as well. It should also be noted that the Town's liberal allowances for home businesses encourage small enterprises throughout the community.

Although the land area devoted to commercial uses is comparatively minute, business uses appear to be far more extensive in Pelham than the acreage suggests. The impact of commercial development on the landscape and character of Pelham is accentuated by its development in a liberal fashion along much of the Town's most significant arterial road. Strip commercial development consumes a high ratio of road frontage in relation to acreage. Such development patterns give Pelham's Route 38 corridor an urbanized appearance. Although the Town's overall density and extensive undeveloped lands are indicative of a rural community, the rural character of the Town is increasingly hidden from residents, visitors and passers-by.

Currently, roughly 15% of the Business District is developed for commercial purposes. Another 25% is developed for single and multi-family residential or institutional uses. Of the remaining 197 acres of undeveloped land, approximately 30% is included in the Wetland Conservation or Floodplain Districts. Therefore, there are 138 acres of vacant commercial land available for future development. Potential also exists for residential development in the Business Districts as well as for conversions from residential to commercial uses.

Commercial uses in Pelham include a wide range of business types which serve the needs of the local community, commuters and residents from adjacent communities in both states. Businesses include retail, office and service establishments including a supermarket, car lots, restaurants, convenience stores and farm stands. As discussed previously, multi-family as well as single-family housing is also located within commercial areas due to the Town's zoning ordinance provisions. Specific provisions of the Town's zoning ordinance related to commercial uses are described below.

### **BUSINESS DISTRICTS**

The Town of Pelham contains four business districts: B-1, B-2, B-3, and B-4. The four districts are contiguous and straddle both sides of Route 38 in the south-central portion of Town. Due to their length and shallow depth, the districts can be considered to be an example of "strip zoning". Together, the B-1 and B-4 districts take-up approximately 9,930 linear feet of frontage on the western side of Route 38 or 26.5% of the total length of the road. The B-2 and B-3 Districts take-up 12,827 feet of linear frontage along the road or approximately 34.2% of the road's length in Pelham. Together, the four districts encompass over 319 acres of land; all of which is within the Route 38 corridor. Because all four districts are governed by the same ordinance, the requirements for development within the districts are described together.

1. **Permitted Uses:** The Pelham Zoning Ordinance is considered to be an example of "pyramid" zoning: generally uses permitted in more restrictive, or higher districts, are permitted in the less restrictive or lower districts.

As a result, all uses permitted in the Residential District are permitted in the Business Districts and are governed by the regulations applicable to the District. Other uses permitted in the Business zones include multi-family housing, hotels and motels, general retail and wholesale establishments, garages and filling stations, business offices and banks, theaters, halls and clubs.

2. **Setbacks:** Single and two-family residential structures must meet a thirty (30) foot setback from rights-of-way and a fifteen (15) foot side or rear setback. All other structures must meet a forty (40) foot setback from rights-of-way or not less than a distance equivalent to three times the height of the building. Side or rear setbacks for other structures are thirty (30) feet or not less than a distance equivalent to two times the higher of the structure.
3. **Frontage:** All uses permitted in the Districts must have at least two-hundred (200) feet of frontage on a public or private right-of-way except as indicated under special exception requirements.
4. **Lot Size:** A minimum lot size of one acre is required for single-family residences and two acres for two-family residences. While commercial lots must be at least 60,000 square feet in area, it is unclear which lot size requirements apply to other uses permitted in the Districts by right or special exception. Lots for multi-family housing must be at least three (3) acres in area with an additional 10,000 square feet of land required for each bedroom in excess of ten. Areas of wetland soils and areas within the 100-year floodplain cannot be counted toward meeting minimum lot size requirements.
5. **Parking:** Off street parking is required for all uses permitted in the Districts. Uses permitted by special exception (excluding home occupations and accessory dwelling units) may not situate parking areas between a building line and a public right-of-way or within setback areas.

#### **INDUSTRIAL USES**

Industrial development in Pelham is concentrated within two widely separated areas at the north-western and south-central extremes of the Town. In the southern I-1 and I-2 Districts, approximately 76 acres of land has been developed for industrial uses on either side of Route 38. Of the remaining 377 acres of industrially zoned land in the vicinity, however, 126 acres, or 35% of the area, is developed for non-industrial uses including commercial establishments, a cemetery and a multi-family housing development. An additional 18% of the area is wetland and/or floodplain. As a result, 160 acres or 37% of area has the potential for further industrial development. Since the zoning ordinance permits commercial uses in the District, as well, much of the vacant developable land may not be used for industrial purposes.

The Town's second industrial area, sandwiched between Hudson and Windham in the Town's north-western corner, is a newer and lesser developed area. Only about 15 acres has been developed for industrial uses. A 42 acre site within the District, however, was until recently, a major earth excavation. As a result of poor excavation practices, the site has been left clear cut and stripped of top soil. In 1990, a wood-burning energy plant was proposed for the site but zoning conflicts and opposition from residents in Pelham and adjacent towns led to the withdrawal of the proposal. Due to the difficulties of restoring the former excavation, the future development potential of the site is unclear. Although several approved vacant lots remain within the area, steep slopes and land conditions may restrict future development.

The future development potential of Pelham's industrial areas is limited by a number of constraints. The most significant limitations in Pelham's industrial areas are access, environmental conflicts, land use conflicts with residential uses and the lack of public water and sewer. Although the Wetlands Conservation District now restricts development in sensitive portions of the districts, the southern I-1 and I-3 districts both contain sufficient land for future industrial development. These districts are partially buffered from residential districts to the east by the RCA-1 District, and by business districts to the north. Much of the remaining land around the districts is undeveloped and contains wetlands. Residentially developed areas, however, exist adjacent to the northern end of the I-3 district and potential exists for future residential development to its west. A residential area also exists to the north of the I-1 district.

As discussed previously, future development in the northern I-4 district is constrained by topography and the costs associated with restoration of the former excavation site. Unlike the other industrial districts, however, no buffers are provided between industrially zoned and residentially zoned areas. As has been the case in the past, conflicts between nearby residents and potential development proposals may constrain further development within the district. Such conflicts are likely to increase as residential development within the vicinity increases.

#### **INDUSTRIAL DISTRICTS**

Two of Pelham's four Industrial Districts (I-1 and I-3) are located on Route 38. The I-1 District, located on the western side of Route 38, encompasses 387.1 acres. The District has approximately 4,191 feet of frontage on Route 38. The I-3 District, on the eastern side of Route 38, contains 45 acres and is located entirely within the corridor. The I-3 District has approximately 1,433 feet of frontage on Route 38. The I-4 District on Mammoth Road, contains approximately 102 acres.

1. **Permitted Uses:** The Industrial Districts permit all light industrial and manufacturing uses and all uses permitted in the Residential and Business Districts. Residential uses, however, are prohibited and business uses must be approved by the Zoning Board of Adjustment. No criteria for Zoning Board approval is provided.
2. **Setbacks:** All structures must meet a forty (40) foot setback from rights-of-way or not less than a distance equivalent to three times the height of the building. Side or rear setbacks for other structures are thirty (30) feet or not less than a distance equivalent to two times the height of the structure.
3. **Frontage:** All uses permitted in the Districts must have a least two-hundred (200) feet of frontage on a public or private right-of-way except under special exception requirements.
4. **Lot Size:** The minimum lot size for industrial uses is two (2) acres. Commercial lots must be at least 60,000 square feet in area. It is unclear which lot size requirements apply to other uses permitted in the Districts by right or special exception. Areas of wetland soils and areas within the 100-year floodplain cannot be counted toward meeting minimum lot size requirements.
5. **Parking:** Off street parking is required for all uses permitted in the Districts. Uses permitted by special exception may not situate parking areas between a building line and a public right-of-way or within setback areas.

6. **Building Height:** No building height limitation is be provided in the Zoning Ordinance, however, structures may not exceed two stories.

**INSTITUTIONAL USES**

Institutional uses include both public and semi-public facilities. Public facilities or institutional uses include municipal buildings such as Town Hall or the library, schools and cemeteries. State offices or facilities and federal facilities such as the post office are also considered to be institutional uses. Semi-public facilities are defined as those facilities which are public in nature but whose use is limited to a specific membership. Such uses include private schools, churches or other religious institutions and veterans or fraternal organizations.

Most of the Town's institutional uses are concentrated within Town Center. This is particularly true for public institutions. As is typical of New England towns, the Town Hall, Library, Police Station and Fire Station are all clustered in the vicinity of the Town Common. Two churches, semi-public hall, two cemeteries and a private school are located within the Center area. The Town's three public schools are also located on Marsh Road, also in the vicinity of Town Center. Outside of the Town Center area, the only public institutional uses are the incinerator and a few cemeteries. Semi-public institutional uses outside of the Center area include primarily churches and private schools.

Institutional uses encompass approximately 350 acres of land in Pelham or about 2% of the total land area of the Town. The greatest portion of this area is devoted to schools. With the exception of the incinerator site, the Town's municipal facilities are concentrated on very small sites in the Town Center. Although it is uncertain whether the land area devoted to public institutional uses will increase significantly in the planning period, semi-public institutions are provided with ample opportunities for expansion under the Town's zoning ordinance.

**CONSERVATION AND RECREATIONAL USES**

The Town of Pelham currently owns approximately 500 acres of land devoted to conservation or recreational uses. These lands include three major parks and the Town Forest. Additional lands are used for private recreation (primarily a golf course) and private conservation land. In addition to lands held for conservation or recreation, the Town of Pelham includes seven Recreation-Conservation-Agricultural (RCA) Districts which effectively provide for conservation or recreational uses without public ownership. Within these highly restrictive districts, only recreational, conservation or agricultural uses are permitted. Currently, RCA districts encompass 1,044 acres of land. Taken together, private and public conservation lands encompass approximately 1,700 acres or about 10% of the total land area of the Town. In addition to lands formally dedicated to conservation, other regulatory means of conserving the Town's natural resources also provide for conservation without public ownership. These are described below:

**Wetlands Conservation District**

The Wetlands Conservation District is an overlay zone which encompasses all areas of poorly or very poorly drained soils of over 2,000 contiguous square feet in size or areas of poorly and very poorly drained soils adjacent to surface waters of any size and all areas within fifty feet of any wetland or surface water body. Wetlands encompass approximately 30% of the Town's land area.

Within the Business Districts, roughly 18% of the land is governed by the restrictions of the Wetlands District. The Wetlands Conservation District also includes 90 acres or 16% of the Industrial Districts.

**Permitted Uses:** Virtually all uses other than agriculture or conservation are prohibited within the Wetlands Conservation District. No structures may be erected or activities permitted which would result in major alteration of the terrain or in dredging or the addition of fill. Special exceptions are provided, however, for the installation of water impoundments for fire protection and drainage, for streets, roads or driveways and for utilities.

**Setbacks:** No building or structure may be located within twenty-five (25) feet of a Wetlands Conservation District (75 feet from the edge of the wet). No leachfield may be located within seventy-five (75) feet from a Wetlands Conservation District (125 feet from the edge of wet).

#### **Floodplain Development Ordinance**

The Floodplain Development Ordinance is designed to regulate development in all areas designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its 1980 Flood Insurance Rate Maps. The Ordinance is designed to establish standards and regulations for development within floodplain areas. Permitted or prohibited uses, setbacks, or other typical zoning requirements are not provided. While the Floodplain Development Ordinance does not exclude any type of land use, most floodplain areas also fall within the Wetlands Conservation District and the more restrictive ordinance takes precedence.

#### **Aquifer Protection District**

The Aquifer Protection District is an overlay zone which encompasses all areas shaded in blue on the USGS Survey map entitled "Saturated Thickness, Transmissivity and Materials of Stratified-Drift Aquifers in the Nashua Region, South Central New Hampshire", 1984; also known as the Toppin Study. The District permits most uses permitted in the underlying zones, but prohibits automobile service or repair shops, the discharge of hazardous or toxic substances, underground petroleum storage tanks and a number of specific practices which may threaten groundwater quality.

#### **OTHER LAND USE REGULATIONS**

While zoning is perhaps the most obvious form of land use regulation, all planning boards are also empowered to adopt site plan and subdivision regulations. These regulations, although more limited in scope than zoning, also have a significant impact on the way in which land is used. This is particularly true at the time land is developed or redeveloped. The most significant portions of the Town's site plan and subdivision regulations which relate to land use are summarized below.

**1. Site Plan Review Regulations**

Pelham's Site Plan Review Regulations govern the development of all uses other than single and two-family residential development. The regulations provide procedures for applications and plan reviews and general standards related to landscaping, drainage, parking, driveways and access, screening, waste water disposal and other concerns. No specific regulations related to open space, building height or density, the use of frontage roads, traffic impacts, design review, or off-site improvements are provided.

**2. Subdivision Review Regulations**

Pelham's Subdivision Review Regulations govern any division of land for the purposes of sale or development. It should be noted that the definition of subdivision within the ordinance is based on old state statutes and does not include divisions of land for the purposes of rent or lease or condominium conveyance. The subdivision regulations include provisions for application and review procedure, septic system design, road design, water supply and drainage. Unlike the Site Plan Regulations, however, specific provisions of the Subdivision Regulations can have a significant impact on land use.

