

Town of Grantham, NH

# **MASTER PLAN**

Prepared by the  
Master Plan Committee  
for the  
Grantham Planning Board

Adopted  
September 1, 2005

The Grantham Master Plan Committee was formed early in 2003 and generally met monthly thereafter. The committee was created as an ad hoc group to prepare and present a Draft Master Plan to the Grantham Planning Board. The Planning Board has the authority to revise the draft, to present a proposed Master Plan to the citizens of Grantham at a public hearing, to receive and consider public comment, and lastly to adopt the final Master Plan by vote of the board.

The Master Plan Committee presented a Draft Master Plan to the Planning Board and to the citizens of Grantham in June 2005. The draft was made available both in hardcopy printed form and as a downloadable file on the Town of Grantham web site. On July 12, 2005, at a public hearing on the draft, numerous constructive comments were offered to the Planning Board by the many citizens attending. Subsequently the Master Plan Committee developed a proposed set of revisions to the draft, and these revisions were distributed to the Planning Board in August 2005.

At its regularly scheduled meeting on September 1, 2005, the Planning Board discussed the August revisions and then adopted the Draft Master Plan as modified by the August revisions, and as further modified by an additional *Vision* statement encouraging citizen participation in the public budgeting processes for the town and the school.

As a result, this document represents the adopted Master Plan for the Town of Grantham, currently operative and in force until revised or replaced at some future time, generally anticipated to be no more than ten years hence.

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# FOREWORD

The Master Plan looks forward, but takes stock of the past, to see where we are at present and to lay out goals and recommendations for the future. Thus we begin with a perspective on the Town of Grantham, and provide brief remarks to explain how the Master Plan is created and contributes to shaping our future.

## GEOGRAPHICAL AND HISTORICAL PERSPECTIVE

Located in the western New Hampshire highlands, Grantham lies 10 miles east of the rich floodplains of the Connecticut River and 5 miles south of the Mascoma River. The boundaries of Grantham are largely the height of land of Croydon Mountain (containing the highest point in Sullivan County) in the west, the Montcalm/Prospect Hills to the north, and the lowland confluences of the North Branch Sugar River with its many tributaries to the south and east. The land here is highly variable in terms of terrain: mixtures of lowlands, upland terraces, steep slopes, hills, and mountain summits. Grantham is nearly divided in half by the combined south-flowing drainages of Stony Brook, Rum Brook, and the North Branch Sugar River. The town makes up nearly the complete headwaters of these three watersheds.

Settled in 1767 (when George Washington was 35 years old), agriculture was the dominant activity in Grantham for the first hundred years. Hilltops and hillsides were widely cleared for farming. A pattern of dispersed, low density residential housing and related farm buildings was associated with this agriculture. The first settlement near Croydon Mountain was located at the intersection of the Croydon Turnpike and the road connecting Grantham east to Springfield and west to Plainfield. After 1870, much of the nation's agriculture moved westward toward more hospitable farmland. At this time, other forms of commerce became important here. Grantham's development began to focus in the valley, near the present village area, utilizing waterpower for mills to service its lumber industry. Large scale lumber operations were conducted until the 1920s in several areas, including the land now occupied by Eastman.

With increased residential development and the decline of the importance of agriculture to the local and regional economy, the amount of land in agricultural use has continued to decline. In 1870, the town had 9,445 acres under cultivation. By 1953, prior to the growth of recent decades, only 1,030 acres were in agricultural use. Currently, active farming is practically nonexistent and much of past farmland is inactive or reverting to woodlands.

Transportation corridors in the past were limited to Croydon Turnpike, the roads to Springfield, and what is the present NH Route 10. Because Grantham was not on a railroad or a navigable river, the town was slow in developing. This changed with the construction of Interstate 89 in the 1960s, providing easy access for residents to regional employment centers, easier access to the region in general from other parts of the Northeast, and modest opportunities for commercial development. In particular, the aesthetic value and recreation opportunities provided by Grantham's hills, forests, and ponds continue to attract year-round and seasonal residential development today.

The advent of Interstate 89 (and I-91 in Vermont) led to a boom in the Hanover-Lebanon area, and in turn brought dramatic growth and change to Grantham. From 1970 to 1990, Grantham experienced more growth than in any other 20-year period in its prior history. During those years, 881 permanent residents were added to the 1970 population base of 366, and 1,145 housing units were added to the 144 existing in 1970. The proportion of the housing units that were seasonal increased from 14% in 1970 to 56% in 1990. From 1990 to 2000 (but concentrated in the latter part of the decade), another significant period of growth occurred. Permanent resident population grew from 1,247 to 2,167, while the number of housing units increased from 1,289 to an estimated 1,518. At the same time, the portion of seasonal dwelling units declined from 56% to 34%, as more people chose to make Grantham their home community. The trends of the late 1990s are vigorously continuing to the present.

## THE MASTER PLAN PROCESS

(Adapted from *Master Planning*, Technical Bulletin 3, NH Office of Energy and Planning)

As stated in New Hampshire statutes, RSA 674:2, "The purpose of the Master Plan is to set down as clearly and practically as possible the best and most appropriate future development of the area under the jurisdiction of the Planning Board, to aid the board in designing ordinances that result in preserving and enhancing the unique quality of life and culture of New Hampshire, and to guide the board in the performance of its other duties in a manner that achieves the principles of smart growth, sound planning, and wise resource protection."

The preparation of the Master Plan is one of the major responsibilities of the Planning Board (RSA 674:1), and it should serve as an aid to the Planning Board in the performance of its other duties (RSA 674:2). The board may elect to undertake the job itself, or it may engage professional or other assistance in completing some or all of the planning elements. In Grantham, the procedure that has been followed involved the creation a separate Master Plan Committee, responsible to the Planning Board, to carry out preparation of a draft Master Plan for the board's consideration. This committee was composed of volunteers and continued to be of service to the board until the Master Plan was adopted.

The Master Plan is both a reference and policy document. It should contain appropriate text and supporting maps or charts to present the recommendations of the Planning Board, plus it should offer guidelines for other community decision makers, including Grantham's citizens convened as the town's legislative body at Town Meeting. The plan should be the most complete source of information about current conditions and trends within the town.

### Content of the Master Plan

As set forth in RSA 674:2, "The Master Plan shall be a set of statements and land use and development principles for the municipality with such accompanying maps, diagrams, charts and descriptions as to give legal standing to the implementation ordinances and other measures of the Planning Board.... Each section of the Master Plan shall be consistent with the others in its

implementation of the Vision section.... The Master Plan shall include, at a minimum, the following required sections: ... a Vision section ... (and) a Land Use section ..."

These required sections are present in this Master Plan as Chapters I and IV.

RSA 674:2 lists other sections that may be included in the Master Plan, including Natural Resources (Chapter III), Transportation (Chapter V), Utilities and Public Services (Chapter VI), Community Facilities (Chapters VII and VIII), Cultural, Historic, and Recreation Resources (Chapter XI), and Implementation (Chapter X). In addition, this Master Plan provides an early section entitled Demographics (Chapter II), since the makeup and growth trends of Grantham's population are key elements in arriving at the content of the Master Plan.

RSA 674:3-III calls for the Planning Board to solicit public comments regarding the future growth of the town, in order to involve Grantham's citizens in the preparation of the Master Plan in a way most appropriate for the town. This has been accomplished by means of the Community Survey (Appendix A).

RSA 674:3-I indicates that the Planning Board may call for surveys or studies, and may review data on existing conditions and probable growth demands. The Build-Out Analysis (Appendix B), conducted for Grantham by the Upper Valley Lake Sunapee Regional Planning Commission, is the result of the Planning Board carrying out the study and review function cited in the statute. Grantham's Board of Selectmen gave strong endorsement of this contracted study.

### Adoption of the Master Plan

The Master Plan is adopted or amended by a majority vote of the Planning Board, after one or more public hearings (RSA 674:4). (Note that the Master Plan is not adopted by the town's voters at large.) The Master Plan is required before a Capital Improvements Program can be authorized and formulated (RSA 674:5). Under RSA 674:18, Grantham is not permitted to adopt a Zoning Ordinance until after the Planning Board has adopted at least the Vision section and the Land Use section of the Master Plan. However, in Grantham's case, the Zoning Ordinance has existed since 1990 (enacted as a result of the 1985 Master Plan), and it is amended by vote at Town Meeting from time to time.

Copies of the adopted Master Plan must be filed with the Town Clerk (RSA 676:6, II) and with the NH Office of Energy and Planning (675:9). The frequency of amending or updating the Master Plan is addressed in RSA 674:3, II, where revisions to the plan are "... recommended every 5 to 10 years."

### Implementation

Without implementation, the Master Plan has no value. Thus the success of the Master Plan in shaping future growth patterns and in influencing public policy decisions depends on the degree to which the plan is actually carried out by those responsible for its implementation. The last section of the plan (Chapter X, *Implementation & Action Plan*) consists of recommendations considered necessary to assure that the plan is carried out. These recommendations include

amendments to the Zoning Ordinance, Subdivision Regulations, and Site Plan Review Regulations, plus the adoption of a Capital Improvements Program.

Amended codes and ordinances are not the only means available to implement the plan. Other actions (e.g., land acquisition, construction or improvement of roads and public facilities, controlling road access, provision of public water sources for fire protection, and protection of groundwater resources against the distant possibility of a public domestic water supply) play a part in bringing about the community envisioned in the Master Plan. Education related to these topics, and the vision of Grantham as a whole, are key components in implementing this Master Plan.

# I. VISION

The essential purpose of the Master Plan is to express a vision for the future of Grantham. In particular, as guided by New Hampshire statutes, RSA 674:2, this vision tries to encompass the next ten years. In reality, however, what is done (or not done) to plan for the next ten years, and the resulting tangible changes that occur in the town over that ten-year period, will affect Grantham much farther into the future.

It should be recognized that the rate of development (principally residential) in Grantham has been very high in recent years.

Development of any kind, once accomplished, is not easily reversed. Moreover, decisions made in the near future (such as those regarding public education, infrastructure investments, and conservation and preservation efforts) will contribute to what Grantham will be like as a community in the years to come. Thus the desired character of Grantham in the future is to be determined in several different ways—for example, by recognition of widely held community aspirations, by increased participation in town affairs, by administrative action, and by the adoption or amendment of carefully prepared plans and regulatory controls.

The views, hopes, and concerns of the town's residents and property owners have been expressed in responses to the Community Survey conducted in 2003. In addition, the findings of the Build-Out Analysis (conducted for the town by the Upper Valley Lake Sunapee Regional Planning Commission) provide insight to the opportunities and limitations affecting future development in Grantham. (The Community Survey and the Build-Out Analysis are presented in Appendices A and B, respectively.) And finally, there have been the efforts of the Master Plan Committee members—to listen, identify, record, consider, and express the ideas that constitute this Master Plan. All of these contribute to the vision for the future of the Town of Grantham expressed here.

This chapter may be viewed as an executive summary of the essential elements of the Master Plan. Accordingly, greater detail on all the vision statements will be found in the remainder of the document.

The Master Plan envisions the continuation of Grantham's current attractiveness as a residential community, linked mainly to the commercial and employment centers of the Upper Valley and communities to the south. It is not anticipated that Grantham will develop an extensive employment, commercial, or industrial base to compete with those areas. On the contrary, Grantham should strive to guide the inevitable pressures of development to retain the largely rural residential character it has now. The following key actions point toward, and further define, this vision for Grantham's future:

## *Vision*

Overall, the Town of Grantham should:

- Aim to preserve its small town atmosphere and rural character (including uncrowded living conditions, peace and quiet, low traffic speeds and volumes) while providing housing opportunities for a wide mix of ages in the town's population.
- Place careful emphasis on protecting woods and fields, streams and ponds, ridges and hilltops, and seek opportunities to provide playing fields, parks, and recreational trails.
- Develop an integrated Capital Improvements Program covering all facilities and functions of the Town of Grantham and the Grantham Village School, and create a system of new development impact fees to partially support the CIP.
- Insure that new businesses and services are designed largely to meet local needs, while providing options for specialized niche enterprises such as home occupations.
- Encourage the participation of town citizens in the town's and school's budgetary process.

Regarding growth and land use, Grantham should:

- Recognize that recent growth and development in town have been quite rapid, and carefully examine the suitability, possible benefits, and potential drawbacks of temporary growth control measures, such as a) a temporary moratorium on the future subdivision of land until codes, regulations, and ordinances can be updated, and b) a temporary annual limitation on building permits for primary residential structures at a reduced level compared to the annual average number of such permits for the past three years.
- Re-designate selected undeveloped portions of the town for substantially less development potential, by means of rezoning with significantly larger lot sizes and a more appropriate range of permitted uses.
- Create and apply appropriate new zoning categories for areas judged not desirable for development, such as conservation lands, hilltops and ridges, steep slopes, remote areas, and large unbroken tracts of wildlife habitat.
- Encourage the continuing existence of open space, farm lands, and forests.

In the area of housing and residential development, Grantham should:

- Recognize that Grantham is mainly made up of single-family residences, and that they should continue to be allowed in any of the rural/residential districts throughout the town.
- Support community interest in senior housing in any district, but confine any proposed two-family or multifamily housing to the vicinity of the village center.

## *Vision*

- Reconcile the lack of community support for manufactured housing (i.e., mobile homes and related parks) with the provisions of RSA 674:32, which direct towns to provide reasonable opportunities for siting manufactured housing. (This statement does not apply to prefabricated or pre-site built housing as defined by NH statutes.)
- Note the absence of community support for high density affordable housing.

Regarding commercial and industrial development, Grantham should:

- Restrict commercial or industrial growth to the zones appropriate for that use; discourage the existence of nonresidential uses in residential zones that are incompatible with residential uses.
- Reinforce the commercial/industrial zones to enhance the viability, profitability, property values, and assessed values of the properties, so they will be successful and sustained contributors to the town's tax base.
- Encourage activities designed to meet local needs, such as medical and professional offices, banks, personal services, restaurants, and small, specialized retail establishments; encourage activities that make local farm products available to the public.
- Discourage activities in any zone that generate high traffic, noise, or pollutants, and are of a scale that overwhelms the character of the town, such as (but not exclusively) heavy industry, large scale office or manufacturing space, shopping centers, or entertainment centers.

In the areas of transportation, roads, and sidewalks, Grantham should:

- To avoid destruction of the central village's character, retain NH Route 10 through the central village area as a two-lane, low-speed-limit main street, working with New Hampshire Department of Transportation (NHDOT) to provide traffic calming measures as needed, and avoiding any conventional measures (widening, turning lanes, etc.) that would increase vehicle or traffic capacity.
- Provide a second access to the Grantham Village School, most likely from NH Route 10, and consider one-way traffic circulation through the GVS site.
- Consider providing sidewalks and crosswalks in the central village area, to link the Dunbar Free Library, the new Grantham Municipal Complex, the Grantham Village School, the Post Office, the Fire Station, and Sawyer Brook Plaza.
- Consider the creation of bike paths located to provide alternatives to portions of the road system.
- Proceed slowly with paving plans for town (public) roads, providing strong justification for each paving project.

## *Vision*

Considering community services and facilities, Grantham should:

- Upgrade police, fire, and EMS communication capabilities by installing a UHF/VHF repeater tower (or co-location on cell towers), providing communication links internally in Grantham and to surrounding towns that offer Grantham emergency coordinating services.
- Combine the local police, fire, and EMS dispatch duties by manning the town's Command Center in the new Grantham Municipal Complex, thus better coordinating internal Grantham assets and providing the proper level of response for emergency calls.
- Upgrade the FAST Squad to an ambulance service qualified to transport victims to local hospitals.
- Add a third shift to the Grantham Police Department to improve overall service to the growing population of the town.

To provide stewardship for natural resources and serve the needs of conservation, Grantham should:

- Strongly pursue a variety of measures that will conserve and protect scenic natural resources, natural areas, wetlands, and surface and ground waters.
- Maintain intervening open spaces and green space links between the several current neighborhoods and built environments of town, with emphasis on maintaining and conserving large, interconnected, unfragmented areas.
- Encourage the conservation of forest and agricultural lands.
- Actively seek opportunities to acquire lands or obtain easements to conserve rural character, to provide for conservation and recreation activities, and to maintain scenic views.
- Strengthen, coordinate, and add where absent, appropriate powers to the Planning Board, Zoning Board, Board of Selectmen, Code Administrator, and any other relevant board or official to control, restrict, or prohibit adverse impacts on natural resources in the course of considering development proposals.

For the sake of recreational, cultural, and historic resources, Grantham should:

- Conduct a detailed study to determine more fully the interests and needs of the community for public facilities to fulfill reasonable and unmet desires for cultural and recreational activities, including playing fields and possibly a town common.
- Investigate the feasibility of creating recreational bicycle paths, hiking trails, and cross-country ski trails, not associated with roadways.

## *Vision*

- Actively promote the identification and conservation of Grantham's historic resources.
- Strengthen, coordinate, and add where absent, appropriate powers to the Planning Board, Zoning Board, Board of Selectmen, Code Administrator, and any other relevant board or official to control, restrict, or prohibit adverse impacts on historic resources in the course of considering development proposals.

## *Vision*

## **II. DEMOGRAPHICS**

The Town of Grantham, located in northern Sullivan County, was incorporated in 1761. The population density in 2000 was 77.3 persons per square mile. Grantham covers 28 square miles, with 0.9 square mile of inland water. The official elevation is 962 feet.

The town is primarily a rural community, served by Interstate 89 and NH Routes 10 and 114. Additionally, Grantham benefits from easy access to other through highways: US Routes 4 and 5, NH Routes 11 and 103, and Interstate 91. The town lies within the Upper Valley Lake Sunapee Region, a state-designated planning and economic development area. For the purpose of tourism promotion, the area is known as the Dartmouth-Lake Sunapee Region.

### **POPULATION**

From 1990 to 2000, Grantham experienced an explosive growth rate, increasing 73.8% by adding 920 residents, for a total of 2,167. This growth was the third-highest percentage increase among the incorporated cities and towns in New Hampshire.

From 2000 to 2003, the population increased 8.2% (2,167 to 2,344). This population growth rate is considerably higher than the rate for Sullivan County (3.9%) and for the state as a whole (2.2%).

The 2004 population is estimated to be over 3,000, suggesting a four-year growth of 38%. Indicators supporting this estimate are: registered voters in Grantham for the 2004 General Election (2,200), K-12 students in the Grantham School District (380), numbers of new home permits (59 in 2003, 38 in 2004), vehicle registrations (3,367, all vehicle categories), and the number of residential structures reported in the Build-Out Analysis (1,880).

The first table on the following page shows Grantham's historical population trends from 1980 to 2000, along with data for the county and the state.

The age cohort data for Grantham residents from 1990 to 2000, shown in the second table on the following page, indicate a significant growth in all but one age category. Data for 1980 are less detailed, but are shown for reference. In particular, the table indicates that the age cohort of residents 65 and older grew 97.1% during this period. Moreover, the overall change in persons ages 45-64, from 336 in 1990 to 643 in 2000 (a 91.4% increase), indicates continued future growth of the age 65+ population.

## Demographics

<b>TOTAL POPULATION</b>			
	<i>Population</i>	<i>#Change</i>	<i>% Change</i>
<u>Town of Grantham</u>			
1980	704		
1990	1,247	543	77.1%
2000	2,167	920	73.8%
<u>Sullivan County</u>			
1980	36,063		
1990	38,592	2,529	7.0%
2000	40,458	1,866	4.8%
<u>State of New Hampshire</u>			
1980	920,610		
1990	1,109,252	188,642	20.5%
2000	1,235,786	126,534	11.4%

<b>AGE COHORT DATA</b>				
<i>Age</i>	<i>Size of Cohort</i>			<i>% Change 1990 to 2000</i>
	<i>1980</i>	<i>1990</i>	<i>2000</i>	
0-4	42	75	107	42.7%
5-9	571	65	126	93.8%
10-14		70	120	71.4%
15-19		62	96	54.8%
20-24		50	46	-8.0%
25-34		142	230	62.0%
35-44		208	328	57.7%
45-54		145	339	133.8%
55-59		74	154	108.1%
60-64		117	150	28.2%
65+		91	239	471
<i>Total</i>	704	1,247	2,167	73.8%

## Demographics

### POPULATION GROWTH

A community's population grows through: a) in-migration, b) new family formation, c) the turnover of existing housing from families without children to families with children, and d) the creation of new housing units.

In 2000 Grantham had 1,513 housing units, versus 1,289 in 1990 and 653 in 1980. But for Grantham, the dwelling unit numbers do not give the entire picture. Whether or not the units are occupied full time is important. In 2000, only 61% of the dwellings were occupied. Of these, 89% were owner-occupied and 11% renter-occupied. Of the 589 vacant dwellings in 2000, the great majority (533) were for seasonal, recreational, or occasional use. The balance were not in use (typically because they were for sale). So the picture of population is made more complete by data concerning *households* and *persons per household*, as presented below, with county and state data for comparison.

<b>HOUSEHOLDS AND PERSONS PER HOUSEHOLD</b>			
	<i># Households</i>	<i>% Change</i>	<i>Persons/H'hold</i>
<u>Town of Grantham</u>			
1980	264		2.7
1990	494	87.1%	2.5
2000	924	87.0%	2.3
<u>Sullivan County</u>			
1980	13,239		2.7
1990	14,873	12.3%	2.6
2000	16,530	11.1%	2.4
<u>State of New Hampshire</u>			
1980	323,493		2.8
1990	411,186	27.1%	2.7
2000	474,606	15.4%	2.6

Since 2000, Grantham has issued an increasing number of building permits. The past five years have seen an upturn in new home construction, averaging 42 residential permits per year. In Eastman, of the home transfers occurring in the 2001-2003 period, almost 80% involved conversion to full-year occupancy. The increases in building permits for new homes, plus the high rate of conversion of part-time residences to full-time residences, have placed pressure on town services, especially the Grantham School District. New home building permit information since 1988 is as follows:

## *Demographics*

<b>GRANTHAM BUILDING PERMITS 1988-2004</b>	
<i>Year</i>	<i>Number of New Home Building Permits</i>
1988	65
1989	54
1990	27
1991	27
1992	17
1993	22
1994	28
1995	22
1996	24
1997	25
1998	21
1999	25
2000	35
2001	32
2002	45
2003	59
2004	38

The 2000 Census indicates that 173 Grantham dwellings (19%) were occupied by a household which had moved into its house during the previous fifteen months (January 1999 through March 2000). In addition, 332 dwellings (36%) were occupied by a household which had moved in between 1995-1998. Thus, even though there are many long-term residents in Grantham, turnover does occur and is quite vigorous.

The historic population density of Grantham has increased from 1990 to 2000 by 74% (from 44.5 to 77.3 persons/square mile). From 1980 to 2000, the density has increased by 208%.

In terms of population increase by community, Grantham stands alone as having experienced the highest 1990–2000 growth rate in the Upper Valley Lake Sunapee Region. In absolute numbers, Grantham’s growth in population (920) is fourth, behind that of more heavily populated communities in the region: Hanover (1,638), Hartford (963), and New London (936). Sullivan County’s 1990–2000 growth was 1,866. Grantham’s growth during the same period represents 49% of Sullivan County’s growth.

