

# New London, New Hampshire Master Plan

Adopted by New London Planning Board  
December 27, 2011

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with assistance from:  
Upper Valley Lake Sunapee  
Regional Planning Commission



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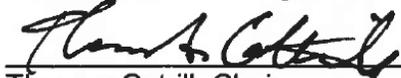
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## MASTER PLAN ADOPTION STATEMENT

The Planning Board of the Town of New London, New Hampshire, in accordance with the provisions and procedures of RSA Chapter 675:6, including conducting a public hearing on December 27, 2011, does hereby adopt the Town of New London Master Plan of 2011. The goals and recommendations contained in this plan are designed to aid the Planning Board and other town boards in the performance of their respective duties for the purpose of guiding and accomplishing the coordinated and harmonious development of the Town of New London, New Hampshire.

Date Adopted: December 27, 2011

New London Planning Board:

  
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Thomas Cotrill, Chair

  
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# I. INTRODUCTION TO THE MASTER PLAN

## **Purpose**

Updating Town Master Plan is an opportunity to undertake a comprehensive evaluation of the community's needs and desires pertaining to anticipated growth over the next fifteen years. The overall purpose of the Master Plan is to provide a framework for the future growth and development of the community. It is a consensus building, planning process which attempts to identify the guidelines for growth of the Town as preferred by the townspeople. The goal of this Master Planning process is to proactively chart a course identifying the desired future of the community. Hopefully, this comprehensive planning process will help preserve many of the facets New London townspeople cherish while accommodating the demands of new development.

Please refer to Map I-1 Base Map (Page 4) for the area within the Town of New London. One of the exciting additions to this update of the Master Plan is that for the first time the maps reproduced with the Master Plan are color Geographic Information System (GIS) Maps. These can be found throughout the Master Plan.

## **Overall Growth Policy for New London**

Continue to support and expand the strong community center pattern with residential uses on small lots clustered around the village core of commercial, community service uses and Colby-Sawyer College with outlying rural residential areas.

## **Process Used to Update the Master Plan**

The responsibility for preparing and adopting a Master Plan rests with the Planning Board under New Hampshire law. The Planning Board was assisted throughout this effort by community planning consultant Kenneth McWilliams with Kenneth B. McWilliams & Associates and the Upper Valley Lake Sunapee Regional Planning Commission. In an effort to broaden the base of input, understanding and support for the Master Plan, the Planning Board organized and conducted a Community Visioning Workshop in the fall of 2007 on a Friday evening and the following Saturday attended by about 120 participants. This was followed in 2008 with the crafting and administration of a Community Survey. Surveys were available to the public on-line and by mail. Completed surveys totaled 515.

For each chapter of the Master Plan update, a draft chapter was prepared for the Planning Board and interested citizens to review and critique. Following this review, the requested revisions were incorporated. After all the revised draft chapters were completed, another opportunity for public input was provided when the Planning Board organized and conducted a Public Forum to review and discuss the Land Use and Implementation Plans. The chapters were then assembled into an integrated document for the Planning Board's review after the necessary revisions from the Public Forum were incorporated. After the needed changes were made, a Public Hearing was conducted on the draft Master Plan. The Planning Board adopted the draft Master Plan at the conclusion of the public hearing subject to final revisions to accommodate public input received at the hearing. The final draft Master Plan was prepared for use in reproduction.

## Summary of Community Survey

As noted above, an integral part of the process of updating the Town's Master Plan was to find out what New London residents and property owners thought about important planning issues. Surveys were available to the public on-line and by mail. A total of 515 surveys were completed. Response numbers on individual questions vary since everyone completing and returning a survey did not answer all the questions. It is evident in looking at the responses in the demographic section at the end of the survey that there is some bias in the survey in comparing the survey results with the 2000 U.S. Census figures. First less than 1% of the survey respondents were under 25 years old while the 2000 U.S. Census percentage was 28% for this age bracket. The percentages of responses in the Working Age Group (25 – 64 years) (56%) and the Senior Age Group (65+ years) (43%) were both higher than the 2000 U.S. Census percentages (41% and 30% respectively). The results of this Community Survey provided the Planning Board with invaluable insight and feedback and the survey responses are cited as applicable throughout the Master Plan.

## Interlinking Chapters of the Master Plan

The extent which one element of the Master plan is interwoven with other elements of the plan becomes evident in developing the Master Plan. For example, housing is a land use which can affect the transportation system, community facilities and services, and the natural and cultural resources. Separating these components into chapters of the Master Plan simply provides an organizational structure to address the various topical areas. The more one works with these various topical areas, the more one recognizes the links between them.

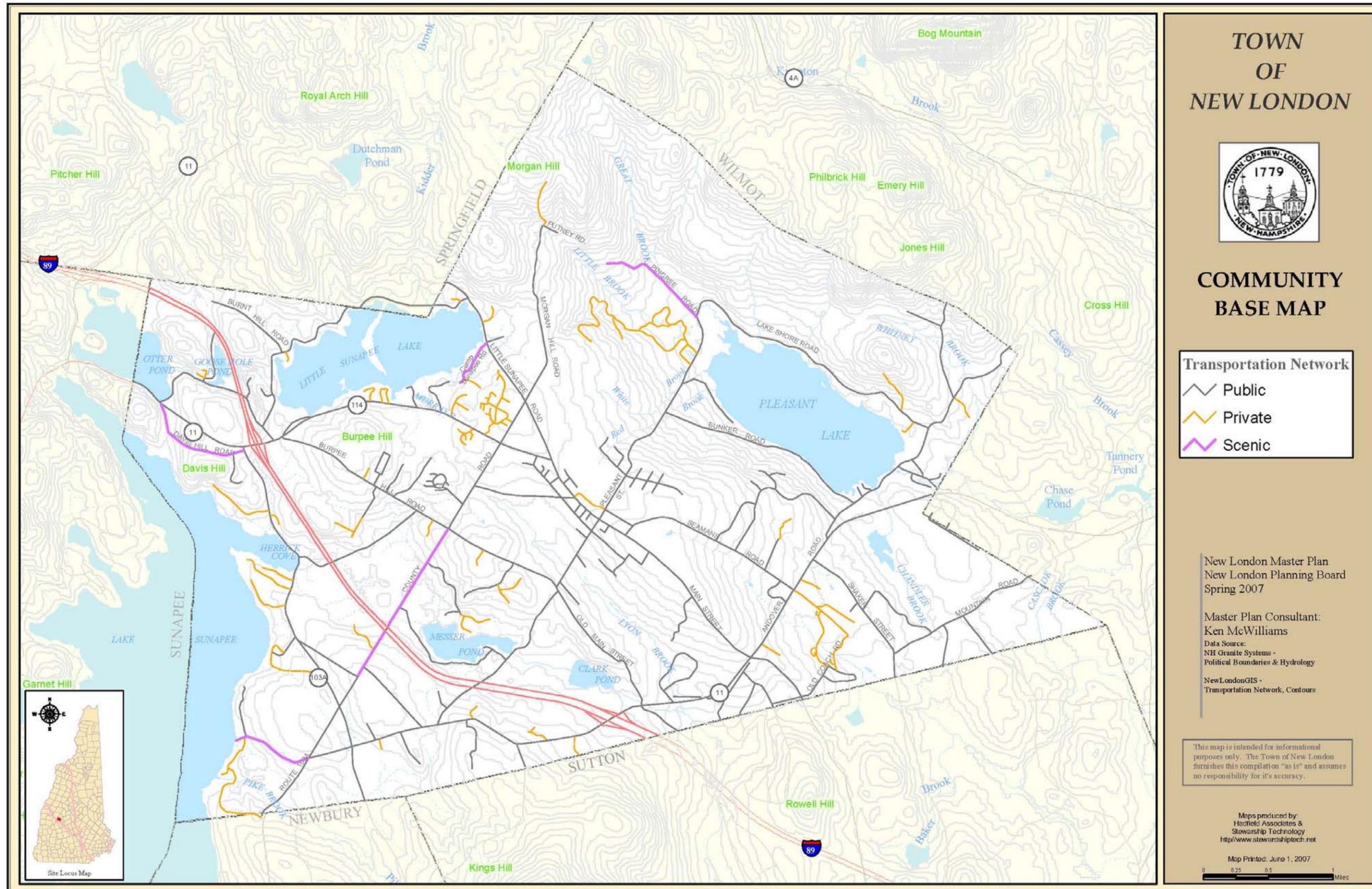
## Accomplishments Since Adoption of the 1998 Master Plan

Before we look to the future and sort through the development issues facing the community, it is beneficial to look back and take stock of the accomplishments the Town has achieved since adoption of the 1998 Master Plan. This is not intended to be an exhaustive listing of those accomplishments, but rather a summary of the highlights.

Recommendations in the 1998 Master Plan led to the following actions by the Planning Board:

1. Action: The Agricultural and Rural Residential District was amended in 1999 to increase the minimum lot size from the 2 acres to 4 acres with a corresponding decrease in the permitted density from the 1 family per 2 acres to 1 family per 4 acres.
2. Action: A Forest Conservation District was crafted by the Planning Board and added to the Zoning Ordinance and applied to the area on the northeast side of Pleasant Lake in 1999.
3. Action: A Streams Conservation Overlay District was prepared by the Planning Board and subsequently adopted as part of the Zoning Ordinance in 2001.
4. Action: The Wetlands Conservation Overlay District was amended in 2001 to provide buffers for significant wetlands as identified by the Conservation Commission.
5. Action: In 2006 the Steep Slope Overlay District was amended to deduct all areas with slopes over 25% from minimum lot size and density calculations.

Map I-1: Base Map



6. Action: The Planning Board amended the Subdivision Regulations in 2007 in part to incorporate Low Impact Design (LID) techniques for managing stormwater flows.
7. Action: The Planning Board developed and the Town amended the Zoning Ordinance to add an article for a Workforce Housing Overlay District in 2009.

In addition, there were many other Town actions that were supported by recommendations in the 1998 Master Plan. These included:

1. Action: As noted in the Conservation and Open Space Lands Chapter, the Conservation Commission, the ASLPT and other land conservation groups have continued to work cooperatively to preserve lands important to the community.
2. Action: The Town has made substantial improvements to the existing Police Facility located in the Town Hall building over the past several years.
3. Action: A new Highway Garage was constructed in 2004.
4. Action: Construction of a 500,000 gallon concrete underground Water Storage Tank was completed in 2005 on the highest elevation of the Colby-Sawyer College campus.
5. Action: The Sidewalk on Newport Road from County Road to Little Sunapee Road was completed in 2003.
6. Action: The Fire Chief was made a full-time paid position in 2007.

## II. A VISION FOR THE FUTURE

### The Past and Present

Like most New Hampshire communities, New London (Map I-1) has experienced steadily increasing population for at least forty years. New London's rate of increase, however, has been faster than the State, as a whole, and many of its neighboring communities. During the 1990s alone, New London's annual population growth rate was 2.6%, about 2.5 times the state or regional rate of increase.

New London experienced a 50% population increase from 1980 to 2005, growing from 2,935 residents to 4,440. Forecasts are that the community will continue to grow. Historic trends indicate that by 2020, New London will reach a year-round population of about 5,940 people. This increase of about 1,500 residents over that 15 year period equates to an annual growth rate of 1.9%. Some of these new residents will likely be people who were formerly seasonal residents and visitors, as seasonal homes get converted to year-round dwellings.

Continued fluctuations in the population are likely, with visitors and seasonal residents tending to come in the summer for the lakes and winter for the skiing. While these increases are welcome, from an economic standpoint, these seasonal fluctuations can make it difficult for businesses to gear up and then down. Such population fluctuations also place higher demands on municipal services than are expected in a community with a level population throughout the year.

New London has become an older community, as more and more people retire here and as existing residents age in place. The median age in 2010 was 48.1 years which was nearly 20% higher compared with the county and state. The percentage of children 0 to 4 years old dropped from 2.9% of the total year-round population in 2000 to 2.3% in 2010. Over the same ten year period, persons age 65 and over increased from 29.9% to 30.7%. The demographic trends indicate that with the aging of the "Baby Boomer" generation, the number of seniors will increase dramatically on a national level. This trend combined with New London's desirability as a place to retire will make the number of seniors in New London increase substantially in the coming years.

### A Vision for the Future

Growth will clearly have an impact on New London, as new people arrive and new homes and roads are built. Properly managed, growth can be a considerable asset, bringing new energy, economic stimulus and vitality to a community. It can bring new volunteers to serve on boards and committees, and new ideas to apply locally that people have seen work elsewhere. Improperly managed, growth can also bring negative impacts, as more development can put more strain on municipal services, bringing more congested roads, and more impervious surfaces. This in turn can accelerate polluted water run-off and erosion. This concern is particularly applicable to New London due to the topography and soils. Improperly sited development can adversely impact, among other things, the community's character, water and scenic resources, and wildlife habitat and corridors.

Some might wish otherwise, but growth is likely for most New Hampshire communities, and particularly true for New London, with its attractive natural resources and easy access to the interstate highway system via Interstate 89. The pending widening of Interstate 93 will also bring

New London additional growth. New London must prepare to manage this impending growth. This master plan is a key component of the effort to plan and guide New London's future growth and development.

To start the Master Plan process, about fifty New Londoners enthusiastically participated in the first of four Master Plan Workshops on Friday evening, October 12, 2007. The purpose of the Workshops was to give the public an opportunity for input in helping to shape the New London's vision statement. Presentations were made at the Friday evening Workshop on what a Master Plan is and is not, highlights of the 1998 Master Plan implementation, New London and regional growth trends, and local examples of Smart Growth Principles. The population trends and figures presented Friday evening set the stage for the Saturday Workshop when the public was asked to share their hopes and concerns for New London as they planned for the future. In small, facilitated, break-out groups, the workshop participants were asked to work through three exercises together.

The first exercise required each break-out group to allocate future residential and commercial growth in town. Each break-out group identified where they thought the future residential growth would occur (estimated to be 380 additional homes) and what the type and density of that residential growth might be. The second component of the first exercise, required the groups to if there should be additional commercial growth and, if so, where. Options included no commercial growth, an additional 12 acres of commercial growth to keep pace with growth in New London's population, or an additional 24 acres of commercial growth to keep pace with growth in region's population. If the group supported additional commercial growth, they were asked to identify where it should be located in New London.

In a second exercise, groups were asked to identify what made New London special--the important community elements that New London should retain. They were also asked about their current and future concerns. Finally, participants were asked for good ideas they had seen used in other communities, ideas that might be studied and introduced successfully in New London.

In the third exercise, each break-out group was asked to identify future issues and concerns to constitute one or two Master Plan topics.

In the afternoon, large group session, each break-out group presented and discussed with the full group the results of their growth exercise and the issues their break-out group identified for the assigned Master Plan topics.

This Vision Statement reflects public input received during the October Workshops, as well as public comment on the Statement draft obtained at community meetings on December 1, 2007 and January 5, 2008.

### **Description of Planning Terms**

For the reader's benefit, some relatively new planning terms used in this Vision Statement are described below:

"Conservation Subdivision Design" is a land development approach that assesses and preserves a proposed subdivision's important natural resources and provides a network of interlinking open space with public trails with adjoining lands.

“Low Impact Development” or “LID” is a relatively new, comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the predevelopment hydrologic regime in watersheds.

“Green Building Practices” refers to energy efficient practices to building siting, design and construction.

“Carbon Footprint” is generally defined as an annual measurement of the total amount of carbon dioxide generated by an individual mainly through their energy use.

A “Livable, Walkable Community” is one in which the built environment is returned to a state of natural and economic resource sustainability. This hopefully leads to more social interaction, physical fitness, and diminished crime and other social problems and results in whole, happy, healthy lives for the people who live in such a community.

A “Continuing Care Retirement Center” is a retirement center for senior citizens that offer housing and care programs designed for increasing levels of dependency from independent living units up to a nursing home setting.

### III. A VISION FOR LAND USE

#### Introduction

Land use planning is a fundamental component to New London's Master Plan. New Hampshire State Law, RSA 674:2, II, establishes the Master Plan as the basis for the Planning Board to enact land use guidelines, regulations, and ordinances. This chapter, *A Vision for Land Use*, seeks to translate the Vision Statement into physical terms.

Land use considerations are closely related to virtually every other chapter of this Master Plan including population, housing, economic conditions, transportation, community facilities, historic resources, and natural resources. New London's planning for future land uses considers the opportunities and challenges of the above community resources to ensure balanced, appropriate, and sustainable development patterns.

This chapter addresses existing land use patterns and trends, public opinion and recommended future land use growth policy. The existing land use patterns and trends report local and regional population-based statistics, mapping of New London's existing land use patterns and analysis of future development potential, and an assessment of the build-out analysis completed in the mid-1990s. The portion of the chapter devoted to public opinion summarizes important issues gleaned from the 2008 Community Attitude Survey and public forums and develops a list of Land Use Goals based on community input. The last two parts of this chapter focus on land use policy and recommendations for future land use planning.

#### Historic Population and Land Use Patterns

##### Regional Growth and Development Comparison

A comparison of the population growth experienced by New London with other communities in the Region between 1980 and 2010, as detailed in Table III-1 (Page 10), reveals that New London had a spike in average annual growth between 1990 and 2000 compared with the other neighboring communities, Merrimack County, and the state. Over the 30-year period from 1980 to 2010, the New London population growth rate was at an average 1.36%, which is moderate compared with neighboring municipalities with substantially higher growth rates (Springfield – 3.05%) and lower growth rates (Lebanon – 0.56%). New London's 30-year average growth rate matches the County and is consistent with statewide population growth.

Table III-2 (Page 10) details total housing units and average annual growth rates for regional communities, Merrimack County, and the state. The growth in housing units in New London between 1980 and 2010 is equivalent to the statewide growth for the same period and has not indicated dramatic fluctuations for the three decades of Census data.

**TABLE III-1**  
**Comparison of Population Growth with Neighboring Communities: 1980-2010**

Area	Population 1980	Population 1990	Avg. Annual Growth Rate 1980-1990	Population 2000	Avg. Annual Growth Rate 1990-2000	Population 2010	Avg. Annual Growth Rate 2000-2010	30-Yr Avg. Annual Growth Rate
New London	2,935	3,180	0.8%	4,116	2.6%	4,397	0.7%	1.36%
Newbury	961	1,347	3.4%	1,702	2.4%	2,072	2.0%	2.59%
Bradford	1,115	1,405	2.3%	1,454	0.3%	1,650	1.3%	1.31%
Springfield	532	788	4.0%	945	1.8%	1,311	3.3%	3.05%
Sunapee	2,312	2,559	1.0%	3,055	1.8%	3,365	1.0%	1.26%
Sutton	1,091	1,457	2.9%	1,544	0.6%	1,837	1.8%	1.75%
Wilmot	725	935	2.6%	1,144	2.0%	1,358	1.7%	2.11%
Hanover	9,119	9,212	0.1%	10,850	1.7%	11,260	0.4%	0.71%
Lebanon	11,134	12,183	0.9%	12,568	0.3%	13,151	0.5%	0.56%
Merrimack County	98,302	120,240	2.0%	136,225	1.3%	146,445	0.7%	1.34%
New Hampshire	920,610	1,109,252	1.9%	1,235,786	1.1%	1,316,470	0.6%	1.20%

Source: U.S. Census

**TABLE III-2**  
**Comparison of Housing Growth with Neighboring Communities: 1980-2010**

Area	Total Housing Units 1980	Total Housing Units 1990	Avg. Annual Growth Rate 1980-1990	Total Housing Units 2000	Avg. Annual Growth Rate 1990-2000	Total Housing Units 2010	Avg. Annual Growth Rate 2000-2010	30-Yr Avg. Annual Growth Rate
New London	1,492	1,806	1.9%	2,085	1.4%	2,303	1.0%	1.46%
Newbury	1,021	1,184	1.5%	1,311	1.0%	1,559	1.7%	1.42%
Bradford	696	757	0.8%	762	0.1%	917	1.9%	0.92%
Springfield	351	481	3.2%	534	1.1%	702	2.8%	2.34%
Sunapee	1,645	1,904	1.5%	2,143	1.2%	2,431	1.3%	1.31%
Sutton	660	776	1.6%	826	0.6%	985	1.8%	1.34%
Wilmot	401	458	1.3%	530	1.5%	659	2.2%	1.67%
Hanover	2,373	2,623	1.0%	2,989	1.3%	3,445	1.4%	1.25%
Lebanon	4,758	5,718	1.9%	5,707	0.0%	6,649	1.5%	1.12%
Merrimack County	39,636	50,870	2.5%	56,224	1.0%	57,069	0.1%	1.22%
New Hampshire	386,381	503,904	2.7%	547,024	0.8%	614,754	1.2%	1.56%

Source: U.S. Census

Density of development is another metric of comparison for rural communities with relatively sparse development patterns. Population density is measured in persons per square mile of area in town and provides a relative comparison to understand overall land use conditions in New London and its neighbors. Table III-3 (Page 11) provides information for comparison of densities among neighboring communities. New London's higher density is more consistent with a community that has a distinctly built-out landscape like the region's cities and larger towns. It is important to note the public sentiment that New London maintains a rural atmosphere; a sense that the Town is a rural town. New London's accomplishment of achieving a higher population density while maintaining a rural/small town atmosphere indicates the Town's success applying its land use ordinances and development controls to encourage density while maintaining a community with appreciable rural and small town characteristics.

**TABLE III-3**  
**Comparison of Population Density with Neighboring Communities: 1980-2010**

Area	Land Area (Sq. Mi.)	Persons per Sq. Mi. - 1980	Persons per Sq. Mi. - 1990	Persons per Sq. Mi. - 2000	Persons per Sq. Mi. - 2010
New London	25.4	115.6	125.2	162.0	173.1
Newbury	38.1	25.2	35.4	44.7	54.4
Bradford	34.9	31.9	40.3	41.7	47.3
Springfield	43.6	12.2	18.1	21.7	30.1
Sunapee	25.2	91.7	101.5	121.2	133.5
Sutton	42.1	25.9	34.6	36.7	43.6
Wilmot	29.4	24.7	31.8	38.9	46.2
Hanover	48.8	186.9	188.8	222.3	230.7
Lebanon	40.3	276.3	302.3	311.9	326.3
Merrimack County	931.5	105.5	129.1	146.2	157.2
New Hampshire	9,294.0	99.1	119.4	133.0	141.6

Source: U.S. Census, 1980 – 2010, UVLSRPC

#### Recent Subdivision and Building Permit Activity

A summary of subdivision activity between 2001 through 2010 is presented in Table III-4 (Page 12). The number of approved subdivisions fluctuated between low of 0 in 2001 and 2004 and a high of 7 in 2007. The number of approved subdivision lots ranged from a low of 0 in 2001 and 2004 to a high of 32 in 2003. Over the 10-year period, there was an average of almost 3 subdivisions approved each year resulting in an average of 12 new approved lots per year.