- a. **Premature Development:** Section 260-27 - Premature Development, of the Subdivision Regulations imposes a mandatory phasing requirement on subdividers of large tracts. No tract in Pelham may be divided into more than ten lots per calendar year. Subdivisions of more than ten lots are also required to provide economic, traffic and environmental impact studies to the Planning Board.
- b. **Lot Size:** In addition to the minimum lot size requirements of the Zoning Ordinance, Section 260-29 - Lots, of the Subdivision Regulations imposes additional requirements for minimum lot size calculation. Specifically, increased lot sizes are required where a parcel contains average slopes in excess of 15%, or on lots where a leachfield may be located within 250 feet of most of the Town's lakes, ponds or streams. In addition, this section also excludes slopes in excess of 25%, 100-year floodplain areas, lands located within a RCA District, land under power easements, unrestored earth excavations and other lands from minimum lot size calculations.

**CONCLUSIONS**

The land use patterns seen today in Pelham reflect the response of its early inhabitants to the natural conditions of the terrain. Development has spread throughout the community wherever land has been relatively easy to develop and has avoided the steep slopes and wetland concentrations which are also well distributed. The ways in which the people of Pelham have shaped and used the landscape, however, has changed considerably over time in response to changes in technology, lifestyle and economics. As Pelham began the trans-formation from a rural and agricultural community into a suburban bedroom community, much of the diversity of land uses of the past was replaced by single-family home development. Residential development consumes over 75% of the developed land in town. The extent of much of the residential development that has taken place has detracted from the landscape and the rural character of the town due to the large amounts of farmland, woodland and existing road frontage consumed by it.

Commercial and industrial uses, in contrast, consume only a fraction of the area devoted to residential uses. These areas are highly visible, however, since they are developed in thin strips, primarily along the Town's major arterial road. Furthermore, expansion within existing commercial and industrial districts is limited due to their small size, conflicts with other land uses, and a lack of infrastructure support. To address these issues, the following recommendations are provided.

1. Develop public water and sewer in commercial and industrial areas to attract a wider variety of businesses and industries while minimizing potential environmental threats.
2. Amend the zoning ordinance to permit so called Open Space Developments which encourage the preservation of farmland, woodlands scenic areas and other resources without resulting in increases or decreases in density.
3. Continue to utilize soil types and other natural constraints to guide residential development patterns and to determine densities within specific sites.
4. Investigate alternative land conservation techniques such as the purchase-of-development-rights to conserve important natural and man-made features of the landscape.
5. Increase the depth of the existing business districts where possible.
6. Encourage the use of parallel roads (service roads), side streets and intra-site driveways within commercial developments.
7. Increase frontage requirements along major arterials while decreasing frontage requirements along new local streets to encourage parallel (service) and alternative street construction.
8. Provide transitional zoning districts for light commercial uses and/or additional Recreation-Conservation-Agricultural districts to serve as buffers between industrial and residential areas.
9. Consider the creation of a new business district on Mammoth road adjacent to the existing industrial district in the northwest corner of town.
10. Consider the changing the existing Rural district into an industrial or commercial district.
11. Develop public water and sewer to allow densities to be increased in commercial and industrial areas.
12. Avoid the linear expansion of business districts along Route 38 to limit continued strip development.
13. Encourage or restrict parking areas to the rear of commercial sites to improve the aesthetic quality of business districts.
14. Develop design guidelines and review procedures as a part of the site plan review process.
15. Consider classifying existing business districts into differing business districts of varying intensities to reflect traffic and land use conditions and to increase the variety of business enterprises within the town.



## **CHAPTER I**

### **CONCLUSIONS AND RECOMMENDATIONS**

The Town of Pelham approaches the 21st Century on the downside of a long period of growth and change. The building booms of the 1970s and 1980s transformed Pelham into a primarily residential bedroom community for the growing employment centers of Nashua and Lowell. The focus of most planning efforts during those years was directed at strategies to manage the impacts of growth on the local landscape and economy. In recent years, growth has slowed and economic problems have multiplied. Unemployment, depressed property values and strained municipal budgets, along with environmental concerns dominate the agendas of local officials. While it is not possible to predict the events that will shape the next ten years with scientific accuracy, this Master Plan is based on an assumption that the coming decade will one of relative stability.

Over the next ten years, Pelham is not expected to experience substantial growth or decline. Commercial and industrial growth is expected to increase, environmental protection will be further enhanced, housing and recreational opportunities will expand. Through changed local land use regulations, Pelham will also manage to retain its rural/residential character by conserving its prominent natural and historic resources, enhancing the aesthetic qualities of its built areas and minimizing congestion on its streets. The Pelham of ten years hence will not be much larger, but it will be a more diverse and balanced community capable of meeting a wider range of its citizens' needs. Conclusions and recommendations for each section of the Master Plan are provided below.

#### **POPULATION**

During the course of its history, Pelham's population has entered into periods of rapid increase, periods of decline, and a long period of stability before returning to a period of rapid growth in the recent past. During the 1990 to 2000 period, the town is expected to experience only modest increases in population. Indeed, the Office of State planning projections of 10,659 for the year 2000 and 11,397 for the year 2010 may be excessively high. For planning purposes, however, it is necessary to anticipate increases in population so that adequate public facilities and services can be provided. In addition to overall population levels, it is also necessary to consider the composition of the population. Over the planning period, the composition of Pelham's population is not expected to change significantly. In terms of age, family size and type and other factors, Pelham will continue to approximate regional norms consistent with general population trends.

#### **NATURAL RESOURCES RECOMMENDATIONS**

The Town of Pelham is endowed with a diverse natural resource base. While the Town has made substantial progress in the protection of the natural assets of the community, there is always room for improvement. The following recommendations are made to assist the Town in effectively managing its natural resources to maintain a balance between competitive uses and promote the highest use of the Town's water resources. The recommendations represent both regulatory and non-regulatory conservation methods.

#### **Topography**

1. Amend the zoning ordinance to require erosion and sediment control plans for all construction on 15-25% slopes, particularly in sensitive areas adjacent to wetlands or surface waters.

2. Conduct an investigation of alternative local land use regulation techniques for minimizing the negative impacts of development on slopes in excess of 25%.
3. Consider developing programs to protect and provide public access to the high elevation areas in the community. These locations often provide scenic views of the surrounding countryside.

#### **Mining and Construction Materials**

The 1989 amendments to the excavation regulations, RSA 155-E, require each Master Plan to contain a section on mining and construction materials. Excavations are a permitted use in the industrial district and are allowed as a special exception in all other districts of the Town. The Town's current excavation regulations are not in compliance with state statute.

1. Amend the excavation regulations to bring them into compliance with the recent amendments to RSA 155-E. Minor revisions are required to the definition section; the terminology needs to be changed throughout from restoration to reclamation; and abandoned excavations need to be defined and addressed.
2. Include setbacks for excavations and associated processing operations in the zoning ordinance to protect surface waters and wetlands.

#### **Wildlife**

1. Maintain the variety and quality of wildlife habitats to ensure a diverse combination of plant and animal species throughout the community.
2. Protect the habitats of threatened and endangered species. Limited information on the locations of these species and their habitats can be obtained from the NH Natural Heritage Inventory. Threatened and endangered species are extremely susceptible to changes in habitat. The continued presence of these species and communities within the Town depends upon the maintenance of their habitats.
3. Promote conservation of interconnected habitat areas that will provide wildlife corridors along which animals can travel from one area to another. Wildlife corridors can be conserved through the acquisition of specific parcels or easements and through sensitive development practices.
4. Consideration should be given to amending the Subdivision Regulations to encourage the provision of conservation easements or set-asides to protect important wildlife habitats and facilitate connections to other existing or potential conservation areas.

#### **Visual Resources**

1. Identify the significant visual resources within the community. The Conservation Commission could conduct an inventory of the views and vistas within the community.
2. Amend the subdivision and site plan review regulations to include consideration of the impact of the proposal on the identified significant visual resources. The review process can be used to evaluate placement of buildings and structures such that the ridgelines of hills or vistas of streams, lakes or ponds are protected.

3. Determine the need for obtaining conservation easements or fee simple ownership to protect important views and vistas.

**Existing Conservation Lands**

1. Actively manage the existing conservation lands to ensure continued quality of wildlife habitat, open space and recreation.

**Implementation Techniques**

In order to protect wildlife habitats, scenic vistas, and other sensitive lands, several different methods of achieving conservation can be pursued at the local level. The appropriateness of any alternative depends on the nature of the resource, the financial constraints of the community and the willing-ness of the citizens. Some of the alternative which should be considered include the following:

1. Acquisition of sensitive lands.
2. Acquisition of protective or restrictive easements on sensitive lands such as wildlife habitat, farmland or scenic vistas.
3. Encourage voluntary contributions of sensitive land or easements upon them.
4. Encourage open space developments which are designed to conserve a minimum of 40% or 50% of the total land and within a development as open space. Such open space can include important sensitive lands.
5. Amend the Town's subdivision regulations to require contributions toward park land and open space as permitted under RSA 674:36.
6. Develop a purchase-of-development rights program which would allow the rights to develop a parcel comprised of sensitive lands, such as farmland or important wildlife habitats, to be purchased while leaving the land in private ownership.

**Water Resources**

The following recommendations are made to eliminate or minimize the potential negative impacts and to conserve the Town's water resources. The Town's Water Resources Management and Protection Plan prepared in 1988, contains additional recommendations for several specific areas related to water resources conservation.

**Surface Water**

1. Develop and adopt comprehensive shoreland protection regulations that will regulate permitted/prohibited uses, establish setbacks for structures, parking areas and other site developments, and restrict cutting along the shore for thinning and to create openings. This list represents some of the most important considerations for protecting shore-lands; however, it does not encompass all activities with an impact on the shoreland zone. Shoreland regulations protect water quality by decreasing the potential for erosion, by providing buffers to filter sediments and nutrients from runoff, and by conserving the natural undeveloped character of the shoreline.
2. Require erosion and sediment control plans for all developments resulting in a significant disturbance of soils, particularly in areas adjacent to surface waters and areas with slopes greater than 15%. In addition, provide

adequate inspection to ensure proper installation and maintenance of the control measures.

3. Develop and implement a comprehensive road salt application and management program to limit or prohibit applications in sensitive areas of Town.

#### **Wetlands**

1. Develop and adopt septic system setbacks from wetlands greater than those required by the State as follows:
  - a. systems located entirely or partially in highly permeable soils (a permeability of 6 inches per hour throughout as indicated in the USDA Soil Survey of Hillsborough County, NH Eastern Part, 125 feet;
  - b. systems located entirely or partially in somewhat poorly drained soils, moderately well drained soils or soils with a restrictive layer and a slope of 8% or greater - 100 feet.

#### **Groundwater**

1. Work with the adjacent communities to develop consistent regulations to protect the most productive intermunicipal aquifers. Protection of this groundwater resource will require cooperation and coordination between the communities with potential impact.
2. Examine the issue of establishing residential densities in the aquifer areas at a level sufficient to protect the groundwater from contamination by human wastes.
3. Conduct an underground storage tank (UST) inventory, that will supplement the information collected at the State level, to identify the location and contents of USTs in the community.

#### **Water Supply**

Pelham's groundwater resources have the potential to serve as a public water supply for both the town and for surrounding communities. This potential public water supply is one the town's most important assets. To adequately protect, manage and utilize this resource, the following specific steps should be undertaken:

1. Participate in the Well Head protection program.
2. Establish a Water and Sewer Commission to develop and implement a water supply and sewage disposal management plan.

#### **HOUSING**

The population and housing characteristics described in the housing chapter present broad implications for the availability and affordability of housing in Pelham and within the region. In general, the City of Nashua and a few adjacent communities are providing the bulk of the region's new housing units as well as providing for the most diverse types of housing within the region. Pelham, like many of the communities in the region, is becoming less diverse as opportunities for housing types other than high priced, low-density single-family homes diminish.

Both the lack of alternative housing types as well as the lack of affordable housing in Pelham and the region are problems that are rooted in the rapid growth experienced during the last few decades. In communities such as Pelham, urban housing needs have been confronting essentially rural conditions and a lack of adequate infrastructural support. Any effort to expand housing opportunities requires first, a recognition and acceptance of the region's existing conditions, and second, an assertive attempt to direct development for the benefit of all of the region's residents into the areas best suited for differing types of development.

Market and geographical factors may play the greatest role in reducing the diversity of the housing stock of most of the region's communities. Another major influence, however, is local land use control. Local land use regulations have clearly had an impact on the distribution and availability of housing as can be seen in the patterns of population growth and new housing construction presented in this chapter. While housing prices were rising in the early and middle 1980s, the rate of increase of new homes constructed declined. Likewise, the trend in previous decades toward a more varied housing stock was reversed during the 1980s, even though condominium prices and rents were increasing rapidly.

If housing were to be viewed in isolation of other factors, it may appear that local land use controls have had an undue influence on housing affordability and availability in Pelham. For Pelham, however, the development of local land use controls has been a lengthy and on-going process designed to restrain unchecked growth, retain its rural/agricultural and historic character, avoid the degradation of its natural resources and to generally preserve the essence of the Town. Land use regulations are designed to serve a variety of functions and often, to achieve what seem to be contradictory or conflicting goals. Such is the nature of regulation generally. Pelham's challenge is to expand its housing base without degrading its character, environment or economic structure.