## *Demographics*

In 2000, Grantham's median house value was \$159,000. There has been significant appreciation in house values in the last four years, as well as new house construction focused largely on the higher-valued portion of the market. The real estate market asking-price range for Grantham homes offered for sale in 2004 ran from a low of \$75,000 to \$600,000–\$699,000 (less than four being in this latter range). The preponderance of upper-price-range homes falls in the \$300,000– \$400,000 range. The *Real Estate Survey* (November 2004) reported the median asking price for homes in Grantham as \$359,000.

## FACTORS AFFECTING POPULATION GROWTH

Since Grantham is located within the Lebanon-Hartford and New London-Lake Sunapee labor market areas, with their historically low unemployment rates and favorable business climates, the town is likely to continue showing significant growth. By reason of its existing, more-affordable, and high-quality housing stock, its excellent school system, its large tracts of available undeveloped land, and its location along I-89 and at the junction of two state highways, Grantham will doubtless experience development pressure to fill the available tracts of land.

The 2003 Upper Valley Housing Needs Analysis (see *Upper Valley Lake Sunapee Regional Plan, Appendix B*, prepared by the Upper Valley Lake Sunapee Regional Planning Commission) stated that "... the Lebanon-Hartford labor market area has exhibited strong economic growth during the last decade, which has generated a housing shortage and created a pronounced housing affordability crunch..." The study further indicates that the Upper Valley Lake Sunapee Region should expect job and household growth to remain strong in the next ten years, thus generating a need to build an additional number of units equaling 68% of the region's current inventory. The demands for housing in the Lebanon-Hartford area will very likely spill into Grantham, based on the town's favorable attributes given above.

### Grantham's Character and Environment

Grantham residents are clear in the 2003 Community Survey that rural character and a quiet environment are essential to their quality of life, and that future town planning should reflect this view.

Population growths, and growth trends, are among the prime factors and assumptions that must be considered in the development of a Master Plan. Significant changes in population will affect the level and depth of community and commercial services, and will affect the infrastructure required in the town. There is a potential for Grantham to become mainly a commuting "bedroom community," supporting future business development principally located outside of Grantham, in the greater Upper Valley Lake Sunapee area. The potential for such large growth is the basis for directing Grantham's future growth in terms of the eventual extent of new residential and business developments.

### Local Economy

#### *Local Employers*

## *Demographics*

The largest employers within Grantham are Yankee Barn Homes, Inc. (pre-engineered, prefabricated home and building structures), the Eastman Community Association, (recreation facility management and maintenance), and Cote & Reney Lumber Co. (sawmill, lumber, and building materials).

### *Home-Based or Cottage Industries*

Seventeen percent of employed Grantham workers conduct their trade, profession, or business out of their homes. In 2004 over 40 home businesses existed in Grantham. Internet businesses, telecommuting, and local service businesses enjoy the benefits of an excellent road transportation system, package delivery and shipping services, plus the availability of high-speed communication linkages.

### *Lebanon-Hartford Labor Market Area*

The leading employers of the area are Dartmouth College and the Dartmouth-Hitchcock Medical Center. These two institutions are the largest area employers providing over 10,000 jobs. Other major employers are Timken Aerospace, Hypertherm, Thermal Dynamics, the US Army Cold Regions Research and Engineering Laboratory, the various high-tech and retail enterprises in both Centerra Business Park (including the Dartmouth Regional Technology Center) and the Lebanon Airport Business Park, plus the many retail sales and service establishments and professional offices in Lebanon, West Lebanon, Hanover, and White River Junction.

The 2003 Grantham Community Survey indicates that, of the Grantham residents who commute beyond Grantham to work, 78% work in the Lebanon-Hartford market area. The labor market economy in Lebanon-Hartford is strong, and the labor supply is tight. Over 6,000 new jobs were added during the 1990s, with unemployment rates between 2% and 3%. The New Hampshire unemployment rate was 3.5% in October 2004; Vermont's rate was 3.1%. The unemployment rate for Grantham in 2001 was 2.1%.

### *New London and Lake Sunapee Labor Market Area*

Among a wide range of smaller scale retail sales and service establishments, professional offices, and light manufacturing, Colby-Sawyer College and the recreational enterprises and facilities in the New London and Lake Sunapee area provide a secondary labor market area for Grantham.

## *Demographics*

### EDUCATION AND INCOME LEVELS

The education level of the adult population of Grantham, based on the 2000 US Census, is summarized as follows:

<b>EDUCATION LEVEL</b>	<b>% POPULATION</b>
High School or higher	96.7%
Bachelors Degree or higher	51.2%
Graduate or Professional degree	21.8%

The income levels of Grantham households (based on 933 households), as surveyed in 1999/2000, are portrayed below:

<b>INCOME</b>	<b># HOUSEHOLDS</b>	<b>% POPULATION</b>
Less than \$10,000	36	3.9%
\$10,000 to 14,999	12	1.3%
\$15,000 to 24,999	52	5.6%
\$25,000 to 34,999	68	7.3%
\$35,000 to 49,999	147	15.8%
\$50,000 to 74,999	259	27.8%
\$75,000 to 99,999	163	17.5%
\$100,000 to 149,999	129	13.8%
\$150,000 to 199,999	35	3.8%
\$200,000 or more	32	3.4%
Poverty Status	10	1.4%
Median Household Income: \$63,239		

## *Demographics*

### NOTE

The sources used for the data appearing in this chapter include:

2000 US Census  
Upper Valley Housing Needs Analysis, March 2002  
Upper Valley Lake Sunapee Regional Plan, 2003  
Economic & Labor Market Information Bureau, NH Department of  
Employment Security, 2002  
New England School Development Council (NESDC) Report (Tables 1–5),  
prepared for Grantham School District, 2003

Due to the variety of sources, minor inconsistencies in some data may be found.

### III. NATURAL RESOURCES

The natural resources found in Grantham shape who we are as a community and play a major role in creating our sense of place. The natural resources around us—the geology, soils, ground and surface waters, forest communities, wildlife, clean air, and scenic resources—have a fundamental influence on our development as a town. These resources pose both constraints and opportunities for development, requiring both conservation and wise utilization, so that a balance is reached between continuing benefit and reasonable use.

A sound, thorough, and objective approach must be used in making decisions affecting our natural resources—an approach that understands the resources we have, and how we should manage and maintain them—while carrying out the task of planning and guiding Grantham’s future growth and development. Recommendations in this chapter recognize the importance of the town's natural resource heritage, in the belief that they form the vital foundation providing Grantham’s quality of life. Thus, all growth and development of the town will be governed by the land's capability or limitations in supporting that development.

#### COMMUNITY VALUES

The Community Survey shows that residents of Grantham are highly supportive of maintaining and improving the protection of our natural resources. Highlights of this support are summarized below:

- The attributes most often chosen by residents indicate they value Grantham for its small, quiet, uncrowded atmosphere in an unpolluted natural environment.
- Residents want to see Grantham remain primarily a rural community in the years to come.
- The most important concepts in defining rural character are woods, wildlife, undeveloped spaces, and low traffic volumes.
- Aspects of open space that are important to preserve include open fields, surface waters, forests, and woodlands.
- Conserving natural resources in Grantham has strong support, and interest is expressed largely in scenic natural resources, natural areas, surface waters, and agricultural lands.
- Overwhelming support exists for continuing Grantham's efforts in acquiring lands considered significant to our rural character, including the use of tax dollars for purchasing land and/or easements.
- Nearly all respondents favor the Planning Board having the authority to require alternative layouts to development that would otherwise adversely impact significant natural resources.

## *Natural Resources*

### EXISTING NATURAL RESOURCES

To aid in understanding the following discussion, it may be useful to consult the maps found in the Attachments to the Build-Out Analysis, Appendix B, and also US Geological Survey topographic maps (*Enfield Center* and *Sunapee* quadrangles, 1:25,000 scale).

#### Water Resources

Water resources are the naturally occurring components of the land that function to hold, store, move, and purify water. Examples are lakes, ponds, marshes, bogs, rivers, brooks, streams, flood plains, and aquifers. Collectively, these mutually vital hydrologic functions form a watershed.

Water resources are critical components of the functioning landscape of Grantham. They provide many benefits: flood storage capacity, wildlife habitat, scenic values, water supply for domestic and business uses, and recreational opportunities. They are completely vital for all life.

Prudent conservation of the town's water resources is accomplished by measures prohibiting impacts that damage the ability of these water resources to function as high quality components of the environment. Damaging impacts can result from a variety of human activities that take place within a watershed. Generally, the closer an activity is to the water resource, the greater its impact may be on the resource's ability to function. This is especially true for the placement of septic systems and activities that can lead to erosion and sedimentation, such as paved road runoff and removal of shoreline vegetation within and near riparian areas. The State of New Hampshire has issued a model Shoreland Protection Act which has been incorporated into Grantham's zoning ordinances. The Eastman Community Association's Environmental Control Committee's by-laws also provide protection for the shorelines in Eastman, primarily through the regulation of vegetation clearing, lawn care, and construction.

The water resources we see—the ponds, marshes, and brooks—are key elements of Grantham's scenic resources, in addition to the other significance they have. All water resources are limited and irreplaceable, and they should be protected. Human activities involving land development need to be carefully controlled where water quality and function are threatened or impaired.

#### *Lakes and Ponds*

Grantham has eight major lakes and ponds. From largest to smallest they are Eastman Lake, Stocker Pond, Butternut Pond, Miller Pond, Leavitt Pond, Chase Pond, Anderson Pond, Lily Pond and Grass Pond. (A small northern part of Eastman Lake lies in Enfield, and the western 2/3 of Chase Pond is in Plainfield.) Collectively these major open waters compose 527 acres (as measured from US Geological Survey topographic maps), approximately 3% of the total area of the town. All but Stocker Pond are found in North Grantham.

## *Natural Resources*

### *Wetlands*

Wetlands—marshes, bogs, forested wetlands, etc.—tend to be located where areas of poorly drained soils prevent rainfall from rapidly infiltrating the soil. In Grantham, much of the wetland communities are located along the brooks and rivers. The more extensive wetlands are shown on Attachment E of the Build-Out Analysis (Appendix B.) Six major wetlands are found throughout town. From largest to smallest they are the Bog Brook area in East Grantham, the Sugar River floodplains south of the village center, Sturgis Swamps west of Dunbar Hill Road, Stroing Marsh north of Eastman Lake, Miller Marsh in the vicinity of Miller Pond, Grass Marsh surrounding Grass Pond in North Grantham, and Colby's Meadows west of Miller Pond. Together these major wetlands make up 529 acres (per USGS maps), roughly the same amount of area as the lakes and ponds of the town.

Wetlands are both an important part of the hydrologic cycle and valuable wildlife habitat. Wetlands require diligent protection due to their value and fragility, since any nearby development activity could destroy a wetland as a functioning system through erosion, sedimentation, or other forms of pollution. Care must be taken to protect wetlands through a combination of state regulation and local protection, as well as buffer areas surrounding significant wetlands.

### *Rivers and Brooks*

Rivers and brooks, the corridors in which water flows by gravity from one source to another, may simply be called water drainages. Due to Grantham's varied terrain, many water drainages occur. In the east, Bog Brook along with Stocker Pond Brook forms the beginning of the North Branch Sugar River. Stony Brook in the north (also known as Grass Pond Brook) and the North Branch Sugar River together appear to define the main north-south valley of the town, but the actual relationships of the water drainages are not quite that straightforward. Stony Brook does not actually flow into the North Branch Sugar River, but rather joins Butternut Brook from the north at a point west of Eastman Lake, just before Butternut Brook empties into Eastman Lake. South (downstream) of Eastman Lake there is Eastman Brook joining Bog Brook flowing from the northeast. The major brooks of Skinner (also named Rum in its downstream portions), Sawyer (or Shaw-Sawyer), and Shedd (or Littlefield) all drain into the North Branch Sugar River from the west. Ash Swamp Brook in the southwestern corner of town also drains into the North Branch Sugar River from the west, after it leaves Grantham and enters Croydon. All of these major drainages total over 25 miles in length, as measured from USGS maps.

### *Floodplains*

Due to its topography, Grantham has a limited amount of floodplain area. Flood storage capacity is provided primarily by Grantham's ponds and the Bog Brook wetland area. The main flood hazard areas significant to Grantham's development are along the lower end of the Skinner/Rum/Sawyer Brook drainage north of the village center and along the North Branch Sugar River south of the village.

## *Natural Resources*

Development in floodplains can lead to possible property damage and create a risk to health and safety. Development in a floodplain, such as an impermeable surface (e.g., a paved parking area), limits infiltration, accelerates runoff, and raises flood levels elsewhere. This process can extend the limits of the floodplain area. Grantham has already adopted regulations governing development activities in floodplains.

### *Aquifers and Groundwater*

Aquifers are generally underground layers of unconsolidated mineral material—silt, sand, and gravel—that collect and hold great quantities of groundwater. Aquifer maps were prepared in the early 1990s by the NH Department of Environmental Services, Water Resources Division, in cooperation with the USGS. Two very important groundwater aquifers are located in Grantham. One is in the area of Stocker Pond and the vicinity of Bog Brook. The other follows a portion of the North Branch Sugar River and NH Route 10. These groundwater reserves are likely sources for substantial fresh water supplies in the future. Grantham does not require a public water supply at present. But this groundwater resource is limited and irreplaceable, and thus should be protected for the future, in case Grantham ever finds it both necessary and economically feasible to develop a public water supply.

Elsewhere in Grantham, groundwater is found in highly variable quantities in the cracks, joints, and fissures that occur naturally in the underlying bedrock. This groundwater source serves the water supply needs of most individual residences and business buildings outside of Eastman, by means of private wells.

Careful control of human activities that could pose threats to the quality of any groundwater (i.e., activities in areas surrounding significant wetlands and near ponds, rivers, and brooks) is essential.

### Topographical Resources

#### *Hills, Ridgelines, and Slopes*

Perhaps more than any other characteristic of the landscape, the hills, ridgelines, and slopes we see daily define for us the place we call Grantham. Croydon Mountain on the west is the dominant feature, seen from a great many locations in town. While Croydon Peak itself (2,766 feet) is in the Town of Croydon, the secondary high point of Croydon Mountain, known as Grantham Mountain, is just 100 feet lower and falls just within Grantham's boundaries.

In the north there are the numerous hills and ridges sloping upward to Snow Mountain in Plainfield and Prospect Hill in Enfield. South of these is the east-west ridgeline joining Sargent Hill with Croydon Mountain, plus Howe Hill and the varied terrain of Eastman. West of the village, Dunbar Hill is well known, and in the southeast is the large upland area whose higher points are Willow Peak (Sherman Hill) and Barton Hill/Lovers Leap Ledge. The views of these geographical features are among Grantham's most important scenic resources.

## *Natural Resources*

Significant areas of steep slopes are found in Grantham. The larger areas with 20% slopes or steeper are shown on Attachment E of the Build-Out Analysis (Appendix B). The largest areas of steep slopes are found on Croydon Mountain in the Blue Mountain Forest Association's Corbin Park, and following the east-west ridgeline from Croydon Mountain to Sargent Hill. Other steep areas are found around Willow Peak (Sherman Hill) and Barton Hill/Lovers Leap Ledge in the southeast corner of town, along both sides of I-89 in the northern part of town, and throughout town along other ridgelines and hillsides. Currently, the zoning ordinance prevents construction on any part of a lot with slopes of 20% or more, and disallows such areas in meeting minimum lot size requirements.

### Soils, Forests, and Agricultural Resources

#### *Soils*

Soil resources are the collection of the top layer of earth that supports vegetation, generally a highly organic mixture of humus with sand, silt, or clay. These resources are finite in quantity and contribute vitally to water quality and land productivity. Soils are an important natural resource, since the soil properties of depth, permeability, wetness, slope, and susceptibility to erosion define the land's capability to support development, agriculture, and forestation. The uses of soil should be determined by their physical properties and their suitability to support proposed uses over their current use. For instance, prime agricultural soils, poorly drained soils, and erodible/steep slopes are good examples of soils that are not best suited for development.

The Soil Conservation Service has classified Grantham's soils into the following three groups:

- Colton-Adams-Rumney Found in the Bog Brook area in the eastern part of town, these soils can be excessively drained or poorly drained; they are loamy and sandy soils formed in glacial outwash deposits.
- Monadnock-Lyman-Rock Outcrop Found along the western boundary of town and east along the hillsides to Sargent Hill, these are loamy soils formed in glacial till and can be well-drained or somewhat excessively drained.
- Monadnock-Marlow-Hermon The bulk of the town's soils fall into this category—loamy and sandy soils formed in glacial till that can be well-drained or excessively drained.

Many of the soils in these soil groups pose severe limitations for septic systems, either because of shallow depths to bedrock or because they are a poor filter for the effluent.

#### *Forests*

Forests are not only important for forest products, clean air and water, outdoor recreation, and wildlife habitat—forests also contribute to scenic values and sense of place. Most forest

## *Natural Resources*

communities in Grantham are found on poorly drained soils, or on steep slopes with shallow-to-bedrock soils, where there is a high potential for erosion.

Generally speaking, owners of the existing forest cover in Grantham should be encouraged to conduct active professional forest management and have their forest lands enrolled in the Current Use Tax Program. Both actions are fundamental to insure that forests are compatible with rural character and preserve values that benefit everyone. (It is appropriate to note here that open space usually produces net revenue for the town versus development use, which usually results in net expense due to higher public service requirements.) Both private forestry and enrollment in Current Use can be accomplished through a combination of landowner education and local regulation.

Grantham is fortunate to have a large amount of town-owned open space forest land protected for the benefit of town residents. These properties total 546 acres and are composed of eight tracts. The largest of these town-owned properties is a 437 acre parcel, the “Town Forest,” located at the end of the Class VI section of Miller Pond Road in North Grantham.

The Town Forest is managed by the Grantham Conservation Commission with the past guidance of professional forest management. The objectives of this ownership are:

- Maintain and improve the quality and productivity of the woodland for both wildlife and timber resources.
- Provide natural education and recreation opportunities for the people of Grantham.
- Identify and protect features of special value and interest.
- Harvest forest products in a timely fashion, consistent with ownership objectives to provide income for the maintenance of the property and the benefit of the people of Grantham.

Being a rather large town-owned resource in a more remote area of town, and linking other conserved lands, the Conservation Commission should manage this property with exemplary forestry standards. This can also benefit residents by providing opportunities for forestry and conservation education.

### *Agricultural Land*

According to Soil Conservation Service data, Grantham has only 245 acres of prime agricultural soils and another 1,097 acres of good agricultural soils. Grantham’s agricultural soils are located mainly in the area of the Eastman golf course, the Sugar River corridor, the Dunbar Hill area, and a portion of Howe Hill now part of Eastman. Careful thought needs to be given to the protection of agricultural soils and farmland (active or inactive) relative to the location of future residential development.

Grantham also has a few areas not devoted strictly to farmland. These include raising and keeping horses as well as active apple orchards. These particular areas should be given the same conservation consideration as would be given to farmland, principally to ensure that the remaining areas of agricultural soils are conserved.

## *Natural Resources*

### Wildlife Resources

#### *Deer Wintering Areas*

A map of deer wintering areas developed by the NH Fish and Game Department shows only two significant areas in Grantham. One is east of Eastman Lake in Eastman, and the other lies between Eastman Lake and Butternut Pond. Other areas in which deer activity is prevalent are the land west of Cote and Dunbar Hill Roads extending to the Corbin Park fence (including Sturgis Swamps), and the land north of Miller Pond Road to the Enfield and Plainfield borders.

#### *Other Wildlife*

A rich variety of wildlife exists in Grantham, bringing both enjoyment and consternation, depending on whether the creatures are simply benignly being wild or are harming people, pets, or property. A complete listing would be too long for this document. However, two species deserve separate mention for their dramatic increases in recent decades.

First, moose have become quite common over the last 30 years. For at least the prior 30 years moose were extremely rare here. The permit hunting program for moose now usually produces successful hunters in Grantham each year. A major concern regarding moose is the hazard presented to drivers, especially on I-89 where vehicle speeds are high enough that collisions with the animals may cause significant injury or death to motorists.

Most everyone has enjoyed seeing wild turkeys in Grantham, and this species too has gone from nonexistent to abundant in less than 15 years, thanks to a reintroduction program. To date there have not been many problems resulting from the turkeys' presence. However, they may eventually present a hazard to motorists if their flocking habits and slow movements lead drivers to lose control while trying to avoid collisions.

It is the less common species that provide thrills for the wildlife observer. Coyote, bobcat, bear, wild boar, fox, weasel, fisher, heron, eagle, Canada goose—all these and many more are seen from time to time in town.

## GOALS

- Consider the natural resources of Grantham as irreplaceable assets, providing innumerable benefits (including the town's rural sense of place) and calling for responsible stewardship.
- Protect and conserve Grantham's natural and scenic resources, both privately and publicly owned, to uphold the health and function of these interconnected systems.
- Protect fragile environmental areas such as wetlands, aquifers, areas subject to flooding, and steep slopes.
- Prevent air and water pollution.

## *Natural Resources*

### RECOMMENDATIONS

- Support the Grantham Conservation Commission to a) acquire, conserve, protect, and manage important open space areas and natural resources, and b) work cooperatively with the Society for the Protection of New Hampshire Forests (SPNHF), the Ausbon Sargent Land Preservation Trust (ASLPT), and similar groups to conserve additional conservation and open space lands where appropriate.
- Sustain and increase the Grantham Conservation Fund or other dedicated capital reserve accounts for public acquisition of land, development rights, or easements to benefit conservation, wildlife habitat, agriculture, forestry, and recreation (e.g., by line item budgeting, bonding, 100% rather than 50% of the penalty proceeds from land withdrawal under the Current Use Tax Program, etc.).
- Encourage the private use of deed restrictions and conservation easements as a method for protecting important open space areas and natural resources.
- Maintain intervening open spaces and green space links between the several current neighborhoods and built environments of town, with emphasis on maintaining and conserving large, interconnected, unfragmented areas.
- Strictly enforce a steep slopes and erosion/sedimentation control ordinance designed to prevent negative impacts from improper land use development and/or practices.
- Prepare a local wetlands inventory and evaluation, and consider designation of prime wetlands, using the wetlands map provided by the Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) and/or by following the NH Wetlands Bureau Code of Administrative Rules, Chapter Wt 700.
- Protect Grantham's surface water by increasing the setbacks between surface water and both structures and septic systems, consistent with standards recommended by UVLSRPC and the NH Office of Energy and Planning (OEP), and adhering to the principles of the NH Shoreland Protection Act.
- Support limiting the horsepower of power boats and restricting jet skis on all Grantham's ponds, and encourage local property-owner participation in pond associations to assure continued water quality.
- Support activities to protect groundwater quality: a) underground oil and gasoline tank removal, b) groundwater quality monitoring at the discontinued town landfill site, c) road salt use reduction, and d) prohibiting activities creating greater quantities of hazardous waste than normally associated with residential activities.