Table III-5 (Page 12) presents a summary of the building permit activity for New London from 2001 through 2010. The number of new residential units being built ranged from a low of 3 single-family units in 2009 to a high of 40 single-family units in 2004. The average number of new residential units being constructed over the 10-year period was approximately 15 per year. New London experienced a surge in residential building permit activity during the three year period from 2002 through 2004.

**TABLE III-4**  
**Summary of Subdivision Activity: 2001-2010**

Year	Total Approved Subdivision Applications	Total Approved Subdivided Lots
2001	0	0
2002	4	27
2003	6	32
2004	0	0
2005	1	2
2006	5	11
2007	7	20
2008	3	8
2009	2	18
2010	1	2
Total	29	120

Source: Planning Board Records

**TABLE III-5**  
**Summary of Building Permit Activity in New London: 2001-2010**

Year	Single Family Residential Dwelling	Two-Family Residential Dwelling	Multi-Family Residential Dwelling	Institutional	Commercial / Industrial
2001	15	0	0	1	3
2002	24	0	0	1	0
2003	31	0	0	1	0
2004	40	0	0	0	0
2005	19	0	0	0	0
2006	8	0	0	0	0
2007	7	0	0	0	1
2008	7	0	0	0	0
2009	3	2	0	1	0
2010	8	0	0	0	0
Total	162	2	0	4	4

Source: Board of Selectmen Records

### Existing Land Use Analysis

This section summarizes a mapping analysis to identify the current land uses in New London. This analysis is based on professional interpretation of aerial photography using a digital Geographic Information System (GIS). Consultants for the Town analyzed an aerial photo,

which was taken in 2003 and processed to be an accurate, to-scale map. This aerial photo is the basis of the following tables and summary information regarding existing land uses. As summarized in the prior section of this chapter there has been development and changes in land use since 2003, but these changes do not have a substantial impact on the conclusions of this analysis.

The GIS analysis for existing land use is summarized in Map III-1 (Page 17). The mapping interpretation of land uses included digitizing the shaded areas for the different observed land uses. Table III-6 (Page 13) summarizes the land uses identified in the aerial photo and the associated land area.

**TABLE III-6**  
**Summary of Existing Land Uses: 2003**

		<b>Acres</b>	<b>% of Total Town Area</b>
<b>Undeveloped</b>			
	Forest	9,396	57.7%
	Agriculture/Open Fields	641	3.9%
	Outdoor Use	275	1.7%
	Lakes & Ponds	2,028	12.5%
<b>Sub-Total Undeveloped</b>		<b>12,340</b>	<b>75.8%</b>
<b>Developed</b>			
	Residential	2,888.0	17.7%
	Commercial/Institutional	195	1.2%
	Transportation (ROW)	860	5.3%
<b>Sub-Total Developed</b>		<b>3,943</b>	<b>24.2%</b>
<b>Total</b>		<b>16,283</b>	<b>100%</b>

Source: GIS Mapping of 2003 Aerial Photography by Stewardship Technology

This analysis indicates undeveloped land and open space land uses predominate in New London. Such uses include land cover associated with forests, open fields, outdoor use, and identifiable water bodies. The Town is predominantly undeveloped or open space land (approximately 63% of the total area), excluding public facilities like roads and other transportation infrastructure.

Developed land, including roads and highways, accounts for approximately 24% of the total area in New London. Residential areas, typically single-family housing units on individual lots, account for nearly 18% of the land area. The Commercial and Institutional areas, which include Colby-Sawyer College, the downtown commercial districts, and municipal facilities, occupy less than 2% of the Town. Combined, the primary developed areas (residential, commercial, and institutional) account for nearly 20% of the Town. These are the predominant settlement areas accessible by most, if not all, Town residents and visitors. The existing mix of land uses help to form the image of New London as a rural community still dominated by forested hillsides and numerous lakes and ponds.

## Land Use Patterns

### *Town Center Development*

In terms of overall development pattern, New London exhibits a strong community center pattern with residential uses on comparatively small lots clustered around the core commercial and community service district, or downtown. Continued growth in demand for commercial properties, along with carefully crafted land use regulations, has resulted in a well-defined commercial core in the downtown where the Town has experienced commercial infill development and conversion of residential uses to commercial uses.

### *Colby-Sawyer College*

Colby-Sawyer College is an important institutional use that helps anchor the downtown area and has experienced steady increases in student enrollment numbers since the 1980s. Increases in enrollment are expected for the next decade or more until it reaches 1,300 students, according to College Administration. Colby-Sawyer continues to improve its facilities including recently completed projects: a student athletic center, new student dormitories, a new science center, new athletic fields and expanded parking.

### *Residential Development*

New London has a strong residential component adjacent to the downtown commercial and institutional districts. One striking form of residential development in New London is its shoreline development. Historically, most of the lake shores in New London have developed with a relatively dense pattern of seasonal cottages. Regional Census data and anecdotal evidence indicate a trend in converting these seasonal cottages to year round residences through renovation work or demolition and new construction over the last 20 years.

Residential development patterns elsewhere in New London range from a typical single-family detached unit development pattern to multi-family developments and dormitories. The single-family residential development pattern consumes more land area and developers are having increasing difficulty finding suitable locations for single-family subdivisions. Conversely, the presence of a college and regional hospital secures New London's future as a hub for the younger and older segments of the population. These two segments tend to have very similar housing needs: small, inexpensive rental or condominium units situated within a short travel distance to services and institutions. New London's distinct commercial district with regionally significant institutions, good services, and a good infrastructure will continue to attract younger and older residents in the coming decade.

### *Emerging Land Use Patterns*

Rural areas have gained access broadband communications, like high-speed internet, telephone, and cable television, in recent years. Such access to high-speed communications has enabled individuals to pursue home occupations and home businesses or to simply work from home. This allows for a higher potential for commercial development in rural areas that had not been economically viable before the advent of rural broadband communications. This potential will likely yield long-term benefits when the smaller home-based ventures grow to occupy commercial property.

Another emerging trend is residential development on hillsides and ridgelines. With relatively few remaining opportunities for development along the lake shores, developers are searching out sites with good views rather than waterfronts for new house lots.

## Future Development Considerations

Future development patterns in New London will depend as much upon the landscape and natural features as the local, state, and federal land use and environmental regulations. The future development considerations address the likely constraints to development as well as the factors influencing future build-out scenarios.

### Development Constraints

As with most New England towns, New London's landscape has a range of development constraints, or circumstances that prevent reasonable use for commercial or residential purposes. The following text summarizes a development constraint analysis illustrated in Map III-2 (Page 18), which is based on the presence of the following land characteristics:

**Surface waters and wetlands:** Surface waters and wetlands are regulated and cover a significant portion of the Town's total area (surface waters cover approximately 12.5%). Wetlands identified in this analysis are based on existing maps: the National Wetland Inventory Maps from the US Fish & Wildlife Service and the Natural Resource Conservation Service mapping of very poorly drained soils.

**Steep Slopes:** Steep slopes are considered development constraints in this analysis if the topography indicates areas with slopes in excess of 25%, or 1 foot of vertical rise for every 4 feet of horizontal run. Problems encountered by development on steep slopes include erosion and sedimentation issues during site construction, unsuitable conditions for on-site wastewater systems, and aesthetic disruption.

**Protected Lands:** Property protected for conservation either by easement or through fee simple ownership, based on 2003 data.

**Existing Development:** Existing developed areas based on the current land use map (Map III-1, Page 17) with the assumption that existing developed areas would remain unchanged.

The non-shaded or hatched areas on Map III-2 (Page 18) are potentially developable.

### Build-Out Analysis

In 1994 the New London Planning Board conducted a build-out analysis – a planning tool intended to assess the full development potential of a community using the present land use regulations and infrastructure capacity. A build-out analysis provides generic information for decision makers to understand the scale and impact of a land use scenario. Since the initial study the New London Planning Board adopted changes to the Zoning Ordinance, which affected the analysis findings. These changes included allowable zoning density for residential lots.

Consultants for New London revised the full build-out estimates based on these changes to the Zoning Ordinance and determined the following results:

- The Town land area and regulations may accommodate up to 4,374 residential units. This is approximately 2,071 dwelling units more than the 2010 Census count of 2,303 dwelling units.
- The total population under full build-out conditions could reach 9,000, which is more than double the 2010 Census count of 4,397 persons.

### Public Input for Present and Future Land Use

Community Survey conducted as part of this Master Plan update effort solicited reactions to the results of the revised build-out estimates outlined above. Just over half of the respondents (approximately 56%) indicated they were okay with the projected growth potential. Over 30% reacted unfavorably and wanted to discourage growth. The remaining respondents (approximately 14%) reacted favorably to encourage growth.

Further public input collected from public forums and survey responses addressed the following topics. The listed responses are in no particular order

#### *Valued Attributes in New London's Landscape*

There was strong public support to maintain the rural character of the community including the following attributes:

- Landmarks and historic buildings
- Agricultural lands & uses
- Stone walls & tree lines
- Lakes and ponds
- Scenic views & vistas
- Sense of community pride
- Colby-Sawyer College campus
- Recreational opportunities
- Good schools

#### *Future Land Uses*

Public response regarding future land uses tended toward protecting what individuals value in the landscape. To the extent possible, the public supported the following efforts with regard to future land use and development:

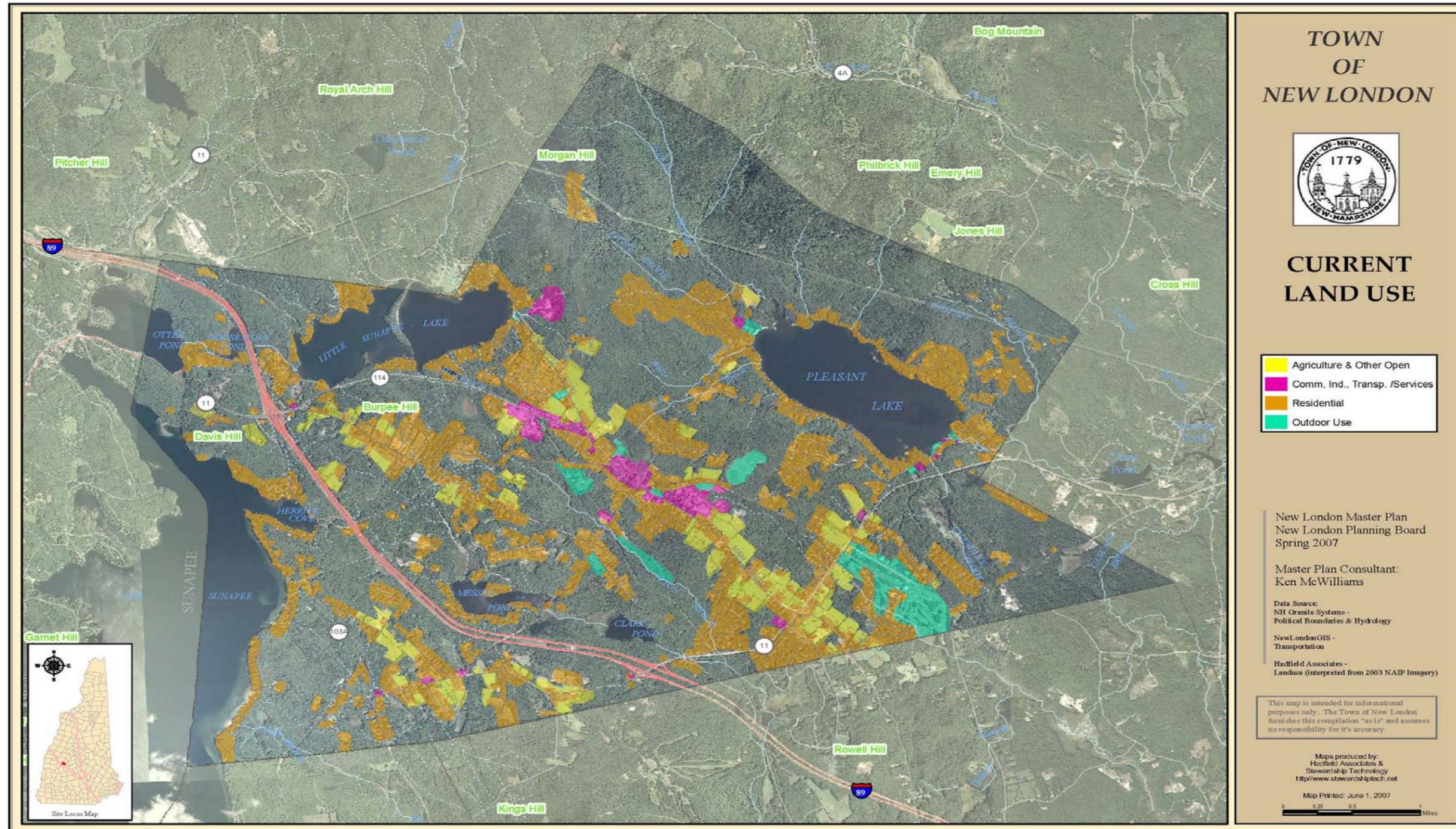
- Preserve & protect ridgelines, scenic areas, and scenic views from public spaces (e.g. – roadways, parks, lakes and ponds, and areas of public assembly – both public and private)
- Conserve and maintain land that contributes to the Town's rural character
- Encourage land uses that enable individual choices to travel using different transportation modes (e.g. – private car, bus, bicycle, walk, etc.)

#### *Residential Land Uses*

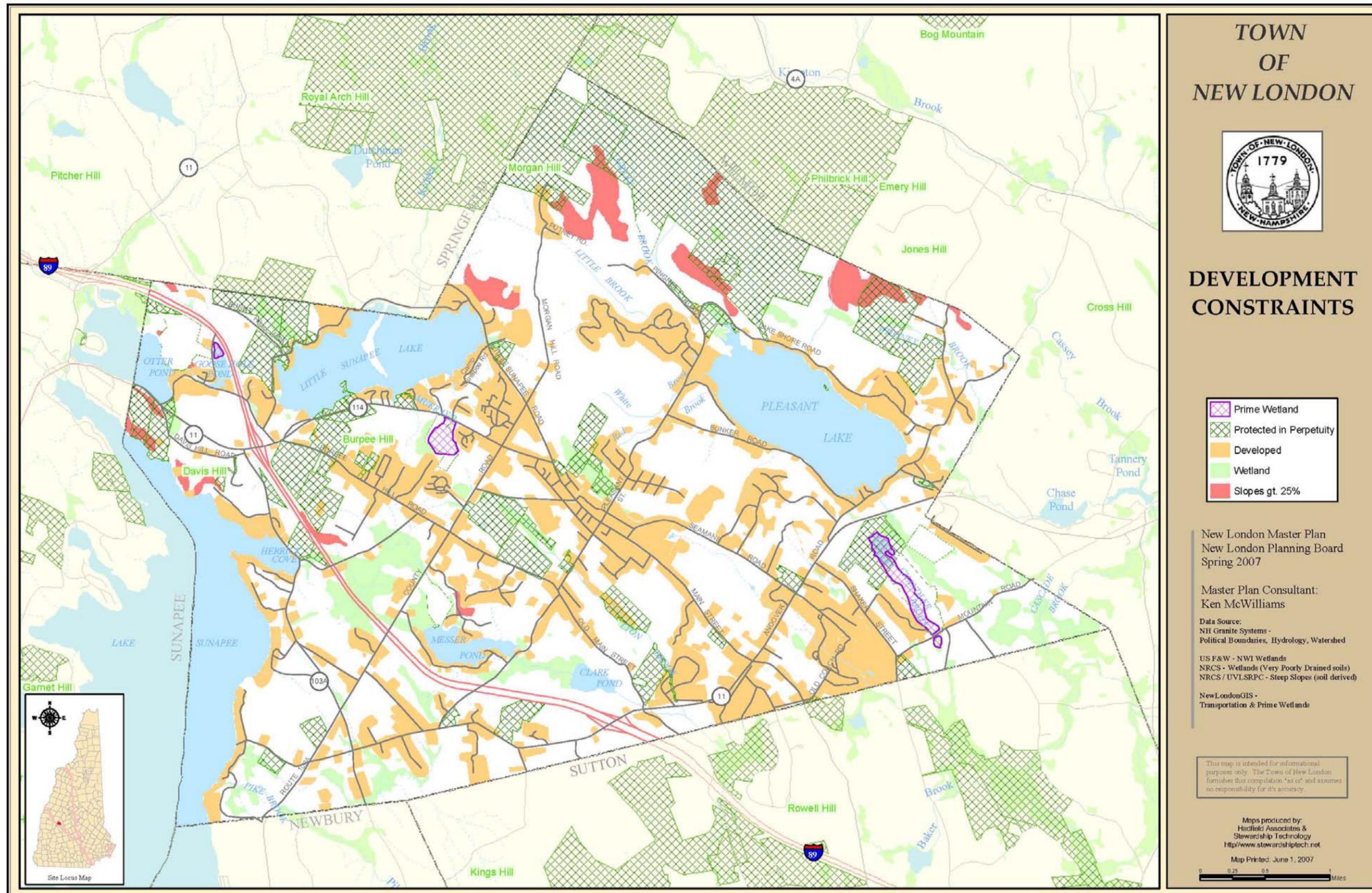
The existing land use analysis indicates that residential development in New London occupies the most land area. Public input seems to value diversity in housing types for a diverse range of incomes for various reasons:

- Workforce housing important (costs are no more than 30% of a household's gross income)
- The appearance of new housing development should not degrade community appearances
- Residential development should be concentrated in the existing village centers to utilize water and sewer networks
- Land use regulations should allow residential-scale renewable energy options

MAP III-1: Current Land Use in New London: 2003



Map III-2: Development Constraints



### *Non-Residential Land Uses*

Public responses about non-residential development were directed toward encouraging commercial/industrial/institutional development that would meet community needs without a push to expand the commercial base in Town:

- New commercial development should focus on services and businesses with the least impact on the community character and landscape
- Maintain the existing commercial development centers – do not expand the commercial development to new areas in Town
- Avoid low-density commercial development near existing Interstate exits
- Develop regulations to allow alternative energy sources for businesses

### **Land Use Goals**

The Planning Board developed the following land use goals based on input received from several public meetings and results of the Community Survey:

1. To remain, over the next fifteen years, primarily a rural residential community with uncrowded and quiet living conditions, and a scenic and unpolluted natural environment;
2. To preserve, protect, improve and enhance the natural, agricultural, scenic, recreational, cultural, and historic resources and the desirable characteristics of the traditional northern New England land use settlement pattern (compact patterns of development are preferable to non-contiguous development and the spread of strip land use development along the public road system);
3. To maintain and improve the accessibility to and the economic viability of existing villages and to emphasize the importance of a “livable, walkable community” based on the development of a network of non-motorized pathways, trails, bike lanes and sidewalks enabling resident and visitors to enjoy pedestrian and bicycle access to the Town’s business centers and recreational assets;
4. To continue to serve as a sub-regional retail and service center, but not to expand in this capacity to serve a larger geographic area;
5. To ensure that the density, intensity, and siting of future development is consistent with the capacities of access, utilities and natural resource constraints to support such land use development;
6. To enhance New London’s ability to protect its fragile natural environment by:
  - a. preserving remaining farms, fields, and forests and encouraging best practices in their management;
  - b. protecting the scenic resources, natural beauty, and open space lands of New London, and;
  - c. encouraging attractive, consistent aesthetic qualities in the built environment.
7. To strengthen New London’s ability to protect its fragile natural environment by:
  - a. protecting hilltops, steep slopes, wetlands, shorelines and special natural or geologic features, including habitat for rare plant species;
  - b. continuing to provide and protect natural habitat for wildlife, including increased focus on threatened or endangered species; and

- c. preserving and protecting New London's water and air resources.
8. To improve New London's ability to integrate continuing pressures for growth with its commitment to preserving rural character and the environment by:
  - a. continuing its commitment to environmentally sound planning and zoning principles and practices;
  - b. maintaining and improving the Town's enforcement of zoning regulations;
  - c. encouraging greater citizen awareness of and participation in best practices of land conservation, including participation in Town initiatives and volunteer-based organizations promoting land and wildlife habitat conservation; and
  - d. developing the Town's trail system and other recreational resources in a manner that increases the public awareness of and access to our rural landscape and natural environment without compromising its sustainability.
9. To encourage the provision of a safe, adequate and affordable supply of all housing types for residents of all income levels and provide housing opportunities to attract a more balanced mix of resident age groups; and
10. To provide for the aesthetically pleasing development of the community and its environs.

## Recommendations

1. Examine rezoning those areas deemed viable for expanding the number of village size residential lots, particularly within Town sewer and Precinct water.
2. Consider accommodating housing needs in the village:
  - a. Rental units;
  - b. Housing over businesses in the Commercial District, and;
  - c. Conversion of large single family homes into multiple units.
3. Consider changes to the existing Commercial District boundaries and permitted commercial uses to meet New London's future needs.
4. Consider opportunities to provide for clean, non-polluting light industry or high-tech industry by Special Exception in areas served by Town sewer and Precinct water.
5. Consider site and building design guidelines for aesthetics.
6. Consider a gateway protection ordinance aimed at preserving the Town's scenic quality and rural character along roads leading into New London and around Interstate interchanges.
7. Consider developing an Aquifer Protection Overlay District to minimize potential pollution of aquifers.
8. Explore innovative land use practices to preserve New London's rural character, natural and historic resources.
9. Conduct a feasibility study to identify future Water and Sewer Service Areas and defining sewer line extension policies.

## IV. CONSERVATION & OPEN SPACE LANDS

### Introduction

New London's open space lands are among the Town's most significant resources. Open space lands are typically those with no buildings or man-made structures. They are used for agriculture, forestry, outdoor recreation, or may be left in their natural state to serve important environmental and aesthetic functions.

Open space lands have many benefits. They:

- are critical to the quality of the air we breathe, the water we drink and the food we eat;
- enhance rural and small-town character, which have been identified as desirable aspects of New London;
- provide scenic views that contribute to the quality of life in Town and to a visitor's aesthetic experience;
- promote tourism;
- provide jobs and generate income from forests and farmlands;
- encourage community pride;
- may be used for outdoor educational and recreational activities including trails;
- help maintain a balance between the natural world and the world of humankind;
- provide areas for fishing and hunting;
- enhance and protect wildlife habitats;
- may be used for agriculture and forestry;
- safeguard potential water supplies and existing aquifers and groundwater recharge areas;
- provide flood protection;
- protect unique, unusual or fragile natural areas and habitats and rare and endangered species of fauna and flora;
- provide natural buffers or protection from wind and storm or from undesirable sights and sounds; and
- ensure a positive fiscal impact on the Town by enhancing property values and keeping property taxes down.