#### Strategies for Meeting Pelham's Housing Needs

In recent years, the Town of Pelham has taken important strides in providing housing for the Town's younger families and elderly citizens, and others through the allowance for accessory housing (in-law apartments) in all residential areas. The Town also permits, as has been noted, some opportunities for multi-family housing. The relationship between changing lifestyles and housing, however, needs to be continually addressed. Several alternatives need to be examined to determine which maybe the most effective and realistic to broaden the housing base of the Town and better respond to the needs of its citizens. Of the alternatives described in the Regional Housing Needs Assessment, the adoption of an ordinance to permit the development of planned unit or residential development appears to be the most promising. A general description of such development types is provided below:

#### **1. Planned Residential Developments**

Planned Residential Developments are a development pattern that allows residential developments to be designed in a way that "clusters" housing units together in a pattern that does not provide the same minimum lot size or setback requirements that apply to conventional developments. While the individual house lot or private yard area dedicated to each unit is usually smaller than those found in conventional tract developments, the overall density is usually the same. Densities are calculated by considering the total land area of the development, including common areas, in relation to the total number of units, rather than considering only the amount of land

exclusively dedicated to each individual unit. Planned residential developments are often also referred to as planned unit developments or as open space developments.

2. Consideration should be given to alternative innovative land use controls such as inclusionary housing and affordable housing exactions.
3. The planning Board should monitor the development of the approximately five-hundred approved building lots and determine their potential impact.

### TRANSPORTATION

The transportation issues confronting Pelham are concentrated primarily in the vicinity of N.H. Route 38. In recognition of the growth of the Route 38 area, the N.H. Department of Transportation, funded a Route 38 Corridor Plan, completed by the Nashua and Rockingham Regional Planning Commissions, to analyze conditions and plan for improvements in the vicinity. The completed Plan is adopted as part of the Master plan by reference. Short and long-term recommendations are summarized below.

#### Short Range Highway Improvements

Based upon the intersection capacity and visual observation of intersection deficiencies included in Chapter V, the following short term recommendations were developed for Route 38 intersections.

1. Old Gage Hill Road North - Improve signage, reduce vegetation and install a flashing beacon to mitigate limited sight distance from Old Gage Hill Road.
2. Main Street and Old Gage Hill Road South - Widen the Route 38 southbound approach and stripe for a separate right-turn lane. Provide pavement markings for a right turn lane on Main Street, along with some widening for storage. Improve the striping for left turns from Route 38 in both directions.
3. Willow Street and Highland Avenue - Change the lane configuration on Route 38 to provide exclusive left and joint right/through lanes. Widening and realignment of the intersection will be required to implement this. Widen the Willow Street approach somewhat to provide better separation of left and right/through traffic.
4. Jericho Road - The paved shoulder on the Route 38 southbound approach should be widened, or a separate turn lane constructed, to allow through traffic to pass stopped vehicles turning to Jericho Street. Curbing should be provided in order to achieve safer driveway access to the convenience store.

#### Development Policy Recommendations

A set of development policy recommendations were made for governing future growth along the Route 38 corridor, as detailed below.

1. Prohibit the construction of dead-ended streets which are designed to remain so permanently.

2. Strengthen setback requirements to New Hampshire Department of Transportation standards. A 100 foot setback would be required for the Route 38 corridor.
3. Increase frontage requirements in order to minimize curb cuts along Route 38.
4. Work toward the construction of service roads running parallel to Route 38.
5. Encourage "planned commercial development", whereby several business are served by a single access point.
6. Review multi-commercial developments as subdivisions, utilizing generally accepted engineering standards for the regulation of parking areas and traffic circulation.
7. Require new commercial developments along Route 38 to provide access to a local collector street, where possible.
8. Consider the formation of a Driveway Access Review Committee to review all proposals for safety and compatibility.
9. Enact stricter landscaping standards.
10. Establish a municipal impact fee district for the Route 38 corridor.

**Long Range Highway Improvements**

Considerable growth along the Route 38 corridor is forecasted for the twenty year study period. Based upon capacity analysis of the future projected conditions, the following long-range corridor plan is recommended.

1. Route 38 should eventually be widened to a three or four-lane cross section through its major activity centers from the Massachusetts border to just north of Main Street.
2. Consideration should be given to the signalization of the Jericho Road intersection.
3. A complete upgrade of the Old Gage Hill Road North intersection should be considered. An alternative would be to prohibit left turns onto Route 38 and direct traffic to Young's Crossing for this purpose.
4. Maintain an updated capital improvements program with a transportation improvements component.

**Other Highway Improvements**

5. Consider improvements to enhance access to the industrial park at Mammoth Road.

**COMMUNITY FACILITIES**

Although substantial growth is not anticipated over the next decade, Pelham is nevertheless faced with needed public facility expansions and improvements for most municipal functions and for the school district. Furthermore, as is underscored elsewhere in the Master Plan, the future of the town in many ways hinged on its ability to provide public water and sewer service to its commercial,

industrial and densely developed areas. The following recommendations are intended to address these key areas.

1. A town water and sewer commission should be formed to investigate public water and sewer implementation alternatives. The commission should be adequately staffed and supported.
2. A comprehensive space needs study and plan is necessary to allow future public facility expansions and improvements to be made in a timely and cost efficient manner. The existing town and school district committees and boards should be supported and encouraged to complete their efforts.
3. The Planning Board should amend its subdivision regulations to require that parks, playgrounds or open space of adequate proportions be provided as a part of residential subdivision development where appropriate.

### ECONOMIC DEVELOPMENT

The economic well-being of a community is dependent on a broad range of influences, most of which are beyond its control. While Pelham is only a small part of the economies of the Nashua and Lowell regions, it nevertheless has a role to play in the area of economic development for the benefit of the region generally, and for its citizens in particular. Of principal concern to the Town is the necessity of providing expanded business and employment opportunities for Pelham residents. Expanded business and employment opportunities require sufficient and appropriately zoned land and adequate infrastructure support. Of primary importance to commercial and industrial growth are transportation, water and sewer improvements. In order to strengthen the tax base, however, it is also essential that commercial and industrial development occur in a manner that does not detract from the rural and residential qualities of Pelham which enhance its desirability. Specific recommendations to address these local concerns are provided below. The following recommendations necessarily overlap with those provided in other portions of the plan.

#### Employment

Pelham's high unemployment rate is the result of job losses within the Town as well as within the region. It is essential that the town provide expanded opportunities for business and industry to benefit town residents and region as a whole. Expanded business opportunities imply the need for additional appropriately zoned land that is adequately serviced by public facilities. Specifically, the Town should implement the following:

1. Appoint a sewer and water commission to actively pursue and manage the development of a public water and sewer system to service existing and potential commercial and industrial areas within the Town.
2. Consideration should be given to the expansion of existing business and industrial districts to ensure that sites of adequate proportion are available to attract potential businesses and industries as well as to provide for the expansion of existing enterprises.

#### Wages

In addition to concern for employment generally, attention must be paid to type of employment gained or lost in relation to wages and income. Average wages in manufacturing are approximately 38% higher than in non-manufacturing industries. Jobs in this sector, however, have declined at a higher rate than



non-manufacturing over the past few years. To attract higher-paying manufacturing jobs, it is necessary to provide relatively large sites with good access to the highway system which can be developed with minimal interference from less intensive land uses.

Other types of industries which the Town should seek to attract include research and development enterprises and business and professional offices. While retail and service sector employment is an important part of the economy, such businesses are relatively low-paying and are already well represented in the community.

#### Tax Base

The strength of a local tax base is dependent on the value of the land and buildings. Land uses are assessed differently for tax purposes. Differing land uses also result in differing burdens on the municipality to provide facilities and services. For a predominantly residential community such as Pelham, it is important to broaden its commercial and industrial base. Residential development, however, will continue to be the largest portion of the tax base for the foreseeable future. The strength of the tax base, therefore, also depends on enhancing the value of all types of development. To attract higher quality development, Pelham must maintain an attractive and desirable environment within which to live and work. An emphasis should be placed on the conservation of Pelham's important natural and historic features which contribute to its character. Consideration should also be given to the aesthetic impact of newer development.

In addition to building up its tax base through balanced development, Pelham should also consider the financial impacts of growth. Appropriate land use controls can minimize such burdens by discouraging development patterns which result in excessive public service or facility costs. Scattered or premature subdivision development, for example, can require a town to provide services in a highly inefficient manner. Poor site planning for commercial developments can result in unnecessary expenditures for public safety and road improvements. Both residential and non-residential developments can also be expected to pay their fair share of improvements which are required as a result of their impact on the community.

Required off-site improvements as well as impact fees are permissible under state law when applied under appropriately developed local ordinances and regulations.

#### HISTORIC RESOURCES

Pelham is endowed with a wealth of historic resources. In addition to reflecting the Town's varied history, Pelham's historic buildings and sites are an essential component of the contemporary landscape. The following recommendations are intended to assist the town in preserving these important, but sometimes overlooked resources.

1. Conduct a comprehensive townwide historic resources survey. Information should be updated periodically to indicate changes to buildings, including remodeling, fire, demolition or changes to surroundings.
2. The Town should continue to encourage the protection, enhancement and rehabilitation of significant architectural and historic resources such as

the Town Hall, Library, Butler Monument, Town Common and cemeteries. Any building changes, site improvement or other alteration (especially to town owned buildings) should respect the historical qualities of the structure.

3. Historical interest and pride should be promoted in a variety of ways including:
  - photographs and exhibits in public places;
  - markers and dates at historic structures;
  - brochures describing local history;
  - tours of historic structures and sites;
  - local history courses in the school curriculum;
  - oral history projects;
  - support of the Pelham Historical Society;
  - celebration of the Town's 250th anniversary in 1996.
4. Copies of literature from the State Historic Preservation Office regarding appropriate rehabilitation techniques should be placed on file in the Town Hall and made available by the Historical Society to encourage the sensitive rehabilitation/renovation of older homes and buildings.
5. Encourage National Register listing for eligible local structures, including appropriate private residences.
6. Continue to locate, identify, catalogue, preserve and protect town records, documents, manuscripts and artifacts and provide a suitable and safe repository for them. Early handwritten records should be reproduced (transcribed or microfilmed but not photocopied) and copies kept in more than one location. Make collected historical information (in a protected environment) accessible to town residents and future generations.
7. Encourage the use of innovative land use controls including planned residential development and partial development to conserve open space and minimize the visual impact of new development on significant historic areas, open space and scenic views.
8. Consider the acquisition of available, significant property for conservation and preservation purposes in limited but critical cases.
9. Promote the donation of easements by historic property owners to a designated authority such as the conservation commission, or established land trust such as the Society for the Protection of New Hampshire Forests.
10. Encourage archaeological investigation/documentation in Pelham including historic and prehistoric sites and cemeteries.
11. Promote the work of the town cemetery trustees and the preservation and protection of the Town's historic graveyards and private burying grounds including retention of the natural vegetation, preservation of the dry laid stonewalls and retention of the small stones used as footstones and children's headstones.
12. Promote the collection, preservation and protection of oral histories and early photographs and encourage the continued recording of townspeople and structures for permanent reference.

13. The Town should consider the establishment of a heritage commission to encourage the protection and appropriate use of Pelham's cultural resources and esthetics as well as historic resources. Attention in particular, should be focused on Town Center.

### LAND USE

The land use patterns seen today in Pelham reflect the response of its early inhabitants to the natural conditions of the terrain. Development has spread throughout the community wherever land has been relatively easy to develop and has avoided the steep slopes and wetland concentrations which are also well distributed. The ways in which the people of Pelham have shaped and used the landscape, however, has changed considerably over time in response to changes in technology, lifestyle and economics. As Pelham began the transformation from a rural and agricultural community into a suburban bedroom community, much of the diversity of land uses of the past was replaced by single-family home development. Residential development consumes over 75% of the developed land in town. The extent of much of the residential development that has taken place has detracted from the landscape and the rural character of the town due to the large amounts of farmland, woodland and existing road frontage consumed by it.

Commercial and industrial uses, in contrast, consume only a fraction of the area devoted to residential uses. These areas are highly visible, however, since they are developed in thin strips, primarily along the Town's major arterial road. Furthermore, expansion within existing commercial and industrial districts is limited due to their small size, conflicts with other land uses, and a lack of infrastructure support. To address these issues, the following recommendations are provided.

1. Develop public water and sewer in commercial and industrial areas to attract a wider variety of businesses and industries while minimizing potential environmental threats.
2. Amend the zoning ordinance to permit so called Open Space Developments which encourage the preservation of farmland, woodlands scenic areas and other resources without resulting in increases or decreases in density.
3. Continue to utilize soil types and other natural constraints to guide residential development patterns and to determine densities within specific sites.
4. Investigate alternative land conservation techniques such as the purchase-of-development-rights to conserve important natural and man-made features of the landscape.
5. Increase the depth of the existing business districts where possible.
6. Encourage the use of parallel roads (service roads), side streets and intra-site driveways within commercial developments.
7. Increase frontage requirements along major arterials while decreasing frontage requirements along new local streets to encourage parallel (service) and alternative street construction.
8. Provide transitional zoning districts for light commercial uses and/or additional Recreation-Conservation-Agricultural districts to serve as buffers between industrial and residential areas.