## IV. LAND USE

Land use is determined by many factors. Among the most influential are culture, ownership, economics, regulation, physical characteristics, natural resources, etc. Each of these factors may offer both opportunities and limitations in how the land is used. The preceding chapters have discussed Grantham's demographics and natural resources at length, because these factors exert very strong and fundamental influences on land use. With the discussions of Grantham's population trends and natural resources as background, this chapter continues by addressing the following topics relating to the land:

- Today's land use patterns.
- Summary findings of the Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) Build-Out Analysis as they relate to land use.
- Community desires indicated by results of the Community Survey.
- A statement of guiding policy with respect to land use regulation.
- Goals and recommendations for shaping of future land use patterns in Grantham.

### EXISTING LAND USE

Attachment D of the Build-Out Analysis (Appendix B) shows the general land use patterns existing in Grantham today. The highest density of residential development is found clustered around the Grantham Village area, in the condominium areas of Eastman, and Grey Ledges. Medium and lower density residential development is found in the remainder of Eastman and in Olde Farms. In general, the residential development in the remainder of town is low in density. Residential development has spread along NH Route 10, Dunbar Hill Road, Springfield Road, and in the areas of Stocker Pond and Miller Pond Road. The evolution of the developments in Eastman and Olde Farms has continued the medium to low density pattern, particularly in Olde Farms.

The Eastman Community is comprised of areas in three towns, Grantham, Enfield, and Springfield, but the great majority of Eastman is within Grantham. Lot annexations as well as the retirement of unbuildable lots have taken place to reduce the potential for developing all of the originally planned units. The part of Eastman that falls within Grantham covers approximately 2,624 acres. (It appears as Analysis Zone 3 on Attachment A of Appendix B.) In addition to the built and buildable lots, roads, and common areas, this area includes most of Eastman Lake, and the 40-acre Eastman Forest. Considering only the Grantham portion of Eastman, as of late December 2004, the existing single-family dwellings numbered 857, with 336 existing condominium units and 193 remaining undeveloped lots.

Olde Farms involves about 1,060 acres, and with 125 lots the average lot size is 8.5 acres. (Olde Farms is shown as Analysis Zone 4 on Attachment A of Appendix B.) As of June 2004, there were 80 existing dwelling units and 45 undeveloped lots.

## *Land Use*

The designs for new residential development, such as in Eastman, Olde Farms, and Gray Ledges, have generally sought to maintain the rural residential atmosphere.

Commercial and industrial uses involve only a small amount of Grantham's land area. Most commercial usage is located along NH Route 10 near its junction with I-89. A lumber mill/building supply enterprise is located on the Springfield Road (NH Route 114), and a custom home manufacturing facility is located near the NH Route 10/I-89 interchange.

Despite the high population and commercial growth rate experienced over the past few decades, most of Grantham's land area remains forested. A large undeveloped corridor on the western side of town is formed by the Sherwood Forest conservation easement and the private lands north of Miller Pond, the Town Forest at Grantham Mountain Four Corners, and the privately owned Corbin Park preserve. In the northeastern part of town there is the Enfield Wildlife Management Area administered by the State of New Hampshire. A large swath of privately held undeveloped land exists between Dunbar Hill Road and the eastern border of Corbin Park. Most recently, the creation of the Reney Memorial Forest near the village center has added to the stock of land likely to remain undeveloped. These lands and surrounding lands which link two or more of them should be priorities for conservation.

### BUILD-OUT ANALYSIS: KEY FINDINGS

The Build-Out Analysis estimates that there are 1,954 primary buildings in Grantham at present, with an estimated 1,880 of these being residential structures. Under the current land use regulations, the study projects that, at the theoretical full build-out, there could be 8,259 lots developed in town, with an estimated 8,070 residential buildings. After accounting for the average number of persons per housing unit and seasonally used housing units, the Build-Out Analysis indicates a Grantham population of approximately 16,165 at build-out. This compares with the 2000 U.S. Census population of 2,167, and the present population roughly estimated at about 3,000 persons.

Based on either the 2000 Census or the current rough estimate, Grantham stands to face an increase in population between 440% and 650%, all other factors influencing population being assumed to remain unchanged. Consult the Build-Out Analysis in Appendix B for more detailed discussion.

### COMMUNITY VALUES

The Community Survey shows that residents of Grantham want to conserve the small town atmosphere, rural character, and open space. There is notable concern about too rapid residential development in town. Highlights of these views are summarized below:

- Residents value Grantham most for its small, quiet, uncrowded atmosphere in an unpolluted natural environment.
- Over the next 10 years residents want to see Grantham remain primarily a rural community, encouraging the continuing existence of open space, farm lands, and forests.

## *Land Use*

- Residents see recent growth and development in town as too rapid, and they favor considering a temporary annual limitation on building permits until codes, regulations, and ordinances can be updated.
- There is recognition that Grantham is mainly made up of single-family residences, and that they should continue to be allowed in any residential zone throughout the town.
- There is support for redesignation of selected undeveloped or lightly developed portions of the town for substantially less development.
- Senior housing is supported in any residential district, but any proposed two-family or multifamily housing is preferred in the vicinity of the central village.
- Grantham's commercial/industrial zones should be hospitable to activities that will be successful and sustained contributors to the town's tax base.
- Activities in any zone that generate high traffic, noise, or pollutants, or are of a scale that overwhelms the character of the town, are to be discouraged

### LAND USE REGULATION POLICIES

Grantham presently regulates the use of land by means of three regulatory mechanisms: the Zoning Ordinance, the Subdivision Regulations, and the Site Plan Review Regulations. As is common in most communities, Grantham's three regulatory devices are primarily founded on the concept of land as a commodity, i.e., an economic good that can be traded in commerce and be enhanced in economic value. Simultaneously, the desire is implicit in these regulatory devices to retain the rural and scenic nature of Grantham. The three sets of regulations, based on the town's Master Plan, have as their purposes the health, safety, prosperity, convenience, and general welfare of the community, as promulgated by New Hampshire statutes RSA 672—677. These purposes function to enhance the value of land, strengthening the concept of land as a commodity.

The subdivision regulations encourage uniform lots fronting on public or private roads, so that land can be divided into marketable units. Lot area requirements, yard dimension regulations, and permitted uses, as set forth in the zoning ordinance, create an envelope on each single lot that enables the owner to build, and assure potential buyers of the land's usability and value.

Grantham's land use regulations focus mainly on the impact of land use within specific lots or subdivisions, but not necessarily beyond these boundaries. However, the regulations do recognize the impact beyond lot boundaries in a broader sense, by aggregating different allowable uses into separate, clearly delineated districts (i.e. residential, business, etc.). Also, the zoning ordinances' special exception and variance procedures call for taking into account the impacts of a proposed use on the neighborhood. The site plan review regulations require examining the impacts of commercial and multifamily developments on their surroundings, but these regulations do not apply to single-family and two-family residential developments.

The commodity concept of land is essential, and it corresponds with fundamental constitutional rights regarding private property ownership. However, another concept of land should not be overlooked—the concept of land as a resource.

## *Land Use*

The conservation of agricultural and forest productivity, the provision of recreational opportunities afforded by the town's hills, forests, and water bodies, the wise use of the town's nonrenewable earth and mineral reserves, and the protection of the beauty of the landscape are judged to be matters of public good. Accordingly, land uses which threaten or significantly inhibit these resources should be permitted only when clearly outweighed by the public interest. Thinking of land as both a commodity and a resource should broaden the community's perspective when deciding what Grantham should look like, and how it should function in the future.

### LAND USE PRINCIPLES AND PROPOSALS

#### Principles for Future Land Use

Based on the Community Survey and the studies leading to this Master Plan, the principles that should guide future land use in Grantham remain much the same as expressed in past Master Plans. They are:

- Maintain orderly growth, while retaining a rural atmosphere and protecting natural resources.
- Maintain the character of the town primarily as a residential community for year-round residents and seasonal visitors, while allowing prudent nonresidential development (retail and service needs) to serve these residents.
- Continue to discourage strip development.
- Continue to discourage commercial and industrial activities from infringing upon residential neighborhoods.
- Ensure that zoning ordinances allow a range of affordable housing opportunities.
- Ensure that zoning ordinances allow adequate opportunities for rental and elderly housing.

Any proposals for future land use should take careful note of land uses that the townspeople wish to continue or initiate, as well as land uses that may be found to be undesirable or incompatible with community goals. Naturally, there must be provision for future growth, including the services and infrastructure to support it.

These proposals must acknowledge the theoretical long-term scenario indicated in the Build-Out Analysis. From this perspective, planning for the preferred future forms the basis for the suggested changes in land use and land use regulation. Therefore, the proposals presented herein encompass some ideas which may be implemented within the ten-year time frame of this Master Plan, and some which may be implemented beyond this time frame.

New Hampshire statutes provide mechanisms to permit communities that are experiencing rapid change and development to exert temporary controls to better manage this growth. However, the statutes contain strict standards that are not always easily met by communities wishing to effectively deal with rapid change. Nonetheless, to provide adequate time for careful development and consideration of the proposals for future land use, it is suggested that in conjunction with the development of a Capital Improvements Program (see Chapter VII, *Municipal Facilities & Services*), a temporary moratorium on the future subdivision

## *Land Use*

of land (i.e., a growth management ordinance, see RSA 674:22) and a temporary limitation on building permits for primary residential structures (see RSA 674:21) ought to be carefully examined for their suitability to Grantham's situation, and for their possible benefits and potential drawbacks.

As noted in Chapter II, *Demographics*, Grantham's population percentage increase from 1990 to 2000 was the third highest in the state and the highest in the Upper Valley Lake Sunapee Region. In pure numbers, Grantham's increase represents about half of the decade's growth for all of Sullivan County.

Consulting the table in Chapter II showing the number of Grantham's new home building permits since 1988, it is seen that the average for the last three years has been approximately 47, while the average for the prior ten years was about 25. This is an increase of nearly 90%. Such an increase is judged by the Master Plan Committee to be unreasonably high in view of percentage increases experienced by other communities in the region, and also in view of the state of sophistication of Grantham's present land use regulations. It is believed that an increase of 50% over the average for the prior ten year period would represent a more reasonable burden for Grantham to bear until codes, regulations, and ordinances can be updated, if a temporary limitation on building permits were to be chosen for adoption.

### Proposals for Future Land Use

Grantham's regulatory mechanisms for land use should recognize the concept that land is both a commodity and a resource. The proposals presented below are given with this dual concept of land in mind, and they concern the creation of new zoning categories, including the suggestions for impact analyses and possible impact fees for larger developments.

Grantham's land use ordinances currently define five zoning districts: two categories of the Rural/Residential District, the Business District, the Business/Light Industrial District, and the Forest Lands and Conservation District (newly established at the 2005 Town Meeting). There are also three overlay districts: a Shore Land/River Overlay District, which places additional requirements on land uses within 250 feet of water bodies, a Telecommunications Overlay District in the northern area of Grantham along I-89, and a Flood Plain/Conservation Overlay District (formerly known as the Conservation District prior to the 2005 Town Meeting).

It is proposed that in addition to the already existing districts, a number of new zoning districts and overlay districts be implemented or considered within the time frame of this Master Plan. The general areas and rationales for these proposed districts are described below.

#### *Rural Residential Districts*

There are substantial large tracts of land in Grantham that are presently quite undeveloped, and possibly vulnerable to scattered and premature development that might diminish the rural character of the town. Significant development in these areas would depart from the established development patterns that presently create Grantham's rural and scenic character, and could disrupt existing linkages between conserved or potentially conserved lands.

## *Land Use*

Such areas are mostly far removed from existing roads and, if developed, would be distant from town amenities and difficult to supply with town services. Moreover, typical physical features in some of these areas, such as wetlands and steep slopes, would act as constraints to economical development. These areas are found in:

- North Grantham, primarily north of the intersection of NH Route 10 and Miller Pond Road.
- South of Grantham Village.
- East Grantham.
- The area westward of Cote Road–Dunbar Hill Road extending to the eastern Corbin Park boundary.

The principal feature of proposed districts in such areas would be larger minimum lot sizes with proportionately larger frontage and setback requirements. Such lot sizes would be perhaps several times larger than the present minimum lot sizes (1 acre and 4.5 acres for the RR-1 and RR-2 districts, respectively). Also, the permitted uses in these proposed districts should be reduced. (It is very important to emphasize that with the adoption of these proposed zoning districts, it is intended that there would remain ample undeveloped areas in the RR-1 district, and to a lesser extent in the RR-2 district, to ensure the continued availability of a broad variety of subdivision possibilities.)

Another important feature in such districts would be strong incentives that would favor open space development, planned residential development, or other creative development approaches over conventional subdivisions. The incentives are commonly in the form of allowing a higher density of dwelling units than would result from the otherwise applicable minimum lot size and allowing reductions in frontage and setback requirements. In exchange for these incentives, substantial portions of such developments are permanently conserved as open space.

These development concepts strike good balance between housing placement and the conservation of natural areas and open space, and help minimize the need for additional utilities and municipal services, compared to conventional subdivisions at the present permitted densities.

In tandem with an emphasis on open space or planned residential developments, added control and review procedures, as well as requirements for formal impact studies, should be written into the subdivision regulations and the zoning ordinance. A structure for requiring impact fees from developers should also be considered.

Useful examples of provisions for open space developments and planned residential developments are found in the current zoning ordinances for several nearby towns.

### *Forestry/Conservation/Recreation Districts*

Two broad categories of land should be considered for specific regulation and districting under the Forestry/Conservation/Recreation heading. These are lands distinguished by specific topographical features, as described below.

## *Land Use*

The first of these categories encompasses the larger continuous areas of steep slopes (20% or greater). The concept here is to address broad steep slope areas on a larger scale than presently used by the zoning ordinance in addressing steep slopes on an individual parcel basis. Expanded ordinance provisions to prevent development or construction in such areas should be considered for obvious environmental and safety considerations.

The second category is an overlay district encompassing certain higher elevations, hilltops, and ridgelines, designed to conserve the rural and scenic values of Grantham. Criteria should be based on the selection of specific limiting contour elevations, defined by specific elevation intervals below hilltops and ridgelines applicable to each specific location. This would be, in effect, a series of overlays throughout the town which would encircle qualifying high elevation and hilltop/ ridgeline areas. Construction of any structures other than telecommunication or wind power facilities would be prohibited from taking place in these areas above the designated elevations. A similar approach has been taken by the Town of Newbury, which has adopted an overlay zoning district to regulate development in higher elevations and along ridgelines and hilltops.

There are likely additional areas not presently identified that would qualify for inclusion under the Forestry/Conservation/Recreation heading, and should be considered for zoning district designation. Selection criteria would include:

- Very limited or absent road access.
- Large individual land parcels.
- Parcels enrolled in the Current Use Taxation program as active forestry areas.
- Existing tree farms.
- Significant unfragmented wildlife habitat.

### *Central Village District*

The unique character of small New England towns is being lost through development and reconstruction. A new district is proposed in order to conserve Grantham's central village and its historic value. This district could begin somewhat north of the intersection of Dunbar Hill Road and NH Route 10, and extend south along NH Route 10 to the first major bend in the road (i.e., where the lanes and shoulders widen). It would extend easterly along NH Route 114 to the area of the bridge near the entrance to the Grantham Village School or beyond. The older village structures of Grantham—the church, library, homes, and barns—would be included in this proposed zoning district.

A carefully crafted ordinance provision that conserves the town's village, as well as recognizes the rights of homeowners in the proposed district, would be of paramount importance. Moreover, creation of this district would be consistent with the UVLSRPC's 2003 Draft Regional Plan, which identifies Grantham's central village as a local development center. This proposal is further supported by RSA 674:21-VI, which encourages appropriate development in a centralized village.

## *Land Use*

Another objective of the Central Village District would be to outline any areas desirable and feasible for future expansion of the central village area. With appropriate frontage and setback requirements, plus modest design or architectural control over future building, the conservation of the existing central village's character would be encouraged. Moreover, appropriate future development in the central village area would add to the sense of community in Grantham, and afford more residents a living option within walking distance to town facilities and services.

### *Public Financing of Open Space*

A recommendation is given to develop mechanisms to publicly finance the acquisition of additional areas in Grantham for the conservation of green and open spaces. This would involve the use of tax money or fees collected incidental to land development. Presently Grantham applies 50% of the penalty proceeds from land withdrawal under the Current Use Tax Program to the Conservation Commission's fund for land acquisition. However, the majority of towns devote 100% of these funds for this purpose, and such an increase is recommended here. The Community Survey has shown that there is strong support among Grantham's population for such initiatives. Areas so acquired could be added to the recently established Forest Lands and Conservation District, or to one of the proposed forestry/conservation/recreation districts.

### *Future Areas for Business Activities*

The continued growth indicated by the Build-Out Analysis suggests that at some point in time there will be additional demand for commercial and retail services beyond what the presently zoned business districts can provide. The time when this occurs is probably beyond the ten-year time frame of this Master Plan. Nevertheless, some thought should be given now to where and how this expansion should ultimately take place, while balancing the need to maintain the *Principles for Future Land Use*, stated earlier in this chapter, and the rights of individual landowners who might eventually be affected.

## *Land Use*

### GOALS

- Maintain orderly growth, while retaining the small town atmosphere and rural character of the town as a residential community attractive to both year-round and seasonal residents.
- Recognize the concept that land is both a commodity and a resource.
- Practice affirmative natural resource protection.
- Recognize that there are land uses the townspeople wish to continue or initiate, and conversely there are land uses that are considered to be undesirable or incompatible with community objectives.
- While providing for future growth, plan for the services and infrastructure to support this growth.
- Ensure that zoning ordinances allow a range of affordable housing opportunities and adequate opportunities for rental and elderly housing.
- Allow prudent nonresidential development (retail and service needs) to serve the residents.

### RECOMMENDATIONS

- Recognize that recent growth and development in town have been quite rapid, and after adopting a Capital Improvements Program (see Chapter VII), carefully examine the suitability, possible benefits, and potential drawbacks of temporary growth control measures such as a temporary moratorium on the future subdivision of land until codes, regulations, and ordinances can be updated. Examine as well the possible benefit of a temporary annual limitation on building permits for primary residential structures at a reduced level compared to the annual average number of such permits for the past three years.
- Establish new rural residential districts, to be applied to selected undeveloped portions of the town. This action would designate these areas for substantially less development potential by rezoning with significantly larger lot sizes, increased frontage and setback requirements, fewer permitted uses, and added use restrictions.
- Guide the potential development in any new rural residential districts by establishing strong incentives for open space development, planned residential development, or other creative development approaches.
- New control and review procedures, as well as requirements for formal impact studies, should be written into the subdivision regulations, possibly including a structure for requiring impact fees from developers for developments exceeding a specified size.

## *Land Use*

- Create and apply appropriate new zoning categories for areas judged not desirable for development, such as conservation lands, hilltops and ridges, steep slopes, remote areas, and large unbroken tracts of wildlife habitat. The distinguishing characteristic of such new zoning districts would be a quite substantial minimum lot size with no provision for residential use.
- Develop a Central Village District to conserve Grantham's central village character and its historic value, employing appropriate setback requirements and modest design or architectural standards for future buildings.
- Create policies and procedures to publicly finance the acquisition of areas in Grantham for the conservation of green and open spaces, and in particular raise the amount of Current Use Tax Program penalty proceeds from 50% to 100% for contribution to the Conservation Commission's land acquisition fund.
- Begin to explore the needs for additional land to provide locations for future commercial and retail services, beyond what the presently zoned business districts can provide.

## V. TRANSPORTATION

The purpose of this chapter is to provide an overview of the transportation modes available to the Town of Grantham, to appreciate the integration of the town within the overall transportation framework of the Upper Valley Lake Sunapee Region, and to develop transportation planning objectives based on the changing demographics of the town and current and future transportation requirements.

### TRANSPORTATION MODE OVERVIEW

#### Road Transportation

The road transportation network is primarily defined by I-89 and NH Routes 10 and 114. Old Route 10, parallel to I-89 and extending from Exit 13 north to Exit 14, is also an important road serving both entrances to the Eastman Community and the entrance to the Olde Farms neighborhood. The Upper Valley Lake Sunapee Regional Planning Commission's Regional Transportation Plan (2003) indicates that several vehicle congestion points are evident within the Upper Valley. NH Route 10 through Grantham's town center fulfills the congestion point description, between the junction of NH Routes 10 and 114 and Exit 13, I-89.

New Hampshire Department of Transportation (NHDOT) personnel have indicated that Exit 14 of I-89, at the northern boundary of Grantham, is not likely to become a full interchange. When I-89 was built, Exit 14 was provided only to give access to the northern end of Old Route 10, because the old route was eliminated north of that point by the Interstate construction. This fact affects the character of any potential development in that portion of town, since commercial development would be impractical at a partial interchange.

As the population grows within the Upper Valley, roads that offer access to I-89 will continue to show increased traffic growth. NH Route 10 traffic will increase in volume through Grantham as Grantham properties adjacent to NH Route 10, as well as locations south of Grantham (e.g., Croydon, Newport) are developed. Likewise, future residential development along NH Route 114 will feed traffic into the Grantham village center largely headed for Exit 13, I-89.

Based on results from the Community Survey, of those Grantham residents who work, over 72% commute to a work site outside of Grantham. Most commute to locations north of Grantham via NH Route 10 (or Old Route 10) and I-89, specifically Lebanon, West Lebanon, Hanover, and locations in Vermont.

Traffic volume on NH Route 10 has grown significantly within the last two decades. The average daily traffic passing Croydon into Grantham nearly doubled from 1983 to 1992 (1,300 to 2,512). The average annual daily traffic measured in 2000 and adjusted for seasonal traffic was 2,900. Since 2000, the traffic increase on NH Route 10 through the Grantham village center has

## *Transportation*

been dramatic. A one-week count done by NHDOT (Sept. 20-24, 2004) showed a weekday average of 7,200 vehicles.

Vehicle registration (2004) within Grantham is over 3,360. Vehicle registration includes the seasonal vehicles of residents who maintain a home outside of New Hampshire, and also includes public service vehicles.

### Rail Transportation

Railroad stations are located in White River Junction and Claremont. Amtrak passenger service is available at those points.

### Commercial Air Transportation

Limited public air transportation is available at Lebanon Airport. General aviation airports are available in Claremont and Newport, as well as Lebanon. Full service commercial air service is available in Manchester, NH, Burlington, VT and Boston's Logan Airport.

### Public Bus Transportation

As segments of the population age, the ability to drive privately owned vehicles may be reduced. Bus service thus becomes an important transportation mode for many citizens. Throughout much of the Upper Valley, but not including Grantham, Advance Transit serves many local commuting needs. The closest terminals for longer-distance bus transportation are White River Junction and Concord. Bus transportation is available to major hubs including airports in Manchester and Boston, a drop-off/ pickup point in the vicinity of the Burlington Airport, plus South Station in Boston. There is also a separate bus service dedicated to Boston's Logan Airport and South Station, with a nearby pickup point in New London at Exit 12, I-89, as well as pickups in Lebanon and Hanover.

### Private Motor Vehicle Parking

Non-patron parking in business parking lots along NH Route 10 limits the availability of these parking facilities for customers, and is an unreasonable imposition on local business operations. Moreover, the use of local business parking lots for commuters or ride sharing adds to their congestion. All such parking is to be discouraged.