New London has a tradition of actively supporting the idea of conservation and protecting open space lands. Thanks to an active Conservation Commission, the Ausbon Sargent Land Preservation Trust (ASLPT) conservation-minded citizens and careful planning, New London is characterized by a pattern of open space lands which contributes both to the Town's environmental and visual quality. This pattern of open space between settlements and between structures is a key element in defining the character of the Town. The remaining unprotected open space land could be developed quickly depending on economic pressures.

It is important to note that the Town does not have the statutory power or financial resources to conserve all of the land which its citizens feel are worthy of conservation and important to protect. Recognizing this fact and being confronted with increasing budget proposals for preservation of open space lands by the Town's Conservation Commission, the New London Board of Selectmen in 1987 appointed a Committee to study the issue of land preservation. The conclusion of this Committee was that a private, non-profit land trust was an appropriate vehicle to address land protection. A land trust can offer quick response to landowners needs, be flexible, offer confidentiality and have the ability to raise funds.

In late 1987, the Ausbon Sargent Land Preservation Trust (ASLPT) was officially established. While the ASLPT beginnings were in New London, the organization serves 12 towns in the Mt. Kearsarge- Lake Sunapee region. The mission of the ASLPT is to help preserve and protect the rural character of the Mt. Kearsarge-Lake Sunapee region for public benefit through: conservation agreements that protect the farms, forests, streams and wetlands – the special undeveloped “open” spaces; stewardship of our conserved land, now and forever; partnerships with private individuals, local governments and like-minded organizations sharing expertise and efforts protecting land; education of the people of our communities about the importance to them of protecting our environment and its ecosystems through land conservation. Since its inception, the ASLPT and the New London Conservation Commission have worked cooperatively on numerous land protection projects. Between October 1988 and June 2008, the ASLPT has taken the lead in protecting 1,300 acres of land in New London including 2,500 feet of shore frontage on Lake Sunapee and 4,800 feet of shore frontage on Little Lake Sunapee.

In addition to the efforts by the ASLPT and the Town’s Conservation Commission, individuals, neighborhood groups and the lake protective associations must continue to take the initiative to conserve important local resources. The goals and recommendations set forth in this chapter should serve as a blueprint for individual, group and Town conservation efforts

As New London looks ahead to the future, plans must be made for future development, future conservation efforts and sustainability. The impacts of the loss of open space lands do not occur instantly, but rather slowly and cumulatively. Usually, the loss is irretrievable. Thus, an emphasis must be placed on conserving these important natural resources and lands that are also suitable for food and agricultural resources.

### **Goals: Conservation and Open Space Lands**

The Town has benefitted from a tradition of sensitive and successful conservation projects. With an increasing population and increasing development pressure, more emphasis will have to be placed on continuing the Town’s tradition of protecting open space lands.

Goals for Conservation and Open Space Lands include the following:

1. To enhance New London’s ability to preserve its rural character and heritage by:
  - a. preserving remaining farms, fields, and forests and encouraging best practices in their management;
  - b. protecting the scenic resources, natural beauty and open space lands of New London; and
  - c. encouraging attractive, consistent aesthetic qualities in the built environment.
2. To strengthen New London’s ability to protect its fragile natural environment by:
  - a. protecting hilltops, steep slopes, wetlands, shorelines and special natural or geologic features, including habitat for rare plant species;
  - b. continuing to provide and protect natural habitat for wildlife, including increased focus on threatened or endangered species; and
  - c. preserving and protecting New London’s water and air resources.
3. To improve New London’s ability to integrate continuing pressures for growth with its commitment to preserving rural character and the environment by:

- a. continuing its commitment to environmentally sound planning and zoning principles and practices;
- b. maintaining and improving the Town's enforcement of zoning regulations;
- c. encouraging greater citizen awareness of and participation in best practices of land conservation, including participation in Town initiatives and volunteer-based organizations promoting land and wildlife habitat conservation; and
- d. developing the Town's trail system and other recreational resources in a manner that increases the public awareness of and access to our rural landscape and natural environment without compromising its sustainability.

### **Community Survey Results: Conservation and Open Space Lands**

The Community Survey conducted by the Planning Board in 2008 included several questions pertaining to conservation and open space lands. Overall, the results of the survey showed continued strong support for conservation efforts and protection of open space lands in Town. The following section provides more specific feedback received on conservation and open space lands.

Question #1: The most important attributes which survey respondents thought very significantly or significantly contribute to making New London a desirable place to live and/or own property were 1) scenic vistas of lakes, mountains and open spaces (97.8%) and 2) small town atmosphere with rural charm (95.1%).

Question #10: The Community Survey also asked people to identify the most important attributes which were either important or very important in creating the unique character and rural charm of New London. Results of the survey on this question contained several responses related to conservation and open space lands including the following:

- 96.3% Scenic views/vistas;
- 94.7% Agricultural land and open fields;
- 92.2% Attractive landscaping;
- 92.1% Tree lines along field, forest, and road edges;
- 91.0% Surface waters;
- 87.1% Protection of important properties and features;
- 86.8% Maintaining a natural vegetative buffer around lakes and ponds and along streams;
- 86.4% Maintaining the rural and agricultural feel of the countryside;
- 86.3% Wetlands, marshes and bogs;
- 84.4% Maintaining a natural vegetative buffer along the roads;
- 83.9% Undeveloped, scenic & rural quality of Town entrances;
- 82.1% Maintaining the natural integrity of ridgelines.

Question #11: The survey results showed strong support for view protection. Specifically, support for protection of the following scenic views/vistas was considered either very important or important:

- 87.9% Fields along Main Street with views of Mt. Kearsarge, Mt. Sunapee and King Ridge;
- 83.8% Views of Lake Sunapee and Mt. Sunapee from Burpee Hill;
- 83.6% Views and fields along Route 11 and King Hill Road;
- 83.6% Main Street;
- 79.7% Fields along Little Sunapee Road;
- 73.1% Colby Point;
- 66.2% Views from Morgan Hill Road; and
- 54.7% Views from behind the New London Shopping Center.

Question #16: 93.1% of those surveyed indicated they would support continued efforts by the Town to protect land that is considered significant to the character of the community, such as the Philbrick-Cricenti Bog and the Town Common. Only 3.1% opposed the idea and 3.8% didn't know. This is approximately a 5% increase in support for land protection from the 1998 Master Plan Community Survey. When asked if the Town should continue to invest in the protection of additional lands, 73.9% responded yes, with 10.1% no and 16.0% didn't know.

Clearly, support for land conservation and protection of the natural and visual environment in New London continues to be a high priority. Although we are one of the more densely populated towns in the region, through careful planning and the protection of key properties we have managed to retain much of our rural charm.

## **Land Protection**

Conservation easements are a common and very flexible tool used to protect land while keeping it in private ownership. A conservation easement is a legal agreement placing restrictions on land use and establishing an enforcing body, like the ASLPT or the Conservation Commission to monitor these restrictions.

To understand conservation easements, the concept of land ownership needs to be explained. Land ownership implies the ownership of certain rights. The right to develop the property, the right to extract minerals from the property, the right to cut timber and the right to travel across property are among the rights associated with land ownership. Mineral rights and the right of access are commonly sold or thought of separately from the ownership of the land.

A conservation easement usually separates the right to build, called the development right, from the ownership of the land. The landowner who has given away or sold his or her development rights continues to use and enjoy the land, and may receive tax benefits from the donation of the development rights to a non-profit group. Conservation easements typically limit development and the removal of sand, gravel, topsoil, and may set standards for farming, forestry or recreational use of the property. Conservation easements are flexible and may restrict activities as the landowner sees fit. The Town Conservation Commission, a local land trust such as the ASLPT, or a statewide group, such as the Society for the Protection of New Hampshire Forests, are often the designated monitors who ensure that restrictions are honored.

Many individuals have taken advantage of conservation easements. They still own their lands, but have restricted the use of all or a portion of it and have designated a group to enforce those restrictions. The landowner may have benefited from a tax deduction, but all those individuals, along with others in Town, benefit from the protected open space land.

Another approach to land protection is the purchase and fee simple ownership of property by a local land trust such as the ASLPT or a statewide group, such as the Society for the Protection of New Hampshire Forests. It can also be a purchase by the Town with a conservation easement granted to the ASLPT or a statewide group, such as the Society for the Protection of New Hampshire Forests that ensures its protection long-term. Unprotected open space lands include lands held in private ownership or Town-owned land that is not protected by a conservation easement.

## **Economics of Open Space Protection**

As highlighted in the introduction, open space lands have many benefits to a community. One benefit of open spaces lands is ensuring a positive fiscal impact on the Town by enhancing property values and keeping property taxes down. The positive fiscal impact of open space lands such as working farms and forests have been demonstrated through Cost of Community Services Studies.

A Cost of Community Services (COCS) Study is a type of fiscal impact analysis that determines the fiscal impact of current land uses on a municipality's budget. A fiscal impact analysis is completed for a given year using all the revenues and expenses by line item of a community's budget. These are assigned proportionately to the Town's agricultural/open space lands, residential and commercial/industrial land use categories. COCS studies are a snapshot in time of costs versus revenues for each of these types of land use.

The result of a COCS study is generally a set of three ratios that represent the balance of revenues and expenditures for agricultural/open space, residential, and commercial/industrial lands. In simple terms, the researcher determines which municipal revenues are generated by each land use and allocates that revenue to the appropriate category. Similarly, the researcher determines which municipal expenditures are demanded by each land use and allocates those expenditures to the appropriate category. Expenditures are divided by revenue to produce a final ratio. For example, a ratio of 1.03 means that for every one dollar of revenue allocated to a particular land use, 1.03 dollars of expenditures are allocated to that land use. Typically, the study will report one ratio each for agricultural/open space land, residential land, and commercial/industrial land.

As of late 2004, thirteen New Hampshire communities had completed COCS studies. In every town, agricultural/open space lands paid more in taxes than the cost of services it required resulting in a positive fiscal impact on the community. The average ratio for agricultural/open space lands was about 0.50 for these thirteen communities meaning expenses were only one-half the revenues for this land use category. As concluded by Frank Mitchell, land and water conservation specialist with UNH Cooperative Extension: "The data clearly show that working farms and forests and undeveloped natural areas bring in more revenue to a town than the land requires in services, and that conserving these lands can slow property tax increase in the long run."

## **Inventory of Important Open Space**

New London's open space and conservation lands include not only forests and fields, but important wetlands, water bodies, and unusual geologic features. They include wildlife habitat and scenic resources such as scenic views and scenic roads. Additionally, the New London Conservation Commission has developed an extensive network of trails on public and private lands where owners have granted public access for such use. A detailed description of some of New London's most important open space lands and natural features can be found in Appendix C at the end of Master Plan. Some of these conserved open space lands established based on collaborative efforts between the Conservation Commission and the ASLPT. Locations are shown on Map IV-1: Natural Resources, Trails & Conservation Lands.

## **Open Spaces Resources, Scenic Roads and Trails**

### Open Fields and Agricultural Lands

Open space lands enhance the rural and small-town character of New London and provide scenic views that contribute to the quality of life in Town and to a visitor's aesthetic experience. Additionally, protection of farmlands will help preserve some prime agricultural soils which are becoming a scarce national, state and local resource with the continuing decline of agricultural land uses. The current use program in New Hampshire provides property owners the benefit of reduced property taxes on open space lands, but does not ensure long-term protection of these valuable resources. The purchase of conservation easements, development rights or fee simple acquisition of significant open space lands affords ongoing, long-term protection for these important resources.

Concerns about preservation of farmland in New London today are motivated not only by the aesthetic benefits provided by open space lands, but by the emerging demand for locally grown food and other products. Evidence of this emerging growth is indicated by increasing agricultural activities in our Town over the past decade.

In 2008, one farm alone tilled over 35 acres of open land for fruit and vegetable production. Several other properties provide substantial acreage for seasonal pasturing of beef cattle, dairy cattle, work horses, alpacas, and occasionally sheep and goats. In addition, over 100 acres of open fields are used for the commercial production of baled hay. On Burpee Hill Road alone there is a commercial greenhouse producing orchids, a Christmas tree plantation, several acres of wild high bush blueberries, a beef cattle farm and over 25 acres of baled hay production.

Open Fields in New London were inventoried by the Conservation Commission and are outlined in Appendix B of this chapter. As reflected in the table, there are only about 675 acres of open fields remaining in Town. This represents only 4.7% of the total land area in New London. This is less than half of the statewide average of 10% open lands in New Hampshire. Agricultural resources in New London are illustrated on Map IV-2 (Page 27).

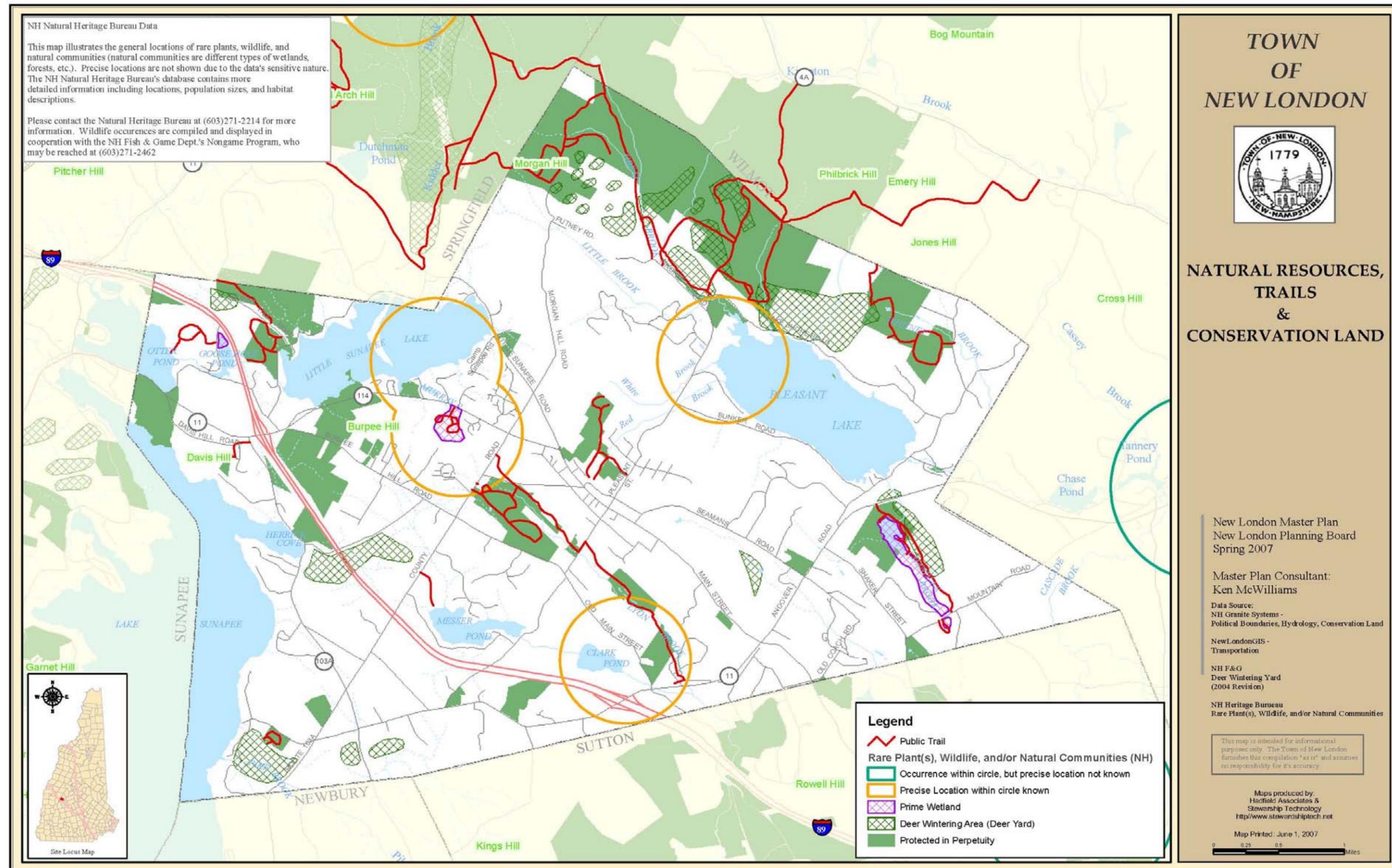
### Wildlife Habitat

For most of our nation's history, wildlife resources have been bought, sold, traded or wasted away without any regard for, or knowledge of, how this myriad of creatures may ultimately benefit mankind. Short term human gains have invariably taken precedence over the long-term wildlife losses, especially at the local level. If we, as a community, hope to maintain the diversity of wildlife resources that we still enjoy, then we must begin to plan and ensure that future development proposals minimize the impact on wildlife habitat features that are essential to the wildlife populations that we hope to preserve.

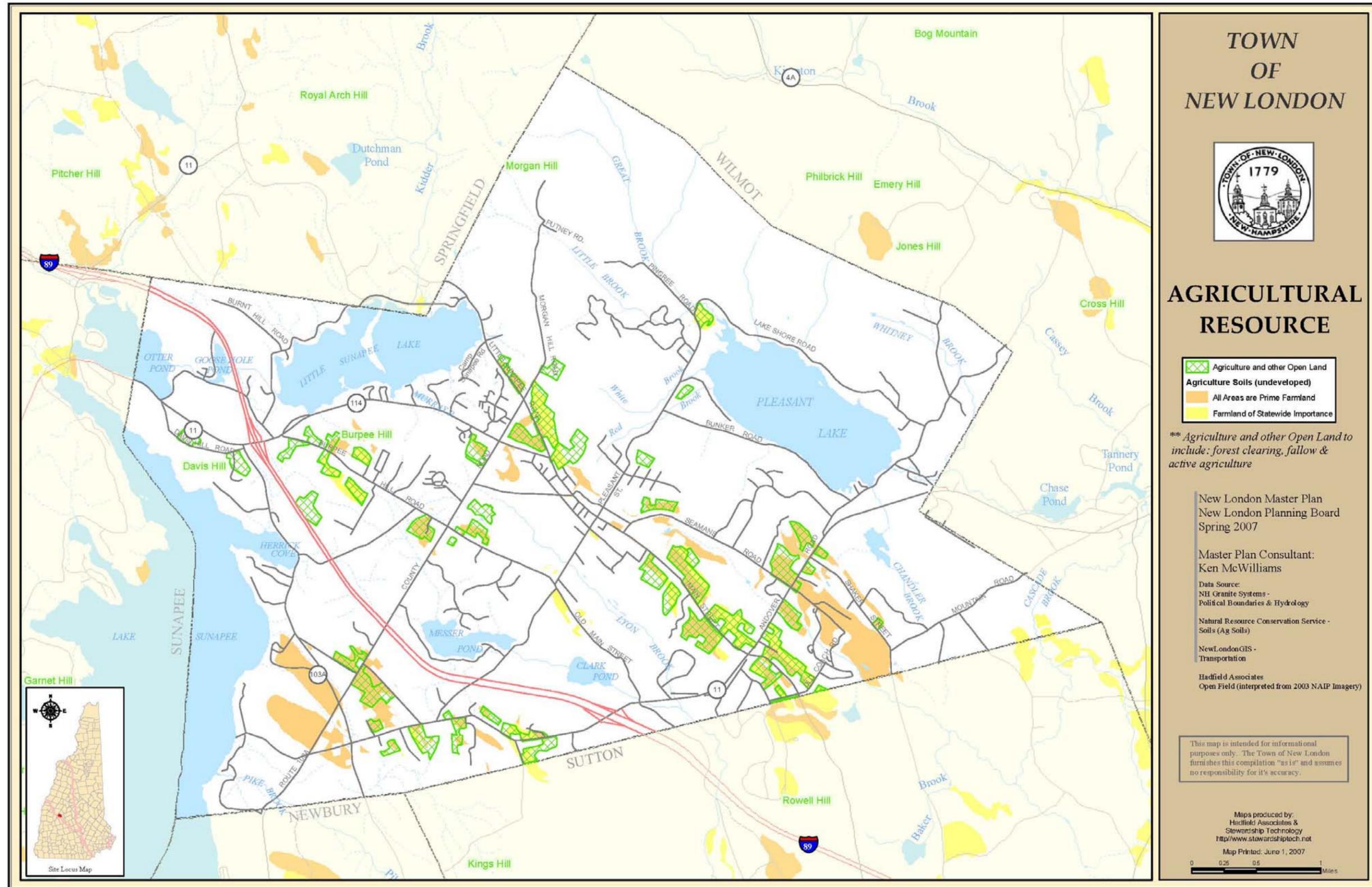
The community has long recognized the importance of wetlands, but more from the perspective of protection of water quality and flood control purposes rather than protection of wildlife habitat. Wetlands have been isolated with development surrounding them as if they were islands when, in fact, they are only part of a complex mosaic of habitat features that support a wonderful diversity of wildlife.

To date, the only wildlife habitat feature which has been identified and mapped in New London is deer wintering areas or deer yards. This work, done by the New Hampshire Fish and Game Department, is illustrated on Map V-1 Natural Resources, Trails & Conservation Land.

Map IV-1: Natural Resources, Trails & Conservation Lands



Map IV-2: Agricultural Resources and Earth Excavations



TOWN OF NEW LONDON



AGRICULTURAL RESOURCE

- Agriculture and other Open Land
- All Areas are Prime Farmland
- Farmland of Statewide Importance

*\*\* Agriculture and other Open Land to include: forest clearing, fallow & active agriculture*

New London Master Plan  
New London Planning Board  
Spring 2007

Master Plan Consultant:  
Ken McWilliams

Data Source:  
NH Granite Systems -  
Political Boundaries & Hydrology

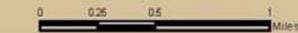
Natural Resource Conservation Service -  
Soils (Ag Soils)

New London GIS -  
Transportation

Hadfield Associates  
Open Field (interpreted from 2003 NAIP Imagery)

This map is intended for informational purposes only. The Town of New London furnishes this compilation "as is" and assumes no responsibility for its accuracy.