9. Consider the creation of a new business district on Mammoth road adjacent to the existing industrial district in the northwest corner of town.
10. Consider the changing the existing Rural district into an industrial or commercial district.
11. Develop public water and sewer to allow densities to be increased in commercial and industrial areas.
12. Avoid the linear expansion of business districts along Route 38 to limit continued strip development.
13. Encourage or restrict parking areas to the rear of commercial sites to improve the aesthetic quality of business districts.
14. Develop design guidelines and review procedures as a part of the site plan review process.
15. Consider classifying existing business districts into differing business districts of varying intensities to reflect traffic and land use conditions and to increase the variety of business enterprises within the town.

## APPENDIX A

## CITIZENS SURVEY RESULTS

The Town of Pelham sent out 3,100 questionnaires in a survey seeking input into the Master Plan effort. In addition, an opportunity was afforded to pick up questionnaire forms for those taxpayers and residents who did not receive one through the Town's mailing system. Of the 3,100 forms sent out, 662 responded. This is an almost 22% return and is accepted as a statistically valid response to the survey. This is to say, that based on this response, the remaining 78% would have been in substantiation of the determined results.

On a summary note, the questionnaire reflected sentiments similar to the survey conducted in 1980. Residents like the Town's rural atmosphere, are still concerned about the school system and its facilities, are not as concerned about the poor roads as in 1980, and as in 1980 responded overwhelmingly to reduce the rate of growth. As the questionnaire results show, sewer and water facilities were highest ranked among needs for the community and are of overwhelming concern. At the same time, people are concerned about the disappearance of agricultural land, they prefer single-family home development over multi-family home development, have through their comments indicated their concern about the high cost of local government and in many instances feel that services could be provided more efficiently. The following is a detailed tabulation of the questionnaire returns. The last page of the questionnaire afforded people to respond as to their concerns for the Town and in addition to the statistical recording have expressed in order of magnitude their comments involving:

1. a slower rate of growth
2. need for interdepartmental coordination of town administration
3. concern about used and junk car lots
4. need for sewer and water facilities

5. need for more employment opportunities, both industrially and commercially
6. town protection of ponds and streams
7. create design control by the town for commercial and public buildings, specifically the high school

The questionnaires themselves are stored at the office of the Planning Department for individuals desiring to review the returns. The following tabulation of questionnaire returns incorporates two errors on the forms -- question #6.h. was redundant to #6.g, therefore nothing was tabulated; similarly, in question #8 the letter c. was inadvertently deleted and thus no response is recorded.

The percentages given are based on the 662 responses. Of note is also the fact that 28% of the respondents were residents in 1964 when the initial plan was prepared and over 50% of those responding have lived in the community for more than 10 years. This would indicate a stable community rather than a transient one, a sign that speaks well for Pelham. The most serious problems recorded were the lack of town water, town sewer, the high taxes (a bit incongruous), the loss of farmland in Pelham, the excessive housing development, and lack of industrial development or employment opportunities. Of note also was the overwhelming support for wetlands and open space conservation and preservation as part of the Master Plan needs.

# Pelham Community Survey

1988

Dear Resident or Taxpayer:

A town under New Hampshire law may plan, and has to plan, in order to have valid ordinances and regulations pertaining to its future. The voters have authorized updating the Master Plan, and this survey is an integral part of that. In order to give you the opportunity to provide important input for amending the Pelham Master Plan, we are asking you to complete this questionnaire. Your preferences and suggestions will be used by the Committee in making changes, revisions, and additions to the present Master Plan and our Ordinances.

Please complete the questionnaire which is anonymous and return it within three days of receipt. Thank you for your assistance.

Your Pelham Master Plan Advisory Committee.

August, 1988

1. Are you a:
  - a. Resident ☐ yes ☐ no
  - b. How many in your household? \_\_\_\_\_
2. How long have you lived in Pelham?
  - a. less than 5 years
  - b. 5 to 10 years
  - c. 10 to 20 years
  - d. over 20 years
3. Resident information
  - a. own your home
  - b. rent your home
  - d. employed ☐ yes ☐ no
  - e. what town? \_\_\_\_\_
4. What makes Pelham a good place to live? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
5. In the next ten years, would you like to see the population of Pelham...
  - a. stay the same
  - b. grow slightly
  - c. grow moderately
  - d. grow rapidly
6. Check five of the following that you believe to be the most serious problems in Pelham.
 

<ol style="list-style-type: none"> <li>a. land speculation</li> <li>b. loss of farm land</li> <li>c. lack of multi-family housing</li> <li>d. lack of housing development</li> <li>e. lack of industrial develop.</li> <li>f. lack of commercial develop.</li> <li>g. excessive housing development</li> </ol>	<ol style="list-style-type: none"> <li>h. excessive housing development</li> <li>i. lack of land use controls</li> <li>j. high taxes</li> <li>k. traffic/roads</li> <li>l. lack of community buildings</li> <li>m. lack of a public water system</li> <li>n. lack of a public sewer system</li> </ol>
--	---
7. Please check the column that describes your attitude towards new housing in Pelham.
 

	FAVOR	AGAINST
a. single-family homes	_____	_____
b. multi-family homes	_____	_____
c. condominiums	_____	_____
d. mobile homes	_____	_____
e. cluster housing	_____	_____
f. elderly housing	_____	_____
g. rent subsidized housing	_____	_____
h. in-laws apartment	_____	_____



8. Please check the column that describes your attitude towards the following.

	FAVOR	AGAINST
a. wetlands ordinance	_____	_____
b. septic code enforcement	_____	_____
d. preservation of woodlands	_____	_____
e. preservation of agricultural land	_____	_____
f. public open space and woodlands	_____	_____

9. In order to protect natural resources, as above, should the Town of Pelham

- a. accept gifts of land and/or development rights for conservation rights? \_\_\_\_\_yes \_\_\_\_\_no
- b. appropriate money annually for important land conservation purchases? \_\_\_\_\_yes \_\_\_\_\_no
- c. should the town require land to be dedicated for town use as part of development approval? \_\_\_\_\_yes \_\_\_\_\_no

10. Rate the following municipal services and indicate if you think the town should spend more, less, or the same amount of money on their provision.

Good	Fair	Poor	No Opin		Spend More	Spend Same	Spend Less	No Opin
_____	_____	_____	_____	Police Protection	_____	_____	_____	_____
_____	_____	_____	_____	Fire Protection	_____	_____	_____	_____
_____	_____	_____	_____	Road Maintenance	_____	_____	_____	_____
_____	_____	_____	_____	Road Construction	_____	_____	_____	_____
_____	_____	_____	_____	Schools	_____	_____	_____	_____
_____	_____	_____	_____	Libraries	_____	_____	_____	_____
_____	_____	_____	_____	Zoning Enforcement	_____	_____	_____	_____
_____	_____	_____	_____	Elderly Programs	_____	_____	_____	_____
_____	_____	_____	_____	Parks & Recreation	_____	_____	_____	_____
_____	_____	_____	_____	Historic Preserv.	_____	_____	_____	_____

Other comments regarding the growth of Pelham over the next ten years. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please return this anonymous survey within 3 (three) days by refolding the form with the return address showing and mailing it back. You may also choose to drop it off at the Planning Department in the Town Hall or leave the completed survey form at the Town Library.

Thank you for your help.

(numerically)

1. Are you a resident (yes) 619 (no) 43

Please indicate how many per household:

1. <u>39</u>	5. <u>50</u>
2. <u>240</u>	6. <u>11</u>
3. <u>108</u>	7. <u>4</u>
4. <u>146</u>	8. <u>3</u>
no response <u>61</u>	

2. How long have you lived in Pelham?

a. less than 5 years	<u>141</u>
b. 5 to 10 years	<u>140</u>
c. 10 to 20 years	<u>151</u>
d. over 20 years	<u>183</u>
e. no response	<u>47</u>

3. Resident information:

a. own your own home?	<u>606</u>
b. rent your home?	<u>11</u>
c. own a camp?	<u>7</u>
no response	<u>38</u>
d. employed? yes <u>483</u> no <u>60</u> no response <u>119</u>	
e. town employed in:	

Pelham	<u>66</u>
Lowell	<u>110</u>
Andover	<u>54</u>
Boston	<u>27</u>
Dracut	<u>25</u>
Nashua, NH	<u>58</u>
Other	<u>62</u>
(retired)	<u>52</u>
no response	<u>205</u>

(\*this mainly includes Billerica, Burlington, Maynard, Haverhill, and Derry)

4. What makes Pelham a good place to live?

a. Rural/country living	<u>262</u>
b. Convenient location	<u>49</u>
c. Clean and safe	<u>83</u>
d. Adverse responses	<u>87</u>
e. No response/no opinion	<u>181</u>

5. In the next decade, would you like to see the population of Pelham:

a. stay the same?	<u>131</u>
b. grow slightly?	<u>172</u>
c. grow moderately?	<u>195</u>
d. grow rapidly?	<u>7</u>
e. no response/no opinion	<u>157</u>

6. Check five of the following that you believe to be the most serious problems in Pelham.

a. land speculation	118
b. loss of farm land	<u>322*</u>
c. lack of multi-family housing	<u>29</u>
d. lack of housing development	<u>17</u>
e. lack of industrial development	<u>269</u>
f. lack of commercial development	<u>252</u>
g. excessive housing development	<u>307*</u>
h. -----	<u>---</u>
i. lack of land use controls	190
j. high taxes	<u>412*</u>
k. traffic/roads	<u>210</u>
l. lack of community buildings	<u>88</u>
m. lack of a public water system	<u>424*</u>
n. lack of a public water system	<u>406*</u>

(\* - five most serious problems)

7. Please check the column that describes your attitude towards new housing in Pelham.

	FOR	AGAINST	N/R
a. single-family homes	559	76	27
b. multi-family homes	<u>179</u>	<u>474</u>	<u>9</u>
c. condominiums	<u>144</u>	<u>505</u>	<u>13</u>
d. mobile homes	<u>98</u>	<u>546</u>	<u>18</u>
e. cluster housing	<u>108</u>	<u>543</u>	<u>11</u>
f. elderly housing	<u>468</u>	<u>110</u>	<u>84</u>
g. rent subsidized housing	<u>244</u>	<u>416</u>	<u>2</u>
h. in-laws apartment	<u>501</u>	<u>151</u>	<u>10</u>

8. Please check the column that describes your attitude towards the following:

	FOR	AGAINST	N/R
a. Wetlands ordinance	<u>596</u>	<u>49</u>	<u>17</u>
b. Septic code enforcement	<u>596</u>	<u>51</u>	<u>15</u>
c. -----	<u>---</u>	<u>---</u>	<u>---</u>
d. Preservation of woodlands	<u>596</u>	<u>48</u>	<u>18</u>
e. Preservation of agricultural land	<u>605</u>	<u>40</u>	<u>17</u>
f. Public open space and woodlands	<u>606</u>	<u>38</u>	<u>18</u>

9. In order to protect natural resources, should the Town of Pelham:

	FOR	AGAINST	N/R
a. accept gifts of land and/or development rights for conservation?	<u>611</u>	<u>35</u>	<u>16</u>
b. appropriate money annually for important land conservation purchases?	<u>583</u>	<u>63</u>	<u>16</u>
c. require land to be dedicated for town use as part of any development approval?	<u>582</u>	<u>60</u>	<u>20</u>

10. Rate the following municipal services and indicate if you think the town should spend more, less, or the same amount of money on their provision.

Rating				Town Service	Expenditures			
Good	Fair	Poor	N/O		More	Same	Less	N/O
291	192	33	146	Police Protection	119	358	53	132
324	152	40	146	Fire Protection	146	351	19	146
225	232	79	126	Road Maintenance	146	33	26	(457)
212	192	60	198	Road Construction	93	344	33	192
139	219	13	291	Schools	146	225	126	165
172	205	80	205	Libraries	159	245	53	205
66	192	139	265	Zoning Enforcement	119	291	45	205
146	212	46	258	Elderly Programs	152	252	60	198
179	219	46	218	Parks & Recreation	119	298	66	179
66	225	99	272	Historic Preservation	113	205	106	238

(percentages)

1. Are you a resident (yes) 94% (no) 6%

Please indicate how many per household:

1.	<u>6%</u>	5.	<u>7%</u>
2.	<u>36%</u>	6.	<u>2%</u>
3.	<u>16%</u>	7.	<u>1%</u>
4.	<u>22%</u>	8.	<u>1%</u>
no response			<u>9%</u>

2. How long have you lived in Pelham?

a.	less than 5 years	<u>21%</u>
b.	5 to 10 years	<u>21%</u>
c.	10 to 20 years	<u>23%</u>
d.	over 20 years	<u>28%</u>
e.	no response	<u>7%</u>

3. Resident information:

a.	own your own home?	<u>92%</u>
b.	rent your home?	<u>1%</u>
c.	own a camp?	<u>1%</u>
	no response	<u>6%</u>
d.	employed? yes <u>73%</u>	no <u>9%</u> no response <u>18%</u>
e.	town employed in:	

Pelham	<u>10%</u>
Lowell	<u>17%</u>
Andover	<u>8%</u>
Boston	<u>4%</u>
Dracut	<u>4%</u>
Nashua, NH	<u>9%</u>
Other	<u>9%*</u>
(retired)	<u>8%</u>
no response	<u>31%</u>

(\*this mainly includes Billerica, Burlington, Maynard, Haverhill, and Derry)

4. What makes Pelham a good place to live?

a.	Rural/country living	<u>40%</u>
b.	Convenient location	<u>7%</u>
c.	Clean and safe	<u>13%</u>
d.	Adverse responses	<u>13%</u>
e.	No response/no opinion	<u>27%</u>