A Park & Ride facility in Grantham is planned for completion during the 2005 construction season, adjacent to Old Route 10 just north of Exit 13, I-89. The facility should accommodate a turnaround area for public buses and should also accommodate vans. Once completed, the facility will promote ride sharing and reduce regional vehicle congestion (but not necessarily reduce congestion in the local vicinity of the lot). The Park & Ride facility will be important for reducing northbound and southbound commuting traffic flow. It will also serve as a pickup point and secure parking area for residents needing transport to facilities and services outside of Grantham.

## *Transportation*

### Taxi Service

Taxis are available on a demand basis. Local services are available in Hanover, Lebanon, White River Junction, and New London.

### Bicycle Lanes

NH Route 10 through Grantham is part of the UVLSRPC Regional Bike Route Plan. Continued development of bike paths with well defined lanes will promote recreational and transportation use of bicycles as an alternative to motor vehicles. Development of bike paths in Grantham, both along roads and apart from roads, received a significant positive response in the Community Survey.

### Pedestrian Walkways

Sidewalks and walkways are not available in the village center area (meaning the area including the Grantham Municipal Complex, the Dunbar Free Library, the Grantham Methodist Church, the US Post Office, the Grantham Fire Station, town recreation facilities, and a possible secondary access road to the Grantham Village School). Crosswalks on NH Route 10 would first require sidewalk construction before crosswalks may be delineated. The newly constructed (2004) bridge on NH Route 114 near the entrance to the Grantham Village School meets state standards for pedestrians by providing a walkway on the bridge. However, a transition walkway adjacent to NH Route 114 in either direction from the bridge is absent.

## DEMOGRAPHIC IMPACTS ON TRANSPORTATION

While already addressed in Chapter II, *Demographics*, the demographic and population growth factors most relevant to transportation are highlighted here.

Demographic predictions indicate the population of Grantham will continue to grow faster than Sullivan County and the state as a whole. Additionally, the percent of the population over 60 is expected to remain high, and the school age population will continue to grow.

Recent and planned growth at Dartmouth-Hitchcock Medical Center, Dartmouth College, and in the Lake Sunapee area's ski and recreational facilities will place increasing demands on Grantham for housing and for subsequent upgrades in transportation infrastructure and services.

Home construction has grown significantly. During the 2000-2003 period, the number of home building permits in Grantham increased by over 80% compared to the previous four year period (1996-1999).

The single most important indicator in the growth of the school age families is the high turnover rate of multi-bedroom homes from older to younger families. More affordable housing and the excellent schools available here (Grantham Village School and Lebanon Junior and High Schools) are drawing younger families to Grantham. At the same time, the recreational activities

## *Transportation*

for seniors in Grantham and the region are plentiful, well advertised, and are expected to remain an incentive for active seniors to retire within Grantham.

### TRANSPORTATION ISSUES

Planning for future transportation growth must appreciate the need for maintaining the village and rural character values important to our citizens. Planning should also provide a safe, shared, and mixed set of transportation modes.

Based on projected population growth patterns, an adequate transportation infrastructure is already present or can be achieved for the safe and efficient movement of people and services. But the historically inadequate transportation services (e.g., buses, taxis, and bicycle and pedestrian routes) must be addressed and remedied.

Grantham has created a village center area with significant municipal, commercial, recreational, and educational facilities on both sides of NH Route 10. The attractiveness and utility of such facilities naturally concentrates significant foot and bicycle traffic, as long as safe avenues are available. The safe flow of pedestrians and bicycles requires well defined traffic flow corridors for all travel modes, and methods for effectively controlling the speed of vehicle traffic.

Over recent years there has been consideration given to relocating the US Post Office from the village center to a new location north of the NH Route 10/I-89 intersection. Since much of the locally generated traffic in the village center results from boxholders (mostly residing in Eastman) visiting the Post Office daily, a move closer to the Eastman main entrance would favorably affect village center traffic levels. However, relocation of the Post Office would deprive the central village of an important civic resource. The Post Office provides opportunities for social interaction wherever it is located, but the current location helps to focus this interaction as part of the larger social interaction associated with the town offices, library, church, school, and

police and fire stations. Construction of the sidewalks recommended earlier in this chapter would facilitate and enhance all of these social interactions.

The current single access road to the Grantham Village School, a school geographically constrained by wetlands, wooded areas, and the Sugar River, is unacceptable and needs remedy. The development of a new road and bridge, allowing a safe route for vehicles, bikes, and pedestrians entering and exiting NH Route 10, would provide a second access for emergency vehicles and improve the efficiency and safety of traffic flow within the school area. One-way traffic circulation on the school grounds would also become a possibility. This issue is currently being closely examined by all parties, and a solution is likely to be implemented soon.

Any future NHDOT road upgrades and construction in Grantham should use accepted state road design standards when and where feasible. However, concerns for maintaining rural or small town character values, especially in or near the village center, will often require relaxation of state road standards. For example, relaxation may be called for to prevent

## *Transportation*

expanded rights-of-way from encroaching on small yards or on dwellings themselves. Such adjustments of state standards can also serve as traffic control methods in the more dense areas, which may also be characterized by more concentrated pedestrian and bike traffic activity.

Finally, the rural character so highly valued by Grantham's residents may indicate that gravel roads are in many cases more appropriate than paved roads. Thus, where practical from a road maintenance viewpoint, paving plans should be balanced with residents' preferences.

## GOALS

- Develop a comprehensive transportation plan for the village center to a) control vehicle traffic in a measured manner through the area, and b) to adequately provide for pedestrians and bicycles. These are particularly important for providing multimodal access to the many village center facilities, and for maintaining a rural and safe environment through the village center.
- Correct the existing unsafe method of access to the Grantham Village School by providing a second access.
- Encourage more efficient private commuting and greater opportunities for public transportation, including support for the planned Park & Ride facility in Grantham.
- Apply accepted standards to all road construction and rehabilitation where feasible, with particular emphasis on emergency vehicle and school bus operations.

## RECOMMENDATIONS

- To avoid destruction of the central village's character, retain NH Route 10 through the central village area as a two-lane, low-speed-limit main street, working with NHDOT to provide traffic calming measures as needed, and avoiding any conventional measures (widening, turning lanes, etc.) that would increase vehicle or traffic capacity.
- Consider the provision of sidewalks and crosswalks in the central village area, to link the Dunbar Free Library, the new Grantham Municipal Complex, the Grantham Village School, the Post Office, the Fire Station, and Sawyer Brook Plaza. In addition, consider the provision of bike paths located to provide alternatives to portions of the the road system.
- Carefully assess the town's position relative to any possible relocation of the US Post Office from the village center to north of the NH Route 10/I-89 intersection, weighing the benefits of reducing traffic in the village center resulting from boxholders' daily visits against the loss of an important civic resource in the central village.
- Provide a second access to the Grantham Village School, most likely from NH Route 10, and consider one-way traffic circulation through the GVS site.

## *Transportation*

- Actively encourage the NHDOT to construct the planned Park & Ride facility at Exit 13, I-89 to provide for commuter parking and to include accommodations for pickup and discharge of passengers by buses, taxis, and vans.
- Encourage bus companies to establish a pickup and discharge point in Grantham at the planned Park & Ride facility on NH Route 10.
- Work with NHDOT to identify town needs vis-à-vis the accepted state road design standards for state road repairs, reconstruction, and upgrades.
- Require that all proposed land developments for residential and commercial uses which access town or state roads provide adequate and safe vehicle lanes and line-of-sight transitions to public roads.
- Require that all new subdivision roads and future town roads meet town road design standards, including design standards for public school bus access, such as secure pickup and discharge points and suitable school bus turnaround areas.
- Proceed slowly with paving plans for town (public) roads, providing strong justification for each paving project.

## **VI. UTILITIES & PUBLIC SERVICES**

### **WATER**

For Grantham's residents outside of the Eastman Community, potable water is provided by individual private wells. Within Eastman the Village Water District, a municipal water system, provides potable water to all of Eastman, which includes portions of Enfield and Springfield. (There are, however, some properties in Eastman with private wells in addition to having the water district service.) The water district is governed by a board of three elected commissioners, and operates under rules and regulations established by the State of New Hampshire, Department of Environmental Services. Water is drawn from drilled wells and gravel-packed wells. Two storage tanks are used in Eastman to provide a water reserve, and to maintain system pressures.

Some consideration might be given to encouraging new subdivisions to consider incorporating new small community water systems, rather than relying on individual wells to supply potable water for dwellings. This could assure more reliable water supply for domestic purposes, especially in the predominant areas of town where individual wells must be founded in bedrock with highly unpredictable water yields. Appropriate modification of the subdivision regulations would be the way to achieve this objective.

### **SEWER**

Waste water disposal is accomplished by either individual private septic systems or by the Eastman sewer system. All homes and businesses outside of Eastman employ private onsite systems, and most single-family homes in Eastman have their own septic systems as well. However, most of the Eastman properties surrounding and close to Eastman Lake are serviced by the Eastman sewer system. These properties do not have individual systems. The Eastman sewer service area includes all of the condominiums. The Eastman system provides waste water collection and treatment for 553 properties. (This number includes dwellings and a small number of undeveloped Eastman lots.)

The Eastman sewer system is a private facility owned by the Eastman Community Association and governed by a local board under the jurisdiction of the NH Public Utilities Commission. As of 2004, the current sewer system infrastructure was operating at 70% capacity. As a result, a few additional lots could be added. Liquid effluent (Class 3 water) from the system is retained in three polishing ponds and used to irrigate the Eastman Golf Course.

## *Utilities & Public Services*

### ELECTRIC

For the great majority of Grantham, electric service is provided by Public Service of New Hampshire (PSNH). A small portion of town near the northern boundary falls in the service area of the New Hampshire Electric Cooperative (NHEC).

At present, there is no town requirement that new residential development, either single dwellings or subdivisions, be supplied with underground electrical service. However, it is increasingly common that service from existing overhead power lines along the roads to individual new dwellings is placed underground by choice of the owner or builder. The Planning Board may wish to consider adding a requirement to the subdivision regulations for underground electric service in new subdivisions involving new roads. Burial of existing power lines along existing roads would be a separate issue, and likely not to be included in any such regulatory amendment.

Because of frequent power outages, electric service in Grantham cannot be considered ideal. Other than power interruptions or extended outages, there are no known shortcomings to electric service in Grantham at the present time. The Town of Grantham maintains an emergency mobile generator to maintain essential safety services during outages.

### TELEPHONE

#### Fixed Landline Service

The hardwire or landline telephone infrastructure in Grantham is provided by Verizon, the present day manifestation of the former New England Telephone and Telegraph Company. Ever since telephone deregulation in the 1980s, customers have had an ever-changing choice of their actual service providers. Anecdotal evidence indicates that some residents would consider doing without landline telephone service entirely if wireless service becomes sufficiently available and reliable. Presently, the possibility of using the internet for telephone service (voice-over-internet-protocol, or VoIP) is just beginning. It isn't clear how widespread this usage may eventually become.

As with electric service, there is no town requirement that new residential development be supplied with underground telephone service. But as with electric service, when new individual service for electric is buried, telephone service is buried as well, by choice of the owner or builder.

During electric service interruptions, telephone service usually continues for a period of time, relying on batteries incorporated into Verizon's facilities. For longer outages, such as the Great Northeast Ice Storm of January 1998, the battery power is insufficient. Unless Verizon deploys portable generators at critical points throughout its system, telephone service is eventually lost.

## *Utilities & Public Services*

### Wireless (Cellular) Service

In 1996 the US Congress passed the "Telecommunications Act of 1996," based largely on the premise that cellular telephones would allow the Emergency 911 System to reach within 50 meters of any place in the United States. The Act contains strong implications for those concerned with land use. A service provider or carrier may apply for relief before the courts in thirty days after a final denial of an application for a cellular tower by a municipality. The courts have treated companies that build towers in the same manner as the service providers (i.e., the carriers).

The first towers were built in densely populated urban areas where there was a concentration of users, but later towers began to branch out along the main arteries of transportation to allow users to communicate while traveling. This caused anxiety in the more rural and suburban communities where towers began to appear, causing sight pollution along ridgelines and in residential areas. Towns had to modify their zoning regulations to carefully accommodate the onset of towers to satisfy the implications of the 1996 Act, and at the same time to protect the rural and suburban character that the townspeople desired. In New Hampshire, municipalities were given some support with the enactment of RSA 12. This legislation allowed municipalities to make certain requests of a proposed tower applicant (regarding tower design, placement, and ancillary equipment) to lessen visual impact.

Grantham's first zoning ordinance was adopted in 1990 and was inadequate to address cellular towers. A stopgap modification was adopted in 2002. Finally, a comprehensive ordinance amendment addressing towers was put into place in 2003. The provision defined the location, tower design, height limitations, site requirements, and dimensions of ancillary equipment a carrier could install. The provision also placed various requirements on the carrier for operating and maintaining the facility once activated. This ordinance provision was based on criteria used in the zoning ordinances of three other towns in New Hampshire, conversations with consultants, and the past experience of the Grantham Zoning Board of Adjustment (ZBA) with three tower applications it had already considered.

During the tower application hearings before the ZBA, it became apparent that the coverage provided from the central part of Grantham might not be able to seamlessly "pass a signal" to the next tower located in Enfield along I-89. It was determined that it would be more prudent to have the town better define where towers could be placed, rather than denying an undesirable location proposed by an applicant, and then have the denial overruled in court. An overlay district was designed that would cover a portion of North Grantham in the largely uninhabited and forested area along I-89. A tower or towers in this overlay district would allow more seamless communication throughout Grantham along I-89 and in central Grantham, as well as service to a large number of the residences in Eastman and Olde Farms. This new overlay district was part of the zoning ordinance amendments passed at the 2003 Town Meeting.

Since the 2003 overlay amendment was approved, US Cellular and Environmental Telecommunications Services have applied to the ZBA to erect towers in the overlay district, and the board has granted these requests. At present one has been built and one is still to be built.

## *Utilities & Public Services*

These towers should provide coverage along the northern reach of I-89, and cover a large portion of the Eastman Community and Olde Farms.

A reasonable prediction can be made for the foreseeable future of cellular telecommunications in Grantham. The two new approved towers will be present in the overlay district in the northern part of town, and it is possible that additional providers beyond US Cellular and Verizon will be added to the towers. These would connect Enfield to the present tower and any future tower(s) in the central part of town. Additional carriers will probably be accommodated in the central part of Grantham to service this area as well as I-89, and to reach another portion of Eastman. Lastly, a tower was approved and is now erected in the southern part of town in the present Business/Light Industrial District, to connect central Grantham and the existing tower near the northbound I-89 Rest Area in Springfield, providing more seamless communications along a topographically difficult portion of I-89. These existing and proposed installations, assuming the same carrier is present on each tower, will allow extensive cellular telephone coverage within and through Grantham, while at the same time preserving the scenic quality of the town.

## CABLE TELEVISION

Almost all of Grantham's roads are strung with cables for television service, provided by Adelphia. In the last five years, Adelphia has invested heavily in its infrastructure to provide fiber-optic cables throughout the Grantham network, replacing the former metallic-conductor coaxial cables. This has allowed the company to offer digital service in addition to its analog service. The result is a substantially expanded range of television channels and services.

Similar to electric and landline telephone service, cable service for new construction is often placed underground by the owner or builder.

## INTERNET

Grantham residents have a variety of choices to access the internet, or worldwide web. So-called dial-up service, using conventional telephone communication, is available from a broad array of service providers, virtually all of which have local or toll-free telephone access numbers. The upgrading of Adelphia's cable system mentioned above has brought high-speed digital cable internet access to Grantham in the last few years. This service offers significant speed increases over dial-up access, and thus is proving popular.

Direct Subscriber Line (DSL) service is not presently available in town. DSL is a faster alternative to dial-up service. This service comes over telephone lines, and depends on subscribers being within a certain distance of Verizon switching facilities. At present, these facilities are in Newport, and unless Verizon builds additional facilities closer to Grantham, it is not likely that the town will see DSL become available.

## *Utilities & Public Services*

Another fast alternative is known as a T1 line. This method of internet access involves a single dedicated wire from the subscriber to the Verizon switching facilities. It is not known if any private internet access service over a T1 line exists in Grantham.

Finally there is internet service available by means of “dish” or satellite television technology. It is not known how widespread use of this method of internet access is in Grantham. It is characterized by fast download speeds, but slow upload speeds, the latter usually being over telephone lines.

### GOAL

- Encourage all providers of public utility services in Grantham to deliver the highest practical level of service at the highest quality.

### RECOMMENDATIONS

- Evaluate modifying of the subdivision regulations to encourage new subdivisions to consider incorporating small community water systems, rather than relying on individual wells to supply potable water for dwellings.
- Increase communication with PSNH, NHEC, Verizon, and Adelphia about ways in which each of these utilities can reduce the frequency and duration of service interruptions in Grantham.
- Consider adding requirements to the Building Code that all new construction be provided with electricity, telephone, and cable service by means of buried lines from the road to the building.
- Consider adding requirements to the Subdivision Regulations that all new subdivisions provide electricity, telephone, and cable service by means of buried lines along any new roads, as well as between roads and buildings.

*Utilities & Public Services*

## **VII. MUNICIPAL FACILITIES & SERVICES**

Local government in Grantham is conducted by the three-member Board of Selectmen and a staff of full-time employees. The voters assembled at the annual Town Meeting constitute the town's legislative body. Day-to-day operations and services flow well, primarily due to the qualifications, tenure, and continuity of town employees.

In addition to Grantham's employees, the town is the beneficiary of a vibrant spirit of volunteer service to the community. The members of various boards, commissions, and committees provide invaluable contributions to the functioning and well-being of the town. These contributions deserve the recognition and gratitude of the townspeople.

Taxes on Grantham real estate and improved properties fund the budget requirements for the Town. Additionally, the state assesses taxes yearly based on local property values to provide partial school funding for towns outside of Grantham. Under current state statutes (2004-2005), Grantham is classified as a donor town, which means Grantham sends a part of the real estate taxes collected by the town to Concord each year, for redistribution to school districts determined to be below adequate funding levels.

Property valuations are established in line with state requirements to reach parity between tax valuations and the market values of properties. Parity is defined as a sales/assessment ratio of near 100%. Full revaluations of properties are conducted at intervals between five and ten years. Reassessment in Grantham is ongoing in 2004-2005, to meet a 2006-2007 state revaluation requirement.

### **TOWN OFFICES**

Grantham voters approved the construction of the Grantham Municipal Complex at Town Meeting in 2004. The new facility will be located in the village center, with access from NH Route 10. The 10,000 square foot facility will contain office space for town services and functions, including Town Administrator, Selectmen, Town Clerk, Tax Collector, Tax Assessments, Police, Emergency Management, and School Administrative Unit 75. There will be a meeting area for 500-plus persons for the annual Town Meeting and other uses, plus a Board Room in which town boards and committees can convene. There also will be space for the future accommodation of a Command (Communications) Center for emergency dispatch and coordination of disaster responses.

The new Grantham Municipal Complex will be ready for occupancy in 2005, and will provide significantly more space and functionality for the Town Office and the Police Department, now located in the present Town Office Building on Dunbar Hill Road. The facility's meeting space will obviate the need for many of the town's current uses for the present Town Hall (the first floor meeting hall of the Grantham Methodist Church) and the Municipal

## *Municipal Facilities & Services*

Building (the Grantham Village School's gymnasium). Once vacated, the present Town Office Building (a historic school house) will be available for properly storing and displaying the Town Archives and for the various uses of the Grantham Historical Society.

The Town Administrator deals with a multitude of local and state functions, all of which require the coordination of town assets and personnel. In addition to personnel administration, budgeting and financial management for town operations are principle activities. Managing the schedules, meetings, and minutes of the various town boards and committees is another important function for the efficient conduct of the town's business. Staffing includes the Town Administrator, the Administrative Assistant, the Town Clerk/Tax Collector (an elected position), and the Deputy Town Clerk. All are full-time positions.

### Town Office Needs Assessment

#### *Staffing*

The Town Office staffing is adequate at the present time. The new Grantham Municipal Complex will likely require a front area receptionist to direct citizens and visitors to specific areas in the building, and to handle routine administrative matters. In the future, vehicle registration procedures will increasingly be handled through on-line state web sites, thus minimizing needs for personnel increases in the Town Clerk's office.

Planning and zoning matters increasingly demand more time and attention of the Town Office staff, even under the present structure of development regulations and while the rate of development continues to be high. With implementation of the planning and zoning recommendations in this Master Plan, it is likely that a part-time planning and zoning administrator position will need to be created in the next one to two years. In addition to dealing with the public on development inquiries and development application matters, the person filling this position will provide important staff support to the planning and zoning boards.

#### *Facilities*

With the advent of the new Grantham Municipal Complex in 2005, facility requirements should be adequate for the next ten years and beyond. Additionally, the collection of most town functions in one building will provide mutual efficiency, security, and savings.

## *Municipal Facilities & Services*

### POLICE DEPARTMENT

The Grantham Police Department will relocate to the new Grantham Municipal Complex in 2005. The Police Department space, located on the first floor of the new building, will be adequate for both near- and long-term requirements in all areas of police functions.

The Police Department is currently staffed with four full-time officers, seven part-time officers, and one department secretary. All part-time officers have other vocations.

Routine hours of operations are 16 hours for six days per week; 8 hours for the seventh day. Grantham Police are dispatched by 911 communications through the Town of Newport. State Police will respond to Grantham when requested, if State Police personnel and equipment are available.

There are three police vehicles: one low profile (i.e., unmarked), one four-wheel-drive SUV, and one traditional police car. Vehicles are specifically assigned around the clock to the three full time officers. Town fiscal planning includes a vehicle replacement set-aside program. Vehicle equipment replacement is expected to occur at three-year intervals at mileage in the range of 50,000-75,000.

Grantham Police have total access to those portions of the Eastman Community within Grantham's town boundaries, and are responsible for all police actions in Eastman, including traffic enforcement. The Eastman Community provides its own security force which patrols Eastman's public and private roads and common areas and facilities, plus acts as a neighborhood watch. The Eastman security force does not have formal police jurisdiction in Eastman.

#### Police Department Needs Assessment

##### *Staffing*

Twenty-four-hour police staffing must eventually be considered. Grantham's population increases are projected over the next ten years to be close to 10% per year. The potential for augmenting Grantham with police services from the State Police and police forces from Newport or other surrounding towns will further decay, as population in the entire Upper Valley Lake Sunapee Region increases. Population growth in Grantham is likely to increase the likelihood of additional breaking and entering crimes in homes and cars. The new Park & Ride facility will call for periodic patrol, especially at night. Additionally, traffic enforcement duties will inevitably increase. Before the existence of the new Grantham Municipal Complex, the option of increased police coverage and staff was simply unavailable, but now will become possible to consider.

##### *Equipment*

Additional vehicles should follow the increase in full time police officers. Additional vehicles should include an increase in the number of four-wheel-drive vehicles. As population

## *Municipal Facilities & Services*

grows in more remote portions of Grantham (within housing developments on private streets and homes in remote rural areas), a four-wheel-drive vehicle should be available to all police shifts.

Equipment and facilities for Police Department communications are covered later in this chapter under JOINT COMMUNICATION.