Maps produced by:  
Hadfield Associates &  
Stewardship Technology  
<http://www.stewardshiptech.net>  
Map Printed: June 1, 2007



The New London Conservation Commission should develop a comprehensive natural resource inventory utilizing the Wildlife Action Plan developed by NH Fish and Game to evaluate wildlife and their essential habitat requirements to supplement the deer wintering area information that already exists. This inventory can then serve as the basis for development of a wildlife habitat overlay map which can be used to reevaluate the current configuration of the Conservation District boundaries and to evaluate the potential wildlife habitat impacts of new development proposals. This information can then serve as the basis for changes to zoning regulations, zoning district boundaries, and/or subdivision regulations so that any adverse impacts from new developments on remaining essential wildlife habitat is minimized.

### Wetlands

Wetlands were long considered as waste land and many wetland areas were dredged and filled as part of new developments. Slowly over time the important values and functions of wetlands were recognized and wetlands became important resources worthy of protection. Important wetland values and functions include:

- Acting as filters to pollutants;
- Providing flood storage areas;
- Providing wildlife habitat for a variety of wildlife species; and
- Providing for groundwater recharge.

Wetlands are now protected by regulation at both the local and state levels. Wetlands designated as Prime Wetlands are afforded an additional level of scrutiny and protection by the state. Please refer to the Wetlands section in the Watersheds and Water Resources Chapter for more information on wetlands.

### Lands with Significant Attributes Worthy of Protection

The Conservation Commission has identified a number of important properties worthy of protection in New London. These are outlined in Table IV-1 (Page 30). This is a non-exhaustive list intended to be used to guide future conservation efforts by the Conservation Commission and the ASLPT, with the properties listed in no particular order or ranking. The location of these properties can be found using the tax map and lot numbers in the table and referring to the Town tax maps.

**TABLE IV-1  
Desirable Properties Not Currently Protected**

Owner	Map/Lot #	Address	Description
Cricenti	059-005-000	County Road	Open agricultural land
Messer, M. Rev.Tr.	060-005-000	Little Sunapee Rd.	Open agricultural land, scenic views
Messer, R. Rev. Tr.	046-004-000	Little Sunapee Rd.	Open agricultural land, scenic views
Cleveland Family Trust	097-001-000	Main Street	Open agricultural land, scenic views on town approach
Cleveland, H. Tr.	109-007-000	Main Street	Open agricultural land, scenic views on town approach
LSCC	110-007-000	Andover Rd.	Open field (driving range) on town approach
Ewing, R. Tr.	096-015-004	Main Street	Scenic views, Lyon Brook Trail
Kidder, M. TR.	101-009-000	Mountain Rd.	Wetland, wildlife habitat
Ginerre Tr.	081-015-000	Farwell Ln.	Scenic view from Burpee Hill Rd.
Land Holdings LLC	137-007-000	Route 103A	King Hill Brook, Pike Brook watershed, wildlife habitat
Bucklin, J. Rev. Tr.	047-001-000	Morgan Hill Rd	Open agricultural land
Harris, M. J. Tr.	046-002-000	Little Sunapee Rd.	Open agricultural land
Brewster, E. J. Tr.	117-013-000	Tracy Rd.	Open fields, wildlife habitat, wetlands

Source: New London Conservation Commission

**TABLE IV-2**  
**Other Desirable Properties not currently protected contiguous with currently conserved lands that would expand conservation land already owned by the Town for wildlife habitat or recreational purposes**

Owner	Map/Lot #	Address	Description
Howard	060-010-000	103A/Davis Hill Rd.	Wooded area around Clark Lookout
Woodruff	068-019-000	Davis Hill Rd.	Wooded land adjacent to Clark Lookout
Green, W. & B.	120-002-004	Old Main Street	Adjoins Town-owned land on Clark Pond
Putnam, A. Tr.	028-001-000	Goose Hole Rd.	Adjoins Phillips Preserve on Otter Pond
Darrah, Rev. Tr.	098-014-000	Andover Rd	Adjoins Low Plain and is on Town approach
Pratt Estate, Harold	088-006-000	Andover Rd.	Adjoins Low Plain and is on Town approach
Lynch, C. & M.	100-002-000	Mountain Rd.	Adjoins Low Plain, wildlife habitat, wetland
Messer, Peter	131-006-000 & 131-007-000	King Hill Road	Agricultural, scenic views and forested

Source: New London Conservation Commission

### Scenic Resources

#### *Scenic Views:*

New London's diverse landscape features, including its wooded hillsides, open fields, farms, mountain lakes, wetlands and small settlements blend together and contrast to create New London's splendid scenic qualities. These qualities are so important in defining the rural and small town character cherished by those who come to live, work and visit in this community blessed with so much natural beauty. The lingering image of a vista overlooking open fields with Mt. Kearsarge or Lake Sunapee in the background, and the undeveloped appearance of the interstate exchanges and roadways leading into and out of New London, are just a few of the reasons why we were attracted here in the first place, why this is a special place to be today, and why we want to remain here in the future. Preservation of these scenic resources is critical to maintaining the rural and small town character of New London. The challenge is to accommodate development while preserving the Town's scenic resources and rural character in the process.

Actually, New London has the fourth highest population density in the region, (behind Lebanon, Claremont and Hanover, in that order) yet when one crosses into Town by any one of over a half dozen approaches one has the impression that we are a rural community. We have

managed to wear our development well, through careful planning, zoning and preservation efforts, and must strive to do so in the future.

Through a combination of fee simple purchase and conservation easements, many of the scenic resources listed and described in this chapter have already been protected for future generations to enjoy. As development continues, however, the Town will have to continue to use the planning and conservation tools at its disposal to ensure that these qualities are not compromised.

*Scenic Roads:*

Designation of scenic roads enables the Town to preserve a rural feeling along those roads. Specifically, scenic road designation protects trees and stone walls situated on a public right-of-way. Any road in Town may be designated as scenic unless it is a Class I or II highway. Pursuant to RSA 231:158, any repair, maintenance, reconstruction or paving work done on a scenic road shall not involve the cutting or removal of trees, or the tearing down or destruction of stone walls, except with the prior written consent of the Planning Board following a public hearing. As a scenic road, the road is still eligible for State Aid. The rights of abutting landowners are in no way affected. Scenic road designation may be used in concert with other land use management techniques in appropriate areas of the community to discourage further intensive land use development. The following table lists existing scenic roads.

**Table IV-3:  
Existing Scenic Roads**

Existing Scenic Road Name	Date Adopted
Camp Sunapee Road	3/73
County Road (Knight's Hill to Tracy Road)	3/77
Pingree Road	3/82
Soo Nipi Park Road	3/82
Davis Hill Road	3/83
Whitney Brook Road	3/99
Forty Acres Road	3/99

Source: Town of New London

*Private Lands with Public Access*

New London is fortunate to have several private property owners who have provided public access to their properties for a variety of uses including recreation and hiking trails. Information on these private properties with public access is outlined in the following table.

**Table IV-4:  
Private Lands with Public Access**

Tax Map #	Tax Lot #	Owner	Acres	Location	Use
017	003	New England Forestry Foundation	69	Burnt Hill Road	Forest/Trail
030	012	New England Forestry Foundation	52	Little Sunapee Road	Forest/Trail
083	008	Knight's Hill Nature Park	69	County Road	Forest /Trail
083	10	New London Outing Club	30	Parkside Road	Recreation
094	024	New London Outing Club (C.O.R.E.)	55	Knight's Hill Road	Forest/Trail
036	010	Webb	695	Lakeshore Road	Forest/Trail
006	004	Webb	224	Morgan Hill Road	Forest/Trail
0044	001	Webb	81	NW Area of New London	Forest/Trail
030	023	Parkhurst	43	Little Sunapee Road	Forest/Trail
136	9	ASLPT		Soo-Nipi Park Road	Forest/Trail

Source: New London Conservation Commission

### *Hiking Trails*

There are just over thirty miles of trails in New London, with extensions and adopters (people who care for the trails) organized by the Conservation Commission. As shown on Map VI-1, these trails traverse a varied landscape of hills, brook sides, lake shores, and forests. The Sunapee-Ragged-Kearsarge Greenway follows the Great Brook, Wolf Tree and part of the Webb Forest Interpretive Trails. One of the longest of the Town's trails is the Great Brook Trail (3.36 mi.), which starts in Perleytown (in the Gile Memorial Forest), follows many cascades, including the Upper and Lower Cascades, and nearly reaches Pleasant Lake. The Trail drops about 800 feet in two miles. The Morgan Hill Trail from the end of Morgan Hill Road to the Great Brook Trail is an old woods road that has reverted to forest. One can hike a 5 mile loop using the latter two trails, the Perley Road (Morgan Pond Trail); and the Kidder Trail. A map (including descriptions), *Footpaths in New London and Vicinity*, is available at the Town Office, Morgan Hill Bookstore, Tracy Library, Village Sports, and the Information Booth. Maps and descriptions of each of the trails may also be found on the Conservation Commission website, **Error! Hyperlink reference not valid.** In addition to these hiking trails there are in-Town village trails covered in the Recreation section of the Community Facilities and Services Chapter and sidewalks discussed in the Transportation Chapter.

Views from the Wolf Tree Trail and the Morgan Hill trails have been lost to forest growth, but views are available from the new Pleasant Lake High Trail and the Cook Trails. Plant life along the trails includes low bush blueberry, Clintonia, partridgeberry, lady slipper, Solomon's seal, wood sorrel, wild sarsaparilla, goldthread, starflower, violets, mosses and ferns.

Almost as important as open space land conservation areas is public access to special places. Through the generosity of land owners, New London is fortunate to have an extensive network of trails accessing these areas. The trails and their lengths are listed in Table IV-5 (Page 35).

#### *Private Land Providing Public Access to a Designated Trail*

Public access to many of these trails is provided by private property owners. The following table details the private property owners who have provided public access the trail system.

### **Management and/or Protection: Conservation and Open Space Lands**

#### Management Plan for Town-Owned Land

The Conservation Commission has developed a complete inventory of lands owned by the Town, which is outlined in Appendix C at the end of this chapter. Many of these parcels the Town owns for conservation and open space purposes. Several of the properties are owned by the Town for completely different purposes. The Commission is just beginning to sort out how to categorize these lands and plan for their future use.

From here, the Conservation Commission will evaluate the alternative uses or multiple uses for each individual parcel and develop a recommended plan for the use, management or disposition for each parcel.

#### Protection of Conservation and Open Space Areas through Fee Simple Ownership and Conservation Easements

It is clear from the inventory of open fields, lands with attractive features and Town-owned lands found in the Appendix that the Town's open space and conservation areas are located throughout the Town and are owned predominantly by individuals rather than public organizations. With these important open space lands in private ownership, the Town tax base is maintained even if it is at current use levels. However, important open space lands owned privately can be developed for other uses that would result in the irretrievable loss of that open space and the benefits it provides as enumerated in the introduction.

The Town of New London owns 792.9 acres of open land, as outlined in Appendix C. This represents 5.6% of the total land area in New London consisting of 14,237 acres. Parcel sizes range from a .05 acre dam site to the 200 acre Low Plain Area. The lands are diverse, including the Philbrick-Cricenti Bog, the Colby Sanctuary, land along Lyon Brook, land abutting Clark Pond and the Town Common.

It is encouraging to see that through June 2008 the ASLPT and the Conservation Commission have worked with landowners to protect 2,522 acres, many of which were protected using conservation easements. This accounts for 17.7% of the total land area in New London that comprises 14,237 acres. Table VI-7 identifies lands under the stewardship of the Conservation Commission.

**Table IV-5:  
Some Trails Maintained in New London**

Trail Name	Trail Length in Miles	Length in New London	Elevation Gain in Feet
Bunker Place Loop	0.76	.76	294
Clark Lookout	0.38	.38	105
Cook Interpretive	1.14	1.14	239
Cordingley Preserve	0.4	0.4	10
Dura Crockett	0.78	0.78	376
Dura Crockett Shortcut	0.15	0.15	55
Great Brook	3.36	2.09	970
Hayes Forest Connector	0.08	0.08	6
Kidder Trail	0.73	0.73	156
Kidder-Cleveland-Clough	1.85	1.85	50
Knights Hill Nature Park	2.24	2.24	148
Little Sunapee Associates Trail	4.23	4.23	186
Low Plains Natural Area	1.18	1.18	12
Lyon Brook Trail	2.74	2.74	259
Messer Pond Trail	0.34	0.34	3
Morgan Hill	1.05	1.05	206
Morgan Hill Loop	0.53	0.53	157
Philbrick-Cricenti Bog	0.71	0.71	9
Phillips Memorial Preserve	0.97	0.97	264
Pleasant Lake High Trail	2.72	2.72	907
Shepard Spring	0.4	0.4	13
Webb Forest Interpretive	2.54	1.96	707
Webb Forest-Wolf Tree Connector Trail	0.05	0.05	10
Wolf Tree Trail	1.45	1.45	641
Clark Pond Trail – Norman Loop	0.66	0.66	0
Clark Pond Trail – Dancy Loop	0.66	0.66	0
Total	32.10	30.25	N/A

Source: New London Conservation Commission

**TABLE IV-6  
Privately Owned Land Providing Public Access onto a Designated Trail**

Tax Map #	Tax Lot #	Owner	Acres	Location	Use
38	1	Deming, B.	125	Forty Acres Road	Forest/field/ trail possibility
54	2	Gordon, D.	37	Davis Hill Road	Forest/N.L. Stagecoach Rd. (Trail)
54	3	Dick Dulude	35.4	Route 11	Forest/N.L. Stagecoach Rd.(Trail)
121	5	Durkin.	40	Old Main Street	Forest/Trail
73	9	Kidder & Cleveland	16.3	Pleasant Street	Wetlands/ Trail
73 60	36A 21	Spring Ledge Farm	53	Main Street	Farm/Forest/ Trail
58	16	Fenwood	7.3	Newport Road	Forest/ Trail Possibility
84 84	12 13	Pelfor Corp.	14.7 1.47	Abuts C.O.R.E.	Forest/ Trail Possibility
36	7 16	Clough	12	Lakeshore Road	Forest/ Trail/ Fishing
121	13,14,17,1 8,19	Trussell Ridge Dev.		Lots along Lyon Brook	Residential/ Trail
108	9	Sullivan, R.&S.		Ridge View Road	Residential/ Trail
136	9	ASLPT	13.15	Soo-Nipi Park Road	Forest/Trail

Source: Ausbon Sargent Land Preservation Trust

**Table IV-7:  
Land under the Stewardship of the Conservation Commission**

Tax Map #	Tax Lot #	Parcel	Area in Acres
012	001	Colby Sanctuary	23
029	004	Goose Hole Marsh	.62
029	001	Philips Memorial Preserve	80
058	024	Philbrick Cricenti Bog	36
068	011	Clark Lookout	4.5
088	007	Low Plain Natural Area	176
083	009	Land on Lyon Brook Trail	15
093	013	Messer Pond Conservation Land	48
095	020	Pleasant Street	1
119	002	Clark Pond Natural Area	90
52	8	David & Celeste Cook	69.0

Source: New London Conservation Commission

*Protection of Conservation and Open Space Lands through Local Land Use Regulations*

Outright acquisition of fee simple ownership or conservation easements provides the most secure long-term protection of significant open space lands. However, this approach is not always economically feasible. Local land use regulations provide an alternative approach to protection of these resources.

*Summary of Major Changes to Land Use Regulations since adoption of the 1998 Master Plan*

Since the adoption of the 1998 Master Plan, the Town has made significant strides in updating and amending local land use regulations which have had a positive impact on protecting conservation and open space lands in New London. A summary of the major changes to these local land use regulations over the past ten years follows.

*Zoning Ordinance:*

Following the recommendations in the 1998 Master Plan, several important provisions have been added to the New London Zoning Ordinance relative to protection of conservation and open space lands since the Town's last Master Plan was adopted in 1998. These include:

1. **Wetland Buffers:** The Zoning Ordinance now provides a variety of wetland buffers, depending on the category of wetland, to protect these fragile environments. These buffers are shown on the New London Streams and Wetland Protection Map, adopted March 13, 2001.

2. Steep Slope Overlay District: Recent changes to these regulations provide for some protection of slopes exceeding 15%, in addition to preventing development on all slopes over 25%. There are also new slope related density restrictions that limit development in areas adjacent to slopes over 25%.
3. Streams Conservation Overlay District: This new overlay district was developed to protect significant stream environments and drainage systems and, together with the Wetlands Conservation Overlay District, provide a more comprehensive approach to buffering these resources from the potential impacts of development,
4. Shore Land Overlay District: Sweeping changes to the State's Comprehensive Shoreland Protection Act have resulted in a new approach to this complex protection challenge, including restrictions on the amount of impervious surface, a new point system for evaluating tree cutting in the waterfront buffer and protection of the natural woodland buffer. In addition to local permitting, the State now requires permits for any construction within 250 feet of a lake.
5. Conservation District Amendments: In addition to the 10 acre lot size restriction, there is now a new Forest Conservation Overlay District to the north of Pleasant Lake that has a 25 acre minimum lot size and a frontage requirement of 400 feet. This new district is intended to limit development in these steep, remote areas and to promote their use for forest product management and production.

#### *Subdivision Regulations*

In addition to these amendments to the Zoning Ordinance, the Planning Board has updated the Subdivision Control Regulations to include changes that will positively impact conservation and open space land protection. These include:

1. Low Impact Development Techniques: This amendment to the Subdivision Control Regulations requires that new developments utilize low impact development techniques to dramatically reduce the amount of post development stormwater runoff leaving a site. These include the use of pervious road and parking surfaces, dry wells, infiltration trenches, rain gardens and other infiltration devices designed to reintroduce stormwater to the groundwater system in order to reduce the overall impact of development. These Low Impact Development techniques were also incorporated by reference into the Site Plan Review Regulations.
2. Sediment and Erosion Control Standards: This revision to the Subdivision Control Regulations requires that all projects follow the latest Best Management Practices (BMPs) for control of erosion and sedimentation during construction, and requires inspection of approved devices before, during and after construction to ensure that erosion and sedimentation do not occur.

#### *Summary of Suggested Additional Amendments to Land Use Regulations*

As reflected above, over the past ten years the Town has made many changes to their land use regulations which positively impact conservation and open space lands. However, there are several additional areas of concern which could be addressed through amendments to these regulations. These include:

1. **Wetland Buffers and Setbacks:** The zoning ordinance currently provides buffers and setbacks around the many of our wetland complexes. The Conservation Commission and Planning Board should continue to develop and improve planning techniques designed to protect streams and wetland complexes in a manner that preserves the essential functions and values of these fragile resources. The existing stream and wetland map, adopted March 13, 2001, should be revised because it does not include certain significant streams and wetlands, and includes some that are questionable. In addition, the buffering methodology in the Town's existing wetlands overlay regulation scheme has encountered problems, in certain circumstances, that should be resolved. To accomplish these goals, the Planning Board has appointed a Wetland Subcommittee to study stream and wetland protection and make recommendations to the full Planning Board on the best approach to pursue. After consulting with professional wetland scientists, the Wetland Subcommittee is pursuing the development of a scope of services by a wetland scientist to study the streams and wetlands in Town to define their functions and values and to develop a regulatory system based on that scientific analysis. As this limited science continues to evolve and improve, the Planning Board should continue to seek effective alternatives to protect these fragile environments. This should continue to include periodic consultation with wetland science professionals and a review of current statutes to ensure a scientifically practical and legally viable regulatory approach.
2. **Redefining Wetland Boundaries:** The state and federal definition of a wetland is based on soils, hydrology and vegetation. There are different types of wetlands however, and each may serve a different purpose in the overall scheme of managing stormwater runoff and providing wildlife habitat. Understanding the functions and values of these different types of wetlands and being able to identify them in the field will be key to providing protection that is appropriate to each in the future.
3. **Water Resources:** The protection of water resources within each watershed in the Town and neighboring communities continues to be of major long term concern. As a result of recommendations formulated by the Sunapee Area Watershed Coalition (SAWC) in its 2008 study many of the recommendations aimed at maintaining good water quality in both surface and ground water resources have already been included in ordinances or will lead to future improvements. These include limitation on density of development, controls of impervious surface, management of storm water run-off and wastewater treatment capacity. Since water quality issues are not confined to town boundaries closer cooperation between adjacent towns is necessary.

Aquifers are important components of water resources. The U.S. Geological Survey in cooperation with the New Hampshire Department of Environmental Services has recently completed new mapping of stratified-drift aquifers in this part of the state. The town should consider using these maps as the basis for establishing an Aquifer Protection Overlay District similar to the other environmental overlay districts incorporated into the zoning ordinance. Again, these overlap with other towns so that cooperative action may be required.

4. **Creative Approaches to Land Planning:** The Planning Board should continue to explore creative land use planning techniques that can help preserve rural character and natural and historic resources. Some alternatives to consider include:
  - a. **Innovative Land Use Techniques:** The Planning Board should work toward the development and use of additional innovative land use techniques permitted by

statute in an effort to continue to preserve the rural character of New London. Although we already have Cluster Zoning and PUD regulations, techniques such as Conservation Subdivision, the Village Plan, and others should be considered.

- b. **Subdivision Design Standards:** The traditional strip residential development pattern along the existing road network results in promoting an image of residential sprawl throughout Town. The actual development pattern is one of strips along the road system, but predominantly undeveloped areas behind those strips. The desired image of rural character can best be achieved by preventing these strip patterns and to continue to promote open space along the existing road system and developing residential uses behind these field or forest open spaces.

The Planning Board should consider developing and incorporating design standards into the Subdivision Control Regulations which would preserve rural character.

### *Open Spaces and Aesthetic Enhancement in Town*

While most of the focus of this chapter has been on the rural open spaces and conservation areas outside of the villages, the provision of open space within the more densely developed villages is just as important. Open spaces such as the Sargent Common play a significant role in creating the attractive image of the village area. Additionally, landscaping treatment along the streets both within the public right-of-way and on abutting private properties adds rural character in the built environment. Continuing to emphasize these elements in the village area is important in maintaining the character and image which exists today.

**Development and Adoption of a Ridgeline Protection Ordinance:** The Planning Board should consider developing a ridgeline protection ordinance aimed at protecting the town's scenic quality and rural character for the voters to consider adopting.

**Protection of Food Production and Agriculture:** The decline in agricultural lands in Town since the 1940s should be documented through a series of maps. The Town needs to recognize and assist the efforts of citizens currently engaged in food production and agricultural activities. The Planning Board should consider crafting an agricultural overlay district aimed at preserving the Town's remaining agricultural resources.

### **Issues**

There are additional important conservation and open space lands worthy of protection in New London.

1. The Town needs a management plan for Town-owned lands that can maintain long-term sustainability and may also provide revenue.
2. The Town needs an inventory of wildlife resources and their critical habitat and should identify information and approaches to protect these resources.
3. The Town needs to assess the essential functions and values of its streams and wetlands and develop an up-to-date scientifically-based natural resource protection plan.