5. In the next decade, would you like to see the population of Pelham:

a.	stay the same?	<u>20%</u>
b.	grow slightly?	<u>26%</u>
c.	grow moderately?	<u>29%</u>
d.	grow rapidly?	<u>1%</u>
e.	no response/no opinion	<u>24%</u>

6. Check five of the following that you believe to be the most serious problems in Pelham.

a. land speculation	18%
b. loss of farm land	49%*
c. lack of multi-family housing	4%
d. lack of housing development	3%
e. lack of industrial development	41%*
f. lack of commercial development	38%
g. excessive housing development	46%*
h. -----	---%
i. lack of land use controls	29%
j. high taxes	62%*
k. traffic/roads	32%
l. lack of community buildings	13%
m. lack of a public water system	64%*
n. lack of a public water system	61%*

(\* - five most serious problems)

7. Please check the column that describes your attitude towards new housing in Pelham.

	FOR	AGAINST	N/R
a. single-family homes	84%	12%	4%
b. multi-family homes	27%	72%	1%
c. condominiums	22%	77%	1%
d. mobile homes	15%	82%	3%
e. cluster housing	16%	82%	2%
f. elderly housing	71%	17%	12%
g. rent subsidized housing	36%	63%	1%
h. in-laws apartment	76%	22%	2%

8. Please check the column that describes your attitude towards the following:

	FOR	AGAINST	N/R
a. Wetlands ordinance	90%	7%	3%
b. Septic code enforcement	90%	8%	2%
c. -----	---%	---%	---%
d. Preservation of woodlands	90%	7%	3%
e. Preservation of agricultural land	91%	6%	3%
f. Public open space and woodlands	92%	6%	2%

9. In order to protect natural resources, should the Town of Pelham:

	FOR	AGAINST	N/R
a. accept gifts of land and/or development rights for conservation?	<u>92%</u>	<u>5%</u>	<u>3%</u>
b. appropriate money annually for important land conservation purchases?	<u>88%</u>	<u>10%</u>	<u>2%</u>
c. require land to be dedicated for town use as part of any development approval?	<u>88%</u>	<u>9%</u>	<u>3%</u>

10. Rate the following municipal services and indicate if you think the town should spend more, less, or the same amount of money on their provision.

Rating				Town Service	Expenditures			
Good	Fair	Poor	N/O		More	Same	Less	N/O
44%	29%	5%	22%	Police Protection	18%	54%	8%	20%
49%	23%	6%	22%	Fire Protection	22%	53%	3%	22%
34%	35%	12%	19%	Road Maintenance	22%	5%	4%	69%
32%	29%	9%	30%	Road Construction	14%	52%	5%	29%
21%	33%	2%	44%	Schools	22%	34%	19%	25%
26%	31%	12%	31%	Libraries	24%	37%	8%	31%
10%	29%	21%	40%	Zoning Enforcement	18%	44%	7%	31%
22%	32%	7%	39%	Elderly Programs	23%	38%	9%	30%
27%	33%	7%	33%	Parks & Recreation	18%	45%	10%	27%
10%	34%	15%	41%	Historic Preservation	17%	31%	16%	34%

## APPENDIX B



## Town of Pelham

## Status

SRank	GRank	Federal	State	Scientific Name	Common Name
SH	G5		SE	ALLIUM CANADENSE	WILD GARLIC
S2	G5		ST	ALLIUM SCHOENOPRASUM VAR. SIBIRICUM	SIBERIAN CHIVES
S2SH	G5			ANEMONE CYLINDRICA	THIMBLEWEED
S2	G5		ST	ANEMONELLA THALICTROIDES	RUE ANEMONE
S1	G5		ST	ARABIS CANADENSIS	SICKLE-POD
S1	G5		ST	ARABIS CANADENSIS	SICKLE-POD
S1	G4		SE	ARETHUSA BULBOSA	ARETHUSA
S2	G5		SE	ARISTIDA LONGESPICA VAR. GENICULATA	SPIKED NEEDLEGRASS
S2	G5		ST	ASCLEPIAS AMPLEXICAULIS	BLUNT-LEAVED MILKWEED
S2	G4G5			ASCLEPIAS PURPURASCENS	PURPLE MILKWEED
S2	G5TU		ST	ASTER PATENS VAR. PATENS	SKYDROP ASTER
S2	G5TU		ST	ASTER PATENS VAR. PATENS	SKYDROP ASTER
S2	G5TU		ST	ASTER PATENS VAR. PATENS	SKYDROP ASTER
S2	G5		ST	BETULA NIGRA	RIVER BIRCH
S2	G5		ST	BETULA NIGRA	RIVER BIRCH
S1	G5		SE	CAREX BULLATA	INFLATED SEDGE
SH	G5		SE	CAREX FLACCOSPERMA VAR. GLAUCODEA	FLACCID SEDGE
S1	G5T?			CAREX LENTICULARIS VAR. ALBIMONTANA	LENS SEDGE
S2	G5		SE	CASSIA HEBECARPA	WILD SENNA
S1	G5		SE	DESMODIUM MARILANDICUM	MARYLAND TICK-TREFOIL
S2	G5		ST	DESMODIUM ROTUNDIFOLIUM	PROSTRATE TICK-TREFOIL
S2	G5		ST	DESMODIUM ROTUNDIFOLIUM	PROSTRATE TICK-TREFOIL
S2	G5			ENNEACANTHUS OBESUS	BANDED SUNFISH
S3	G?		SE	FESTUCA OCTOFLORA VAR. TENELLA	SLENDER 8-FLOWERED FESCUE
S2	G5		SE	GALIUM PILOSUM	HAIRY BEDSTRAW
S2	G5		SE	GALIUM PILOSUM	HAIRY BEDSTRAW
S2	G4		ST	GENTIANA CRINITA	FRINGED GENTIAN
S2	G5		ST	HYPOXIS HIRSUTA	HAIRY STARGRASS
S2	G5		ST	HYPOXIS HIRSUTA	HAIRY STARGRASS
S2	G5?		SE	JUNCUS SECUNDUS	ONE-SIDED RUSH
S1	G5		SE	LECHEA TENUIFOLIA	SLENDER PINWEED
S1	G5		SE	LECHEA TENUIFOLIA	SLENDER PINWEED
S1SU	G5		ST	LESPEDEZA VIRGINICA	VIRGINIA BUSH-CLOVER
S1SU	G5		ST	LESPEDEZA VIRGINICA	VIRGINIA BUSH-CLOVER
S1SU	G5		ST	LESPEDEZA VIRGINICA	SLENDER BUSH-CLOVER
S1	G5		ST	LUPINUS PERENNIS	WILD LUPINE
SH	G5			MUHLENBERGIA TENUIFLORA	SLENDER-FLOWERED MUHLENBERGIA
S1	G5		ST	PARONYCHIA CANADENSIS	SMOOTH-FORKED CHICKWEED
S1	G5		ST	PARONYCHIA CANADENSIS	SMOOTH-FORKED CHICKWEED
S1	G5		ST	PARONYCHIA CANADENSIS	SMOOTH-FORKED CHICKWEED
S1	G5		SE	POLYGONUM TENUE	SLENDER KNOTWEED
S1	G5?		SE	PYCNANTHEMUM INCANUM	HOARY MT. MINT
S1	G5?		SE	PYCNANTHEMUM INCANUM	HOARY MT. MINT
S1	G2Q		SE	PYCNANTHEMUM TORREI	TORRY'S MT. MINT
S1	G5		SE	RANUNCULUS FASCICULARIS	EARLY BUTTERCUP
S1	G5		SE	RHODODENDRON NUDIFLORUM	PINXTER FLOWER
S2	G5		ST	RHODODENDRON VISCOSUM	SWAMP AZALEA
S2	G5		ST	RHODODENDRON VISCOSUM	SWAMP AZALEA
S2	G5		ST	RHODODENDRON VISCOSUM	SWAMP AZALEA
S2	G5		ST	SERICOCARPUS LINIFOLIA	WHITE-TOPPED ASTER
				SNE DRY CENTRAL HARDWOOD FOREST ON ACIDIC BEDROCK OR TILL	
				SNE DRY CENTRAL HARDWOOD FOREST ON ACIDIC BEDROCK OR TILL	
				SNE DRY COLLUVIAL SLOPE FOREST ON ACIDIC/CIRCUMNEUTRAL B/T	
				SNE DRY COLLUVIAL SLOPE FOREST ON ACIDIC/CIRCUMNEUTRAL B/T	
S1	G5		SE	TEPHROSIA VIRGINIANA	GOAT'S-RUE
S1	G5			TERRAPENE CAROLINA	EASTERN BOX TURTLE
S2	G5		ST	VIOLA PEDATA VAR. LINEARILLOBA	BIRD'S-FOOT VIOLET
S2	G5		ST	VIOLA PEDATA VAR. LINEARILLOBA	BIRD'S-FOOT VIOLET

S2	G5	ST	VIOLA PEDATA VAR. LINEARILOBA
S1	G5	SE	VIOLA TRILOBA VAR. TRILOBA
S1	G5	SE	VIOLA TRILOBA VAR. TRILOBA
S2	G5	ST	WOODSIA OBTUSA

PANSY VIOLET
TRI-LOBED VIOLET
TRI-LOBED VIOLET
BLUNT-LOBE WOODSIA

## APPENDIX C

**674:1 PLANNING AND LAND USE REGULATION**

**674:1 Duties of the Planning Board.**

I. It shall be the duty of every planning board established under RSA 673:1 to prepare and amend from time to time a master plan to guide the development of the municipality. A master plan may include consideration of any areas outside the boundaries of the municipality which in the judgment of the planning board bear a relation to or have an impact on the planning of the municipality. Every planning board shall from time to time update and amend the adopted master plan with funds appropriated for that purpose by the local legislative body. In preparing, amending, and updating the master plan:

(a) The planning board shall have responsibility for promoting interest in, and understanding of, the master plan of the municipality. In order to promote this interest and understanding, the planning board may publish and distribute copies of the master plan, or copies of any report relating to the master plan, and may employ such other means of publicity and education as it may deem advisable.

(b) The planning board shall also have authority to make any investigations, maps and reports, and recommendations which relate to the planning and development of the municipality.

II. The planning board may from time to time report and recommend to the appropriate public officials and public agencies programs for the development of the municipality, programs for the erection of public structures, and programs for municipal improvements. Each program shall include recommendations for its financing. It shall be part of the planning board's duties to consult with and advise public officials and agencies, public utility companies, civic, educational, professional, research and other organizations, and to consult with citizens, for the purposes of protecting or carrying out of the master plan as well as for making recommendations relating to the development of the municipality.

III. Members of the planning board, when duly authorized by the board as a whole, may attend municipal planning conferences or meetings, or hearings upon pending municipal planning legislation. The planning board may by majority vote authorize the payment of reasonable expenses incident to such attendance.

IV. The planning board, and its members, officers, and employees, in the performance of their functions may, by ordinance, be authorized to enter upon any land and make such examinations and surveys as are reasonably necessary and place and maintain necessary monuments and marks and, in the event consent for such entry is denied or not reasonably obtainable, to obtain an administrative inspection warrant under RSA 595-B.

V. The planning board may, from time to time, recommend to the local legislative body amendments of the zoning ordinance or zoning map or additions thereto.

## LOCAL PLANNING & REGULATORY POWERS 674:2

VI. In general, the planning board may be given such powers by the municipality as may be necessary to enable it to fulfill its functions, promote municipal planning, or carry out the purposes of this title.

### HISTORY

Source. 1983, 447:1. 1991, 231:12, eff. Aug. 9, 1991.

Amendments—1991. Paragraph IV: Added “and, in the event consent for such entry is denied or not reasonably obtainable, to obtain an administrative inspection warrant under RSA 595-B” following “marks”.

### CROSS REFERENCES

Adoption and amendment of master plan, see RSA 674:4.  
Preparation of master plan, see RSA 674:3.

### ANNOTATIONS

#### 1. Cited

Cited in *Rancourt v. Town of Barnstead* (1986) 129 NH 45, 523 A2d 55; *Treisman v. Town of Bedford* (1989) 132 NH 54, 653 A2d 786; *Portsmouth Advocates, Inc. v. City of Portsmouth* (1991) 133 NH 876, 587 A2d 600.

#### ANNOTATIONS UNDER FORMER RSA 36:10, 36:12, 36:13

#### 1. Generally

In absence of special grants of authority, the general function of a planning board was to prepare a master plan for development of the municipality and to investigate, advise, and recommend with respect to municipal planning. *Kostreles v. Portsmouth* (1963) 104 NH 392, 187 A2d 789.

#### 2. Cited

Cited in *Patenaude v. Town of Meredith* (1978) 118 NH 616, 392 A2d 582; *Town of Freedom v. Gillespie* (1980) 120 NH 576, 419 A2d 1090; *Town of Nottingham v. Harvey* (1980) 120 NH 889, 424 A2d 1125; *Polizzo v. Town of Hampton* (1985) 126 NH 398, 494 A2d 254.