### *Traffic Control*

A review to assess the introduction of traffic lights may be indicated by future increases in traffic congestion, increases in pedestrian traffic, and by any proposed expansion of sidewalks in the village center area (i.e., on NH Routes 10 and 114, adjacent to current and proposed Grantham Village School access roads, the Fire Station, the Post Office, the Grantham Municipal Complex, and the Dunbar Free Library). A strategically positioned traffic light would be highly effective in reducing average traffic speed in the village center area. Additionally, traffic entering and exiting the main Eastman entrance and the retail facilities across from the Eastman access point on Old Route 10 may need to be managed by either a traffic light or more police involvement. Full service traffic lights may not be called for—blinkers, traffic-activated lights, and pedestrian-activated crosswalk lights may prove entirely adequate.

## FIRE DEPARTMENT

Grantham Fire Department provides fire protection and First Aid Stabilization Team (FAST) medical services to Grantham, and areas outside of Grantham when dispatched. The fire station (constructed in 1983), located in the village center along NH Route 10, is adequate and well equipped. The Fire Department's alarm dispatching is performed from the Town of Hanover. The fire fighting assets of Springfield, Newport, Croydon, Sunapee, Lebanon, and New London are available when required. Likewise, Grantham responds with their assets through an alarm response assignment protocol to those same regional towns.

<b>FIRE &amp; EMS RESPONSES</b>		
<i>Year</i>	<i>Fire</i>	<i>EMS</i>
1990	49	Unknown
2002	85	117
2003	102	127
2004	123	138
2005 (Est.)	140	151

Projections by department personnel are that fire and EMS calls will grow at 10% throughout the next five years.

Grantham has an on-call volunteer department with a pool of 25 volunteers. Senior personnel include a Fire Chief, Deputy Fire Chief, and two Fire Captains. The First Aid Stabilization Team (FAST) Squad is integrated into the fire department, and is discussed later.

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Ten to 12 personnel can be expected to respond to a significant fire call. Because of the essentially volunteer manning of the department, late evening or night time calls have better personnel turnout. Training for new personnel is demanding and extensive, and becomes a significant factor in potential new recruits accepting positions within the Fire Department. Requirements for continuing education and training for existing fire and FAST personnel are a challenging factor in providing continuous fully trained and certified staff.

Funding for fire protection is provided by the town. Responding to calls with personnel and equipment does not incur any cost to the individual property owner. Individual fire fighters are paid on a call basis. Fire and EMS officers are paid a nominal salary to compensate for their time in administrative duties.

The main pieces of fire equipment are two pumpers and one tanker, all located at the Fire Station on NH Route 10. The NH Division of Forests provides Grantham with an off-road vehicle for use on fire trails or back country trails. Grantham is responsible for maintenance and upkeep of this vehicle. The town's fiscal management includes a vehicle replacement set-aside program, and vehicle equipment replacement reviews occur periodically. Typically, fire truck equipment is replaced on a 20-year rotation cycle.

### Fire Department Needs Assessment

#### *Staffing*

The only staffing need identified is a dedicated person for documenting training and equipment testing. This need could be fulfilled by a present member of the department.

#### *Equipment and Facilities*

A more capable off-road vehicle is needed to replace or augment the current forest-fire vehicle provided by the state. The forestry vehicle is costly to maintain and operate due to its age and condition. The need for a reliable off-road vehicle is self-evident in a rural area such as Grantham. Fire fighting efforts applied quickly to remote sites will usually contain a forest fire before structures and population are threatened.

A large capacity water supply near the Grantham village center is needed to improve fire fighting capabilities. The Eastman Community has Eastman Lake as a water supply to draw from, as well as stand pipes in the condominium areas. The village center area water supply is linked to stand pipes only.

Outside of Eastman, fire fighting tankers draw water primarily from several dry standpipe locations linked to relatively small water bodies. If necessary, water may also be drawn from brooks or ponds not equipped with standpipes. As the town population grows and the number of structures increases, a large capacity water supply will become more important.

Many communities have incorporated water supply standards for fire fighting purposes into their subdivision regulations and site plan review regulations. Grantham should amend

## *Municipal Facilities & Services*

these regulations to require developers to provide an adequate water supply for fire fighting purposes in conjunction with new subdivision or site plan proposals.

Additional space for administrative duties needs to be constructed at the fire station. Although the fire station is adequate for rolling stock and equipment storage, dedicated administrative personnel space for preparation and maintenance of personnel records, equipment testing, and training documentation requires additional space. The footprint of the building can be expanded to accommodate additional administrative space on town-owned property.

Communication equipment and facilities for the Fire Department are covered later in this chapter under JOINT COMMUNICATION.

### *Department Rating*

Of prime importance to all Grantham residents is improvement of the Grantham Fire Department's insurance rating. Currently the Insurance Services Office (ISO)—Public Classification System (PPC) rating for the Grantham fire department is 9 on a 1–10 rating scale (10 being the lowest quality rating). Insurance companies use this rating as a factor in determining insurance premiums charged to policyholders. The near-term goal is to reduce the ISO/PPC rating in Grantham from 9 to 8. It should be noted that 80% of the rural areas in the United States are rated 9, mainly due to the criterion of water supply availability. An improvement in Grantham's rating will require extensive documentation of training and equipment testing, plus improvements in the dedicated water supplies for fire fighting.

## EMERGENCY MEDICAL SERVICES

The First Aid Stabilization Team (FAST), a part of the Fire Department, serves as the local first response squad to provide onsite first aid and to prepare an injured or stricken person for transportation to medical facilities. The FAST Squad does not have authority to transport persons to medical facilities. This requires a certified Emergency Medical Transportation ambulance service. Typically, the transport ambulance originates at the New London Hospital. Dispatching is performed at the New London Hospital, and is staffed twenty-four hours, seven days per week. An air ambulance service is based at the Dartmouth-Hitchcock Medical Center in Lebanon, and its broad coverage area includes Grantham.

Depending on the nature of injuries or illnesses, several destination choices are available for medical facilities. The Upper Valley Lake Sunapee Region has several outstanding medical facilities, including the Dartmouth-Hitchcock Medical Center, Alice Peck Day Hospital in Lebanon, New London Hospital, Valley Regional Hospital in Claremont, and the Veterans Administration Hospital in White River Junction, VT.

Large numbers of simultaneous casualties, such as may occur from a motor vehicle accident on I-89, would require a total response of Grantham's FAST Squad personnel and equipment. The turnaround time for FAST Squad redeployment is three hours. This means that when Grantham's FAST Squad is deployed replacement services are needed from other

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communities to respond to additional emergencies within Grantham. The FAST Squad responds to all structure fires, car fires, and motor vehicle accidents.

The FAST Squad currently has 14 personnel: three fully certified paramedics, four members at the EMT *Intermediate* level, four EMTs at the *Basic* level, two members who are *First Responders*, and one at the *Apprentice* level. All are fully certified in their present positions.

Personnel issues center on “burn out” due to the nature of emergency FAST calls, especially responding to vehicle accidents on I-89, as well as the high numbers of calls requiring a response. The FAST Squad has a 50% turnover of personnel within a two year period. Training for new personnel is demanding and extensive, and is a significant factor in attracting new recruits to positions in the Fire Department. In addition, the requirements for continuing education and training for the existing personnel are limiting factors in providing a continuous, fully trained, and certified staff.

The FAST Squad ambulance is ten years old. Plans for replacement should be formalized. Currently, the ambulance does not benefit from a town fiscal set-aside program. The ambulance is well equipped and well supported by the Town of Grantham.

Funding for the FAST Squad is provided by the town. Responding to calls with personnel and equipment does not incur any cost to those requiring FAST Squad services. Individual EMTs are paid on a call basis. Fire and EMT officers are paid a nominal salary to compensate for their time in administrative duties.

### Emergency Medical Services Needs Assessment

#### *Staffing*

The goal is to qualify and retain personnel, and to qualify equipment to become a “transporting ambulance” service. This requires more extensive certification and training. Achieving this goal will improve the overall response time for anyone served by the Grantham FAST Squad. Waiting for a certified Emergency Medical Transportation team (typically from New London, as noted above) may cause delays in transporting ill or injured persons to an emergency medical facility.

#### *Equipment*

Communication equipment and facilities for the FAST Squad are covered in the following section.

## JOINT COMMUNICATION

Currently, all emergency communication begins with the Enhanced 911 System of the State of New Hampshire. From there, dispatching for the Police Department is accomplished through the Newport Dispatch Center, for the Fire Department it is done through the Hanover

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Dispatch Center, and for the FAST Squad through New London Hospital. However, increasing demands arising from population growth bring new needs for an improved infrastructure to provide an efficient communications network for Grantham's safety services. Also, as traffic increases on I-89, calls for medical, fire, and police responses will increase as well. Finally, Grantham's emergency communications network must provide improved linkage to corresponding facilities of the state and the surrounding communities.

Geographically, Grantham sits in a valley depression, surrounded by high terrain. As a result, several communication dead spots exist. The current communications frequency repeater, linked to the dispatch towns listed above, has less than adequate coverage due to these dead areas. Cellular telephone communication also has several dead or no-service zones in Grantham, at least until the recent past. Landline telephone communication is often the only dependable communication link available to Grantham emergency services personnel.

Emergency communications must be dependable. It should also be recognized that regional (Homeland) security of the area will become increasingly more important, and reliable communications will likely be required by federal and state agencies.

### Emergency Communication Needs Assessment

A Communications Center for dispatching Grantham police, fire and EMT services, staffed around the clock, seven days a week, should be established in the new Grantham Municipal Complex. Currently, the police and fire protocols for determining the numbers and locations of responding units are not under the control of Grantham's emergency personnel. These protocols are carried out by personnel outside of Grantham. Having agencies outside of Grantham establishing the priorities for dispatching Grantham's emergency and safety services assets can lead to less than adequate responses to the needs of Grantham residents and visitors alike.

An ultrahigh frequency (UHF) and very-high frequency (VHF) repeater tower, located on high terrain in or near Grantham, would allow quick and dependable communications throughout the area. Newly constructed cell tower locations should be explored to determine the adequacy of reception and signal transition, prior to building any dedicated stand-alone UHF/VHF repeater tower.

## HOMELAND SECURITY

National security concerns, and real-world considerations, have required local communities to deal with security in a manner that goes beyond responding to only medical, fire, police, or natural disaster events. The proposed Grantham Communications Center in the new Grantham Municipal Complex would act as the coordinating center for security matters requiring trained personnel, information, and equipment available within the town and available in the surrounding area. When activated, this Communications Center would have linkages to state and federal law enforcement agencies.

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Grantham's Emergency Management Director and Eastman's Emergency Management staff (with the assistance of Eastman's Security and Safety Committee) should hold periodic joint "table top" scenario sessions and mock drills to determine any weaknesses in our town's response to national security issues, natural disasters, or mass casualties.

### **PUBLIC WORKS**

#### Road Department

The Grantham Road Department is responsible for the maintenance of 23 miles of town roads. Eighteen miles of state and federal roads are contained within Grantham, and are the responsibility of the State of New Hampshire for maintenance and snow removal. Grantham's road maintenance budget typically represents 5% of the town budget.

Two roads in Grantham are currently designated as Scenic Roads (Miller Pond Road and Burpee Hill Road), which require public input prior to any removal of trees or stone walls.

Grantham has one full time road agent and one full-time assistant road agent. In addition to a pickup truck, there are currently five pieces of equipment: two dump trucks, one grader, one loader/back hoe, and one roller. Dump truck replacement is monitored and budgeted for each year in the Highway Equipment Capital Reserve Fund. Other equipment is typically purchased as surplus property from the state as needed.

#### Transfer Facility and Recycling Center

Grantham maintains a transfer station on NH Route 114 for solid waste. Contract services remove solid waste from the transfer station to Claremont for disposal at the Wheelabrator incinerator facility. Grantham's residents participate in the recycling opportunities offered at the transfer station. Recycling is financially successful, as there is revenue received for many of the materials removed from the waste stream. The income derived by recycling offsets part of the costs of maintaining and staffing the transfer station.

There is ongoing controversy over the Wheelabrator incinerator facility, and its long-term future availability cannot be assumed. Therefore, attention needs to be paid to alternatives for the future. Grantham has a representative on the regional body dealing with this issue, and the subject must be followed closely.

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### Cemeteries

There are nine cemeteries in Grantham, six of which are inactive. Three of the cemeteries are private, and all these are among the inactive cemeteries. Maintenance of the cemeteries is overseen by the Cemetery Trustees and the Cemetery Sexton.

<b>GRANTHAM CEMETERIES</b>		
<i>Name</i>	<i>Location</i>	<i>Status</i>
Brown	Burpee Hill Road	Public Inactive
Dunbar	Dunbar Hill Road	Public Near Capacity
Fisher	Miller Pond Road	Private Inactive
Hastings	Burpee Hill Road	Private Inactive
Hill Dale	Stoney Brook Road	Public Active
Leavitt	Leavitt Hill Road	Public Inactive
Littlefield	Cote Road	Private Inactive
Memorial	Learning Drive	Public Active
Mountain	4-Cors. (Croydon Tpke.)	Public Inactive

For all practical purposes, Memorial Cemetery near Grantham Village School is the town's principle cemetery; Hill Dale Cemetery also sees occasional use. It is important to note that Leavitt cemetery was recently rescued from years of inattention and overgrowth, by means of a community volunteer effort led by the Grantham Historical Society.

### **DUNBAR FREE LIBRARY**

A former Grantham resident, Lorenzo Dunbar, donated funds in memory of his wife in 1901 to establish a library in Grantham. The new Dunbar Free Library building served as a library, selectmen's office and ladies organizations meeting facility until around 1983. The lack of central heating and plumbing caused the library's activities to move to more hospitable quarters, the library to the new Grantham Village School on Learning Drive, and the selectmen's office to the newly available former school building on Dunbar Hill Road. In 1991 funding was approved for upgrading and expanding the original library building and returning it to a fully functioning library. This work was completed in 1992. Another remodeling and expansion program was completed in 1999 to include a larger children's section, computer/reference room, reading room, office and small storage facility. The library is fully air-conditioned.

In the 2004 fiscal year the library stocked over 20,000 items, circulated nearly 43,000 items and had 20,470 visits. In addition to its normal lending and reference operations, the library runs a Wednesday reading program for children up to five years of age, has a summer reading program for children up to sixth grade and an evening program for third and fourth

## *Municipal Facilities & Services*

graders. The library is part of the interlibrary loan system and supplies books to two local book clubs.

At some point further expansion of the Dunbar Free Library will need to be addressed, as the town grows and demands for library services increase. Discussion of options for meeting future expansion requirements should be initiated.

### PLANNING FOR CAPITAL IMPROVEMENTS

Grantham is experiencing significant growth in population, and consequently there is increasing demand for additional municipal and community services. Because of the competing demands on fiscal resources, and the demands on citizen volunteers serving on various boards and commissions, Grantham faces the need to bring formal coordination to the processes of planning, designing, and financing construction projects over a five to ten year period. This calls for the authorization, creation, and adoption of a Capital Improvements Program (CIP), as provided by under RSA 674:5–8.

In 2003, a non-binding warrant article was passed by Town Meeting to encourage the Grantham School District and the Grantham Board of Selectmen to coordinate capital planning, so as to not encumber the town's resources (both fiscal capital and volunteer services) with competing building programs during the same or adjacent fiscal years. Coordinated planning was accomplished during the next two years, when the Grantham Municipal Complex was proposed and funded in 2004. Currently, programming for the Grantham Village School building is ongoing to consider options for enlarging the current school building and to consider building a middle school facility in 2007-2008.

Therefore, the logical next step is to develop a municipal and community services Capital Improvements Program, proposed to cover a six year period. It would include, for example, land acquisition for specific development purposes (and the placement of land in trust), replacement of motor vehicles and major mobile and/or fixed equipment, new facilities, and rehabilitation or restoration of existing facilities. Under the CIP, the Grantham Board of Selectmen can establish standing committees to consider, among a variety of other items, a village center intermodal transportation plan to maintain the village character, and provide safe and efficient flow for all transportation modes.

There are major advantages to the development of a CIP. For example, long-term expenditures can be averaged out so that major debt is not incurred all within a one or two year period. Also a CIP allows Grantham citizens more opportunity to examine and comment on funding outyear capital expenditures. A CIP should improve Grantham's bond rating and act to lower interest costs because it demonstrates prudent fiscal management. Of particular relevance to the Master Plan, a CIP is critical in managing Grantham's growth by a) planning public expenditures and consequently guiding growth, b) enabling the possible development of an impact fee ordinance, and c) allowing consideration of the possibility for a growth management ordinance. A CIP is a prerequisite to adopting impact fees or a growth management ordinance (RSA 674:21 and RSA 674:22).

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### GOALS

- Adopt more complete and formal procedures for planning capital improvements for both the town and the school district.
- Fully utilize the opportunities made available by the new Grantham Municipal Complex for efficiency, integration of services, and public interest and involvement in town affairs.
- Increase the level and quality of Grantham's emergency and safety services.
- Work toward establishment of a locally conducted dispatch operation in the Grantham Municipal Complex.
- Maintain and increase readiness for Homeland Security matters.
- Actively work to assure the continued availability of options for appropriate transport and final disposal of solid wastes.

### RECOMMENDATIONS

- Enact a six year Capital Improvements Program (CIP) for the Town of Grantham and the Grantham School District, with the purpose of defining and sequencing long-range capital requirements, including development of a long-range financial plan to define major year-over-year capital costs for the current and future citizens of Grantham.
- Implement the planned uses for the present Town Office Building (Town Archives, Grantham Historical Society) when the building is vacated after completion of the new Grantham Municipal Complex.
- Consider the creation of a part-time planning and zoning administrator position to handle public inquiries regarding development, manage development application matters, and provide staff support to the planning and zoning boards.
- When the new police facilities are occupied in the new Grantham Municipal Complex in 2005, consider twenty-four-hour police staffing.
- Consider an additional police vehicle (preferably four-wheel-drive) following any increase to twenty-four-hour police staffing.
- Review the need for introducing traffic lights, ranging from full-service to partial service lights, at identifiable hazardous areas of Grantham.
- Budget and provide for a dedicated member of the Fire Department to document training and equipment testing, and provide additional space for administrative duties at the Fire Station.

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- Acquire an off-road firefighting vehicle to replace or augment the current forest-fire vehicle provided by the state.
- Investigate ways to provide a large capacity water supply near Grantham's village center to improve fire fighting capabilities.
- Amend the subdivision and site plan review regulations to require developers to provide an adequate water supply for fire fighting purposes in conjunction with new subdivision or site plan proposals.
- Strive to improve the Fire Department's ISO/PPC insurance rating from 9 to 8.
- Work diligently to qualify and retain FAST Squad personnel, and to qualify FAST Squad equipment to become a "transporting ambulance" service.
- Establish a full-time Communications Center in the new Grantham Municipal Complex for dispatching Grantham police, fire and EMS services.
- Establish an ultrahigh frequency (UHF) and very-high frequency (VHF) repeater tower facility to allow reliable communications throughout the town.
- Conduct periodic joint training sessions and mock drills with the town's Emergency Management Director and the Eastman Emergency Management staff.
- Plan for future solid waste transport and disposal procedures in the event operations cease at the Wheelabrator incinerator facility in Claremont.
- Initiate discussion of options for meeting the future expansion requirements of the Dunbar Free Library to accommodate growth and increasing demands for library services.

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## VIII. SCHOOL FACILITIES & SERVICES

The purpose of this chapter is not to evaluate or express any future view concerning Grantham's school facilities and services. These duties are in the hands of others. The purpose here is to acquaint the public with the educational enterprise that exists in Grantham, and to identify issues that the community will face as it strives to maintain the vibrancy and rich contribution that enterprise makes to the town.

### GRANTHAM SCHOOL DISTRICT

The Grantham School District operates the Grantham Village School (GVS). The school provides educational services for Grantham children in grades K through 6. The Grantham Village School is located on Learning Drive, just off NH Route 114. In addition, the Grantham School District provides education on a tuition basis for Grantham children in grades 7 and 8 at the Lebanon Junior High School, and in grades 9 through 12 at the Lebanon High School. Bus service is provided to all three schools by the district.

The responsibility for the operation of the Grantham School District rests with a five-member School Board elected by the citizens of Grantham at the annual School District Meeting. The electoral term for board members is three years. Typically, one to two board positions are elected each year.

The bulk of the funds to operate the Grantham Village School are derived from local property taxes. The amount of funds made available is approved by the taxpayers by vote at the annual district meeting. At the annual meeting, those eligible residents "present and voting" act on the budget and any other warrant articles presented.

Administrative services for the Grantham School District are provided by School Administrative Unit (SAU) 75. These services include coordination with the Lebanon School District for Grantham's 7th through 12th grades. Overall responsibility for day-to-day operations and budget expenditures rests with the Superintendent of the SAU. The School Administration Unit 75 office will be located in the new Grantham Municipal Complex beginning in 2005.

#### Grantham Village School Building

The original school facility was built in 1983, with two major additions built later, the most recent being completed in 2000-2001. The Grantham Village School operating capacity is 270 pupils, based on additional classroom space added in 2004. The enrollment for 2004-2005 is 211, while the expected enrollment for 2005-2006 is 223.

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The historical growth rate for GVS is 12-14 pupils per year. The following table indicates staffing and classroom resources needed for the projected enrollment of 223 students in 2005-2006.

<b>2005-2006 GVS Teacher-Classroom Allocation for 223 Students</b>		
<i>Grade</i>	<i>Teachers</i>	<i>Students</i>
K	2	18/17
1	2	17/18
2	2	12/13
3	2	20/21
4	1	20
4/5	1	11/11
5	1	19
6	2	13/13
Totals	13 Teachers	223 Students

#### School Enrollment Projection Factors

(Based on New England School Development Council (NESDC) Report, 2003, modified in 2004.)

- The turnover of 3- and 4-bedroom homes, from older families without children to younger families with children.
- New housing start rates continue at 40-45 units per year, as shown in the table presented in Chapter II, *Demographics*, and reproduced on the following page.
- Approximately 80% of seasonal homes sold in Eastman are converted to year-round homes.
- Private school and home-school rates will remain at present levels: less than 10 home-schooled, less than 10 in private schools.
- Annual birth rate through 2013 is estimated at 20-32 per year (up 36% in 2000-2003 compared to 1995-2000).

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<b>GRANTHAM BUILDING PERMITS 1988-2004</b>	
<i>Year</i>	<i>Number of New Home Building Permits</i>
1988	65
1989	54
1990	27
1991	27
1992	17
1993	22
1994	28
1995	22
1996	24
1997	25
1998	21
1999	25
2000	35
2001	32
2002	45
2003	59
2004	38

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### Grantham School District Enrollment Projections K-12

(Based on New England School Development Council Report, 2003. The estimates for K-6 were refined by NESDC, 2004-05)

<b>Enrollment: 2005-06 through 2013-14</b>			
<i>School Year</i>	<i>K-6</i>	<i>7-8</i>	<i>9-12</i>
2005-06	223	61	110
2006-07	265	57	118
2007-08	302	60	118
2008-09	332	68	112
2009-10	356	82	114
2010-11	unk*	78	119
2011-12	unk	78	135
2012-13	unk	96	139
2013-14	unk	130	152

\*unk: Unknown based on lack of birth rate information for 2005 and later years. Assuming a continuation of the historical birth rate, new housing start rates, and migrations of families with children to Grantham (7.2% K-6 growth rate), the 2015 school population projections could reach over 500 students.