4. The Town needs to study innovative land use techniques aimed at preserving rural character, agricultural resources and other natural and historic resources.
5. It is important to continue to provide landscaped open spaces within the villages.
6. The important agricultural resources in New London are dwindling and are in need of protection. The decline in agricultural lands in Town since the 1940s should be documented through a series of maps. The Town needs to recognize and assist the efforts of citizens currently engaged in food production and agricultural activities. The Planning Board should consider approaches aimed at preserving the Town's remaining agricultural resources.
7. New subdivisions and land development continue to consume open space lands in New London.
8. Additional opportunities exist to encourage access to and development of recreational trails for hiking, cross-country skiing, snowshoeing, bicycling, etc.
9. Many Town-owned lands that are the responsibility of the Conservation Commission are not currently protected by conservation easements.
10. Vigilant monitoring and enforcement of land use and environmental regulations is needed to achieve conservation goals. Such activities can be expensive for the community to undertake.

## **Recommendations**

1. The Town, through the Conservation Commission, should continue to work cooperatively with the ASLPT and other land conservation groups to conserve additional important conservation and open space lands worthy of protection in New London. In particular, these groups should be guided by the list of Desirable Properties Not Currently Protected (Table IV-1). The Town should continue to set aside monies for land conservation in the Town's Capital Improvement Program.
2. The Conservation Commission should continue its work in developing a Management Plan for Town-owned land, taking into consideration the purposes for which the property was acquired in the first place. The benefits of good land planning include sustainability of long term goals and the potential for revenue from forest products.
3. The Conservation Commission should develop a Natural Resource Inventory for the Town, including a comprehensive assessment of wildlife and their essential habitat requirements, based on the Wildlife Action Plan developed by the NH Fish and Game Department. This inventory can then serve as the basis for development of a wildlife habitat overlay, which can be used to evaluate both the current configuration of Conservation District boundaries and the potential wildlife habitat impacts of new development proposals. This information will then serve as the basis for changes to zoning regulations, zone district boundaries, and/or subdivision regulations so as to minimize the loss of strategic natural resources.
4. The Conservation Commission and Planning Board should continue to develop and improve planning techniques designed to protect streams and wetland complexes in a

manner that preserves the essential functions and values of these fragile resources. The existing stream and wetland map, adopted March 13, 2001, should be revised because it does not include certain significant streams and wetlands, and includes some that are questionable. In addition, the buffering methodology in the Town's existing wetlands overlay regulation scheme has encountered problems, in certain circumstances, that should be resolved. To accomplish these goals, the Planning Board has appointed a Wetland Subcommittee to study stream and wetland protection and make recommendations to the full Planning Board on the best approach to pursue. The Wetland Subcommittee should study the streams and wetlands in Town to define their functions and values and to develop a regulatory system based on that scientific analysis. As this limited science continues to evolve and improve, the Planning Board should continue to seek effective alternatives to protect these fragile environments. This should continue to include periodic consultation with wetland science professionals and a review of current statutes to ensure a scientifically practical and legally viable regulatory approach.

5. The Planning Board should continue to explore the use of innovative land use controls that can preserve and enhance rural character, agricultural resources, scenic resources, ridgelines and other natural and historic resources. Some alternatives to consider might include a mandatory Cluster or Planned Unit Development provision, Conservation Subdivision Design Standards that would preserve and enhance rural character, and environmental characteristics zoning, to name a few.
6. Provision of landscaped open space within the villages, particularly for commercial or multi-family residential developments, should continue to be a key design element when the Planning Board studies establishing building and site design guidelines.
7. The Town should document the decline in agricultural lands in Town since the 1940s through a series of maps. The Town should recognize and assist the efforts of citizens currently engaged in food production and agricultural activities. The Planning Board should consider crafting an agricultural overlay district aimed at preserving the Town's remaining agricultural resources and producing more locally grown food. The Town should consider appointing an Agricultural Commission to assist in these endeavors.
8. The Town should consider providing incentives for landowners:
  - a. to maintain their property as open space lands; and
  - b. to conserve these open space lands.
9. The Town should encourage additional access to and development of recreational trails for hiking, cross-country skiing, snowshoeing, bicycling, etc.
10. The Town should grant conservation easements on Town-owned lands that are the responsibility of the Conservation Commission.

The Town should vigilantly monitor and enforce the Town's land use and environmental regulations to achieve the Town's conservation goals. The Town should consider developing a fee structure for inspections related to enforcing land use and environmental regulations.

## V. WATERSHEDS AND WATER RESOURCES

### Introduction

The future of every New Hampshire community depends on an adequate supply of potable water. Both currently used and untapped clean water sources are threatened by misuse and contamination, unless actions are taken now to protect them.

Many New Hampshire communities have, in the past, taken a reactive approach to protecting water resources: that is, nothing is done until a threat is identified or contamination is imminent or has already occurred. In 1986, the New Hampshire legislature recognized the importance of planning for the protection of water resources when it amended NH RSA 674:2, the State's list of components of a master plan, by including a local water resources management and protection plan. This was a strong reminder from the legislature that it is not acceptable to wait until "it is too late" and your water is contaminated. Planning and protective actions are necessary to conserve our water resources.

New London has been one of the communities at the forefront of protecting its water resources. Each of the lakes in Town has an active lake protective association watching after the interests of their lake including doing water quality monitoring. The New London Conservation Commission and the Planning Board have both supported the protection of water resources in long and short range planning activities. New London is one of an increasing number of communities to have local ordinances protecting wetlands, lakes and ponds, and streams. Because of the projected increase in frequency of severe storms New London needs to be more vigilant about stormwater management.

This chapter first provides the feedback received from the 2008 Community Survey. Next, it inventories the Town's water resources using the best data available. The current and future supply and demand issues are evaluated. Existing and potential threats to water quality are documented and existing and future estimates of demand are presented. In order to assure a continued adequate supply of potable water, existing programs and policies are reviewed and suggestions for new or revised policies and programs are described and recommended.

The goal of this section of the Master Plan is to assure that local land use decisions following from this planning process are based on the most comprehensive, relevant and reliable scientific and technical information available.

### Goals

Goals for watershed planning and the protection of water resources include the following:

1. Continue to support and use a watershed approach for the protection of water resources;
2. Continue to work cooperatively with regional groups and towns to promote watershed planning;
3. Support education about and implementation of watershed plans;
4. Minimize soil erosion and pollution from stormwater runoff;

5. Minimize soil erosion from land development activities;
6. Minimize the impacts of impervious surface coverage on water quality and stormwater runoff;
7. Minimize the impacts from aging septic systems and ensure proper locations for new and replacement septic systems;
8. Minimize the use of road salt for winter road maintenance and store road salt under cover;
9. Continue to monitor available scientific and technical information to inform watershed and water resource planning efforts; and
10. Continue to support effective enforcement of existing environmental ordinances and regulations.

### **Community Survey Results**

The input from the 2008 Community Survey relative to watersheds and water resources is summarized to follow.

Question # 10: This question asked people to rate the importance of attributes that create the unique character and rural charm of New London. The two attributes related to water resources were rated as follows:

- Surface waters were rated as important or very important by 91% of the people responding; and
- Wetlands, marshes and bogs were rated as important or very important by 86.3% of the people responding.

Question # 18: When people were asked about their level of support for conserving different types of properties, 78.8% were supportive or very supportive of protecting wetlands.

Question # 19: Groundwater resources are one of the natural resources not protected by existing land use regulations. The protection of groundwater resources received highest rated response of the five natural resources not currently protected by local land use regulations with 86.5% of the people responding to the survey indicating they were supportive or very supportive of protecting groundwater resources through amendments to local land use regulations.

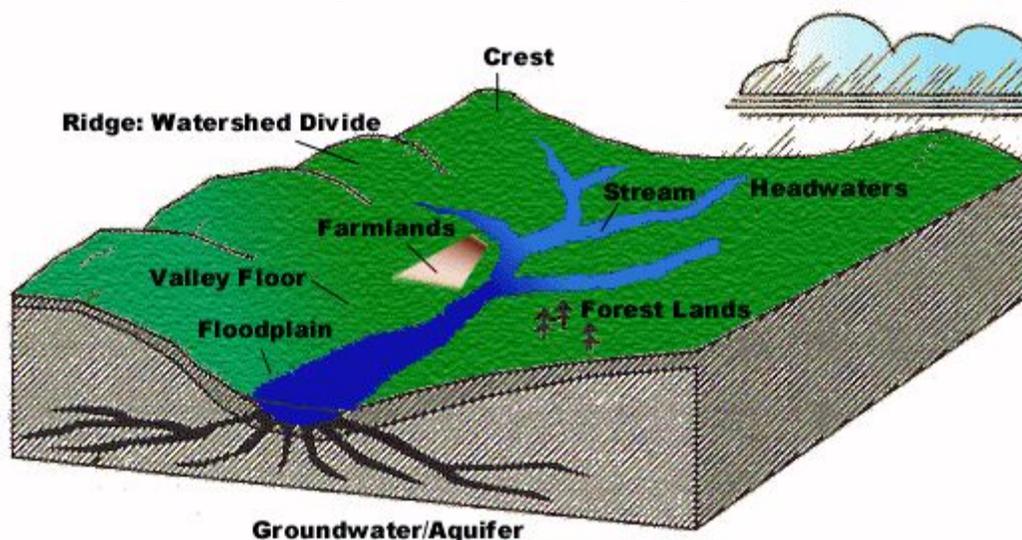
### **Surface Water Resources**

#### Watersheds

Watersheds are the catch basins for all precipitation falling from the sky. Rain or snow falling within the confines of a watershed's interconnected ridge crests or high points eventually becomes surface water and some becomes groundwater. A watershed can be defined as a natural unit of land within which all water drains to a common outlet as shown in Figure V-1 (Page 45).

A watershed includes two components: a surface water drainage basin and a groundwater drainage basin. The surface drainage basin is the land area from which all surface water drains toward a surface water body. The groundwater drainage basin is the underground land area through which groundwater drains to a surface water body at a lower elevation. The surface drainage basin may be larger or smaller than the groundwater drainage basin, depending on factors such as soils, slope, and surface cover. These concepts are illustrated in Figure V-2 (Page 45). One of the most important concepts is that surface water and groundwater are inextricably linked. For example, groundwater and surface water interact where groundwater discharges to lakes, rivers and in areas where ground conditions impede the drainage of water, such as in wetlands. This means that management of contamination and pollution sources throughout a watershed will benefit both groundwater and surface water.

**Figure V-1: Watershed Diagram**



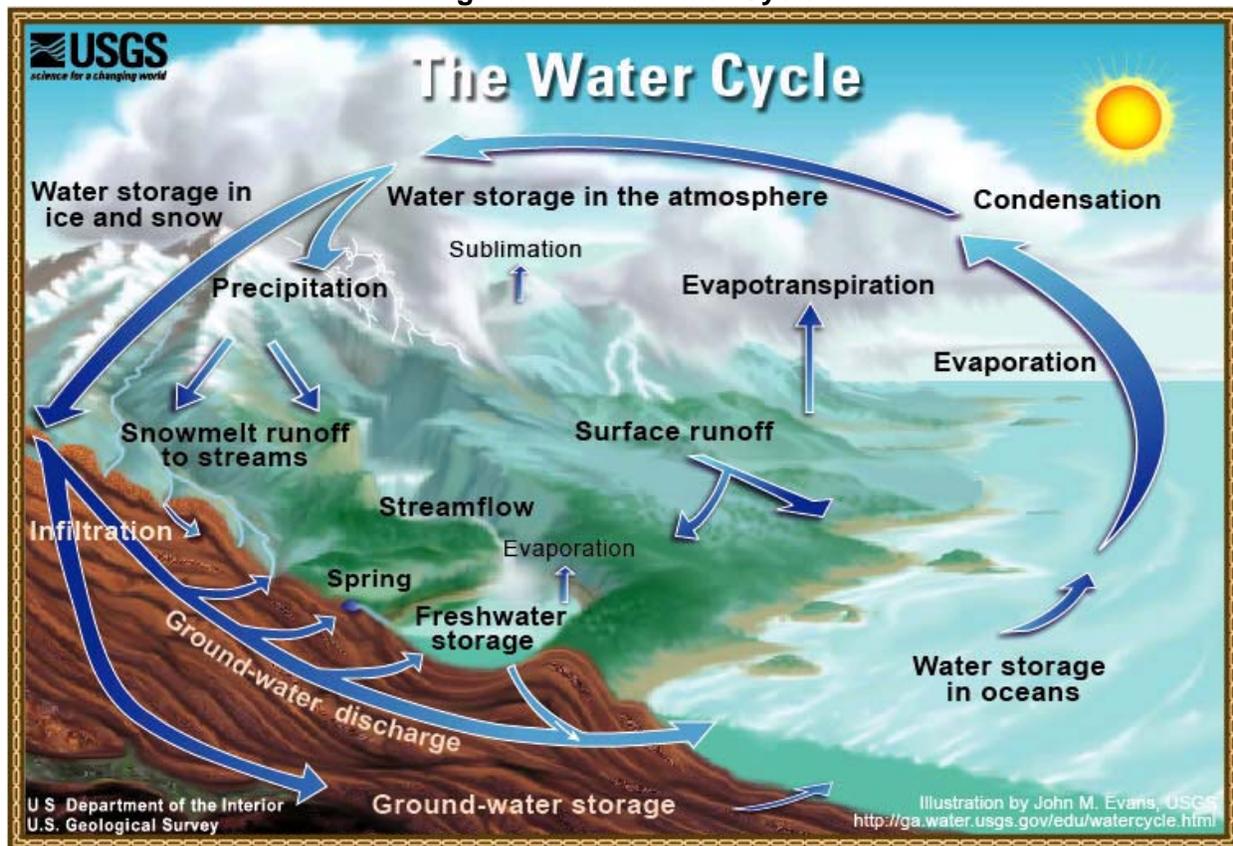
Source: <http://faculty.wwwc.edu/petitto/Buckhannon%20Watershed/technical.htm>

A watershed may occupy tens to hundreds of square miles and cover several jurisdictions. A watershed is usually associated with the particular river or stream it feeds. For example, the Connecticut River drains a watershed including parts of Canada, New Hampshire, Massachusetts and Connecticut. Each tributary to the Connecticut River has its own watershed area which ultimately feeds into the Connecticut River and is a sub-watershed of the larger. The Lake Sunapee Watershed, for example, is a sub-watershed of the Connecticut River watershed. Because higher elevation ridges divide one watershed from another, surface water in one watershed will not enter another watershed on the opposite side of the ridge. Groundwater may or may not follow this basic concept.

Watershed location is very important for a community to consider in its planning efforts. Quite often, a smaller watershed lies entirely within a single community, while larger watersheds almost never do. As the size of the watershed increases, the possibility that some part of it will lie in one or more of the neighboring communities increases. Water resources management in a community up-watershed may have a substantial impact on the water resources of a neighboring community down-watershed. The watershed approach to water resources planning is important because watersheds are the main units of surface and groundwater recharge. The size and physical character of the watershed has a large influence on the amount of water that ultimately will end up as surface water and groundwater. In addition, the land use located within

a watershed and how that land use is developed will be an important factor in water quality. Therefore, it is very important for communities to work together in order to plan effectively for protection of water resources.

**Figure V-2: The Water Cycle**



### The "Watershed Approach"

The Management Plan for the Lake Sunapee Watershed prepared by the Sunapee Area Watershed Coalition (SAWC) last revised in June 2008 provides the following information about the "Watershed Approach".

According to New Hampshire Department of Environmental Services, "The watershed approach for management and planning is a strategy that has as its premise that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual water body level."

As early as the 1920s many federal agencies in the United States used watershed management for the purposes of controlling soil erosion and sedimentation. Increasingly, federal, state, and local agencies are focusing on non-point source pollution as a primary source of pollution to surface water and emphasizing the importance of planning at the watershed level. Watershed plans can work to improve water quality, manage recreational opportunities, maintain public health, and preserve the aesthetics of rivers and lakes. Community strategies for watershed planning have included the advent of partnerships and collaboration between the public, government agencies, and local organizations.

Communities throughout the United States are increasingly coming to understand the importance of protecting watersheds in order to protect their water resources. As communities develop and the amount of watershed impervious cover increases in the form of parking lots, roads, and roof tops, the ability of a watershed to function properly becomes impaired. For example, impervious cover significantly impacts the way stormwater runoff behaves. Impervious surfaces collect and accumulate pollutants and when storm events occur, pollutants are more rapidly delivered to aquatic systems through runoff. As the amount of impervious cover increases, the rate of runoff also increases, while the amount of water which infiltrates groundwater aquifers typically decreases, all of this having negative impacts on the hydrologic cycle.

Monitoring and modeling studies indicate that pollutant loads, such as phosphorus, are directly related to watershed imperviousness. Research has shown that when impervious cover exceeds 10 percent in a watershed, increasing pollutant loads and water volume have negative impacts on stream biodiversity and cause stream channels to become unstable and easily eroded. When watershed imperviousness exceeds approximately 25 percent, streams become “non-supporting” meaning channel stability and biodiversity cannot be fully maintained even with the implementation of stormwater practices or retrofits. (Chapter 5 of Volume 1 of NHDES’ December 2008 New Hampshire Stormwater Manual summarizes and references recent research on the relationship between watershed imperviousness and the health of water systems.) A New Hampshire study conducted by the U.S. Department of the Interior and the U.S. Geological Survey in cooperation with the NHDES entitled Effects of Urbanization on Stream Quality at Selected Sites in the Seacoast Region in New Hampshire, 2001-03 found “there appears to be a level (between 7 and 14 percent impervious surface) at which water quality and habitat site rankings become affected by urban characteristics such as impervious surface.” For these reasons, managing activities in a watershed is critical to its future well-being.

Through use of a “watershed approach”, watershed associations, volunteer groups, government agencies and others can work together to protect ecosystem structure and function in order to safeguard water quality.

#### *Analysis of Watersheds in New London*

From a watershed point of view, New London straddles the major watershed divide between the Connecticut River to the west and the Merrimack River to the east. New London is located at the top of the three major watersheds as delineated on Map V-1 (Page 49) and summarized in Table V-1 (Page 49) and, therefore, is the headwaters for these downstream and river systems:

- Sugar River Watershed
- Warner River Watershed; and
- Blackwater River Watershed.

The Blackwater River Watershed occupies the largest watershed area in New London with 7,491 acres or 46% of the total area of Town. The Pleasant Lake Subwatershed forms the headwaters of the Blackwater River Watershed that connects with the Merrimack River system to the east. The Pleasant Lake watershed captures water from Wilmot, Sutton and Springfield, as well as the entire eastern half of New London.

Little Lake Sunapee, Lake Sunapee and their tributaries are the headwaters of the Sugar River Watershed connecting with the Connecticut River to the west. There are 5,331 acres of the Sugar River Watershed in New London. This watershed is the second largest watershed in New London and occupies 33% of the total area of New London.

The Warner River Watershed includes Messer Pond, Clark Pond and Lyon Brook that flow into Kezar Lake which ultimately drains via the Warner and Contoocook Rivers into the Merrimack River. The Warner River Watershed occupies 3,446 acres in New London that represents 21% of the total area of Town.

**TABLE V-1  
Watershed Characteristics**

Name of Watershed	Total Area (Acres)	Area in New London (Acres)	% of New London Total Area
1. Sugar River	32,513 ac.	5,331 ac.	33%
2. Warner River	28,566 ac.	3,446 ac.	21%
3. Blackwater River	21,765 ac.	7,491 ac.	46%
Total		16,268 ac.	100%

Source: 2007 Geographic Information System Maps of New London's Watersheds.

### *Surface Waters*

Water collected in watersheds travels to the ocean via surface waters such as streams, rivers, ponds and lakes. Understanding how surface waters move through the hydrologic cycle is much easier than groundwater, since we can see surface water. Groundwater and surface water are interconnected.

Surface waters often recharge groundwater during times of excess precipitation and groundwater may discharge into surface water bodies during times of drought.

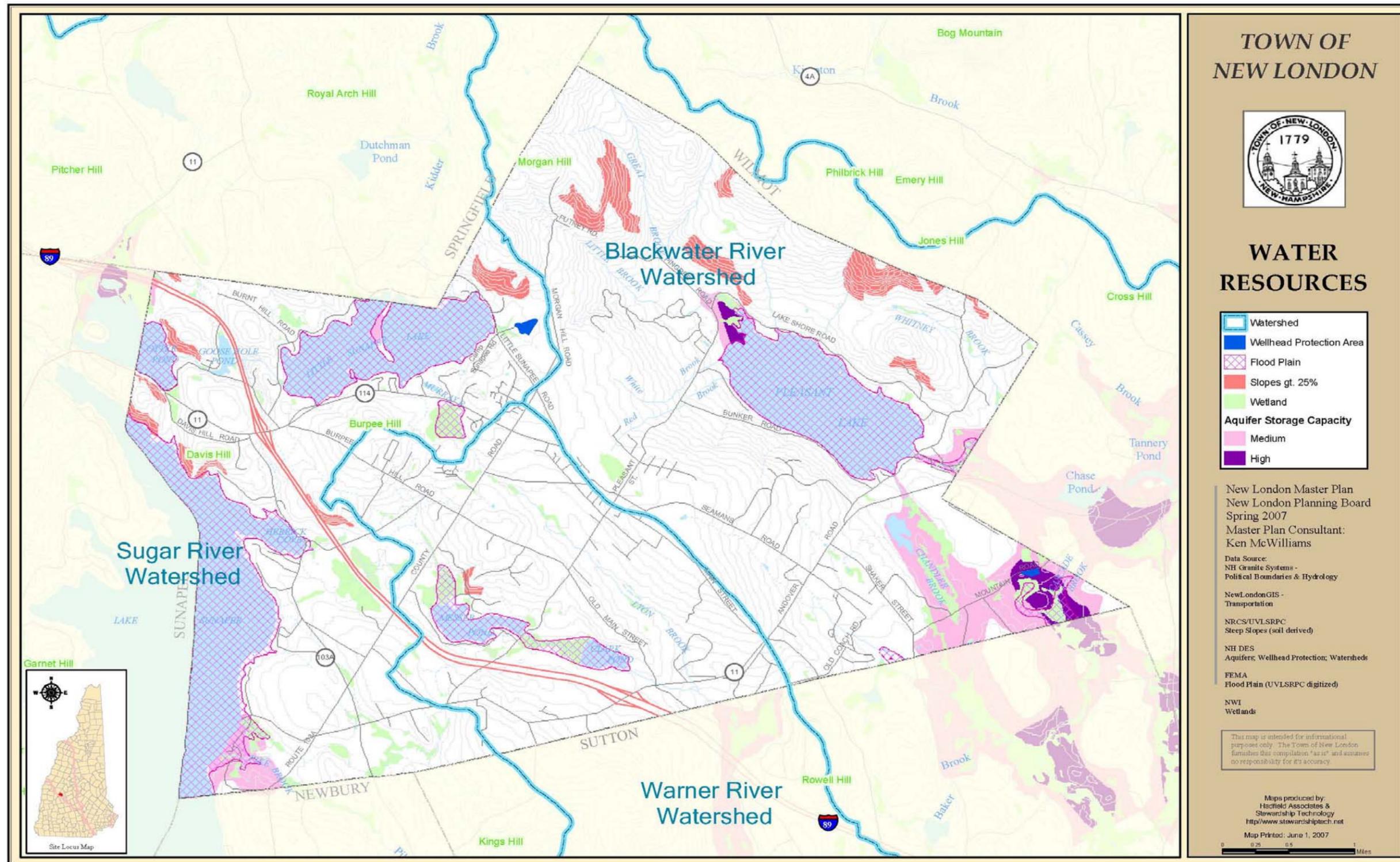
Surface waters in New Hampshire are classified as either Class A or Class B. Class A waters are of the highest quality and no discharge of any sewage or waste is allowed into them. Class A waters are considered potentially acceptable for water supply use after adequate treatment. Class B waters are the second highest quality. Class B waters are considered acceptable for fishing, swimming and other recreational purposes, and, after adequate treatment, for use as water supplies. Any sewage or other wastes discharged into Class B waters must first be treated to meet certain standards and must not interfere with the aquatic life.