**674:2 Master Plan Purpose and Description.** The master plan shall generally be comprised of a report or set of statements and land use and development proposals with accompanying maps, diagrams, charts and descriptive matter designed to show as fully as is possible and practical the planning board's recommendations for the desirable development of the territory legally and logically within its planning jurisdiction. The master plan shall be a public record subject to the provisions of RSA 91-A, the sole purpose and effect of which shall be to aid the planning board in the performance of its duties. The master plan shall include, if it is appropriate or if it is specifically required as a prerequisite for the adoption of implementation measures, the following specific sections, to be adapted by the planning board to the special requirements of the municipality:

I. A general statement which shall include such topics as the objectives, principles, assumptions, policies and standards upon which the constituent proposals for the physical and socioeconomic development of the municipality are based.

II. A land use section which takes into account natural conditions and which shows the existing conditions and the proposed location, extent, and intensity of future land usage.

## 674:2 PLANNING AND LAND USE REGULATION

III. A housing section which analyzes existing housing resources and addresses current and future housing needs of residents of all levels of income of the municipality and of the region in which it is located, as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47, II.

IV. A transportation section showing the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality.

V. A utility and public service section analyzing the need for and showing the present and future general location of existing and anticipated public and private utilities, their supplies and distribution and storage facilities.

VI. A community facilities section showing the location of, type, and need for educational or cultural facilities, historic sites, libraries, hospitals, fire houses, police stations and other related facilities, including their relation to the surrounding areas.

VII. A recreation section which shows existing recreation facilities and which addresses future recreation needs.

VIII. A conservation and preservation section which may provide for the preservation, conservation, and use of natural and man-made resources. The conservation and preservation section of the master plan should include a local water resources management and protection plan as specified in RSA 4-C:22. This plan should be reviewed and revised as necessary at intervals not to exceed 5 years.

VIII-a. A construction materials section which summarizes known sources of construction materials which are available for future construction materials needs, including, at a minimum, the location and estimated extent of excavations which have been granted permits under RSA 155-E, as well as reports filed pursuant to RSA 155-E:2, I(d) with respect to non-permitted excavations.

IX. Appendices or separate reports, where appropriate, which contain the underlying scientific and statistical data for the master plan and its constituent elements.

### HISTORY

Source. 1983, 447:1. 1986, 167:2. 1988, 270:1. 1989, 339:29, eff. Jan. 1, 1990; 363:15, eff. Aug. 4, 1989.

Amendments—1989. Paragraph VIII: Chapter 339 substituted “RSA 4-C:22” for “RSA 4:12-v” in the second sentence.

Paragraph VIII-a: Added by ch. 363.

—1988. Paragraph III: Added “current and” preceding “future housing needs” and added “of residents of all levels of income of the municipality and of the region in which it is located, as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47, II”.

—1986. Paragraph VIII: Added the second and third sentences.

## LOCAL PLANNING & REGULATORY POWERS 674:36

Where offsite improvements could properly be required of a subdivider by a town planning board, the subdivider could be compelled only to bear that portion of the cost which bore a rational nexus to the needs created by, and special benefits conferred upon, the subdivision. *Land/Vest Properties, Inc. v. Town of Plainfield* (1977) 117 NH 817, 379 A2d 200.

### 4. Effect of zoning changes upon approved plots or plans

In the absence of a statute providing otherwise, final approval of a subdivision plot by a planning board under the statute did not place the lots beyond the authority of zoning changes. *R. A. Vachon & Son, Inc. v. City of Concord* (1972) 112 NH 107, 289 A2d 646.

### 5. Cited

Cited in *In re Estate of Sayewich* (1980) 120 NH 237, 413 A2d 581; *Town of Nottingham v. Harvey* (1980) 120 NH 889, 424 A2d 1125; *LSP Association v. Town of Gilford Planning Board* (1982) 122 NH 537, 446 A2d 1183.

## 674:36 Subdivision Regulations.

I. Before the planning board exercises its powers under RSA 674:35, the planning board shall adopt subdivision regulations according to the procedures required by RSA 675:6.

II. The subdivision regulations which the planning board adopts may:

(a) Provide against such scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation, schools, fire protection, or other public services, or necessitate the excessive expenditure of public funds for the supply of such services;

(b) Provide for the harmonious development of the municipality and its environs;

(c) Require the proper arrangement and coordination of streets within subdivisions in relation to other existing or planned streets or with features of the official map of the municipality;

(d) Provide for open spaces of adequate proportions;

(e) Require suitably located streets of sufficient width to accommodate existing and prospective traffic and to afford adequate light, air, and access for firefighting apparatus and equipment to buildings, and be coordinated so as to compose a convenient system;

(f) Require, in proper cases, that plats showing new streets or narrowing or widening of such streets submitted to the planning board for approval shall show a park or parks suitably located for playground or other recreational purposes;

(g) Require that proposed parks shall be of reasonable size for neighborhood playgrounds or other recreational uses;

(h) Require that the land indicated on plats submitted to the planning board shall be of such character that it can be used for building purposes without danger to health;

(i) Prescribe minimum areas of lots so as to assure conformance with local zoning ordinances and to assure such additional areas as may be needed for each lot for on-site sanitary facilities; and

(j) Include provisions which will tend to create conditions favorable to health, safety, convenience, or prosperity.

III. The subdivision regulations of the planning board may stipulate, as a condition precedent to the approval of the plat, the extent to which and the manner in which streets shall be graded and improved and to which water, sewer, and other utility mains, piping, connections, or other facilities shall be installed. The regulations or practice of the planning board:

(a) May provide for the conditional approval of the plat before such improvements and installations have been constructed, but any such conditional approval shall not be entered upon the plat.

(b) Shall provide that, in lieu of the completion of street work and utility installations prior to the final approval of a plat, the planning board shall accept a performance bond, irrevocable letter of credit, or other type or types of security as shall be specified in the subdivision regulations; provided that in no event shall the exclusive form of security required by the planning board be in the form of cash or a passbook. As phases or portions of the secured improvements or installations are completed and approved by the planning board or its designee, the municipality shall partially release said security to the extent reasonably calculated to reflect the value of such completed improvements or installations. Cost escalation factors that are applied by the planning board to any bond or other security required under this section shall not exceed 10 percent per year. The planning board shall, within the limitations provided in this subparagraph, have the discretion to prescribe the type and amount of security, and specify a period for completion of the improvements and utilities to be expressed in the bond or other security, in order to secure to the municipality the actual construction and installation of such improvements and utilities. The municipality shall have the power to enforce such bonds or other securities by all appropriate legal and equitable remedies.

(c) May provide that in lieu of the completion of street work and utility installations prior to the final approval of the plat, the subdivision regulations may provide for an assessment or other method by which the municipality is put in an assured position to do said work and to make said alterations at the cost of the owners of the property within the subdivision.

#### HISTORY

Source. 1983, 447:1. 1986, 200:2. 1988, 3:1, eff. April 19, 1988.

Amendments—1988. Paragraph III(b): Added “provided that in no event shall the exclusive form of security required by the planning board be in the form of cash or a passbook” following “regulations” at the end of the first sentence, added the second and third sentences, inserted “within the limitations provided in this subparagraph” following “planning board shall” and deleted “the bond or other security, require satisfactory evidence of the financial ability of any surety or financial institution to pay such bond or other type of” preceding “security, and specify” in the fourth sentence.

—1986. Paragraph III: Amended generally.

#### CROSS REFERENCES

Development on class V and VI highways, see RSA 674:41.

Effect of uncompleted streets or utilities upon applications for building permits, see RSA 676:12.



regional planning commission may also include municipalities located in an adjacent state.

III. Each municipality which shall become a member of a regional planning commission shall be entitled to two representatives on said commission. A municipality with a population of over ten thousand but less than twenty-five thousand shall be entitled to have three representatives on said commission and a municipality with a population of over twenty-five thousand shall be entitled to have four representatives on said commission. Population as set forth in this section shall be deemed to be determined by the last federal census. Representatives to a regional planning commission shall be nominated by the planning board of each municipality from the residents thereof and shall be appointed by the municipal officers of each municipality. Representatives may be elected or appointed officials of the municipality or county. In any county or counties in which a regional planning commission has been formed, the county may, by resolution of its county commissioners, become a member of said regional planning commission and shall be entitled to appoint two representatives on said commission. The terms of office of members of a regional planning commission shall be for four years, but initial appointments shall be for two and four years. In municipalities entitled to three or more representatives, initial appointment shall be for two, three and four years. Vacancies shall be filled for the remainder of the unexpired term in the same manner as original appointments. Municipalities and counties may also appoint alternate representatives. A representative to a regional planning commission shall, when acting within the scope of his official duties and authority, be deemed to be acting as an agent of both the regional planning commission and of the municipality or county which he represents.

#### HISTORY

Source. 1969, 324:1. RSA 36:46. 1970, 53:1. 1991, 72:4, eff. July 12, 1991.

Amendments—1991. Paragraph III: Added the eleventh sentence.

Revision note. "Office of state planning" was substituted for "state office of planning and research of the department of resources and economic development" pursuant to 1970, 53:1. See RSA 4:12-d.

#### CROSS REFERENCES

Liability and indemnification for damages of regional planning commissioners, see RSA 31:104-106.

#### 36:47 General Powers and Duties.

I. A regional planning commission's powers shall be advisory, and shall generally pertain to the development of the region within its jurisdiction as a whole. Nothing in this subdivision shall be deemed to reduce or limit any of the powers, duties or obligations of planning boards in individual municipalities. The area of jurisdiction of a regional planning commission shall include the areas of the respective municipalities within the delineated planning region. It shall be the duty of a regional planning

commission to prepare a comprehensive master plan for the development of the region within its jurisdiction, including the commission's recommendations, among other things, for the use of land within the region; for the general location, extent, type of use, and character of highways, major streets, intersections, parking lots, railroads, aircraft landing areas, waterways and bridges, and other means of transportation, communication, and other purposes; for the development, extent, and general location of parks, playgrounds, shorefront developments, parkways, and other public reservations and recreation areas; for the location, type, and character of public buildings, schools, community centers, and other public property; and for the improvement, redevelopment, rehabilitation, or conservation of residential, business, industrial and other areas; including the development of programs for the modernization and coordination of buildings, housing, zoning and subdivision regulations of municipalities and their enforcement on a coordinated and unified basis. A regional planning commission may authorize its employees or consultants to render assistance on local planning problems to any municipality or county which is not a member of said regional planning commission. The cost of such assistance shall be paid entirely by the municipality or county to which the service is rendered or partly by said municipality or county and partly by any gift, grant, or contribution which may be available for such work or by combination thereof. Said commission shall keep a strict account of the cost of such assistance and shall provide such municipality or county with an itemized statement.

II. For the purpose of assisting municipalities in complying with RSA 674:2, III, each regional planning commission shall compile a regional housing needs assessment, which shall include an assessment of the regional need for housing for persons and families of all levels of income. The regional housing needs assessment shall be updated every 5 years and made available to all municipalities in the planning region.

#### HISTORY

Source. 1969, 324:1. 1988, 270:2, eff. July 1, 1988.

Amendments—1988. Designated existing provisions of section as par. I, made other minor stylistic changes in that paragraph, and added par. II.

#### LIBRARY REFERENCES

#### ALR

Validity, construction, and application of statutes requiring assessment of environmental information prior to grants of entitlements for private land use. 76 ALR3d 388.

**36:48 Organization, Officers, and Bylaws.** A regional planning commission shall elect annually from among its members a chairman, vice-chairman, and such other officers as it deems necessary. Meetings shall be held at the call of the chairman and at such other time as the commission may determine. A commission shall keep minutes of its proceedings and such minutes shall be filed in the office of the commission

## LOCAL PLANNING & REGULATORY POWERS 674:31-a

### LIBRARY REFERENCES

#### West Key Number

Zoning and Planning ⇐ 83.

#### CJS

Zoning and Land Planning §§ 25, 62.

#### ALR

Use of trailer or similar structure for residence purposes as within zoning provision. 96 ALR2d 232.

Validity and application of zoning regulations relating to mobile home or trailer parks. 42 ALR3d 598.

Validity of zoning or building regulations restricting mobile homes or trailers to established mobile home or trailer parks. 17 ALR4th 106.

Validity of zoning ordinances prohibiting or regulating outside storage of house trailers, motor homes, campers, vans, and the like, in residential neighborhoods. 95 ALR3d 378.

Zoning regulations applicable to tourist, trailer camps, motor courts or motels. 22 ALR2d 793.

**674:31 Definition.** As used in this subdivision, "manufactured housing" means any structure, transportable in one or more sections, which, in the traveling mode, is 8 body feet or more in width and 40 body feet or more in length, or when erected on site, is 320 square feet or more, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to required utilities, which include plumbing, heating and electrical heating systems contained therein. Manufactured housing as defined in this section shall not include presite built housing as defined in RSA 674:31-a.

### HISTORY

Source. 1983, 447:1. 1985, 104:1, eff. July 9, 1985.

Amendments—1985. Added the second sentence.

### ANNOTATIONS

#### 1. Cited

Cited in *Town of Plainfield v. Sanville* (1984) 125 NH 825, 485 A2d 1052; *Town of Chesterfield v. Brooks* (1985) 126 NH 64, 489 A2d 600.

### ANNOTATIONS UNDER FORMER RSA 31:118

#### 1. Cited

Cited in *Town of Plaistow v. Nadeau* (1985) 126 NH 439, 493 A2d 1158.

**674:31-a Definition; Presite Built Housing.** As used in this subdivision, "presite built housing" means any structure designed primarily for residential occupancy which is wholly or in substantial part made, fabricated, formed or assembled in off-site manufacturing facilities in conformance with the United States Department of Housing and Urban Development minimum property standards and local building codes, for installation, or assembly and installation, on the building site. For the purposes of this subdivision, presite built housing shall not include manufactured housing, as defined in RSA 674:31.