### Grantham Village School Needs Assessment

The New England School Development Council study identified the lack of dedicated music and art teaching stations as a major deficiency. Both the art and music teachers use the school cafeteria. With the current GVS enrollment of over 200, the cafeteria is stressed to provide an efficient flow of students in view of all the demands placed upon this space.

With the projected school population (302) exceeding the present school capacity (270) beginning in school year 2007-2008, the Grantham School Board is faced with building options which include the following:

- Employ interim measures, e.g., increase student load in each classroom to 20 for grades K-3 and 25 in grades 4-6 (providing space for 285 students), use portable classrooms, and/or develop other options.
- Expand the current GVS building, providing additional classrooms and facilities for projected student enrollments in excess of 400.
- Construct a second school building on the present school site, to be used as a middle school for students in grades 5-8, and use the existing GVS building for grades K-4.

## *School Facilities & Services*

Formed in 2004-2005, the Grantham Village School Long Range Planning Committee (made up of Grantham residents, School Board members, and school administrators) is now exploring the above options and will provide recommendations to the citizens of Grantham. The review of options will contain benefit-cost analyses, site-selection opportunities, and financing options. Construction could commence as early as 2007 to meet 2008-2009 school year projected enrollment of over 330.

A School Building trust fund for GVS expansion was approved at the 2004 School District Meeting. It is expected that this trust fund will add funds each of the next three to four years to offset projected funding requirements for a modified or new school facility in 2008.

### GOAL

- Provide the best possible education for Grantham's school children in appropriate facilities at a reasonable cost.

### RECOMMENDATIONS

- In conjunction with the Town of Grantham, develop an integrated Capital Improvements Program (CIP) addressing the costs, timing, and extent of capital improvements and infrastructure improvements for the Grantham Village School.
- Support the Grantham School Board and the Grantham Village School Long Range Planning Committee as it seeks to address the future educational facility needs of the the town.
- Encourage the exploration of alternative educational opportunities (e.g., vouchers, private-public school enterprises, charter schools) to ensure that Grantham's children are presented with the best possible education options balanced with fiscal responsibility.

*School Facilities & Services*

## **IX. CULTURAL, HISTORIC, & RECREATIONAL RESOURCES**

It is almost a given that Grantham's residents place high value on one or more of the cultural, historic, and recreational resources offered within the town and in the broader Upper Valley Lake Sunapee Region. This conclusion is clear throughout the responses found in the Community Survey.

There is consistently strong interest in cultural offerings at the Grantham Village School, the Dunbar Free Library, and the Center at Eastman.

The Grantham Historical Society has an active program to identify and conserve our historical resources. The group has successfully engaged the community in commemorating several key elements of Grantham's history.

Recreation is integral to the lives of many if not most Grantham residents. Its importance can not be overemphasized. Because of this, recreation and associated facilities often receive great attention of the townspeople, and substantial effort—both volunteer and compensated—goes into continuing and expanding the available opportunities for recreation in Grantham.

The 1985 Grantham Master Plan contained an extensive inventory and compilation of information on cultural, historic, and recreational resources, and should continue to be a useful resource document for the future. The updated 1993 Grantham Master Plan combined natural and cultural resources, and recommended including the 1985 Master Plan's inventory as an appendix. These portions of the 1985 and 1993 Master Plans are included here by reference.

### **CULTURAL RESOURCES**

Grantham's geographic location provides multiple cultural opportunities available within less than a one hour drive. The Center at Eastman offers events of cultural significance to the area. The completion of the new Grantham Municipal Complex (providing new space for the Town Office, Police Department, and Grantham School District/SAU #75 Office) will provide a new opportunity to preserve both the cultural and historic heritage of Grantham. The soon-to-be-vacated Town Office and Police Department building, which is the former Grantham School, will be utilized as a venue for small cultural events and exhibitions, under the guidance of the Town Archivist and the Grantham Historical Society. It will serve as well as a museum and depository of items of historical significance including the town archives.

The continuing improvement, restoration, renovation, and future expansion of the Dunbar Free Library assure its importance as a significant cultural resource for the residents of Grantham. In addition, neighboring communities such as Croydon, which has no library at this time, benefit from the library in Grantham.

## *Cultural, Historic, & Recreational Resources*

The recent creation of the Sculpture Garden at the Grantham Village School is representative of the cultural activities made available to the town's younger residents. The GVS students' recent project to interview local World War II veterans and compile their stories was another innovative cultural effort. Additionally, it provided the students some exposure to historical documentation, and it helped them increase their acquaintance with the older generation in a creative way.

### HISTORIC RESOURCES

Several important recommendations contained in the 1985 and 1993 Master Plans were implemented. The Grantham Historical Society was established as a result of these recommendations. This organization furthers the awareness and protection of Grantham's historic resources.

Also recommended in the earlier Master Plans was the creation of the position of Town Archivist. A room has been designated in the present Town Office for the collection of artifacts, historic documents, and papers. The holdings of this office include the complete set of aerial photographs upon which the current tax mapping of Grantham is based. Overall, this office is an important asset for the town itself, as well as for those seeking genealogical information on their families. Regular hours are scheduled for the public.

The Town Archivist and the Grantham Historical Society are both actively involved in the preservation of the town's historic resources. Members of the society and Town Archivist have become valuable resources for students and teachers at the Grantham Village School.

Dated plaques have been placed on several historic buildings and private homes in town. The society has been instrumental in preserving a State Militia of New Hampshire Flag of the Rifle Company of the 31st Regiment, which is currently on display in the Dunbar Free Library. A few years ago the society and community volunteers worked extensively with the Western Association of Leavitt Families, based in Utah, to facilitate the association's commemoration of the long tenure of Leavitt forebears on Leavitt Hill in North Grantham.

### RECREATION

Well over half of those expressing an opinion in the Community Survey supported the concept of a community center in connection with the new Grantham Municipal Complex, to serve people of all ages and to provide a variety of activities. Among other purposes, several recreation needs could be addressed by such a facility.

Overall, the survey respondents endorsed the idea of using some local tax revenues to acquire and maintain recreational facilities. In order of popularity, the activities of most interest were bicycle paths, hiking and cross-country ski trails, multipurpose recreation areas or fields, and softball and baseball diamonds. Parking at existing trailheads was also identified as a need. (On the other hand, some respondents expressed that no additional recreational facilities are needed in Grantham if supported by tax revenues.) More detailed study is evidently needed to better assess and balance community desires. For example, it has recently been suggested (since

## *Cultural, Historic, & Recreational Resources*

the Community Survey) that the town might acquire property in the central village area for the creation of a “Town Green” or a “Common.” Whether this objective was interpreted to be included in the survey respondents’ understanding of “multipurpose recreation area” or not is unclear. However, the concept may be attractive to many, and should be explored as part of future detailed studies of recreational and cultural facilities.

The bulk of the existing recreational facilities in Grantham are located in the Eastman Community. Within Eastman is an 18-hole golf course, a 325 acre lake used for swimming, boating and fishing, 13 tennis courts, and 30 kilometers of trails for cross-country skiing as well as for walking and hiking. Except for Eastman Lake, access to these amenities for the residents of Grantham who are not Eastman property owners is somewhat limited, and may involve a daily or annual fee.

Youth sports are organized by the Grantham Recreation Department. The recreation department organizes the traditional sports of soccer, basketball, and baseball. It is under the direction of a part-time paid director, and relies on many volunteers for its success.

Grantham Indoor, a commercial enclosed arena facility, is available for a variety of activities. During the winter months this large space is capable of offering indoor soccer and lacrosse leagues.

In addition to the above, there are many acres of public and privately owned fields and forests that support fishing and hunting activities. Hiking trails are also abundant, many on discontinued or Class VI roads which, for all practical purposes, are closed to normal traffic. The trails also support mountain biking, ATV riding, snowmobiling, and cross-country skiing. The Blue Mountain Snowdusters Outdoor Recreation Club puts in substantial effort in maintaining many miles of trails whose uses include snowmobiling, both on Class VI public rights of way as well as on easements or concessions on private land the club has negotiated with landowners. Trails in the Eastman Community are closed to motorized uses. Maps are available that describe many of the town’s existing trails.

The Community Survey indicates a substantially greater interest in new trails intended for non-motorized uses over motorized uses. Indeed, as noted above, the investment of public recreation funds for new bicycle paths, hiking trails, and cross-country ski trails topped the respondents’ list of preferred uses of such moneys. As these facilities are envisioned primarily as recreational assets rather than as alternatives to other transportation modes, their locations would not be associated with existing roadways.

## GOALS

- Provide Grantham residents and visitors with an environment rich in cultural opportunities.
- Maintain awareness of Grantham’s history as a part of the history of the nation, the state, and individual families.

## *Cultural, Historic, & Recreational Resources*

- Continue to enrich the recreational choices available to residents and visitors, all of which are essential to the quality of life prized by so many in Grantham.

### RECOMMENDATIONS

- Provide ample public space and media notices for publicizing cultural events in Grantham and the broader area.
- Actively encourage participation in the Grantham Historical Society, and work to update the written history of Grantham.
- Actively promote the identification and conservation of Grantham's historic resources, and continue the collection and cataloging of historical artifacts and events.
- Seek nomination of the Dunbar Free Library, United Methodist Church, and Dunbar Hill Grantham School building to the New Hampshire and National Registers of Historic Places.
- Develop and preserve a permanent and changing display of historical resources available to the public for research and cultural education in the Grantham (Dunbar Hill) School Building, which is soon to become the "Old Town Office."
- Promote Grantham's historical and natural resources via a display at the northbound I-89 Rest Area in Springfield.
- Conduct a detailed study to determine more fully the interests and needs of the community for public facilities to fulfill reasonable and unmet desires for cultural and recreational activities, including playing fields and possibly a town common.
- Investigate the feasibility of creating recreational bicycle paths, hiking trails, and cross-country ski trails, not associated with roadways.
- Strengthen, coordinate, and add where absent, appropriate powers to the Planning Board, Zoning Board, Board of Selectmen, Code Administrator, and any other relevant board or official to control, restrict, or prohibit adverse impacts on historic resources in the course of considering development proposals.

## X. IMPLEMENTATION & ACTION PLAN

This Implementation & Action Plan presents recommendations prioritized according to the following time periods:

- Year One: Actions recommended to be taken from now through FY 2005-06
- Year Two: Actions recommended for FY 2006-07
- Year Three: Actions recommended for FY 2007-08
- Future Years: Actions recommended for future unspecified years
- All Years: Actions calling for ongoing attention throughout all fiscal years of the Master Plan

Within each time period, each recommendation is presented in a general prioritized order identified by number.

The principal responsible parties are shown for each action. These are not exclusive, i.e., inputs on each item would likely be appropriate from other groups, boards, commissions, or departments. In all cases, it is implied that inputs from Grantham citizens are both solicited and welcomed.

### FOR ACTION IN YEAR ONE

**Year One-1:** Develop an integrated six-year Capital Improvements Program (CIP) under RSA 674:5-8, covering all facilities and functions of the Town of Grantham and the Grantham Village School, and utilize a system of new development impact fees recommended below to partially support the CIP.

*Responsible parties: Planning Board, Board of Selectmen, Grantham School Board*

**Year One-2:** For developments exceeding a specified size, revise the Subdivision Regulations to provide strengthened control and review procedures, plus requirements for formal impact studies.

*Responsible party: Planning Board*

**Year One-3:** Develop a system for requiring impact fees from developers. (See RSA 674:21. This recommendation may be fully implemented only in conjunction with a Capital Improvements Program, as proposed above.)

*Responsible parties: Planning Board, Board of Selectmen*

## *Implementation & Action Plan*

**Year One-4:** Recognize that recent growth and development in town have been quite rapid, and under the provisions of RSA 674:22 and RSA 674:23 which govern Interim Growth Management Ordinances, carefully examine the suitability, possible benefits, and potential drawbacks of temporary growth control measures, such as a) a temporary moratorium on the future subdivision of land until codes, regulations, and ordinances can be updated, and b) a temporary annual limitation on building permits for primary residential structures at a reduced level compared to the annual average number of such permits for the past three years. (These recommendations may be implemented only in conjunction with a Capital Improvements Program, as proposed above.)

*Responsible parties: Planning Board, Board of Selectmen, Town Counsel, Town Meeting*

**Year One-5:** Create and apply appropriate new zoning categories for areas judged not desirable for development because they are hilltops and ridges, steep slopes, remote areas, or large unbroken tracts of wildlife habitat. The distinguishing characteristic of such new zoning districts would be a quite substantial minimum lot size with no provision for residential use.

*Responsible parties: Planning Board, Conservation Commission, Town Meeting*

**Year One-6:** Establish new rural residential districts, to be applied to selected undeveloped portions of the town. This action would designate these areas for substantially less development potential by rezoning with significantly larger lot sizes, increased frontage and setback requirements, fewer permitted uses, and added use restrictions.

*Responsible parties: Planning Board, Town Meeting*

**Year One-7:** Consider the creation of a part-time planning and zoning administrator position to handle public inquiries regarding development, manage development application matters, and provide staff support to the planning and zoning boards.

*Responsible party: Board of Selectmen*

**Year One-8:** Revise the Subdivision Regulations to guide development in any new rural residential districts by establishing stronger and attractive incentives for open space development, planned residential development, or other creative development approaches.

*Responsible party: Planning Board*

**Year One-9:** Continue strong support of the Grantham Conservation Commission to a) acquire, conserve, protect, and manage important open space areas and natural resources, and b) work cooperatively with the Society for the Protection of New Hampshire Forests (SPNHF), the Ausbon Sargent Land Preservation Trust (ASLPT), and similar groups to conserve additional conservation and open space lands where appropriate.

## *Implementation & Action Plan*

*Responsible parties: Board of Selectmen, Conservation Commission*

**Year One-10:** Sustain and increase the Grantham Conservation Fund or other dedicated capital reserve accounts for public acquisition of land, development rights, or easements to benefit conservation, wildlife habitat, agriculture, forestry, and recreation (e.g., by line item budgeting, bonding, 100% rather than 50% of the penalty proceeds from land withdrawal under the Current Use Tax Program, etc.).

*Responsible parties: Board of Selectmen, Conservation Commission*

**Year One-11:** To control, restrict, or prohibit adverse impacts on natural resources and on historic resources, work to strengthen, coordinate, and add where absent any appropriate powers to the Planning Board, Zoning Board, Board of Selectmen, Code Administrator, and any other relevant board or official as they consider development proposals.

*Responsible parties: Board of Selectmen, Planning Board, Conservation Commission, Grantham Historical Society*

**Year One-12:** Actively engage the NHDOT to construct the planned Park & Ride facility at Exit 13, I-89 to provide for commuter parking and to include accommodations for pickup and discharge of passengers by buses, taxis, and vans.

*Responsible parties: Board of Selectmen, NHDOT*

**Year One-13:** Complete provision of a second access to the Grantham Village School, most likely from NH Route 10, and consider one-way traffic circulation through the GVS site.

*Responsible parties: Board of Selectmen, Grantham School Board, Road Department*

**Year One-14:** Implement the planned uses for the present Town Office Building (Town Archives, Grantham Historical Society) when the building is vacated after completion of the new Grantham Municipal Complex.

*Responsible parties: Board of Selectmen, Grantham Historical Society, Grantham Citizens*

**Year One-15:** Consider twenty-four-hour police staffing once the new police facilities are available at the Grantham Municipal Complex.

*Responsible parties: Police Department, Board of Selectmen*

## *Implementation & Action Plan*

**Year One-16:** Review the need for introducing traffic lights, preferring partial service lights over full-service lights, at identifiable hazardous areas of Grantham.

*Responsible parties: Police Department, Board of Selectmen, NHDOT*

**Year One-17:** Budget and provide for a dedicated member of the Fire Department to document training and equipment testing, and provide additional space for administrative duties at the fire station.

*Responsible parties: Fire Department, Board of Selectmen*

**Year One-18:** Develop plans to provide a large capacity water supply near Grantham's village center to improve fire fighting capabilities, and lay out a program to improve the Fire Department's ISO/PPC insurance rating from 9 to 8.

*Responsible parties: Fire Department, Board of Selectmen*

**Year One-19:** Amend the subdivision and site plan review regulations to require developers to provide an adequate water supply for fire fighting purposes in conjunction with new subdivision or site plan proposals.

*Responsible parties: Planning Board, Fire Department*

**Year One-20:** Evaluate modifying of the subdivision regulations to encourage new subdivisions to consider incorporating new small community water systems, rather than relying on individual wells to supply potable water to dwellings.

*Responsible party: Planning Board*

**Year One-21:** Conduct a detailed study to determine more fully the interests and needs of the community for public facilities to fulfill reasonable and unmet desires for cultural and recreational activities, including playing fields and possibly a town common.

*Responsible parties: Board of Selectmen, Recreation Department, Grantham Citizens*

## FOR ACTION IN YEAR TWO

**Year Two-1:** Initiate discussions with the NH Department of Transportation (NHDOT) to retain NH Route 10 through the central village area as a two-lane, low-speed-limit main street, providing traffic calming measures as needed, and avoiding any conventional measures

## ***Implementation & Action Plan***

(widening, turning lanes, etc.) that would increase vehicle or traffic capacity, all for the purpose of avoiding destruction of the central village's character.

*Responsible parties: Board of Selectmen, Grantham's Representatives to the General Court, Grantham Historical Society, NHDOT*

***Year Two-2:*** Consider the provision of sidewalks and crosswalks in the central village area, to link the Dunbar Free Library, the new Grantham Municipal Complex, the Grantham Village School, the Post Office, the Fire Station, and Sawyer Brook Plaza.

*Responsible parties: Board of Selectmen, NHDOT*

***Year Two-3:*** Consider the provision of bike paths located to provide alternatives to portions of the the road system.

*Responsible party: Board of Selectmen*

***Year Two-4:*** Revise the Subdivision Regulations to provide that all new subdivision roads and future town roads meet town road design standards, including design standards for public school bus access such as secure pickup and discharge points and suitable school bus turnaround areas.

*Responsible parties: Planning Board, Board of Selectmen, Road Department*

***Year Two-5:*** Consider adding requirements to the Building Code that all new construction be provided with electricity, telephone, and cable service by means of buried lines between the road and the building, and consider adding requirements to the Subdivision Regulations that all new subdivisions provide electricity, telephone, and cable service by means of buried lines along any new roads as well as between roads and buildings.

*Responsible parties: Planning Board, Board of Selectmen*

***Year Two-6:*** Provide an additional police vehicle (preferably four-wheel-drive) to follow the change to twenty-four-hour police staffing.

*Responsible parties: Police Department, Board of Selectmen*

***Year Two-7:*** Prepare a local wetlands inventory and evaluation, and consider designation of prime wetlands, using the wetlands map provided by the Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) and/or by following the NH Wetlands Bureau Code of Administrative Rules, Chapter Wt 700.

## ***Implementation & Action Plan***

*Responsible parties: Conservation Commission, Planning Board*

***Year Two-8:*** Improve protection of Grantham's surface water by increasing the setbacks between surface water and both structures and septic systems, consistent with standards recommended by UVLSRPC and the NH Office of Energy and Planning (OEP), and formalizing adherence to the principles of the NH Shoreland Protection Act.

*Responsible parties: Conservation Commission, Planning Board, Town Meeting*

***Year Two-9:*** Develop and preserve a permanent and changing display of historical resources available to the public for research and cultural education in the Grantham (Dunbar Hill) School Building, which is soon to become the "Old Town Office."

*Responsible parties: Grantham Historical Society, Board of Selectmen*

### **FOR ACTION IN YEAR THREE**

***Year Three-1:*** Develop a Central Village District to conserve Grantham's central village character and its historic value, employing appropriate setback requirements and modest design or architectural standards for future buildings.

*Responsible parties: Planning Board, Grantham Historical Society, Board of Selectmen, Town Meeting*

***Year Three-2:*** Initiate discussion of options for meeting the future expansion requirements of the Dunbar Free Library, to accommodate growth and increasing demands for library services.

*Responsible parties: Library Staff, Library Trustees, Board of Selectmen*

***Year Three-3:*** Identify the needs for additional land to provide locations for future commercial and retail services, beyond what the presently zoned business districts can provide.

*Responsible parties: Planning Board, Board of Selectmen, Town Meeting*

***Year Three-4:*** Establish a full-time Communications Center in the Grantham Municipal Complex for dispatching Grantham police, fire and EMS services, and establish an ultrahigh frequency (UHF) and very-high frequency (VHF) repeater tower facility to allow reliable communications throughout the town.

## ***Implementation & Action Plan***

*Responsible parties: Police Department, Fire Department, Board of Selectmen*

***Year Three-5:*** Investigate the feasibility of creating recreational bicycle paths, hiking trails, and cross-country ski trails, not associated with roadways.

*Responsible parties: Board of Selectmen, Planning Board, Conservation Commission, Town Meeting*

### **FOR ACTION IN FUTURE YEARS**

***Future Years-1:*** Strictly enforce a steep slopes and erosion/sedimentation control ordinance designed to prevent negative impacts from improper land use development and/or practices.

*Responsible parties: Board of Selectmen, Planning Board, Conservation Commission*

***Future Years-2:*** Acquire an off-road fire fighting vehicle to replace the former forest-fire vehicle provided by the state.

*Responsible parties: Fire Department, Board of Selectmen*

***Future Years-3:*** Work diligently to qualify and retain FAST Squad personnel, and to qualify FAST Squad equipment to become a “transporting ambulance” service.

*Responsible parties: Fire Department, Board of Selectmen*

### **FOR ACTION THROUGHOUT ALL YEARS**

***All Years-1:*** Encourage the private use of deed restrictions and conservation easements as a method for protecting important open space areas and natural resources.

*Responsible parties: Board of Selectmen, Planning Board, Conservation Commission*

***All Years-2:*** Maintain intervening open spaces and green space links between the several current neighborhoods and built environments of town, with emphasis on maintaining and conserving large, interconnected, unfragmented areas.

*Responsible parties: Planning Board, Board of Selectmen, Conservation Commission*

## *Implementation & Action Plan*

**All Years-3:** Support limiting the horsepower of power boats and restricting jet skis on all Grantham's ponds, and encourage local property-owner participation in pond associations to assure continued water quality.

*Responsible parties: Board of Selectmen, Conservation Commission, NH Department of Environmental Services*

**All Years-4:** Support activities to protect groundwater quality: a) underground oil and gasoline tank removal, b) groundwater quality monitoring at the discontinued town landfill site, c) road salt use reduction, and d) prohibiting activities creating greater quantities of hazardous waste than normally associated with residential activities.

*Responsible parties: Board of Selectmen, Planning Board, Conservation Commission*

**All Years-5:** Carefully assess the town's position relative to any possible relocation of the US Post Office from the village center to north of the NH Route 10/I-89 intersection, weighing the benefits of reducing traffic in the village center resulting from boxholders' daily visits against the loss of an important civic resource in the central village.