Most of the surface waters in New London are classified as Class A water. Lake Sunapee, Little Lake Sunapee and Pleasant Lake are all Class A surface waters. The southeastern corner of Town includes a portion of the Class A Blackwater watershed. Class B waters in New London include Otter Pond, Goose Hole Pond, Messer Pond and Clark Pond.

Water bodies cover 2,061 acres, or about 13% of the total area of New London. Surface water characteristics for lakes and ponds in New London are outlined in Table V-2 (Page 50). Lake Sunapee is the largest water body in the area, with about 449 acres of the lake in New London and the balance in Sunapee and Newbury. Most of the water bodies are relatively large, ranging in size from 11 acre Goose Hole Pond to 602 acre Pleasant Lake. Little Lake Sunapee and Otter Pond straddle town boundaries.

There are just over 11.5 miles of perennial and intermittent watercourses in Town based on measurements taken from U.S.G.S topographic maps. Water flows in roughly 77% of the watercourses year round. The Pleasant Lake watershed has the greatest length of perennial

Map V-1: New London's Water Resources



watercourses with over 5 miles that represents 43%. This is not surprising since the Blackwater Watershed represents about the same percentage of the town area.

Table V-3 (Page 51), presents characteristics of streams and brooks in New London. Lengths and acreage calculations were measured from USGS topographical maps. The information indicates there are 11.54 miles of brooks and streams in New London, with 8.9 miles perennial flows and 2.64 miles of intermittent flows.

Based on information about dams provided by the State Water Resources Division, there are 25 dams in New London. Of these, 20 are in use and operational and 5 are inactive. Most dams impound water from natural swales or tributaries of major streams, brooks or rivers. There are six dams southeast of Pleasant Lake – three on the inflow from the Low Plains area, the Pleasant Lake Dam, and the Mill Pond and Hayes Dams on the Blackwater River that flows out of Pleasant Lake. The other dams are scattered throughout Town.

The resulting impoundments, not including major lakes, cover over 19 acres. They range in size from .05 to 5 acres. Based on the reported uses, most are for recreation or wildlife use.

**TABLE V-2**  
**Surface Water Characteristics for Lakes and Ponds by Watersheds**

Name	Acreage of Water Bodies	Elevation	Dammed or Impounded	Legislative Class
<b>Watershed #1 Sugar River</b>	<b>1320.4</b>			
1A Otter Pond	66	1,180'	Y	B
1B Goose Hole Pond	17.8	1,180'	Y	B
1C Little Lake Sunapee & Murray Pond	479.8	1,240'	Y	A
1D Lake Sunapee	756.8	1,160'	Y	A
<b>Watershed #2 Warner River</b>	<b>105.2</b>			
2A Messer Pond	72.1	1,105'	Y	B
2B Clark Pond	33.2	1,080'	N	B
<b>Watershed #3 Blackwater River</b>	<b>602.3</b>			
3A Pleasant Lake	602.3	810'	Y	A

Notes:

1. In addition, there are 17 small ponds totaling 3 acres
2. Watershed Locations are shown on Map V-1.
3. Trib. = tributary
4. Status refers to (P) Perennial or (I) Intermittent
5. Dam Impoundment information gathered from Dept. of Environmental Services listing of dams - (Y) Yes or (N) No.
6. Legislative Classification is determined by the NH Legislature and is reported based on the Dept. of Environmental Services map Legislative Classification of Surface Waters.

**TABLE V-3**  
**Surface Water Characteristics or Streams and Brooks by Watersheds**

Name	Length (feet)	Elevation	Status	Impounded	Leg. Class
<b>Watershed #1 Sugar R</b>	<b>2,330</b>				
L.Lk. Sun.-Goose Hole-Otter Pond-Lk. Sun.	2,330	1247'-1092'	P	Y	B
<b>Watershed #2 Warner R</b>	<b>15,141</b>				
Lyon Brook	9,318	1220'-906'	P	N	B
Messer-Clark	1,553	1,105'-1080'	P	N	B
Clark Pond to Lyon Brk.	3,494	1080'-960'	P	Y	B
Messer to Clark Pond trib.	776	1,300'- 1,100'	I	Y	B
<b>Watershed #3 Blackwater R</b>	<b>43,493</b>				
Great Brook	3,494	1,900'-805'	P	N	B
Cascade Brook	1,941	1,300'-805'	P	N	B
White Brook	1,165	1,240'-805'	I	N	B
Red Brook	4,659	1,230'-805'	I	N	B
Great Brook tributary	388	1,260'-880'	I	N	B
Pleasant Lake #1	1,490	1,280'-805'	I	N	B
Pleasant Lake #2	1,460	1,100'-805'	I	N	B
Pleasant Lake #3	1,553	1,380'-805'	I	N	B
Pleasant Lake #4	5,436	1,380'-805'	I	N	B
Blackwater River	1,563	805'-760'	P	Y	A
Nr. Crockett Corner	2,795	960'-900'	P	Y	B
Nr. Pages Corner	2,330	940'-860'	P	N	B
Whitney Brook	7,454	880'-820'	P	N	B
Little Brook	7,765	1,400'-817'	P	N	B

## Notes:

1. Ws = Watershed. Locations are shown on Map X-1.
2. Trib. = tributary
3. Status refers to (P) Perennial or (I) Intermittent
4. Impoundment information gathered from NHDES listing of dams - (Y) Yes or (N) No.
5. Legislative Classification is based on NH DES Map: Legislative Classification of Surface Waters.

### *Wetlands*

The biological and physical values of wetlands have become more appreciated in the past two decades. Wetlands, for a long time, were considered waste land, but now are valued for water purification, productive habitat for wildlife, floodwater detention, food and fiber production, groundwater recharge, recreation and scenic quality.

New London has three wetlands designated as prime wetlands: the Philbrick-Cricenti Bog, the Esther Currier Wildlife Management Area at Low Plain and the Goose Hole Marsh. A prime wetland designation affords additional protection for a wetland through the New Hampshire Wetland Board's Dredge and Fill Permit process.

Wetlands shown on the Water Resources Map (Map V-1, Page 49) are wetlands identified by the National Wetlands Inventory (NWI) Maps. Wetlands shown on the Development Constraints Map (Map III-2, Page 18) include the NWI Mapped wetlands plus areas identified by soil types as very poorly drained soils by the Natural Resource Conservation Service's (NRCS) Soil Survey of New London. Muck, peat, marsh areas and vernal pools are not designated on the map. Many more wetland areas are picked up by including the very poorly drained soils category.

Table V-4 (Page 52) presents the acreage of wetland types by watershed. Acreages were calculated by measuring wetland areas on the NRCS Soil Map which were mapped on the Geographic Information System. Wetland areas in New London total 1,570 acres based on using the soil types outlined in Table V-4. This represents 11% of the 14,237 acres of total land area in New London.

**TABLE V-4**  
**Wetlands in New London by Watershed**

Watershed	Total Wetlands Area (Acres)	Poorly Drained Soils Area (Acres)	Very Poorly Drained Soils Area (Acres)
Watershed #1 Sugar R	386	258	128
Watershed #2 Warner R	683	399	284
Watershed #3 Blackwater R	501	326	175
Total	1,570	983	587

Source: Calculations based on measurements by the Geographic Information System of wetland areas on the NRCS Soil Map.

### *Floodplains*

Floodplains, like wetlands, are an interface between a water resource and dry land. In New London, floodplains primarily occur in the lowlands associated with major water bodies throughout Town and are shown on Map X-1 Water Resources. To calculate the acreage in each watershed of flood hazard area the Federal Emergency Management Agency's (FEMA) Flood Hazard Boundary Map for the Town of New London was used. These maps are available at the Town Offices. Table V-5 (Page 53), presents the acreage of flood hazard area by watershed in the Town. Floodplain areas encompass a total of 317 acres or 2.2% of the 14,237 acres of total land area in Town.

**TABLE V-5  
Floodplains in New London**

Watershed	Floodplain Area (Acres)
Watershed #1 Sugar R	143
Watershed #2 Warner R	87
Watershed #3 Blackwater R	87
Total	317

Source: Calculations based on FEMA Flood Hazard Boundary Map, which were mapped on the Geographic Information System.

#### *Withdrawal and Discharge for Surface Waters*

The State Water Management Bureau keeps records on surface water withdrawals or discharges which exceed 20,000 gallons per day. Based on the Bureau's records, there are two such users in New London: Lake Sunapee Country Club and the Town of New London sewage pumping station. The Lake Sunapee Country Club discharges into the Hunting Brook drainage. Discharge from the Town of New London sewage pumping station is carried via gravity and force mains to the Sunapee sewage treatment plant for treatment and discharge.

#### *Potential Surface Water Supplies*

Two areas of Town which currently are not served by the New London-Springfield Water System Precinct, but that may merit consideration for water service, are around Lake Sunapee and Pleasant Lake. These water bodies might also be used as water supplies for the relatively dense residential settlement on their shores. Use of water from either water body would require treatment and/or chlorination.

Both Little Lake Sunapee and Lake Sunapee are part of the Sugar River watershed. This watershed extends to Springfield, Sunapee, Goshen, and Newbury. Water quality data for Lake Sunapee is maintained by the Lake Sunapee Protective Association which is the oldest volunteer lake monitoring program in the state. Similar water quality data is gathered and maintained by the Protective Associations for Little Lake Sunapee, Pleasant Lake, Otter Pond and Messer Pond.

Around these lakes, the predominant land use is residential along the shorelines with forest use covering the majority of the watershed. Current zoning in these watersheds include: Agriculture and Rural Residential, Commercial, Conservation, Forest Conservation, Institutional, Institutional/Recreational, Hospital Institutional, and Residential Districts. Residential, recreational, agricultural and forestry uses permitted in the more rural areas could pose threats to water quality, including septic system effluent, erosion from improper site development, agricultural and forestry practices, agricultural runoff and salt and runoff from roads. In the more intensively zoned areas, it is fortunate that water and sewer service is available; however, erosion from improper site development, use of salt for road maintenance and runoff from roads can result in negative impacts to water quality. Current uses of the surface waters include drinking water for individual residences, recreation, and wildlife habitat.

The potential for development in the watershed is great. New London should continue to ensure that every development is undertaken with consideration given to the water quality

impacts, especially since most of these surface waters are Class A waters. Evidence already exists of phosphorous being generated from undeveloped land being converted to developed uses within the watersheds. Managing activities throughout the watershed such as fertilizing, salting roads, controlling erosion and handling on-site waste disposal are very important for the protection of the water quality. Further residential development is the most likely future use for most of the area in the watersheds. However, with the greater residential population base, commercial businesses will expand to serve that population growth. As long as businesses are served by public sewer and site development is carefully done, the impacts on these potential water supplies will be minimized. Where more intensive uses, such as restaurants, clothes cleaners, laundries and auto service and repair shops are permitted and are not served by sewer, attention should be given to disposal of effluents and their impact on water quality. The public should be educated about the potential adverse impacts of on-the-water uses, such as marinas and power boats, so that the whole lake community is protective of the lakes' water quality.

### **Groundwater Resources**

Water that is not exposed to the air is known as groundwater. The term "aquifer" describes water saturated earth materials from which a water supply can be obtained. There are three types of groundwater aquifers: stratified drift; till; and bedrock. The basic difference is that stratified drift and till aquifers are composed of unconsolidated glacial deposits (loose earth materials), while bedrock aquifers are solid rock. In stratified drift aquifers, the materials are sorted sand and gravel. In till aquifers, the materials are a gravel, sand, silt and clay mixture. In bedrock aquifers, the rock is fractured.

Unconsolidated materials are porous. Highly porous materials have more and larger spaces between individual particles. These aquifer deposits are capable of storing, transmitting and yielding larger volumes of water. Conversely, materials (like till) with fewer and smaller individual particles are not capable of storing, transmitting and yielding nearly as much groundwater.

The space between the earth material and in the bedrock fractures is where groundwater is stored. Being interconnected, groundwater is able to flow from one aquifer type to another. However, even though groundwater flow within a particular aquifer may be substantial, often the rate of a groundwater flow between aquifer types is limited. Therefore, each aquifer type is often treated as an individual supply source.

All aquifers have a three dimensional shape. As glacial deposits and rock formations often cover large areas, there may be considerable acreages involved. For example, underlying entire valley floors may be stratified drift aquifer deposits, much of the surrounding higher elevations may be till deposits, and bedrock may lay under both of these unconsolidated deposits. Depending on material type, an aquifer may be shallow to extremely deep. Glacial deposits may be less than ten to well over 100 feet deep, and aquifers of these materials may be generally described as deeper in the middle and shallower towards the edges.

Bedrock may vary in depth depending on formation type, but the usable portion may be well over a thousand feet deep. However, the deeper one drills, the fewer and smaller the fractures to store and transmit groundwater.

Due to factors like aquifer material type, porosity and depth of saturation, an aquifer can only yield certain amounts of groundwater. Considering this type of information, an assessment of

an aquifer's capability and importance as a water supply can be made. The higher the transmissivity of an aquifer, the more likely it will supply larger volumes of groundwater for longer periods.

Wells used by communities and private individuals draw groundwater from aquifers. Water users like a community or a commercial-industrial operation typically require large volumes of water. To supply this amount of water on a continual basis, the well must have a large yield capacity. Only certain aquifers with the right hydrogeological characteristics may yield this amount over a long period of time. On the other hand, the small-volume residential or commercial user may not need a large-volume well to supply its need. A small-volume domestic well will usually suffice and can be located most anywhere. However, when considering an aquifer's ability to supply water, the combined effect of very many or very high concentrations of individual wells pumping from the same aquifer may ultimately equal a large groundwater withdrawal and, therefore, be beyond the aquifer's yield capacity. In addition, two large volume wells may have a localized negative impact on an aquifer unless well locations and pumping rates are regulated.

The water being pumped from existing or future wells comes from somewhere. As previously mentioned, the source is the precipitation falling from the sky and landing in the watershed. This water is commonly referred to as groundwater or aquifer recharge. Aquifer recharge may be differentiated into what is called direct and indirect recharge. Direct recharge is the water falling directly over an aquifer's surficial extent, which is not lost to plants, soil moisture, or evaporation and which makes its way down into the aquifer. The direct recharge areas for stratified drift and till aquifers are the respective glacial deposit's surface areas. Direct recharge for bedrock aquifers is basically the entire overlying watershed. Indirect recharge involves water that is direct recharge to till or bedrock aquifers, but moves through these aquifer areas and into stratified drift aquifers.

#### Stratified Drift Aquifers

Aquifers with medium or high storage capacities are shown on Map V-1 (Page 49) areas are found in association with large water bodies and two brooks in Town. The major aquifers shown on Map V-1 include the southeastern corner of Town, including the Low Plain area combined with the Blackwater River flowing out of Pleasant Lake, the inlet area to Pleasant Lake, Colby Point on Little Lake Sunapee, and the Soo Nipi Park area on the shore of Lake Sunapee.

The location and well log data for each individual well within the Town has been studied. For wells with a sand or gravel overburden, wells vary in depth from 33 feet to over 700 feet. Yields also range widely from less than a gallon per minute to 100 gallons per minute. Approximately 55% of the wells for which information is reported, have sand and/or gravel overburden. All of these wells draw water from bedrock. The source of water supply for the New London-Springfield Water System Precinct is now six gravel packed wells on Colby Point.

The only major discharge near a stratified drift aquifer is the irrigation water discharged by the Lake Sunapee Country Club into Hunting Brook which leads to the major aquifer to the southeast.

#### Bedrock and Till Aquifers

Water well completion report data shows that forty-five percent of the wells have a till, clay or mixed overburden. Depths range from 102 feet to over 800 feet. Yields range from less than a

gallon per minute to 60 gallons per minute. Since no specific studies have been undertaken to investigate the extent or yield of bedrock or till aquifers, only a description of the bedrock underlying New London can be reported.

#### *Bedrock Geology and Wells in Bedrock*

A bedrock geology map is available for New London at the scale of 1:250,000 as part of the GRANIT system of Geographic Information Systems (GIS) layers on file with the Complex Systems Research Center at the University of New Hampshire. This bedrock geology layer was automated from "A New bedrock Geologic Map of New Hampshire" by J.B. Lyons, W.A. Bothner, R.H. Moench and J.B. Thompson, Jr., last revised in October, 1998.

The eastern section of Town, demarcated by County Road is underlain by kinsman quartz monzonite, a formation which extends from Groton to Peterborough. Immediately west and running to the shores of Lake Sunapee is binary granite. On the northeast shore of Lake Sunapee, touching the westernmost shore of Little Lake Sunapee and running north to the Springfield line is an area of gray micaceous quartzite and gray coarse mica schist, part of the Littleton formation. The peninsula of land just south of Herrick Cove is also of this same bedrock. Surrounding Otter Pond and extending into Springfield and Sunapee is Bethlehem gneiss.

The well completion information indicates that all but one well developed since 1984 is in bedrock.

#### *Potential Groundwater Supplies*

The New London-Springfield Water System Precinct is supplied by six gravel packed wells located on Colby Point on Little Lake Sunapee which came on line in 1996. These groundwater wells have a design capacity of 500,000 gallons per day and a yield of 720,000 gallons per day. They represent the largest groundwater withdrawal in New London. Based on the projected growth within the New London-Springfield Water System Precinct as discussed in the Utilities Chapter, it is expected that the existing water system has the capacity to adequately meet the demands for water service over the next fifteen years within the boundaries of the New London-Springfield Water System Precinct. Outlying areas in Town which may need water service in the future are the relatively densely-settled shores of Pleasant Lake where there are high concentrations of subsurface disposal systems. Three options exist to use as a water supply for development along the shores of Pleasant Lake:

- Expand the New London-Springfield Water System Precinct boundaries and extend water lines from the existing water system around Pleasant Lake;
- Use and treat the Class A surface waters in Pleasant Lake;
- Use the aquifers on Pleasant Lake.

The aquifer on the shore of Lake Sunapee encompasses a large area in the vicinity of Soo Nipi Park. The gravel pit just west of Route 103A and just before the town line is evidence of the nature of this aquifer material. A small portion of this aquifer extends to the east of Route 103A. The aquifer is part of the Sugar River watershed which, as described above in the section on potential surface water supplies, extends into a multi-town region. The recharge area for this aquifer in New London extends only into Newbury and Sutton. Unfortunately, water quality information is not available for this aquifer. The water from this aquifer is currently used for domestic purposes.

The immediate watershed area for the Soo Nipi Park aquifer includes two zoning districts, R-2 and ARR. Agricultural and forestry uses, as well as residences, home businesses, and municipal and school buildings are permitted in this area. To the south in Newbury, there is a large area of rural residential district. In the Newbury rural residential district, residences, and agricultural enterprises and uses are permitted. Blodgett Landing activity most likely immediately impacts water quality in the Lake and does not affect the aquifer. Similarly, land uses in Sutton are at such a distance so as to not immediately affect the aquifer. Currently, single family homes and local and state roads are the major types of development. These pose threats to the aquifer from septic system effluent, toxics from home business, and salt and road runoff. Agricultural runoff and that from herbicide/pesticide use are potential threats.

The development in the aquifer area to the north of Pleasant Lake includes some single family homes. Water quality information is not available for this aquifer. The water from this aquifer is currently used for domestic purposes. The zoning districts, R-2 and Forest Conservation, allow more residential development, home business, agriculture, forestry and recreation uses in the aquifer area. Potential threats to water quality from these uses include septic system effluent, various hazardous materials from homes and businesses, salt and road runoff, agricultural runoff and herbicide/pesticides.

Existing development in the large aquifer located southeast of Pleasant Lake includes the village of Elkins which is principally residential use along with a few commercial establishments, forest and wetlands. Most of the area is zoned Residential or Agricultural & Rural Residential with the center of Elkins village zoned Commercial.

## **Threats to Water Resources**

Threats to water resources come from many sources and activities. Usually they are distinguished as point sources of pollution coming from a single point such as a pipe, or nonpoint sources of pollution such as storm water runoff.

### Point Pollution Sources

There are no known point pollution sources in New London. Sewage from New London is disposed of in Sunapee at the wastewater treatment plant. There are several National Pollutant Discharge Elimination System (NPDES) permits in New London for active construction sites disturbing an acre or more. No one in New London holds groundwater discharge permits according to the NH Groundwater Protection Bureau.

Nonpoint sources of pollution are the biggest sources of pollution for our country's waterways. The Department of Environmental Services has compiled nonpoint pollution source information for every community in the State. Potential nonpoint pollution sources include:

Primary Groundwater Impacts	Primary Surface Water Impacts
Surface impoundments	Erosion
Manure storage facilities	Snow dumps
Industrial chemicals	Stormwater runoff
Municipal chemicals	Agricultural runoff
Septage disposal lagoons	Pesticide use
Subsurface disposal concentration	Hazardous waste
Junk yards	Salted roads
Landfills and dumps	Salt piles

The N.H. Department of Environmental Services (NHDES) has mapped Potential Nonpoint Pollution Sources in New London. This information fluctuates, but is available from NHDES upon request.