## 674:32 PLANNING AND LAND USE REGULATION

### HISTORY

Source. 1985, 104:2, eff. July 9, 1985.

**674:32 Manufactured Housing.** Municipalities shall afford reasonable opportunities for the siting of manufactured housing, and a municipality shall not exclude manufactured housing completely from the municipality by regulation, zoning ordinance or by any other police power. A municipality which adopts land use control measures shall allow, in its sole discretion, manufactured housing to be located on individual lots in most, but not necessarily all, land areas in districts zoned to permit residential uses within the municipality, or in manufactured housing parks and subdivisions created for the placement of manufactured housing on individually owned lots in most, but not necessarily all, land areas in districts zoned to permit residential uses within the municipality, or in all 3 types of locations. Manufactured housing located on individual lots shall comply with lot size, frontage requirements, space limitations and other reasonable controls that conventional single family housing in the same district must meet. No special exception or special permit shall be required for manufactured housing located on individual lots or manufactured housing subdivisions unless such special exception or permit is required by the municipality for single family housing located on individual lots or in subdivisions. Municipalities permitting manufactured housing parks shall afford realistic opportunities for the development and expansion of manufactured housing parks. In order to provide such realistic opportunities, lot size and overall density requirements for manufactured housing parks shall be reasonable.

### HISTORY

Source. 1983, 447:1. 1986, 91:2. 1987, 378:1, eff. July 1, 1988.

Amendments—1987. Amended section generally.

—1986. Rewrote the first sentence and substituted “most” for “some” following “individual lots in” and “manufactured housing” for “mobile home” preceding “parks” and for “mobile homes” preceding “on individually owned lots” in the second sentence.

Legislative findings and purpose of 1986 amendment. 1986, 91:1, eff. July 18, 1986, provided:

“In the 1981 legislative session the general court passed chapter 406 relative to zoning of manufactured housing. In the declaration of purpose for that legislation, the general court acknowledged the need and right of individual citizens and families to decent, sanitary housing, and further recognized that the partial or total exclusion of manufactured housing would violate those rights. Since the passage of chapter 406 of the laws of 1981 housing costs have continued to increase substantially, thereby increasing the need for suitable moderately priced housing, such as manufactured housing. The general court reaffirms its findings that manufactured housing, when built in conformance with national codes, is almost indistinguishable from conventional site-built housing, and that the exclusion of manufactured housing is based upon outmoded perceptions. Since the passage of chapter 406, some municipalities across New Hampshire have failed to comply with chapter 406, or have complied by zoning in such a fashion as to relegate manufactured housing to zoning districts where land characteristics or costs effectively eliminate manufactured housing as an alternative to conventional site-built housing. It is the finding of this general court that some municipalities have misunderstood the intent of chapter 406 with the result that the original objective of the law has not been attained. It is the purpose of the general court that the passage of this act will ensure that the municipalities will exercise their authority to zone

that every detail relating to the actions of a planning board be spelled out. *New England Brickmaster, Inc. v. Town of Salem* (1990) 133 NH 655, 582 A2d 601.

To control the construction of condominium amenities facility on subdivided land, planning board must promulgate site plan review regulations. *Lemm Development Corp. v. Town of Bartlett* (1990) 133 NH 655, 580 A2d 1082.

#### **¾. Contributions**

In regard to the construction of subdivisions, the legislature intended to authorize municipalities to recover fair contributions from subdividers of costs resulting from increased municipal services necessitated by changes to the land. *New England Brickmaster, Inc. v. Town of Salem* (1990) 133 NH 655, 582 A2d 601.

#### **1. Cited**

Cited in *Morin v. City of Somersworth* (1988) 131 NH 253, 551 A2d 527; *Mooney v. City of Laconia* (1990) 133 NH 30, 573 A2d 447.

### **Heritage Commission**

#### **CROSS REFERENCES**

Historic districts, see RSA 674:45 et seq.

**674:44-a Heritage Commission.** A heritage commission may be established in accordance with RSA 673 for the proper recognition, use, and protection of resources, tangible or intangible, primarily man-made, that are valued for their historic, cultural, aesthetic, or community significance within their natural, built, or cultural contexts.

#### **HISTORY**

Source. 1992, 64:2, eff. June 19, 1992.

#### **674:44-b Powers.**

**I. GENERALLY.** Heritage commissions shall have advisory and review authority, specifically, as follows:

- (a) Survey and inventory all cultural resources.
- (b) Conduct research and publish findings, including reports to establish the legal basis for a district and preparation of historic district ordinances within the municipality prior to its adoption or amendment as provided in RSA 675:6.
- (c) Assist the planning board, as requested, in the development and review of those sections of the master plan which address cultural and historic resources.
- (d) Advise, upon request, local agencies and other local boards in their review of requests on matters affecting or potentially affecting cultural and historic resources.
- (e) Coordinate activities with appropriate service organizations and nonprofit groups.
- (f) Publicize its activities.
- (g) Hire consultants and contractors as needed.
- (h) Receive gifts of money and property, both real and personal, in the name of the city or town, subject to the approval of the city council in a city

or the board of selectmen in a town, such gifts to be managed and controlled by the commission for its proper purposes.

II. **PROPERTY.** The commission may acquire, in the name of the town or city, by gift, purchase, grant, bequest, devise, lease, or otherwise, a fee or lesser interest, development rights, covenant, or other contractual right, including conveyances with conditions, limitations or reversions, as may be necessary to acquire, maintain, improve, protect, limit the future use of, or otherwise conserve and properly use the cultural resources of the city or town, and shall manage and control the same; provided, however, that the city, town, or commission shall not have the right to condemn property for these purposes.

III. **HISTORIC DISTRICT COMMISSION.** Heritage commissions also may assume, if authorized by the local legislative body, the composition and duties of historic district commissions.

#### HISTORY

Source. 1992, 64:2, eff. June 19, 1992.

#### CROSS REFERENCES

Appointment and terms of heritage commission members, see RSA 673:4-a.

**674:44-c Separate Commissions.** A municipality may choose to maintain a separate and distinct heritage commission and historic district commission. In such cases, the heritage commission shall serve in an advisory capacity to the historic district commission as well as to the planning board and other local boards and residents.

#### HISTORY

Source. 1992, 64:2, eff. June 19, 1992.

#### **674:44-d Appropriations Authorized.**

I. A town or city, having established a heritage commission under this subdivision, may appropriate money as deemed necessary to carry out its purposes. The whole or any part of money so appropriated in any year and any gifts of money received pursuant to RSA 674:44-b shall be placed in a heritage fund and allowed to accumulate from year to year. Money may be expended from such fund by the heritage commission for its purposes without further approval of the town meeting.

II. The town treasurer, pursuant to RSA 41:29, shall have custody of all moneys in the heritage fund and shall pay out the same only upon order of the heritage commission. The disbursement of heritage funds shall be authorized by a majority of the heritage commission. Prior to the use of such funds for the purchase of any interest in real property, the heritage commission shall hold a public hearing with notice in accordance with RSA 675:7.

#### HISTORY

Source. 1992, 64:2, eff. June 19, 1992.

## 674:45 PLANNING AND LAND USE REGULATION

### ANNOTATIONS UNDER FORMER RSA 36:19-a

#### 1. Necessity for adoption of regulations

The statute, as amended by 1979, 455:3, and 1979, 455:4, the savings clause of the amendatory act, required that any planning board, even one that had been empowered by a zoning ordinance to review site plans before 1979, adopt specific site-plan review regulations prior to its exercise of site-plan review authority. *Eddy Plaza Associates v. City of Concord* (1982) 122 NH 416, 445 A2d 1106.

Where rules and regulations embodied in a city zoning ordinance were inadequate to meet the requirements of the statute, the city planning board could not continue to exercise site-plan review authority until it adopted specific regulations as prescribed in the statute. *Eddy Plaza Associates v. City of Concord* (1982) 122 NH 416, 445 A2d 1106.

#### 2. Sufficiency of regulations

Rules and regulations embodied in a city zoning ordinance, which applied to the exercise of the planning board's site review powers relating to large-scale developments, were inadequate to meet the requirement of the statute, as amended in 1979, and the savings clause of the 1979 amendment, that any planning board adopt specific site-plan review regulations prior to its exercise of site-plan review authority where the "regulations" were a statement of general principles and guidelines from which regulations must still have been derived, the "regulations" were not self-implementing, and the "regulations" did not address the items required by the statute, such as notice and hearing requirements, and provisions relative to guarantees for performance, including bonds or other security. *Eddy Plaza Associates v. City of Concord* (1982) 122 NH 416, 445 A2d 1106.

## Historic Districts

### CROSS REFERENCES

Abolition of historic district commissions, see RSA 673:20.

Appointment and terms of members of historic district commissions generally, see RSA 673:4 et seq.

Establishment of historic district commissions, see RSA 673:1.

Filling of vacancies on commissions, see RSA 673:12.

Historic preservation generally, see RSA 227-C.

Meetings of commissions, see RSA 673:10, 15, 17.

Ordinance administration and enforcement generally, see RSA 676.

Ordinance adoption procedures generally, see RSA 675.

Rehearing and appeals procedures generally, see RSA 677.

Removal of members of commissions, see RSA 673:13.

Staff, see RSA 673:16.

Transfer of records of commissions, see RSA 673:21.

Zoning generally, see RSA 674:16 et seq.

**674:45 Purposes.** The preservation of structures and places of historic and architectural value is hereby declared to be a public purpose. The heritage of the municipality will be safeguarded by:

- I. Preserving a district in the municipality which reflects elements of its cultural, social, economic, political and architectural history;
- II. Conserving property values in such district;
- III. Fostering civic beauty;
- IV. Strengthening the local economy; and
- V. Promoting the use of a historic district for the education, pleasure and welfare of the citizens of the municipality.

### HISTORY

Source. 1983, 447:1, eff. Jan. 1, 1984.

## TITLE XII

### PUBLIC SAFETY AND WELFARE

#### CHAPTER

#### 155-E LOCAL REGULATION EXCAVATIONS

#### CHAPTER 155-E

#### LOCAL REGULATION EXCAVATIONS

- 155-E:1 Definitions.
- 155-E:2 Permit Required.
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- 155-E:6 Application for Amendment.
- 155-E:7 Hearing.
- 155-E:8 Issuance of Permit.
- 155-E:9 Appeal.
- 155-E:10 Enforcement.
- 155-E:11 Regulations.

#### HISTORY

**Codification.** This chapter was enacted as RSA 155-D and renumbered as 155-E to avoid conflict with pre-existing RSA 155-D which was added by 1979, 460:1.

**Declaration of purpose.** 1979, 481:1, eff. Aug. 24, 1979, provided: "The purpose of this act [this chapter] is to grant municipalities the authority to cope with the recognized safety hazards which open excavations create; to safeguard the public health and welfare; to preserve our natural assets of soil, water, forests and wildlife; to maintain aesthetic features of our environment; to prevent land and water pollution; and to promote soil stabilization." 1989, 363:1, eff. Aug. 4, 1989, contained a declaration of purpose.

1991, 310:1, eff. Aug. 23, 1991, contained a declaration of purpose.

**State and municipal roles relating to regulation of mining and excavation.** 1988, 285:2, eff. May 2, 1988, provided: "It is hereby declared to be the intent of the legislature to clarify the respective roles of state and local governments concerning the regulation of mining and excavation activities in light of the recent Supreme Court decision in Appeal of Coastal Materials Corporation [(1987) 130 NH 98, 534 A2d 398]. The state shall have the power to regulate the extraction of minerals including the removal of dimension stone. The municipalities shall have the power to regulate the removal of earth to be used as construction aggregate."

#### CROSS REFERENCES

Excavations near burial sites or graveyards, see RSA 289:2-a.

Hazardous excavations, see RSA 155-B:13.

Local land use board review of developments of regional impact, see RSA 36:54 et seq.

Mining and reclamation, see RSA 12-E.

#### ANNOTATIONS

##### 1. Construction

This chapter expresses a clear intention that the crushing of granite not be regulated by local authorities. Appeal of Coastal Materials Corp. (1987) 130 NH 98, 534 A2d 398.



## 155-E:1 PLANNING AND LAND USE REGULATION

### 2. Construction with other laws

This chapter and RSA 31:41-b, granting authority to local governing bodies to regulate a specific land use, namely earth excavation, exist as grants of authority independent of the zoning enabling legislation. *Town of Goffstown v. Thibeault* (1987) 129 NH 454, 529 A2d 930.

#### LIBRARY REFERENCES

##### West Key Number

Health and Environment ⇨ 25.5(4).

Municipal Corporations ⇨ 599, 600.

##### CJS

Health and Environment § 133 et seq.

Municipal Corporations § 210 et seq.

### 155-E:1 Definitions. In this chapter:

I. "Earth" means sand, gravel, rock, soil or construction aggregate produced by quarrying, crushing or any other mining activity or such other naturally-occurring unconsolidated materials that normally mask the bedrock.

II. "Excavation" means a land area which is used, or has been used, for the commercial taking of earth, including all slopes.

III. "Regulator" means:

(a) The planning board of a city or town, or if a town at an annual or special meeting duly warned for the purpose so provides, the selectmen of the town or the board of adjustment; or

(b) If there is no planning board, the selectmen of the town or the legislative body of the city; or

(c) The county commissioners if the land area is in an unincorporated place.