*Responsible party: Board of Selectmen*

**All Years-6:** Encourage bus companies to establish a pickup and discharge point in Grantham at the planned Park & Ride facility on NH Route 10.

*Responsible party: Board of Selectmen*

**All Years-7:** Work with NHDOT to identify town needs vis-à-vis the accepted state road design standards for state road repairs, reconstruction, and upgrades.

*Responsible parties: Police Department, Fire Department, Board of Selectmen, NHDOT*

**All Years-8:** Require that all proposed land developments for residential and commercial uses which access town or state roads provide adequate and safe vehicle lanes and line-of-sight transitions to public roads.

*Responsible parties: Planning Board, Police Department, Fire Department, Road Department, Board of Selectmen*

**All Years-9:** Proceed slowly with paving plans for town (public) roads, providing strong justification for each paving project.

## ***Implementation & Action Plan***

*Responsible party: Board of Selectmen, Road Department*

***All Years-10:*** Increase dialog with Public Service of New Hampshire, New Hampshire Electric Cooperative, Verizon, and Adelphia about ways in which each of these utilities can reduce the frequency and duration of service interruptions in Grantham.

*Responsible party: Board of Selectmen*

***All Years-11:*** Plan for future solid waste transport and disposal procedures in the event operations cease at the Wheelabrator incinerator facility in Claremont.

*Responsible party: Board of Selectmen*

***All Years-12:*** Conduct periodic joint training sessions and mock drills with the town's Emergency Management Director and the Eastman Emergency Management staff.

*Responsible parties: Police Department, Fire Department, Board of Selectmen*

***All Years-13:*** Provide ample public space and media notices for publicizing cultural events in Grantham and the broader area.

*Responsible parties: Board of Selectmen, Grantham Historical Society*

***All Years-14:*** Actively encourage participation in the Grantham Historical Society, and work to update the written history of Grantham.

*Responsible party: Grantham Historical Society*

***All Years-15:*** Actively promote the identification and conservation of Grantham's historic resources, and continue the collection and cataloging of historical artifacts and events.

*Responsible party: Grantham Historical Society*

***All Years-16:*** Seek nomination of the Dunbar Free Library, United Methodist Church, and Dunbar Hill Grantham School building to the New Hampshire and National Registers of Historic Places.

*Responsible party: Grantham Historical Society*

## *Implementation & Action Plan*

*All Years-17:* Promote Grantham's historical and natural resources via a display at the northbound I-89 Rest Area in Springfield.

*Responsible party: Grantham Historical Society*

## **APPENDIX A. COMMUNITY SURVEY**

A key component in the preparation of this Master Plan has been to gather the current demographics of the community, and to solicit the opinions of community members on a number of issues relating to the future of Grantham. Thus a Community Survey was prepared. The design of the Community Survey resulted after the review of Grantham's previous master plans and surveys, and the examination of over 40 community surveys from comparable towns throughout New Hampshire and Vermont. Additional insight came from the Upper Valley Lake Sunapee Regional Plan, and from discussions with staff of the Upper Valley Lake Sunapee Regional Planning Commission.

The Grantham Planning Board approved the design of the resulting Community Survey, and in late September 2003 a copy of the survey was mailed to every Grantham property owner. Copies of the survey were also made available at the Town Office and electronically on the town's web site. In an attempt to reach Grantham residents other than property owners, details regarding the survey and the pickup and return locations were publicized on the town's web site, on the TV channels devoted to Grantham and Eastman notices, as well as in the Town of Grantham *Quarterly Newsletter*, the *Argus Champion*, and the *Kearsarge Shopper*.

To facilitate return of the surveys (in addition to either mailing or hand-delivery to the Town Office) there were drop boxes placed at convenient locations in Grantham: the Dunbar Free Library, Sugar River Savings Bank, Lake Sunapee Bank, Rum Brook Market, and the Eastman Community Association Office. The last completed surveys were received in early November 2003.

In total, 460 completed surveys were received. Since the survey form was designed to capture the responses of either one or two persons per survey, these surveys represented the responses of 796 people. The responses from each survey were entered into an ACCESS database. Then the total responses (or non-responses) for each question were tabulated and entered on a blank copy of the original survey form.

The resulting document is the completed Community Survey, and it is presented in this appendix. It provides much of the community information used by the Master Plan Committee in developing this Master Plan. Moreover, it provides a great deal of information that is likely to be of interest to members of the Grantham community at large.

The Master Plan Committee expresses its sincere thanks to all who participated in completing the Community Survey.

*Community Survey*

**STATISTICS FOR ALL SURVEYS - FINAL**

(These data exclude 4 surveys (8 respondents) [Survey Nos. 0039-41 & 0173]  
from the same people with multiple properties)

**GENERAL**

Number of 1-Person Surveys: 124  
Number of 2-Person Surveys: 336  
Total Number of Surveys Returned: 460  
**Total Number of People Responding: 796**

<b><u>Source of Returned Surveys</u></b>	<b><u>Number</u></b>	<b><u>Percent</u></b>
Grantham	328	75.2%
Other Town in NH	15	3.7%
Outside NH	86	21.1%

SEE ALSO ATTACHED CHARTS re: 1) Source of Returned Surveys  
 2) Respondent Location in Grantham  
 3) Respondent Location by Map #

**SCHOOL/CHILDREN**

<b><u>Number of Children</u></b>	<b><u>Resident Owner</u></b>	<b><u>Part-Time Residents</u></b>	<b><u>Non-Resident</u></b>	<b><u>Resident Voter/Renter</u></b>	<b><u>TOTAL</u></b>
Pre-K	37	0	1	2	40
K-6	49	2	1	1	53
7-8	12	2	0	1	15
9-12	18	6	1	0	25

Home-Schooled Children by  
 Year-Round Resident (Owner or Renter)

Pre-K: 6  
K-6: 7  
7-8: 1  
9-12: 0

## Community Survey

### A. APPEARANCE OF COMMUNITY/RURAL CHARACTER/OPEN SPACES

1. What do you like most about Grantham? (*Check those most important to you*)

<b>635</b>	a.	Small town atmosphere	<b>2</b>	UNANSWERED
<b>564</b>	b.	Uncrowded living conditions		
<b>612</b>	c.	Peace and quiet		
<b>372</b>	d.	Outdoor recreation opportunities		
<b>10</b>	e.	Employment opportunities		
<b>128</b>	f.	School System		
<b>352</b>	g.	Favorable Tax Burden		
<b>510</b>	h.	Unpolluted natural environment		

2. Over the next ten (10) years, would you like to see Grantham: (*Check those most important to you*)

<b>639</b>	a.	Be primarily a rural residential community	<b>3</b>	UNANSWERED
<b>145</b>	b.	Encourage home occupation/cottage industry		
<b>76</b>	c.	Be seen largely as a retirement community		
<b>274</b>	d.	Attract a more balanced mix of resident age groups		
<b>50</b>	e.	Encourage development of seasonal residences		
<b>165</b>	f.	Encourage outdoor recreation related business		
<b>50</b>	g.	Encourage tourist related businesses		
<b>367</b>	h.	Expand commercial/professional services only to meet Town's needs		
<b>210</b>	i.	Not encourage any additional business or industry		
<b>107</b>	j.	Encourage additional business or industry		
<b>13</b>	k.	No opinion		

3. The phrase "rural character" is used many times in the Grantham's current Master Plan, and is a key concept for growth management in Grantham. "Rural character" means different things to different people. Please help us create a community definition by indicating how important each of the following is to you: (*Check those most important to you*)

<b>691</b>	a.	Woods	<b>0</b>	UNANSWERED
<b>500</b>	b.	Farms and Fields		
<b>583</b>	c.	Wildlife		
<b>369</b>	d.	Wetlands/Marshes/Bogs		
<b>558</b>	e.	Undeveloped Spaces		
<b>190</b>	f.	Unpaved Roads		
<b>462</b>	g.	Scenic Vistas or Views		
<b>460</b>	h.	Recreation Trails – Non-motorized Uses		
<b>63</b>	i.	Recreation Trails – Motorized Uses		
<b>418</b>	j.	Personal Safety		
<b>547</b>	k.	Quiet/Silence		
<b>308</b>	l.	Sparse Population		
<b>486</b>	m.	Dark Night Sky		
<b>449</b>	n.	Privacy		
<b>586</b>	o.	Low Traffic Volume		

## Community Survey

4. Open Space is broadly defined as undeveloped land, which may include the open space categories in the following list. Please indicate what types of open spaces you believe are important for Grantham to preserve. (*Check those most important to you*)

### A. Farmlands

<u>443</u>	1.	Farms and farm buildings	<u>5</u>	UNANSWERED
<u>644</u>	2.	Open fields and croplands		

### B. Ecological Features

<u>744</u>	1.	Rivers, streams, ponds, lakes		
<u>435</u>	2.	Wetlands		
<u>670</u>	3.	Forests		

### C. Scenic Areas

<u>553</u>	1.	Ridgelines and hilltops		
<u>440</u>	2.	Country roadways		
<u>617</u>	3.	Woodlands		
<u>470</u>	4.	Green belts surrounding existing and new population centers		

### D. Recreation Areas

<u>205</u>	1.	Class VI (unmaintained) roads		
<u>588</u>	2.	Trails – non-motorized uses		
<u>76</u>	3.	Trails – motorized Uses		
<u>167</u>	4.	Hunting areas		
<u>366</u>	5.	Fishing areas		
<u>447</u>	6.	Parks/town greens/ball fields		

5. Which, if any, of the following are important to you in your neighborhood? (*Check all that apply*)

			<u>4</u>	UNANSWERED
<u>739</u>	a.	Peace and Quiet		
<u>65</u>	b.	Lights at Night		
<u>439</u>	c.	No Lights at Night		
<u>71</u>	d.	Hunting Allowed		
<u>506</u>	e.	No Hunting		
<u>593</u>	f.	Low Traffic Speed		
<u>642</u>	g.	Low Traffic Volume		

*Community Survey*

**B. GROWTH & GENERAL LAND USE**

6. According to *CENSUS 2000*, between 1990 and 2000, the population of Grantham increased from 1,247 to 2,167. This is an increase of about seventy-four percent (74%) . During this same period the regional population grew about nine percent (9%). Do you feel that the increase in population of Grantham is: *(Check one)*

27 UNANSWERED

- 452 a. Too rapid  
310 b. About right  
7 c. Not fast enough

7. From 1999-2002, the number of building permits for new residential construction issued by Grantham each year were 24, 35, 32, and 45, respectively, and as of August 13, 2003, the number issued so far this year is 28. Which of the following best describes your reaction to this rate of new residential construction in Grantham? *(Check one)*

82 UNANSWERED of which 61 answered b) & c)

- 144 a. **Favorable:** Want the Town to continue to grow without further limits  
125 b. **Unfavorable:** Too much growth for the Town  
309 c. **Unfavorable:** Would like to see further limits on potential growth  
136 d. **No Opinion**

8. Would you favor limiting the number of building permits issued each year in Grantham to allow the Town to control the rate of growth and assess the impact of such growth on taxes, Town services & facilities, traffic, safety, and the like? *(Check one)*

14 UNANSWERED

- 531 a. Yes  
169 b. No  
82 c. No Opinion

9. In the current Zoning Ordinance, most of the Town is classified as Rural/Residential. There are two zones in this category, differing only in the required minimum lot size for the future subdivision of land. One zone (covering most of the Town except Eastman) has a minimum lot size of one (1) acre. The other zone (covering Olde Farms) has a minimum lot size of four and a half (4½) acres. What, if any, changes should be made to the minimum lot size in each of the following areas of Town? *(Check one for each letter)*

	<b>Remain Same</b>	<b>Increase</b>	<b>Decrease</b>	<b>Unanswered</b>
a. Grantham Village	<b>563</b>	<b>97</b>	<b>27</b>	<b>109</b>
b. South Grantham	<b>463</b>	<b>175</b>	<b>8</b>	<b>150</b>
c. East Grantham	<b>466</b>	<b>180</b>	<b>9</b>	<b>141</b>
d. Dunbar Hill	<b>446</b>	<b>195</b>	<b>11</b>	<b>144</b>
e. Within Eastman borders/boundaries	<b>529</b>	<b>169</b>	<b>14</b>	<b>84</b>
f. Olde Farms	<b>524</b>	<b>76</b>	<b>68</b>	<b>128</b>
g. North Grantham	<b>451</b>	<b>191</b>	<b>15</b>	<b>139</b>
h. West Grantham (Corbin Park region)	<b>445</b>	<b>192</b>	<b>10</b>	<b>149</b>

## Community Survey

10. Should Grantham develop and adopt a Capital Improvement Program? A Capital Improvement Program is a comprehensive assessment of the capital improvement needs for all Town departments that establishes priorities for those needs based on projected available funding. For example, capital projects may include road improvements, vehicle or major equipment purchases, new buildings, expanded or renovated buildings, land acquisition, recreation improvements, etc. (*Check one*)

15 UNANSWERED

<u>619</u>	a. Yes
<u>80</u>	b. No
<u>82</u>	c. No Opinion

11. Under current law, the Town is permitted to impose Impact Fees on future developments to help defray the cost of expanding and maintaining public services. Should the Town impose such fees in Grantham as part of the Capital Improvement Program? (*Check one*)

16 UNANSWERED

<u>549</u>	a. Yes
<u>150</u>	b. No
<u>81</u>	c. No Opinion

1. Are you in favor of the Town adopting an ordinance that would control the days and times that builders can conduct noisy construction, land clearing, or excavation/filling activities, for example, Monday through Friday, 7AM to 7PM, and no holidays? (*Check one*)

8 UNANSWERED

<u>603</u>	a. Yes
<u>136</u>	b. No
<u>49</u>	c. No Opinion

*Community Survey*

**C. RESIDENTIAL DEVELOPMENT & HOUSING**

2. In the future, where in Grantham would you like to see the following types of residential development?  
*(Check one for each letter)*

	<b>Anywhere</b>	<b>Grantham Center Only</b>	<b>Outside Grantham Center Only</b>	<b>Nowhere</b>	<b>UNANSWERED</b>
a. Single family residences	<b>617</b>	<b>10</b>	<b>63</b>	<b>26</b>	<b>80</b>
b. Two family residences	<b>130</b>	<b>140</b>	<b>61</b>	<b>333</b>	<b>132</b>
c. Conversion of large homes to apts.	<b>60</b>	<b>112</b>	<b>26</b>	<b>481</b>	<b>117</b>
d. Multi-family residences	<b>54</b>	<b>91</b>	<b>39</b>	<b>488</b>	<b>124</b>
e. Manufactured homes on individual lots	<b>253</b>	<b>16</b>	<b>110</b>	<b>295</b>	<b>122</b>
f. Mobile homes on individual lots	<b>29</b>	<b>5</b>	<b>58</b>	<b>580</b>	<b>124</b>
g. Manufactured homes in parks	<b>34</b>	<b>10</b>	<b>54</b>	<b>579</b>	<b>119</b>
h. Mobile homes in parks	<b>12</b>	<b>9</b>	<b>21</b>	<b>617</b>	<b>137</b>
i. Senior housing	<b>265</b>	<b>178</b>	<b>102</b>	<b>130</b>	<b>121</b>
j. Cluster housing with single family homes on reduced lots with the balance preserved as open space	<b>196</b>	<b>43</b>	<b>156</b>	<b>289</b>	<b>112</b>

14. How should Grantham address its social responsibility to accommodate affordable housing?  
*(Check one for each letter)*

	<b>Yes</b>	<b>No</b>	<b>No Opinion</b>	<b>UNANSWERED</b>
a. Permit "in-law" apartment within a residence or garage	<b>597</b>	<b>113</b>	<b>41</b>	<b>45</b>
b. Permit greater residential density for projects designated as affordable housing	<b>240</b>	<b>396</b>	<b>87</b>	<b>73</b>
c. Encourage multifamily housing	<b>106</b>	<b>536</b>	<b>72</b>	<b>82</b>
d. Permit conversion of large homes to apartments	<b>171</b>	<b>482</b>	<b>71</b>	<b>72</b>

*Community Survey*

**D. COMMERCIAL & INDUSTRIAL DEVELOPMENT**

15. Which of the following commercial uses would you like to see in Grantham in the future?  
(Check those most important to you)

58 UNANSWERED

- 447 a. Professional business offices
- 509 b. Medical offices
- 164 c. Light industry
- 7 d. Heavy industry
- 158 e. High tech industry
- 161 f. Auto service & repair
- 142 g. Gas stations
- 371 h. Personal services (barbers, laundries hairdressers, etc.)
- 486 i. Restaurants
- 252 j. Cottage industry/home occupations
- 166 k. Motels/inns/bed & breakfasts
- 225 l. Retail sales
- 57 m. Shopping centers
- 101 n. Movie/entertainment center/theater
- 409 o. Farms

**E. TRANSPORTATION/ROADS/SIDEWALKS**

16. Would you support encouraging public transportation in Grantham? (Check one)

19 UNANSWERED

- 245 a. Yes
- 392 b. No
- 140 c. No Opinion

17. Would you support the development of sidewalks in Grantham Village? (Check one)

15 UNANSWERED

- 343 a. Yes
- 348 b. No
- 90 c. No Opinion

18. Would you support the development of any of the following bike paths or routes in Grantham? (Check one for each letter)

	Yes	No	No Opinion	UNANSWERED
a. Along roads	450	185	66	95
b. Off-Road, such as in forests, parks, conservation land, and the like	558	134	47	57

## Community Survey

19. Grantham has roads that are privately maintained as well as roads that are owned and maintained by the Town, so-called “Town” or “public” roads. As far as the public roads are concerned, some are paved and some are gravel. As a general rule, should Grantham have a plan or policy to pave its public gravel roads gradually over the next 5 to 10 years? (*Check one*)

17 UNANSWERED

251 a. Yes  
376 b. No  
152 c. No Opinion

### F. COMMUNITY SERVICES & FACILITIES

20. Based on your knowledge and experience, what is your opinion of the following community services and facilities? (*Check one for each number under each letter*)

#### A. SERVICES:

	Good	Fair	Poor	No Opinion	UNANSWERED
1. Fire protection	465	80	7	204	40
2. Police protection	449	125	25	157	40
3. Emergency/FAST Squad	446	67	9	233	41
4. Road maintenance	536	146	26	55	33
5. Snowplowing	625	80	5	56	30
6. Transfer station (trash)	641	44	9	72	30
7. Recycling	578	70	23	93	32
8. Library	603	38	5	117	33
9. Management of Town gov't.	422	126	20	192	36
10. Grantham Village School	421	56	7	265	46

#### B. FACILITIES:

	Adequate	Renovate	Replace	No Opinion	UNANSWERED
1. Town Offices	318	81	229	128	40
2. Town Hall	315	79	206	144	52
3. Police Station	178	84	346	142	46
4. Fire Department/FAST Squad Building.	534	27	8	181	46
5. Highway Dept. Shed	334	35	25	345	57
6. Library	620	24	3	104	44
7. Grantham Village School	434	62	2	250	48

## Community Survey

21. Over half of the calls answered by the Grantham Volunteer Fire Department occur between 7AM and 5PM when many of the members are working, which results in increased response times. Should the Town employ a full-time paid Firefighter/EMT or Firefighter/Paramedic during the daylight “working hours” to significantly improve response time? (*Check one*)

17 UNANSWERED

439 a. Yes  
206 b. No  
134 c. No Opinion

22. If Grantham had a full-time paid Firefighter/EMT or Firefighter/Paramedic, would you be in favor of expanding their duties to include Code Enforcement of state fire code regulations? (*Check one*)

18 UNANSWERED

416 a. Yes  
188 b. No  
174 c. No Opinion

23. At present, Grantham has an all-volunteer F.A.S.T. Squad to provide first response to a medical emergency, and relies on the New London Hospital Ambulance Service for complex medical assistance and transport to the hospital. We could provide more immediate complex medical assistance and transport services, using the current F.A.S.T. Squad vehicle, if we had full-time paid Emergency Medical Technicians or Firefighter/Paramedics and paid administrative support to supplement the volunteer members. Should the Town upgrade its F.A.S.T. Squad to an Ambulance Service? (*Check one*)

25 UNANSWERED

322 a. Yes  
296 b. No  
153 c. No Opinion

24. At present, the Grantham Police Department does not have a 3<sup>rd</sup> shift, and the NH State Police does not have a 3<sup>rd</sup> shift in Sullivan County. In Grantham, “911” calls for police assistance during overnight hours could be handled by adding a full-time 3<sup>rd</sup> shift to the Grantham Police Department, which would require hiring 2 additional full-time police officers. Would you be in favor of expanding the Police Department to include a full-time 3<sup>rd</sup> shift? (*Check one*)

24 UNANSWERED

259 a. Yes  
378 b. No  
135 c. No Opinion

*Community Survey*

**G. ENVIRONMENT/CONSERVATION**

25. Is preservation of the following natural resources in Grantham important to you?  
(Check all that apply)

29 UNANSWERED

- 713 a. scenic natural resources
- 481 b. historic buildings/sites
- 512 c. agricultural lands
- 706 d. natural areas
- 553 e. surface waters/ground waters/wetlands
- 387 f. Class VI roads/trails

26. Would you support continued efforts by the Town to acquire land that is considered significant to the rural character of the Town, such as Sherwood Forest, Roney Memorial Forest, and the green spaces in Eastman, which have been acquired in the past? (Check one)

14 UNANSWERED

- 656 a. Yes
- 87 b. No
- 39 c. No Opinion

27. Would you support the use of your tax dollars to purchase property or easements for the following purposes? (Check one for each letter)

	<b>Yes</b>	<b>No</b>	<b>No Opinion</b>	<b>UNANSWERED</b>
a. Conservation	<b>583</b>	<b>110</b>	<b>47</b>	<b>56</b>
b. Recreation	<b>450</b>	<b>183</b>	<b>75</b>	<b>88</b>
c. Scenic views	<b>440</b>	<b>179</b>	<b>83</b>	<b>94</b>
d. Trail systems	<b>479</b>	<b>155</b>	<b>78</b>	<b>84</b>
e. Historic Preservation	<b>440</b>	<b>155</b>	<b>101</b>	<b>100</b>

28. If a proposed development may adversely impact significant natural or historic resources, should the Planning Board have the authority to require submission of an alternative layout for the proposed development that is designed to protect those resources? (Check one)

19 UNANSWERED

- 713 a. Yes
- 35 b. No
- 29 c. No Opinion

## Community Survey

### H. RECREATION/CULTURAL/HISTORICAL

29. In association with the possibility of a new Municipal Center (e.g., Town Offices, Police Station, or possible other facilities), would you support the development of a community center in Grantham to serve people of all ages and provide a variety of activities? (Check one)

16 UNANSWERED

378 a. Yes  
298 b. No  
104 c. No Opinion

30. Assuming that the local property tax would support the acquisition and maintenance of any new recreational facility, which of the following types of recreational facilities would you be in favor of the Town pursuing? (Check those most important to you)

50 UNANSWERED

194 a. No recreation facilities needed  
122 b. Band stand  
127 c. Picnic area  
196 d. Softball/Baseball  
91 e. Skateboarding  
20 f. Shuffleboard  
46 g. Volleyball court  
170 h. Public swimming facilities  
44 i. Horse shoes  
290 j. Hiking & cross country ski trails  
336 k. Bike paths  
225 l. Parking at existing trail heads  
240 m. Multi-purpose recreation area  
186 n. Meeting/Events hall

### I. DEMOGRAPHICS

31. Are you a: (Check one)

9 UNANSWERED

576 a. Year-round resident & property owner  
159 b. Part-time or seasonal resident & property owner  
43 c. Nonresident property owner  
8 d. Resident voter, non-property owner or renter

32. Do you own or rent your residence? (Check one)

16 UNANSWERED

774 a. Own  
6 b. Rent

*Community Survey*

33. What is the location of your employment? (*Check one*)

60 UNANSWERED

- 51 a. Not employed
- 346 b. Retired
- 41 c. Work out of the home
- 26 d. Grantham
- 8 e. Newport
- 93 f. Lebanon/West Lebanon
- 22 g. Hanover
- 18 h. New London
- 4 i. Claremont
- 8 j. Concord
- 4 k. Manchester
- 15 l. Vermont
- 46 m. Massachusetts
- 7 n. Connecticut
- 4 o. New York
- 44 p. Other

34. If you have children at home, in which of the following categories do they fall? (*Check all that apply*)

658 UNANSWERED

- 61 a. Preschool (Up to 6 years old) If so, how many? 40
- 77 b. Grades K-6 If so, how many? 53
- 25 c. Grades 7-8 If so, how many? 15
- 32 d. Grades 9-12 If so, how many? 25

35. Do you home-school any children living with you? (*Check one*)

288 UNANSWERED

- 9 a. Yes
- 288 b. No
- 211 c. No school-age children living at home

36. To what age group do you belong? (*Check one*)

24 UNANSWERED

- 0 a. Under 25
- 46 b. 25-34
- 129 c. 35-49
- 275 d. 50-64
- 322 e. 65 and over

*Community Survey*

37. Where in Grantham are you located? (*Check one*)

12 UNANSWERED

- 42 a. Grantham Village
- 23 b. South Grantham
- 27 c. East Grantham
- 38 d. Dunbar Hill
- 552 e. Eastman
- 57 f. Olde Farms
- 43 g. North Grantham
- 2 h. West Grantham (Corbin Park region)

## APPENDIX B. BUILD-OUT ANALYSIS

Just how much could Grantham grow? The systematic way to answer that question is to conduct a build-out analysis. Such a study looks at the physical characteristics of the town, which determine where residential development *could* occur. The study accomplishes this by first determining where development *couldn't* occur (e.g., because of wetlands, steep slopes, permanently conserved lands, etc.). Then it looks at the regulations presently in place, which determine where development *may* occur and its potential density. The analysis next eliminates the variables of time and real estate market demands, and goes on to calculate what the theoretical full development of the town would be in terms of population and numbers of dwellings.