A major source on nonpoint pollution comes from stormwater runoff. With a transition from forested to developed land uses and the projected increasing frequency of severe storms, stormwater runoff from increased impervious surface coverage results in an increase in pollutants and nutrients such as phosphorous. These increased levels of nutrients and pollutants adversely affect the health of receiving streams, lakes and ponds. As noted previously, research has shown that when impervious cover exceeds 7 to 14 percent in the watershed, pollutant loads increase having negative impacts on stream biodiversity and cause stream channels to become unstable and easily eroded. When watershed imperviousness exceeds approximately 26 percent, streams become “non-supporting” meaning channel stability and biodiversity cannot be fully maintained even with the implementation of stormwater practices or retrofits (Schueler, 2002). Low Impact Development (LID) techniques are one of the more effective approaches in managing stormwater runoff by dispersing and infiltrating runoff. This contrasts with the more traditional approaches to managing stormwater runoff consisting of concentrating, storing, and directing stormwater flows to streams, wetlands and lakes.

Another source of nonpoint pollution comes from salting which occurs on Interstate 89, Routes 103A, 114 and 11. The Town uses a sand/salt mixture on Town roads. The Town has worked with the New Hampshire Department of Transportation (NHDOT) to designate a section of Route 103A along Herrick Cove and Little Sunapee Road as environmentally sensitive and they receive less salt for winter maintenance. The Town should continue to work with the NHDOT to designate additional environmentally sensitive areas along other State roads that should receive less salt.

The NHDOT Highway Garage and Salt Shed are located east of Little Lake Sunapee off Dump Road. In 2008 the State completed construction of a new highway garage and salt shed. These improvements were made, in part, to eliminate impacts on water quality from the drainage from the maintenance garage and uncovered salt storage.

The metal and brush disposal area which is the site of the old burn dump is located off Dump Road. It is closed for rocks, stumps and trees, but is still open for collection of brush and clean wood that is hauled to the Marubeni Corporation wood chip plant located north of Exit 12A off I-89 in Springfield. Composting along with recycling of metals and appliances takes place at the metal and brush disposal area. Since it is the site of the old burn dump and at the request of NHDES, six monitoring wells, one drinking water well, and two surface water points have recently begun to be monitored around the old burn dump. The surface waters have shown elevated levels of iron, manganese and chloride. The elevated chloride levels are more likely caused by the NHDOT salt storage on an adjacent property. Alternatives to the present metal and brush disposal area need to be developed.

Following a hydrologic study and development of a closure plan, the Town closed the old landfill in 1979 under the guidance of NHDES. Due to contamination from the old landfill affecting one well on an adjacent property and surfacing on another property, the Town purchased several properties soon after the old landfill was closed and these have been monitored as a precaution. The Kidder/Cleveland property to the east and the Sumner Woodward property to the north are subject to groundwater monitoring easements that limits development of those properties. There are seven monitoring wells, two surface water points and two drinking water wells that are

monitored near the closed landfill. There have been occasional elevated levels of manganese and arsenic in some of the monitoring wells and surface water though none that have been connected back to the landfill and none have been particularly high or alarming. Since closure of the old landfill, the Town has twice experienced problems with slumping of the side slopes of the closed landfill in the 1990s and again in 2005 which have required stabilization. The most recent slump in 2005 occurred after heavy rains that exposed the plastic cover, but did not expose any trash. It was repaired in 2006-07. An abandoned septage disposal pit is located at the Town pit off Mountain Road. The old landfill and septage pit are in the Cascade Brook aquifer area. Solid waste is now taken to the transfer station and hauled to commercial landfills.

Snow clearing and dumping practices need to be carefully managed since there is a danger that this snow may contain accumulations of salt or petroleum products. Care should be taken that there is a buffer between snow dumping areas and the edge of the water resource to allow for filtering of these pollutants.

The sewerage lagoons which served the old sewer plant located off Pleasant Street still exist east of the old sewer plant. Water quality testing has shown that the lagoons are not adversely affecting the water quality in Lyon Brook. The Town is making plans to remove contaminants from the lagoons in 2010 or 2011. In the meantime, the Town needs to continue to monitor and properly manage these lagoons in order to ensure that they continue not to have a negative impact on the water quality in Lyon Brook.

The Waste Site Inventory, compiled by the Department of Environmental Services, reports that there are no known disposal sites for hazardous wastes, ash disposal, active septage disposal, sludge disposal or other sites noted in New London.

Residential development is anticipated throughout the Town. New or expanded retail and commercial activity is focused in the Commercial District on the Main Street and Newport Road areas. The Commercial District allows land uses which could be detrimental to water quality that warrant careful monitoring during the site plan review process.

As farming and forestry are permitted in most of the Town, care should be taken that best management practices are used so as to reduce the possibility of water contamination from pesticide, fertilizer and herbicide runoff, manure storage or feed lot areas or erosion from forestry activities.

The proper handling, collection and disposal of household hazardous waste are very important in protecting the quality of groundwater and surface water resources. The cost of organizing and conducting regular household hazardous waste collections is not nearly as costly as trying to clean up contaminated water resources.

The pollution from outboard powerboat engines is a concern for surface waters. Most of the outboard motors used today are two stroke engines which mix oil with the gas. These engines cannot be adjusted to obtain complete combustion and result in pollution of surface waters. Four stroke outboard motors are now available which do not mix oil and gas, obtain more complete combustion and, as a result, generate less pollution of surface waters.

### Underground Storage Tanks

The New Hampshire Code of Administrative Rules Part Env-Wm 1401 sets forth the regulatory requirements which apply to the control of non-residential underground storage and handling of

oil and petroleum liquids under Statutory Authority RSA 146-A: 11-c And RSA 146-C:9. The purpose of these rules is to regulate facilities which have the potential to significantly and adversely affect the groundwater of the State. These rules serve to minimize contamination of the waters due to storage and handling of motor fuels, heating oils and lubricating oils by establishing standards and criteria for the design, installation, operation, maintenance and monitoring of such facilities. These standards and criteria apply to all non-residential underground oil storage tanks with a volume capacity of 1,100 gallons or greater. These standards and criteria apply to pipe, pump, vault, fixed container, or other devices or structure, singly or in combination, located beneath the surface of the ground which is used or capable of being used for the storage, transmission, or dispensing of a motor fuel, a heating oil or a lubricating oil, or which uses these products for manufacturing or processing purposes.

These rules include a permit application process for all applicable storage facilities. This permit must be renewed every 5 years from the date of original application until such time as the storage facility has been permanently closed according to the requirements stated in Env-Wm 1401. Storage facilities with underground tanks less than 1,100 gallons and/or non-commercial facilities are exempt from the registration and permit requirements.

The rules include the minimum requirements for repair of existing storage tanks by interior liners, plugs, cleaning, rust removal, striker plates and coatings. Criteria for tank tightness testing reporting and replacement schedules are specifically stated. In the event of a tank test failure, the owner must immediately pump the tank free of the oil product and either repair or replace the tank in accordance with State required standards and procedures.

All proposed new underground storage facility plans or substantial modification of an existing storage facility must be submitted for approval to the State. Plans must include design, construction, installation, secondary containment, corrosion protection and leak monitoring system for both tanks and piping. Labeling of tanks, transfer and overfill protection, gauges, high level alarm systems and standards for closure, as well as prohibitions against reusing of tanks, are included in the State rules.

Effective June 29, 1988, penalties for non-compliance with the permitting process and the rules under RSA Chapter 146-C may be assessed up to \$2,000 for each offense.

Effective July 1, 1988, RSA Chapter 146-D established a petroleum pollution cleanup fund, financed by an assessed fee of \$ .015 per gallon on gasoline and diesel fuels transferred or transported in the State. This fund will allocate grants to owners of underground oil storage facilities to pay for cleanup and reimbursement of third parties injured by spills or leakage.

Underground commercial storage tanks with a volume capacity of 1,100 gallons or greater and located in New London are registered with the New Hampshire Department of Environmental Services in compliance with the Code of Administrative Rules Part Env-Wm 1401. New double walled tanks with leak detection systems have been installed at Colby-Sawyer College, Jake's Convenience Store on Newport Road and the New London Mini-Mart on Main Street. The State requires inspections at 5 year intervals. According to the Department of Environmental Services, overfill protection of tanks is regulated but is not part of the 5 year inspections. This would be an internal level alarm or redundant system as a float valve on the vent (restricts flow) and spill container on the tank. Tank owners hire and pay for inspections. The State receives a copy of the inspection report and keeps it on file.

The Town of New London may want to consider strengthening their groundwater protection regulations through the use of zoning. Propane is not a problem since it is stored above ground. The Town should prohibit any underground fuel oil storage tanks in environmentally sensitive areas mapped as potential aquifer zones or important recharge areas.

### Existing and Future Land Use

New London village is the center for commercial, civic and institutional uses. Residences and home occupations and businesses are distributed along roads throughout the rural outlying parts of the community (see Map III-1, Page 17). The northern part of Town on the north side of Pleasant Lake adjacent to Wilmot is remote and less densely settled.

Existing land uses which present a threat to water quality are:

- dense concentrations of homes in aquifer areas; effluent loading could be too great and the filtering capability of the soil not adequate;
- stormwater runoff from land development activities including removal of the tree canopy and construction of roads and buildings;
- stormwater runoff from fertilizing lawns and golf courses;
- stormwater runoff from older commercial developments that do not conform with current Best Management Practices for stormwater management;
- leaking underground storage tanks associated with residences or businesses because of their age or construction;
- failure of old septic systems;
- unsound farming and horticultural practices may contaminate water by runoff from pesticides, fertilizers, and herbicides and by not using the Best Management Practices;
- unsound forestry practices may lead to contamination of water by not installing and managing the proper Best Management Practices for forestry;
- accidental spillage at shops and garages which perform machine and auto repair services can pollute water resources; and
- use of petroleum products on or near water bodies such as at marinas, in motor boats or at individual homes.

In addition to these existing uses, the zoning for the Town allows land uses which could be detrimental to water quality, especially in the village area. For example, filling stations, light industry, mortuary establishments and dense residential uses are permitted. Fortunately, the area is served by public sewer so most wastes are treated, but leaks (as with fuel tanks) and spills (as with toxics that are a necessary part of ordinary processes) can occur.

Future land use development anticipated over the next fifteen years includes:

- residential land use development will account for the major share of growth in developed land over this fifteen year period. A land use pattern which has the higher-density housing in close proximity to village centers served with water and sewer and the lower-density housing in the outlying areas of Town not served by sewer is encouraged;
- the most preferred locations for new commercial development are along Newport Road and in the Main Street area which correspond with areas or adjacent to areas currently developed and zoned for business development; and
- encourage the future commercial land use needs of the community to be accommodated by promoting the commercial center development concept rather than strip commercial development.

## **Assessment of Growth in Demand for Water**

Comprehensive water resource planning requires that communities determine the existing and future demand for water.

### Existing Water Demand

There were an estimated 2,265 total housing units in New London in 2007 based on The Current Estimates and Trends in New Hampshire's Housing Supply Update: 2007 prepared by the New Hampshire Office of Energy and Planning. The New London-Springfield Water System Precinct reported that 795 residential units were served by their water system in 2007 or 35.1% of the total number of estimated residential units in 2007. The area served by the New London-Springfield Water system Precinct is shown on Map VIII-1 Community Utility Infrastructure in the Utilities Chapter of this Master Plan. Of the remaining 1,470 residential units, 1,399 were served by on-site wells (61.8%) and 71 residential units were served by other sources (3.1%).

New London is served by a municipal water works which is owned by the New London-Springfield Water System Precinct. The Utilities Chapter of this Master Plan outlines the existing and projected demand for water within the New London-Springfield Water System Precinct. The conclusion reached is that the water system can adequately serve the projected demand over the next fifteen years.

## **The Infrastructure: Water Supply and Wastewater Disposal**

### Septic Systems

As noted above, there were an estimated 2,265 total housing units in New London in 2007 based on The Current Estimates and Trends in New Hampshire's Housing Supply Update: 2007 prepared by the New Hampshire Office of Energy and Planning. The New London Public Works Department reported that 680 residential units were served by their sewer system in 2007 or 30.0% of the total number of estimated residential units in 2007. The area served by gravity sewer is shown on Map XI-1 (Page 201). Of the remaining 1,585 residential units, 1,561 were served by on-site wastewater disposal systems (68.9%) and 24 were served by other means (1.1%).

Residences are permitted by the Zoning Ordinance in almost all of the zoning districts throughout the Town. Thus, the number of septic systems could increase wherever a State-approved system could be designed and installed.

According to the Natural Resource Conservation Service's Soil Survey for New London, there are severe limitations for septic systems in roughly 10,438 acres or 73% of the soils found in Town. In New London, the only soils with slight limitations for septic systems are HmB and HnB (Hermon). These soils, covering about 199 acres, are scattered all over Town and account for about 2% of the 14,237 acres of total land area in New London. Soils with moderate limitations for septic systems cover approximately 3600 acres or 25% of the total land area in Town. Most of these soils with moderate limitations for septic systems are located around Little Lake Sunapee, Pleasant Lake and Lake Sunapee. In addition, these areas have been developed with a mix of seasonal and year-round residences, many of which are on small lots with minimal area for leach fields.

The Town's Health Officer's duties include inspecting test pits for before construction of new septic systems and addressing failed septic systems with the property owner and NHDES. The Town has septic system plans of systems approved by the NHDES since the mid-1980s in the Town's property files. Records of older systems do not exist in the Town's property files. The Town should initiate development of a database of new installed septic systems.

### Solid Waste Disposal Facilities

The State Waste Management Division keeps records on four waste disposal facilities in Town: the old landfill, the transfer station, the septage lagoons and the metal and brush disposal area or old burn dump.

The old landfill is located at Mountain and Baker Road and the septage pit is located off Mountain Road. Please refer to the discussion under the nonpoint pollutant sources under threats to water resources.

The septage lagoons located off Pleasant Street have not been in use since about 1979 and are planned to be mitigated in 2010.

The metal and brush disposal area is located on the Dump Road, east of Little Lake Sunapee. Please refer to the discussion under the nonpoint pollutant sources under threats to water resources.

The transfer station, located near Exit 12 on Interstate 89, was put into service in June 1988. Solid waste is hauled from this point to commercial landfills. A second structure on the site serves as a recycling center for paper, glass, plastic, cardboard and metal. This facility may need to be expanded in the future. There are two monitoring wells at the transfer station site that the Town is not required to monitor any more.

### Water Supply: Major Non-Municipal Systems

There are two major non-municipal water systems serving developments in New London.

The drilled well at the Slope & Shore is located 200 yards from the beach on the northwest shore of Pleasant Lake. This well is approximately 125 feet deep and yields 130 gallons per minute. The static level is at Lake level and it appears as though Lake water feeds the system via back flow through gravel. The water is not treated. A pressure tank is located in a small utility building adjacent to the storage pond. As the development is located on a slope above the Lake, there is a half way station which includes a tank and repressurizing equipment. When signaled by a float valve in the tank at the top of the development, a pump at the half way station sends water to the top. The forty-five dwellings served are owned by both seasonal and year-round residents. Each has unlimited use of the water and a monthly assessment is pro-rated among the users. The system is adequate to meet existing demand and regulatory requirements and future demand over the next fifteen years. There are no plans to expand the development or the system or to link in with another water system.

The water system of the Seasons at the Country Club off Route 11 serves 64 units in 2009, but is designed to serve 97 units. There are two drilled wells on site; one is reserved for back-up use. The water quality and quantity have been adequate to meet existing demand and regulatory requirements and future demand for the next fifteen years. There is no treatment. Both year-round and seasonal homes are served. Two fire ponds provide a supply for

firefighting. Users are not metered; operation and maintenance of the system is paid for through the condominium association budget. There is an alarm system for leak detection and no plans to expand the service area or to link in with another system.

### Wastewater Treatment

Sewer service is currently provided to approximately one-tenth of the area of the Town. Map XI-1 (Page 201) found in the Utilities Chapter, shows the area that can be served by gravity sewer. The areas presently served by the sewer system include the Main Street and Newport Road areas, the Birch/Seamans Acres area, the Edmunds Road area and the Lake Sunapee Country Club development. The sewer system was extended to serve the Birch/Seamans Acres and the Edmunds Road area to alleviate concerns for failed septic systems.

Information about the Town's wastewater treatment system is described in the Utilities Chapter of this Master Plan. The service area, wastewater flows and inter-municipal agreement with Sunapee are also described. Improvements to reduce infiltration have reduced flows. Since there is still a correlation between high demand and high rainfall, it seems that additional improvements to further reduce infiltration may be warranted. It appears that the system is adequate to meet the current needs and those for the next fifteen years.

## **Existing Programs and Policies Affecting New London's Water Resources**

Protection of water resources can be accomplished in a number of ways. This section will describe regulatory methods that are in effect in New London now and how these controls affect water quality or quantity in Town. Fortunately, the basis of land use controls is the public health and safety so that many aspects of our regulations have the result of protecting water quality and assuring an adequate supply.

### Subdivision Regulations

Subdivision regulations are adopted and administered by the Planning Board. The division of a parcel of land into two or more parcels is called a subdivision. In New London, in the course of reviewing a subdivision application, the Planning Board cannot approve requests which would involve danger or injury to health, safety or prosperity by reason of the lack of water supply, drainage, transportation, schools, fire protection or other public services, or necessitate an excessive expenditure of public funds for the supply of such services. Land which, in the judgment of the Board, cannot be safely used for building purposes because of danger to health or peril from flood or poor drainage would not be approved for building lots. Indirectly, this requirement protects water quality by bringing attention to the health impacts of degradation of water quality. Likewise, when on-site conditions are not adequate for a well and septic system and there is no water or sewer service, the Board has reason to deny the request for a subdivision in order to protect water quality and public health.

In New London, prior to subdivision approval, proper provisions must be made for drainage, water supply, sewage disposal and other appropriate services. Plans for drainage and erosion and sedimentation control, as well as a drainage and hydrology report, are required. The New London-Springfield Water System Precinct is also involved in the review process.

Brooks, streams and water bodies are among the natural features that are to be given due consideration in the course of laying out a subdivision. Wetlands are protected from development and are discounted in the calculation of minimum lot size. Erosion and

sedimentation must be controlled during all phases of clearing, grading and construction. Guidelines are set forth for water systems, sewer systems, septic systems, erosion and sediment control, excavation and grading and drainage. Special care must be taken in the installation of utilities in flood hazard areas.

The Subdivision Regulations were amended in 2007. One of the major initiatives was to incorporate Low Impact Design (LID) techniques into the Subdivision Regulations as the preferred method of managing stormwater runoff. LID techniques disperse and infiltrate stormwater runoff rather than concentrating, storing and conveying runoff directly to surface waters typical of traditional approaches to managing stormwater runoff. The main goal of these LID techniques is to minimize the negative impacts of land use development on water quality.

The current Regulations need to address groundwater recharge, nutrient levels, fisheries habitat, and management of existing and potential contaminant sources, except for proposed septic systems that are already covered by the regulations.

### Zoning Ordinance

The Town of New London adopted a Zoning Ordinance in 1958. It has been amended by votes of the Town Meeting, so that the most recent version was adopted in 2009. Zoning controls the use and intensity of the land use in a town. The Town is divided into districts; the permitted uses and allowed intensity of those uses vary district to district. Zoning is considered one way to guide growth and development, and to protect natural resources.

New London's Ordinance affects water quality and quantity in the following ways:

1. In addition to state septic controls, mound systems are reviewed to ensure water flow is not altered;
2. extraction of soil, sand or gravel which may expose the groundwater to pollution by removing the protective filter of soil above the water level is regulated. A bond may be required to ensure restoration is completed. Proper restoration also minimizes erosion potential;
3. ground and surface water on abutting lots may be protected by the 100 foot setback required between a farm building, feed lot or other intensively used facility for animal raising;
4. the Planning Board may require larger lot size when topography, subsoil or leaching area dictates. This has the effect of lowering density and minimizing water quality impacts;
5. lakefront properties are required to have 200 feet of frontage and no more than one family per two acres. The Town's Shore Land Overlay District that extends 250 feet inland requires a waterfront buffer 50 feet in depth from the reference line to be maintained in natural vegetation, restricts cutting in this waterfront buffer area adjacent to the shore, establishes minimum percentages of undisturbed areas in the natural woodland buffer between 50 and 150 feet from the reference line, and limits the percentage of impervious surface coverage within the Shore Land Overlay District. Impacts on major water bodies are minimized through these standards for shore land development;

6. the Conservation District was created with the purpose of protecting and conserving open space. Uses are limited to single family residences, forestry, agriculture, golf courses, tennis courts, stables, water recreation and storage, nurseries, home occupations and professional offices. A minimum lot size of ten acres is required. The low density of development permitted and the low intensity of the uses will result in low impact on water resources. Water quality and quantity is indirectly protected by encouraging less intensive uses;
7. the Wetlands Conservation Overlay is a positive step toward protecting wetlands for floodwater storage, wildlife habitat and groundwater recharge. The overlay district protects prime wetlands and other wetlands including swamps, marshes, and bogs. Permitted uses include forestry, agriculture, wildlife refuge, parks, nature trails, and fire ponds. Other uses are permitted if it can be shown that the use will not conflict with the goals listed in the ordinance. The overlay district currently provides for undisturbed, natural buffers around the prime wetlands and any very poorly drained soils which adjoin the prime wetlands. In addition, the overlay district provides for buffers around other identified significant wetlands delineated on the New London Streams and Wetlands Protection Map, dated March 13, 2001;
8. in the Steep Slope Overlay District, development is not permitted and all uses except forestry, wildlife refuges and outdoor recreation are prohibited. The boundaries of the Steep Slope Overlay District include all areas of New London with slopes in excess of 15 percent with an elevation change of more than 20 feet. The intent of this restriction is to prevent soil erosion on steep slopes and the subsequent sedimentation of watercourses and water bodies;
9. the Forest Conservation District was created with the purpose of protecting and preserving large tracts of undeveloped forest land. Uses are limited to single family residences, forestry, agriculture, home occupations, wildlife refuges requiring no structures, publicly-owned recreational facilities requiring no structures, conservation areas and nature hiking trails. A minimum lot size of twenty-five acres is required. The very low density of development permitted and the low intensity of the uses will result in low impacts on water resources. Water quality and quantity is indirectly protected by encouraging less intensive uses; and
10. the Streams Conservation Overlay District was created to minimize the degradation of stream shore lands, to retain the environmental benefits provided by streams, and to protect the water quality of the streams and downstream water resources. A 100 foot wide natural woodland buffer was established on each side of protected streams. Uses are limited to forestry, agriculture, wildlife refuges, parks and recreation uses, conservation areas and nature trails, open spaces, dry hydrants or fire ponds, and improvement of non-conforming structures. A list of land uses detrimental to streams and their water quality is specifically prohibited.