IV. "Dimension stone" means rock that is cut, shaped, or selected for use in blocks, slabs, sheets, or other construction units of specified shapes or sizes and used for external or interior parts of buildings, foundations, curbing, paving, flagging, bridges, revetments, or for other architectural or engineering purposes. Dimension stone includes quarry blocks from which sections of dimension stone are to be produced. Dimension stone does not include earth as defined in RSA 155-E:1, I.

V. "Excavation site" means any area of contiguous land in common ownership upon which excavation takes place.

VI. "Excavation area" means the area within an excavation site where excavation has occurred or is eligible to occur under the provisions of this chapter.

#### HISTORY

Source. 1979, 481:2. 1988, 285:6, 7. 1989, 363:2. 1991, 310:3, eff. Aug. 23, 1991.

Amendments—1991. Paragraph VI: Added.

—1989. Paragraph V: Added.

—1988. Paragraph I: Added "produced by quarrying, crushing or any other mining activity or such other naturally-occurring unconsolidated materials that normally mask the bedrock" following "construction aggregate".

Paragraph IV: Added.

## LOCAL REGULATION EXCAVATIONS

155-E:2

### ANNOTATIONS

#### 1. Cited

Cited in 1986 Op Atty Gen 193; Appeal of Coastal Materials Corp. (1987) 130 NH 98, 534 A2d 398; Town of Wolfeboro v. Smith (1989) 131 NH 449, 556 A2d 755; Town of Barrington v. Gadd (1990) 132 NH 650, 569 A2d 231.

**155-E:2 Permit Required.** No owner shall permit any excavation of earth on his premises without first obtaining a permit therefor, except as follows:

I. EXISTING EXCAVATIONS. The owner of an excavation which lawfully existed as of August 24, 1979, from which earth material of sufficient weight or volume to be commercially useful has been removed during the 2-year period before August 24, 1979, may continue such existing excavation on the excavation site without a permit, subject to the following:

(a) Such an excavation site shall be exempt from the provisions of local zoning or similar ordinances regulating the location of the excavation site, provided that at the time the excavation was first begun, it was in compliance with such local ordinances and regulations, if any, as were then in effect.

(b) Such an excavation area may not be expanded, without a permit under this chapter, beyond the limits of the town in which it is situated and the area which, on August 24, 1979, and at all times subsequent thereto has been contiguous to and in common ownership with the excavation site of that date, and has been appraised and inventoried for property tax purposes as part of the same tract as the excavation site of that date, as modified by the limitations of RSA 155-E:4-a, I, II, and II-a. In this paragraph the term "contiguous" means land whose perimeter can be circumscribed without interruption in common ownership except for roads or other easements, in a single town. It is further provided that when such excavation is not allowed in that location by local zoning or similar ordinances in effect on August 4, 1989, or when such ordinances allow such excavation only by special exception, expansion may be restricted or modified with conditions by order of the regulator if after notice to the owner and a hearing, the regulator finds that such expansion will have a substantially different and adverse impact on the neighborhood.

(c) Such an excavation shall be performed in compliance with the express operational standards of RSA 155-E:4-a and the express reclamation standards of RSA 155-E:5 and 155-E:5-a. Any violations of those standards shall be enforceable pursuant to RSA 155-E:10.

(d) The owners or operators of any existing excavation area for which no permit has been obtained under this chapter shall file a report with the local regulator within one year after receiving written notice of this requirement from the regulator and in no case later than 2 years following August 4, 1989. The report shall include:

(1) The location of the excavation and the date the excavation first began;

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(2) A description of the limits of permissible expansion, as described in subparagraph (b), which are claimed to apply to the excavation;

(3) An estimate of the area which has been excavated at the time of the report; and

(4) An estimate of the amount of commercially viable earth materials still available on the parcel.

(e) The exemption from local zoning or site location regulations as stated in subparagraph (a) shall include the quarrying or crushing of bedrock for the production of construction aggregate; provided, however, that no owner shall, after the effective date of this subparagraph, permit any such quarrying or crushing of bedrock to occur for the first time on any excavation site without first obtaining a permit therefor under this chapter.

II. ABANDONED EXCAVATIONS. The permit and zoning exemptions under RSA 155-E:2, I shall not apply to any abandoned excavation, as defined in subparagraph (a).

(a) For purposes of this section, any excavation, except for excavations or excavation sites described in RSA 155-E:2, III, whether subject to a permit under this chapter or not, for which the affected area has not yet been brought into complete compliance with the reclamation standards of RSA 115-E:5 shall be deemed "abandoned" if:

(1) No earth material of sufficient weight or volume to be commercially useful has been removed from that excavation site during any 2-year period, either before, on, or after August 4, 1989; provided, however, that before the end of such 2-year period, the owner or operator may extend the period by submitting to the regulator a reclamation timetable to be approved by the regulator, and posting a bond or other security with the municipal treasurer in a form and amount prescribed by the regulator, sufficient to secure the reclamation of the entire excavation site in accordance with the standards of RSA 155-E:5; or

(2) The excavation site is in use and is not an excavation or excavation site as described in RSA 155-E:2, III, but does not conform with the incremental reclamation requirement of RSA 155-E:5-a, or the owner or operator has not posted a bond or other security and submitted a reclamation timetable to be approved by the regulator as described in subparagraph (a)(1); or

(3) The owner or operator of the excavation has neither secured a permit pursuant to this chapter nor filed a report of an existing excavation pursuant to subparagraph I(d) within the prescribed period.

(b) In addition to the enforcement remedies of RSA 155-E:10, the regulator may order the owner of any land upon which an abandoned excavation is located to either file a reclamation timetable, to be approved by the regulator, and bond or other security as described in subparagraph II(a)(1), or to complete reclamation in accordance with this chapter within a stated reasonable time. Such an order shall only be made following a hearing for which notice has been given in accordance with RSA 155-E:7,

if the regulator finds that the public health, safety, or welfare requires such reclamation. If the owner fails to complete reclamation within the time prescribed in the order, the regulator may request the governing body to cause reclamation to be completed at the expense of the municipality. The municipality's costs shall constitute an assessment against the owner, and shall create a lien against the real estate on which the excavation is located. Such assessment and lien may be enforced and collected in the same manner as provided for real estate taxes.

(c) The site of an excavation which ceased commercially useful operation prior to August 24, 1977, but for which the affected area has not been brought into compliance with the reclamation standards of RSA 155-E:5, may be made subject to the remedy prescribed in RSA 155-E:2, II(b) only if the regulator finds in writing that specified reclamation measures are necessary to eliminate or mitigate an identified hazard to public health or safety.

### III. STATIONARY MANUFACTURING PLANTS.

(a) No permit shall be required under this chapter for excavation from an excavation site which on August 4, 1989, was contiguous to or was contiguous land in common ownership with stationary manufacturing and processing plants which were in operation as of August 24, 1979, and which use earth obtained from such excavation site. Such excavation shall be performed in compliance with the operational standards as expressly set forth in RSA 155-E:4-a and the reclamation standards as expressly set forth in RSA 155-E:5 and 155-E:5-a, which express standards shall be the sole standards with which such excavations must comply in order to retain their non-permit status as provided under this paragraph. Loss of such non-permit status shall be preceded by written notice from the regulator that the excavation is not in compliance and the owner shall have failed to bring such excavation into compliance within 30 days of receipt of such notice. Such excavation may be expanded without a permit under this chapter to any contiguous lands which were in common ownership with the site of the plant on August 4, 1989, except as limited by RSA 155-E:4-a, I, II, and III.

(b) No further permit shall be required under this chapter for excavation from a site which on August 4, 1989, was contiguous to or was contiguous land in common ownership with stationary manufacturing and processing plants for which local or state permits have been granted since August 24, 1979, and before August 4, 1989, which use earth obtained from such site. It is further provided that their operation and reclamation shall continue to be regulated by such local or state permits and any renewals or extensions thereof by the permitting authority or authorities.

IV. HIGHWAY EXCAVATIONS. No permit shall be required under this chapter for excavation which is performed exclusively for the lawful construction, reconstruction, or maintenance of a class I, II, III, IV or V highway by a unit of government having jurisdiction for the highway or an agent of the unit of government which has a contract for the

## 155-E:2 PLANNING AND LAND USE REGULATION

construction, reconstruction, or maintenance of the highway, subject, however, to the following:

(a) A copy of the pit agreement executed by the owner, the agent, and the governmental unit shall be filed with the regulator prior to the start of excavation. The failure to file such agreement, or the failure of the excavator to comply with the terms of such agreement, shall be deemed a violation of this chapter, and may be enforced pursuant to RSA 155-E:10.

(b) Such excavation shall not be exempt from local zoning or other applicable ordinances, unless such an exemption is granted pursuant to subparagraph (c), or from the operational and reclamation standards as expressly set forth in RSA 155-E:4-a, 155-E:5 and 155-E:5-a, which express standards shall be the sole standards with which such excavations must comply in order to retain their non-permit status as provided under this paragraph. Before beginning such excavation, the governmental unit or its agents shall certify to the regulator that:

(1) The excavation shall comply with the operational and reclamation standards of RSA 155-E:4-a, RSA 155-E:5, and 155-E:5-a.

(2) The excavation shall not be within 50 feet of the boundary of a disapproving abutter or within 10 feet of the boundary of an approving abutter, unless requested by said approving abutter.

(3) The excavation shall not be unduly hazardous or injurious to the public welfare.

(4) Existing visual barriers in the areas specified in RSA 155-E:3, III shall not be removed, except to provide access to the excavation.

(5) The excavation shall not substantially damage a known aquifer, so designated by the United States Geological Survey.

(6) All required permits for the excavation from state or federal agencies have been obtained.

(c) The department of transportation or its agent may apply directly to the appeals board created under RSA 21-L to be exempted from the provisions of local zoning or other ordinances or regulations, with respect to the excavation or transportation of materials being used exclusively for the lawful construction, reconstruction, or maintenance of a class I, II, or III highway.

(1) The application shall state whether the applicant has requested any exceptions or variances which may be available at the local level, and shall describe the outcome of such requests.

(2) Prior to acting on the application, the board shall hold a hearing in the municipality whose ordinance or regulation is at issue. At least 7 days prior to such hearing, notice shall be published in a newspaper of general circulation in the municipality, and shall be sent by certified mail to the applicant, the municipality's chief executive officer as defined in RSA 672:9, the chairman of its governing board as defined in RSA 672:6, the chairman of the local regulator as defined in RSA 155-E:1, the chairman of its conservation commission, if any, and, if the proposed

## LOCAL REGULATION EXCAVATIONS - 155-E:2

exemption concerns an excavation site, to the abutters of that site as defined in RSA 672:3.

(3) Following the hearing, the board shall issue a written decision, copies of which shall be mailed to the applicant and the parties to whom notice was sent. If an exemption is granted, the written decisions shall include:

(A) A statement of the precise section of the ordinance or regulation from which the applicant is exempted. The applicant shall not be exempt from any section or provisions not so listed.

(B) An identification of the public interest being protected by the ordinance or regulation.

(C) A statement of the state interest involved, and of why, in the opinion of the board, that state interest overrides the interest protected by the ordinance or regulation.

(D) Any conditions to be imposed on the applicant, to protect the public health, safety, or welfare.

(4) The decision of the board may be appealed in the manner provided for zoning decisions in RSA 677:4-14; provided, however, that a decision under this section shall be considered a rehearing under RSA 677, and no further motion for rehearing shall be required.

### HISTORY

Source. 1979, 481:2. 1985, 88:2. 1988, 285:8. 1989, 363:3. 1991, 310:4-9, eff. Aug. 23, 1991.

Amendments—1991. Amended section generally.

—1989. Amended section generally.

—1988. Paragraph IV: Added “for the purpose of producing dimension stone” following “quarry”.

—1985. Paragraph VI: Added.

### ANNOTATIONS

#### 1. Existing excavation exemption

Party claiming exemption from excavation permit requirement under grandfather clause has burden of proving the “intent” to excavate an area larger than that already excavated prior to effective date of this section. *Town of Wolfeboro v. Smith* (1989) 131 NH 449, 556 A2d 755.

Superior court order based on finding that defendants were entitled to additional excavation on their property without a permit under grandfather clause exemption was reversed and remanded, where evidence was inadequate to manifest the necessary objective “intent” to excavate the acreage in question prior to the effective date of this section. *Town of Wolfeboro v. Smith* (1989) 131 NH 449, 556 A2d 755.

Party who desires to continue excavation operations without a permit under grandfather clause exemption must meet a three-pronged test: first, he must prove that excavation activities were actively being pursued when the law became effective; second, he must prove that the area he desires to excavate was clearly intended to be excavated, as measured by objective manifestations and not by subjective intent; and, third, he must prove that the continued operations do not, and/or will not, have a substantially different and adverse impact on the neighborhood. *Town of Wolfeboro v. Smith* (1989) 131 NH 449 556 A2d 755.

Municipality requesting that an excavation permit be obtained need only prove that excavations are ongoing and that no permit has been granted; upon this showing, burden of proof shifts to a party desiring to continue excavation operations without a permit under grandfather clause exemption to meet three-pronged test. *Town of Wolfeboro v. Smith* (1989) 131 NH 449, 556 A2d 755.