The Grantham Board of Selectmen endorsed the request of the Master Plan Committee to have a build-out analysis conducted for the Town of Grantham. As a result, in 2003 the town contracted with the Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) to perform the study. With the assistance of town personnel and committee members in making certain data available, UVLSRPC personnel developed a preliminary draft for discussion and refinement. Then a final draft was presented in late summer 2004, and with minor modifications the final finished product was delivered to the Town of Grantham in late fall 2004.

This appendix presents the complete UVLSRPC Build-Out Analysis for Grantham, including its attachments, which form the principal illustrations for this Master Plan.

How much, then, could Grantham grow? The Build-Out Analysis estimates that, under the current (2005) land use regulations, the potential year-round population of Grantham could be over 16,000 persons, an increase of more than 600% compared to the 2,167 residents indicated by the 2000 US Census.

It is the carefully considered and unanimous conclusion of the Master Plan Committee that the above estimate does not represent the desired outcome for the future of Grantham. Consequently, this Master Plan recommends many actions which are believed to offer promise for a future Grantham more in keeping with the expectations, hopes, and desires of the present Grantham community.

BUILD-OUT ANALYSIS  
GRANTHAM, NEW HAMPSHIRE

A Determination of the Maximum Amount  
of Future Residential Development  
Possible Under Current Land Use Regulations

Prepared for the Town of Grantham

by

Upper Valley Lake Sunapee  
Regional Planning Commission  
77 Bank Street  
Lebanon, New Hampshire 03766

August 2004

## *Build-Out Analysis*

### INTRODUCTION

The Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) submits this build-out analysis report in response to a request by the Town of Grantham. The Town initiated this study to explore certain land use and zoning issues, in conjunction with an update of the Master Plan. This report describes the methodology used to create the framework for the analysis and summarizes the results of the build-out analysis.

The term “build-out” is a planning reference to a hypothetical calculation of the maximum development allowed under current Town land use regulations. The purpose of the build-out is to answer questions including:

- How much land area can be developed under existing land use regulations and where will the growth occur?
- How many dwelling units could there be and how much will the population of Grantham increase at full build-out?

Generally, the results of a build-out analysis facilitate further discussion relative to issues such as:

- Are there areas projected for development which the community would prefer not to develop or to develop at a lower density?
- Are there areas that the community would prefer to develop at higher densities?
- What steps should the community be taking now to accommodate future growth?
- What impacts will be associated with the projected growth?
- What additional facilities and services will be required to serve the needs of future residents?

Essentially, the build-out analysis is a tool to identify full residential development capacity of the Town and to test different future growth scenarios. Further, it can serve as a catalyst for change if the anticipated impacts associated with future build-out under current regulations appear undesirable.

A build-out analysis is a model for predicting development possibilities. This build-out analysis estimates potential residential development in Grantham under current land use controls. The basis for the analysis is the town’s current Zoning Ordinance and Subdivision Regulations. The analysis is a tool for comparing future growth enabled by the current land use regulations with that desired by the community. Like all projections, it is predicated on certain assumptions which are outlined in this report. The analysis is based on a theoretical premise that all land in town, whether already developed or not, will eventually be developed according to the maximum density enabled by the Zoning Ordinance, within the parameters of the analysis assumptions. In

## ***Build-Out Analysis***

other words, no tracts of land remain for agriculture, forest or other open space use unless already protected for this purpose today.

The analysis looks at certain aspects of the town's current land use and uses that information as a basis to determine the potential for future development. These include such things as conservation land, steep slopes, wetlands and existing development.

Timing is not relevant to the build-out analysis as it is assumed that time is condensed to allow all development to occur today. The build-out analysis holds at today's conditions demographics (such as household size, age structure of population), technology, zoning, municipal infrastructure and other variables that may affect development patterns.

### **METHODOLOGY AND ASSUMPTIONS**

The UVLSRPC used its geographic information system (GIS) and data layers developed for the Town of Grantham by Cartographic Associates, Inc., NH GRANIT, the UVLSRPC and others over the past several years to perform much of the analysis. Each of the GIS data layers and other data sources, as well as the assumptions associated with this analysis, is outlined below. The UVLSRPC utilized ArcView version 3.2 software and the Community Build-Out Analysis Tool version 1.10.00 extension, developed by Lewis Creek Association, to perform the GIS analyses. Data on existing residential units and the number of buildable lots provided by the Eastman Community Association were used for the portion of Grantham within the Eastman Community. Spreadsheet analysis was performed using Microsoft Excel version 9.0 for Windows.

Town officials and the Master Plan Committee have provided a variety of information and have helped to verify data and assumptions.

The town was analyzed in nine (9) analysis zones delineated based on zoning and other logical dividing lines for study purposes. Future development was calculated for each of these nine (9) sections of town and presented accordingly. Attachment A illustrates these analysis zones.

### **Zoning**

Grantham's Zoning Ordinance includes the following zoning districts as used in this build-out analysis to determine potential future growth.

Zoning District	Minimum Lot Size (Acres)
Business District (BD)	1 Acre
Business/Light Industrial District (BLD)	1 Acre
Rural/Residential District (RRD)	1 Acre
Rural/Residential District Two (RRD2)	4 ½ Acres
Conservation District (CD)	10 Acres

## ***Build-Out Analysis***

The 2003 Grantham GIS zoning coverage developed for the Town by Cartographic Associates, Inc. was completed/corrected by UVLSRPC to meet the needs of this project. The Zoning Ordinance was used as the basis for many of the assumptions in this analysis. Attachment B illustrates these zoning districts.

### Eastman

The portion of Grantham within the Eastman Community was digitized by the UVLSRPC (shown on maps as Analysis Zone 3). The build-out for this portion of Town was based on numbers of existing units and potential new units obtained from the Eastman Community Association. According to Ken Ryder, General Manager, half of the undeveloped lots cannot be developed because of wetland, steep slopes, ledge or other natural constraints.

### Surface Water

The area occupied by all surface water, not including wetlands or vernal pools, was excluded from the developable land area throughout Grantham except in the Conservation District (consisting exclusively of floodplain areas). In the Conservation District, 20 percent of water bodies were included in the minimum lot size based on the Zoning Ordinance. Surface water information was based on 1:24000 digital line graph data provided through GRANIT.

### Land Currently Protected From Future Development

Publicly-owned conservation land and privately-owned land protected from development with conservation easements or other development restrictions were deducted from the land area available for future development. The GRANIT conservation land layer developed in 1995, updated in 2001 and 2004 by the UVLSRPC, was used to identify conservation lands. Data for the newly acquired Reney Forest area was provided by the Society for the Protection of New Hampshire Forests.

Corbin Park was also deducted from the land area available for future development. Corbin Park GIS data was provided by the Society for the Protection of New Hampshire Forests. Attachment C shows Corbin Park and conserved lands.

In addition, several town-owned properties already dedicated to or planned for public purposes were excluded from the development calculation.

### Parcels

Grantham tax map parcel data, as updated by Cartographic Associates, Inc. as of April 2003 and provided by the Town, were used in this analysis. Attachment D exhibits these data.

### Building Structures

Building structures data, as updated by Cartographic Associates, Inc. as of April 2002 and provided by the Town, were used in this analysis. These data do not identify residential vs.

## ***Build-Out Analysis***

nonresidential structures. In addition, although reported by Cartographic Associates, Inc. to include mainly primary buildings, local volunteers observed that most of the outbuildings in town, such as barns and garages, are also included. Nonetheless, this data layer does provide an accurate picture of today's development patterns. (See Attachment D.)

### Existing Roads

State, town and private roads and their respective typical right-of-way land areas were deducted from the land area available for future development. Road information was based on 1:24000 digital line graph data provided through the New Hampshire Department of Transportation. It was assumed that the following rights-of-way exist for these roads.

- Interstate highways: 300 foot right-of-way
- State highways: 66 foot right-of-way
- Local and private roads: 50 foot right-of-way

### Residential vs. Nonresidential Land Area For Future Growth

The build-out tool assumes all new development will be residential. However, the Zoning Ordinance allows for commercial uses in certain parts of Town. To account for this, the projected future breakdown between land area dedicated to residential use and that developed for nonresidential purposes (commercial, industrial, institutional) was based on ratios determined by local officials. To develop these figures, shown below, both current ratios and uses allowed by the Zoning Ordinance were considered.

Zoning District	% of Build-out Development Assumed to be for Nonresidential Use
Business District (BD)	75%
Business/Light Industrial (BLD) District	75%
Rural/Residential (RRD) District	1%
Rural/Residential (RRD2) District Two	1%
Conservation District – within RRD	1%
Conservation District – within BD or BLD	75%

### Wetlands and Steep Slopes

The area occupied by wetlands was excluded from the developable land area throughout Grantham except in the Conservation District. In the Conservation District, the Zoning Ordinance provides that 20 percent of wetland areas can be included in the minimum lot size. Although the Zoning Ordinance definition of wetlands includes poorly drained and very poorly drained soils, it was agreed that National Wetland Inventory data provided a more accurate and realistic measure of wetland areas for the purposes of this analysis.

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Steep slope areas of 20 percent or greater, digitized by the UVLSRPC from 1:24000 scale USGS topographic data, were excluded from the developable land area.

Attachment E illustrates wetland areas and steep slope areas.

### Community Build-out Analysis Tool

The Community Build-Out Analysis Tool, developed by the Lewis Creek Association, utilizes an ArcView GIS environment to perform this analysis. The Tool combines parcels and zoning layers to identify buildable areas throughout Town. Additional layers, such as conserved lands and wetlands, are incorporated to identify areas where future development cannot occur. Based on the land area of each parcel and existing building structures, the Tool identifies parcels that can be subdivided. The potential number of new lots is then calculated based on the minimum lot size.

### RESULTS

It is estimated that a total of 8,259 lots would be developed for residential and nonresidential purposes in Grantham under current zoning. The distribution of potential development across town is shown in the table on the following page and on Attachment F. As shown, it is estimated that more than half of the primary buildings currently existing in town are in Eastman. However, development potential in rural areas of town to the west of the Interstate, both north and south of the village area, far exceed that of Eastman.

Analysis Zone	Description	Estimate of Existing Primary Buildings	Existing Buildings in Zone as Percentage of Total	Estimate of Residential and Nonresidential Lots at Build-out	Percentage of Total Lots in Analysis Zone at Build-out
1	Rural/Residential - NW	126	6%	1935	23%
2	Rural/Residential - NE	104	5%	960	12%
3	Eastman	1111	57%	1303	16%
4	Rural/Residential Two - Olde Farms	73	4%	133	2%
5	Corbin Park	5	<1%	5	<1%
6	Rural/Residential - SW	227	12%	2896	35%
7	Business District	61	3%	115	1%
8	Rural/Residential - SE	220	11%	859	10%
9	Business/Light Industrial	27	1%	53	1%
Total		1954		8259	

### Nonresidential Development

As described earlier, this build-out analysis projects the total number of developed residential vs. nonresidential lots and estimates a percentage of those in each zoning district that will be used for nonresidential purposes. (The number of nonresidential units in Eastman was not included.)

## *Build-Out Analysis*

According to this analysis, 189 total nonresidential lots or “units” would be developed in Grantham at build-out under current zoning. Approximately 64 percent of this nonresidential development will be contained within the Business District and Business/Light Industrial District. The remaining nonresidential lots would be distributed through-out the rural areas of the community. This means that under this build-out scenario, Grantham has the potential for almost as many nonresidential lots outside of business districts (67) as are currently estimated to be in the entire community (74).

### Residential Development

According to this analysis, 8,070 residential buildings could be developed in Grantham at full build-out under current zoning. For comparison, the town estimates the current number of primary residential structures in Grantham to be 1,880.

At the time of the 2000 U.S. Census, 79% of the dwelling units in Grantham were in single family detached homes, 21% were in duplexes or other forms of attached residences, and less than 1% were in multifamily structures. To approximate a figure of 1% of the residential structures in town at full build-out being multi-family, half of the potential number of residential lots in the two zoning districts that allow multifamily residential buildings, Business District and Business/Light Industrial District, were assumed to be developed as such. The maximum density of 4 units per building was also assumed in keeping with the concept of build-out as the maximum allowed under current zoning. This gives us a future estimate of approximately 96 multifamily dwellings in 24 buildings. Again to approximate current figures, 894 of the lots developed or developable for residential purposes were assumed to be developed with duplexes, and 7,152 with single family dwellings. This leads to an estimated build-out condition of 9,036 dwelling units in Grantham at build-out, compared with 1,518 counted in the 2000 U.S. Census, an increase of almost 500%.

TYPE OF RESIDENTIAL UNIT	NUMBER ESTIMATED BY 2000 U.S. CENSUS	TOTAL UNITS ESTIMATED AT FULL BUILD-OUT
Single Family - Detached	1,194	7,152
Duplex or Attached Single Family	315	1,788
Multi-family	9	96
TOTAL	1,518	9,036

The next step in calculating a potential future year-round population for Grantham under current zoning is to estimate the number of these residential units that would be occupied year-round. For the purposes of this analysis, the vacancy rate is assumed to be 3% as estimated by the 2000 U.S. Census.

To estimate the number of seasonal dwelling units, figures for Eastman were looked at separately from the rest of town. Grantham's unusually high percentage of seasonal dwelling units, estimated by the 2000 U.S. Census to be 36% for the entire town, would not be fairly applied to a

### ***Build-Out Analysis***

future scenario that estimates the number of dwelling units outside of Eastman to be much higher than the number within Eastman in the future. Seasonal dwelling percentages in neighboring communities similar in nature to Grantham were considered for their applicability. Croydon was chosen as most closely resembling the nature of the non-Eastman Grantham landscape. When Croydon's figure of 17% was applied to the non-Eastman dwelling units counted in the 2000 U.S. Census, the remainder of the seasonal dwelling units accounted for by Eastman represented 42% of Eastman's units. A projection forward to the build-out scenario results in 1,857 of Grantham's total number of dwelling units being occupied seasonally. This leads to an increase in the potential number of year-round units proportionately larger than the potential increase in seasonal units.

RESIDENTIAL OCCUPANCY	NUMBER OF UNITS ESTIMATED BY 2000 U.S. CENSUS	NUMBER OF UNITS ESTIMATED AT BUILD-OUT
Year-round occupied housing units	925	6,908
Vacant housing units	45	271
Seasonal housing units	548	1,857
TOTAL	1,518	9,036

#### Population

The 2000 U.S. Census reported a population of 2,167. Assuming an average household size of 2.34 persons per household as reported by the 2000 U.S. Census, the population of Grantham would increase to approximately 16,165 at build-out. For comparison, the region's largest two communities in 2000 were Claremont with 13,151 residents and Lebanon with 12,568.

Seasonal dwellings represent an additional segment of the community requiring consideration for certain services as well. However, the number of seasonal residents or users of seasonal dwellings is difficult to estimate. Household size, length and frequency of stay, turnover of users, all affect the nature of the community's needs relative to these dwelling units.

The 2000 estimate for the school-age population (ages 5 through 19) based on U.S. Census data for Grantham was 216 children. Assuming the age structure of the population remains the same at build-out, the potential school-age population for Grantham under current zoning is 1,612.

The 2000 estimate for the number of Grantham residents 65 and over based on U.S. Census data was 471 residents. Assuming this percentage of the total population for older residents remains the same at build-out, the potential population of older adults in Grantham under current zoning is 3,513.

#### Traffic Generation

Traffic generation estimates are based on factors developed from nation-wide sampling and provided by the Institute of Transportation Engineers (Trip Generation, 6<sup>th</sup> Edition, ITE, Washington, D.C., 1997). The figure for single-family residences was applied to all year-round

## *Build-Out Analysis*

housing in Grantham as multi-family housing in rural communities without public transit is also auto dependent. The figure for planned unit developments was applied to all housing in Eastman. It was felt that this lower rate more accurately reflects this segment of the community. As with population, estimates of traffic associated with seasonal housing is a challenge. The ITE figure below is based on sampling that was conducted in resort communities where services and amenities are often incorporated in the development, as opposed to scattered seasonal homes in this area where occupants have to drive for all of their needs. The calculation also presumes that all seasonal housing is occupied at the same time.

Type of Residential Use	Weekday Average Trip Rate Per Day Per Dwelling Unit	Locally-Generated Residential Traffic in 2000	Locally-Generated Residential Traffic Possible Under Current Zoning
Single-Family Residential - NonEastman	9.57	2,584	59,229
Planned Unit Development Eastman	6.63	7,598	8,347
Recreational Homes- NonEastman	3.16	180	4,162

Source: Trip Generation, 6<sup>th</sup> Edition, Institute of Transportation Engineers, Washington, D.C., 1997.

What can be obtained from these figures is an understanding of the potential magnitude of the increases possible under current zoning. As shown above, the rural areas of town have the potential to experience a substantial increase in traffic under current zoning. Since the highest amount of growth potential in Grantham is in the types of housing with the highest trip generation rates, the traffic generated by year-round single family housing outside of Eastman has the potential to grow to almost twenty-three times the current estimate.

It is important to bear in mind that these figures reflect only locally-generated traffic. Non-local traffic will continue to increase as the regional population grows. In addition, traffic generated by commercial and industrial growth can also be expected to grow.

### Additional Considerations

Since a build-out analysis is based on a set of assumptions and generalizations, there exists the possibility for errors that both underestimate and overestimate the potential future population. For example, the Build-Out Tool does not account for future roads or future road rights-of-way. Clearly, additional road development would be needed to develop all possible lots in the rural areas of town. UVLSRPC has found that roads and other utilities can reduce the land available for residential lots in one acre zoning districts anywhere from 4.5% to 25%.

The number of existing buildings assumed by the Tool to be primary uses is somewhat higher than the actual number due to the inclusion of some outbuildings in the Cartographics dataset. This will inflate figures only by the number of such occurrences that are on lots too small to subdivide. For example, if a house and barn on a two acre lot in a one acre zoning district are seen by the Tool as two homes, the calculation of a potential of two homes on the lot will be accurate. However, if this occurs on a one acre lot, the barn would be erroneously counted as a

## *Build-Out Analysis*

grandfathered use on a nonconforming lot. The amount of potential error produced by this factor is not considered to be of a magnitude significant for this analysis.

Several other factors may lead to a higher build-out population than estimated. The percentage of seasonal homes currently in Grantham was estimated for Eastman and for the rest of town, and that figure was applied to the build-out scenario. However, it is also possible that a higher percentage in the future could be year-round homes. This would increase the projected population and traffic volumes.

One aspect of the Build-out Tool that results in a slight undercounting is that, because it is lot-based, it does not calculate the potential to create additional lots by merging adjoining lots that are larger than the minimum lot size. For example, if owner A and owner B each have 1.5 acre lots with one house in a one acre zoning district, they have the ability to create a third lot with their "extra" half acres.

One factor with the potential to affect Grantham's future growth significantly is Corbin Park. Although it is considered at this time to be unlikely that land currently within Corbin Park will ever be developed, approximately 1,257 additional units could currently be built under existing land use regulations.

### CONCLUSION

It is estimated that under current zoning Grantham has the potential to grow to a year-round population of 16,165, a 646% increase over the 2,167 residents counted in the 2000 U.S. Census.

It should be kept in mind that a build-out analysis is a model based on a set of assumptions and that a different "crystal ball" will yield different results. Whether figures presented are "on the nose" or just "in the ballpark", they provide a basis for assisting the Town as it continues to strive for a balance between growth and its impacts.

This build-out study has evaluated the growth potential of Grantham maintaining current land use regulations. Testing alternative future scenarios would enable local officials in the community to preview and consider the potential impacts associated with a regulatory change before making the change. One example would be testing various differentials between the minimum lot sizes of the village area and that required in the rural areas to evaluate effects on total population and the distribution of population. Build-out analysis results can also be of assistance in reviewing the need for and subsequent planning for certain types of capital improvements in the community.

***Build-Out Analysis***

Attachment A – Analysis Zones (11” x 17”)

***Build-Out Analysis***

Attachment B – Zoning Districts (11” x 17”)

***Build-Out Analysis***

Attachment C – Corbin Park and Conserved Lands (11” x 17”)

***Build-Out Analysis***

Attachment D – Parcels and Existing Building Units (11” x 17”)

***Build-Out Analysis***

Attachment E – Wetlands and Steep Slopes (11” x 17”)

***Build-Out Analysis***

Attachment F – Primary Residential and Nonresidential Buildings: Today’s Estimate/Tomorrow’s Potential (11” x 17”)