The current Ordinance needs to address surface water flow, management of existing and potential contaminant sources, nutrient levels, wildlife and fisheries habitat and groundwater recharge, except in wetlands which are already addressed in the Zoning Ordinance.

Additionally, natural, undisturbed buffers are required only around prime wetlands, around some of the other protected wetlands and along some of the streams. The Conservation Commission

and Planning Board should continue to develop and improve planning techniques designed to protect streams and wetland complexes in a manner that preserves the essential functions and values of these fragile resources. The existing stream and wetland map, adopted March 13, 2001, should be revised because it does not include certain significant streams and wetlands, and includes some that are questionable. In addition, the buffering methodology in the Town's existing wetlands overlay regulation scheme has encountered problems, in certain circumstances, that should be resolved. To accomplish these goals, the Planning Board has appointed a Wetland Subcommittee to study stream and wetland protection and make recommendations to the full Planning Board on the best approach to pursue. After consulting with professional wetland scientists, the Wetland Subcommittee is pursuing the development of a scope of services by a wetland scientist to study the streams and wetlands in Town to define their functions and values and to develop a regulatory system based on that scientific analysis. As this limited science continues to evolve and improve, the Planning Board should continue to seek effective alternatives to protect these fragile environments. This should continue to include periodic consultation with wetland science professionals and a review of current statutes to ensure a scientifically practical and legally viable regulatory approach.

#### Site Plan Review Regulations

Site Plan Review Regulations are adopted and administered by the Planning Board. Proposed non-residential and residential developments with more than two dwelling units are regulated. One of the stated purposes of site plan review is to protect the quality of groundwater. Site plan review considers impacts on water bodies, wetlands, watercourses and aquifers protecting against any adverse impact. Review by the New London-Springfield Water System Precinct is required when projects are located within the New London-Springfield Water System Precinct boundaries and desire service. The Site Plan Review Regulations require adequate provisions be made for controlling erosion from the site preventing sediment from adversely impacting water resources. If the site plan involves more than 2,500 square feet of additional impervious surface area, then the applicant must comply with the requirements of the Stormwater and Erosion Control Design Standards and the Landscape Design Standards for Stormwater Treatment in the Land Subdivision Control Regulations. LID techniques are the preferred approach for managing stormwater and are to be used unless it can be demonstrated they are not feasible on a particular site.

The current Regulations need to address groundwater recharge, management of existing and potential contaminant sources, nutrient levels and wildlife and fisheries habitat.

### **Water Resources and New London's Future**

In this section, the water resources in Town are considered in light of future demand and development. Conflicting uses are identified and threats to water quality are highlighted. Recommendations for regulatory and non-regulatory approaches for protecting the Town's water resources are outlined.

#### Water Supply

To date, New London's natural supply of water in conjunction with the New London-Springfield Water System Precinct system has been adequate to serve its residents and businesses. It is projected that the New London-Springfield Water System Precinct has an adequate water supply to meet the anticipated needs within the Precinct over the next fifteen years.

The existing groundwater resources should be adequate to serve the areas outside the Precinct boundaries. These areas are developed at a relatively low residential density and have a low water demand for existing and future anticipated residential development. It is the quality of the water, particularly around many of the densely settled shores of New London's lakes, which should be a concern to the Town. If these areas need water service and the Precinct is not expanded, then Class A surface waters and low to medium yield aquifers on the shores of Pleasant Lake and Lake Sunapee are alternative sources to consider for water supplies. However, with the available information regarding the aquifers and use, it is impossible to state with any certainty whether the water supply will be sufficient to meet the needs of these areas fifteen years into the future.

The cumulative effect on the long-term capacity of groundwater resources from the withdrawals of many small individual domestic wells is unknown and needs to be studied. The Town needs to begin to develop a database of well information such as the location, type, depth, and yield.

#### Other Water Resource Purposes

New London is a mecca for water-based recreation thanks to its large, clean water bodies. The Town owns two beaches, one on Little Lake Sunapee and one on Pleasant Lake. Boating is popular on the larger lakes. A boat launch is located near the dam on Little Lake Sunapee and also near the dam on Pleasant Lake. Otter Pond, Goose Hole and Messer Pond support some swimming and boating, but public access to these smaller ponds is severely restricted or not available. Fishing on lakes and ponds or along the shores of streams and brooks is popular.

The Town has made great progress in protecting its wetlands by adopting a wetlands overlay district. The Town has also made a commitment to assuring the long-term protection of its wetlands by acquiring ownership in portions of two prime wetland areas: the Esther Currier Wildlife Management Area at Low Plain and Philbrick-Cricenti Bog.

The fish and other wildlife in New London are, of course, dependent on the Town's surface water resources. As long as the supply is clean enough and of adequate quantity, water resources will support those non-human species as they do now.

There are currently no areas in Town conducive to use for hydropower production that are economical to develop and there are no plans for hydropower production.

Water supply for firefighting is available in the Precinct area. The available water supply and pressure in the water lines was improved with the construction of the underground water tank on the Colby Sawyer College campus. Outside the Precinct area, New London is dependent on a system of fire ponds and tankers to supply water for its fire protection efforts. The Town has developed a town wide fire pond plan to ensure that water supplies are located conveniently across Town for firefighting purposes. Please refer to Map VIII-1 Community Utility Infrastructure in the Utilities Chapter which identifies the existing and future dry hydrants and water cisterns for rural water supplies for firefighting purposes.

There are no current conflicts between competing uses of water.

### Management of Potential Threats

Existing water resources are threatened by many sources and activities as discussed in this chapter. Listed below are existing threats to water quality in New London and potential methods for minimizing the danger to water quality.

Road salt – Road salt is a major source of nonpoint pollution in New London which comes primarily from NHDOT salting of Interstate 89, Routes 103A, 114 and 11 and, to a lesser extent, from Town roads because the Town uses a salt/sand mixture. The Town has worked with the New Hampshire Department of Transportation (NHDOT) to designate a section of Route 103A along Herrick Cove and Little Sunapee Road as environmentally sensitive and they receive less salt for winter maintenance. The Town should continue to work with the NHDOT to designate additional environmentally sensitive areas along other State roads that should receive less salt. Salt storage areas are now covered and the salt is stored on an impermeable base to prevent contamination of the underlying aquifer area.

Stormwater runoff from roads – Stormwater runoff from roads, particularly I-89, is a major contributor of pollutants reaching water resources in New London. Oil, gasoline and other pollutants deposited on roads by traveling vehicles are washed off, particularly during severe storm events, and end up polluting downstream water resources.

Old landfill at Mountain and Baker Roads – As previously noted, the old landfill is not used and has been closed. Please refer to the discussion under the nonpoint pollutant sources under threats to water resources.

Residential development – New residential development is the major type of new development in all the watersheds throughout the community. These new residential developments create additional impervious surface coverage through the addition of rooftops, driveways, and access roads. Additional runoff is created by removal of the tree canopy and the addition of lawns. Unless properly managed the stormwater flows from these additional impervious surface areas negatively impact downstream water resources from the additional volume, rate and pollutant content of the stormwater flows. As noted previously, when impervious surface area coverage reaches 7-14% within the watershed, the health of streams becomes negatively affected. At these levels pollutant loads increase having negative impacts on stream biodiversity and cause stream channels to become unstable and easily eroded. Streams become “non-supporting” when watershed imperviousness exceeds approximately 26% meaning channel stability and biodiversity cannot be fully maintained even with the implementation of stormwater practices or retrofits. For these reasons, managing stormwater flows generated by new residential developments becomes critical to the health of water resources in each watershed. The Planning Board should be vigilant in implementing the LID techniques where feasible for stormwater management for new residential developments.

Dense concentrations of homes in aquifer areas or aquifer recharge zones could contaminate groundwater. Effluent loading could be too great and the filtering capability of the soil may not be adequate to protect water quality. Likewise, septic systems may not be located at a safe distance from surface water supplies, even though the State standards are being met. It is not uncommon for household hazardous materials to be flushed into the groundwater or poured onto the ground, thereby posing a water quality threat.

The Town should be sure that density is not too great in terms of effluent loading, especially on lake shores. A sub-surface hydrologic study, including sub-surface water sampling, could be

undertaken in areas, such as the shores of Pleasant Lake and Lake Sunapee. The Town may wish to change the zoning to lower the allowable density, or provide water and/or sewer service to handle the water quality problem, if there is one. The Town should continue to support household hazardous waste collection days and promote the idea of proper disposal of toxic substances. Also, many homeowners are not aware that septic tanks, if not regularly pumped, will cause leach field failure. The Town should help educate its residents about this important preventive maintenance practice. Additionally the Town should encourage the replacement of old septic systems before they fail and becomes sources of pollution adversely affecting both groundwater and surface water resources.

Business development – A variety of businesses are permitted in the Commercial Zone under the existing Zoning Regulations. The Town may wish to specify performance standards that each new business would have to meet to ensure continued water quality. It may be that the Town would want these standards to apply only in aquifer areas and aquifer recharge areas.

Stormwater runoff from impervious surfaces – Stormwater runoff generated by additional impervious surface coverage from new commercial developments creates the same problems discussed above for new residential developments. The Planning Board should be vigilant in implementing the LID techniques where feasible for stormwater management for new commercial developments. Additionally, the Planning Board should encourage the use of these new stormwater management techniques for older existing commercial developments and require their use when these older existing commercial developments are expanded or redeveloped.

Underground storage tanks – Underground storage tanks associated with residences or farms present real risks to water quality because of their age or construction. The Town may want to consider strengthening their groundwater protection regulations through the use of zoning. Propane is not a problem since it is stored above ground. The Town should prohibit any underground fuel oil storage tanks in environmentally sensitive areas mapped as potential aquifer zones or important recharge areas.

Unsound farming practices – Unsound farming practices may contaminate water by pesticide, fertilizer and herbicide runoff. The Town should consider appointing an Agricultural Commission to promote and encourage the proper use of best management practices for agriculture which may be accomplished by sponsoring educational workshops and making information available.

Unsound Forestry Practices – Tree cutting is managed by the State through intent to cut permits. Water may be contaminated as a result of erosion generated by careless forestry practices. The Town should encourage the use of best management practices for forestry through the intent to cut permits regulated by the State.

Shops and garages which perform machine and auto repair services – These uses are permitted in the Commercial District. Currently there is only one auto repair garage in New London. It is located in Elkins outside the Commercial District and is an existing nonconforming use. Accidental spillage can pollute water resources. The current practice of recycling motor oil helps minimize one possible pollutant from these businesses.

Household Hazardous Waste – The Town should continue to organize and conduct regular collections and disposal of household hazardous wastes.

Future uses – Residential development is anticipated throughout the Town with new or expanded commercial activity planned in the center of Town. The zoning for the Town allows land uses which could be detrimental to water quality, especially in the Commercial District. As farming and forestry are permitted in most of the Town, care should be taken that best management practices are used so as to reduce the possibility of water contamination from pesticide, fertilizer and herbicide runoff, manure storage or feed lot areas or erosion from careless forestry activities. As discussed above, regulatory changes and dissemination of information can minimize the threats to water quality.

The Town should pay particular attention to its aquifer areas. It is in these places where future development may threaten water resources which will be necessary to support the existing, as well as future development. If the aquifers are developed for use as a community water supply, land uses and existing activities in the watershed would have to be strictly regulated using suggestions like those recommended above. A water supply conservation district may be a necessary future amendment to the zoning ordinance to assure protection of new water supplies which use groundwater resources.

Groundwater Withdrawals – The cumulative effect on the long-term capacity of groundwater resources from the withdrawals by many small individual domestic wells is unknown and needs to be studied. The Town needs to begin to develop a database of well information.

Large groundwater withdrawals have the potential to deplete groundwater resources over time. In 1998, two State laws, the Groundwater Protection Act and the Safe Drinking Water Act, were amended to ensure that undesirable impacts to water resources from new large groundwater withdrawals are identified and addressed. Any groundwater withdrawal from a new well having a maximum withdrawal of 57,600 gallons per day or more is considered to be a large groundwater withdrawal. New London currently has no large groundwater withdrawals. Large groundwater withdrawals are managed by the NHDES. The applicant for any large groundwater withdrawal proposal must study its effect on the groundwater resource serving as the water supply and demonstrate the proposed withdrawal will not have a long-term negative impact.

Untreated Stormwater – Increasing frequency of severe storms are creating more and more untreated stormwater. In addition to using Best Management Practices, including LID techniques, the Town needs to investigate creating a stormwater utility to manage stormwater to address current stormwater generation and the predicted increase of stormwater runoff from the projected increased frequency of severe storms.

## **Issues**

### Non-regulatory Programs

Issues pertaining to non-regulatory approaches to water resource protection include the following:

1. A watershed study was completed for the Lake Sunapee watershed in June 2008 by the Sunapee Area Watershed Coalition (SAWC) entitled Management Plan for the Lake Sunapee Watershed. Watershed studies are needed for the other watersheds in New London. Education about the watershed approach to protecting water resources is needed.

2. The Town needs to continue to seek assistance from the Regional Planning Commission to ascertain what regulations other communities in the area use to protect their water resources and to develop and implement common protection mechanisms with neighboring communities.
3. There is a need for public education with regard to best management practices for forestry and agriculture, septic system maintenance, risks to water quality from on-water uses, proper disposal of household toxic wastes, preferred driveway surfacing techniques, and the causes, effects and methods to manage soil erosion.
4. Coordination with neighboring communities is needed to protect water resources.
5. A septic system maintenance and inspection program could be instituted. Proper maintenance of septic tanks can go a long way to protect water resources. This program would involve a major commitment by local officials to sell the idea and importance to the community. In addition, the Town needs to encourage the replacement of old septic systems before they fail and pollute water resources and ensure proper location for new and replacement septic systems. The town needs to promote efforts to educate the public about these issues. The Town should initiate development of a database of new installed septic systems.
6. Household hazardous waste collections have two primary benefits. The first is that the public becomes aware of household hazardous wastes and of the proper methods of disposal. The second is the proper disposal of hazardous wastes.
7. Non-fee (easement) or land acquisition programs could be used to protect the shores of water bodies and watercourses and to protect aquifer areas. The Town should identify its preferred water supplies before entering into an aggressive easement protection program. However, the Town should continue to welcome gifts of conservation easements. Whether or not used as water supplies, it is important to protect the water quality of the lakes and streams in Town.
8. Excessive use of salt for winter road maintenance can adversely affect water quality. The Town uses a sand/salt mixture on Town roads. The Town has worked with the NHDOT to designate a section of Route 103A along Herrick Cove and Little Sunapee Road as environmentally sensitive and they receive less salt for winter maintenance. The Town should continue to work with the NHDOT to designate additional environmentally sensitive areas along other State roads that should receive less salt. Motorists could be informed of these areas by posting signs.
9. To lessen negative impacts on water quality, the Public Works Director should continue to coordinate with the NHDOT to improve implementation of stormwater management techniques.
10. All stormwater structures and stream crossings in each watershed need to be mapped. This information can be used to develop a stormwater management plan.
11. Stormwater management structures such as check dams and stone filters need to be installed to reduce the velocity of the runoff and thus the erosive forces of stormwater runoff.

12. Some residents experience economic hardship in repairing or replacing failed septic systems.
13. Information on and analysis of private residential wells is needed to promote protection of these groundwater resources. The cumulative effect on the long-term capacity of groundwater resources from the withdrawals of many small individual domestic wells is unknown and needs to be studied. The Town needs to begin to develop a database of well information such as location, type, depth, and yield of private residential wells.
14. Large groundwater withdrawals (a new well having a maximum withdrawal of 57,500 gallons per day or more) have the potential to deplete groundwater resources over time.
15. The wellhead protection area around the well field supplying water for the New London-Springfield Water System Precinct needs to be protected from potential contamination.
16. Severe storms are projected to increase in frequency creating more and more untreated stormwater. In addition to using Best Management Practices, including LID techniques, the Town needs to investigate the feasibility of creating a stormwater utility to manage stormwater to address current stormwater generation and the predicted increase of stormwater runoff from the projected increased frequency of severe storms.
17. New scientific and technical information relative to watershed and water resource planning needs to be monitored.
18. Monitoring of the water resources around the metal and brush disposal area or old burn dump needs to continue in cooperation with the NHDES. If closure is needed a new metal and brush disposal area site may need to be found.

### Regulatory Programs

Issues pertaining to regulatory approaches to water resource protection include the following:

#### *Zoning Ordinance*

1. New or expanding business operations may need performance standards to ensure continued water quality.
2. The techniques used to protect streams and wetland complexes need to be improved to preserve the essential functions and values of these fragile resources.
3. Stormwater runoff from land development on individual lots needs to be managed to provide protection of water resources.
4. Land development activities and impervious surfaces generate more overland flow of stormwater from lawns, roofs, roads and parking lots carrying dirt, automobile fluids, road salt, pet waste and fertilizers into streams and lakes adversely affecting water quality. Impervious surface coverage needs to be limited and land development activities carefully monitored for damaging stormwater runoff.
5. The minimum setback from surface waters currently is 50 feet. This standard needs to be evaluated on a regular basis to reflect the latest science and adjusted accordingly.

### *Subdivision Regulations*

1. The Planning Board adopted new provisions in the Subdivision Regulations pertaining to the management of stormwater runoff and erosion and sediment controls for new developments. A major part of this effort was incorporating LID techniques wherever the site conditions allow for their use.

### *Site Plan Review*

1. The standards and requirements for erosion and sediment controls and management of stormwater runoff incorporated into the Subdivision Regulations have been incorporated into the Site Plan Review Regulations by cross-reference. Implementing those new requirements and standards for erosion control and management of stormwater is important when new sites are developed and when existing sites are redeveloped.
2. Information about underground storage tanks, including type, contents, capacity and location is needed.

### *Enforcement*

1. Effective enforcement of existing environmental ordinances and regulations is important and the Town needs to continue to with its efforts in this area.

## **Recommendations**

### *Non-regulatory Programs*

The non-regulatory approaches to water resource protection are as important as the regulatory methods. Given the existing situation in Town, the following recommendations are offered. This list should be reviewed and revised regularly to ensure that they reflect the current conditions in Town.

1. Following the lead of the SAWC's June 2008 Management Plan for the Lake Sunapee Watershed, watershed studies for each watershed in the community should be undertaken. These studies should evaluate the impact of the potential land use development at full build-out within each watershed on the water quality of each lake. Further, they should identify strategies and techniques to manage land use to maintain and improve the existing high water quality in those lakes. The watershed approach to protecting water resources should continue to be supported and used. Education about watershed plans and their implementation should be supported and conducted.
2. The Town should continue to call on the Upper Valley Lake Sunapee Regional Planning Commission to provide the Planning Board and Selectmen with sample ordinances, bylaws and regulations used to protect water resources in other towns. The Regional Planning Commission should be asked to help prepare regulations and amendments to existing regulations to protect those resources. The Regional Planning Commission should help New London, along with its neighboring communities, to prioritize their shared water resources and implement common protection mechanisms.
3. The Town should continue to work with the lake protective associations, the New Hampshire Department of Environmental Services and the Regional Planning

- Commission to develop materials and conduct public education programs with regard to the “watershed approach” to managing water quality, best management practices for forestry and agriculture, septic system maintenance, risks to water quality from on-water uses, proper disposal of household toxic wastes, preferred driveway surfacing techniques, and the causes, effects and methods to manage soil erosion.
4. Coordination with adjacent communities, as mentioned above, could help provide more complete protection of important water resources. Meetings could be held to discuss local interests and an acceptable protection strategy. This approach would necessitate the involvement of local officials, but is low-cost in terms of cash outlay until the protection strategy is implemented.
  5. A septic system maintenance and inspection program should be instituted either on a voluntary or mandatory basis. The Town should encourage the replacement of old septic systems before they fail and pollute water resources and ensure proper location for new and replacement septic systems. The town should promote efforts to educate the public about these important issues.
  6. The Town should continue to support and participate in household hazardous waste collections and establish more frequent waste collections.
  7. The Town should continue to use easement or land acquisition programs to protect the shores of water bodies and watercourses and to protect aquifer areas. The Town should identify its preferred water supplies before entering into an aggressive easement or land acquisition protection program. However, the Town should continue to welcome gifts of conservation easements.
  8. The Town Public Works Department and the NHDOT should continue to use best management practices for the use of road salt for winter road maintenance. The Town and the NHDOT should continue to work cooperatively to identify additional low salt areas on Town and State roads and inform motorists of these areas by posting signs.
  9. The Public Works Director should continue to work cooperatively with the NHDOT to improve implementation of stormwater management techniques to mitigate negative impacts of water quality.
  10. The Town Public Works Department should work cooperatively with the lake protective associations to identify and map all stormwater structures and stream crossings in each watershed and use this inventory to develop a stormwater management plan.
  11. The Town Public Works Department should continue to install stormwater management structures such as check dams and stone filters, where needed, to reduce the velocity of the runoff and thus the erosive forces of stormwater runoff.
  12. The Town should develop a financing program for cases of economic hardship which enables residents to repair or replace failing septic systems.
  13. The Town should participate with the New Hampshire Department of Environmental Services, the U.S. Environmental Protection Agency, the Regional Planning Commission and lake protective associations to collect and analyze information such as location,

- type, depth, and yield of private residential wells and use this analysis to promote protection of these groundwater resources.
14. The Town should work closely with NHDES on any application for a large groundwater withdrawal (a new well having a maximum withdrawal of 57,500 gallons per day or more) to ensure the withdrawal will not have a long-term negative impact on groundwater resources.
  15. The Town should work cooperatively with the New Hampshire Department of Environmental Services, the Regional Planning Commission and the New London-Springfield Water System Precinct to ensure protection of the Precinct's wellhead area.
  16. With the projected increased frequency of severe storms causing more untreated stormwater, the Town should investigate the feasibility of creating a stormwater utility to manage stormwater in addition to using Best Management Practices, including LID techniques.
  17. The Town should continue to monitor available new scientific and technical information to inform watershed and water resource planning efforts.
  18. The Town should continue to monitor the water resources around the metal and brush disposal area or old burn dump in cooperation with the NHDES. If required by NHDES due to the monitoring results, The Town will need to close and possibly cap the metal and brush disposal area or old burn dump. If this occurs, the Town will need to find and establish a new metal and brush disposal area site.

### Regulatory Programs

The State gives communities the power to enact laws which can regulate activities and protect water resources. New London has enacted a zoning ordinance, site plan review and subdivision regulations. The existing regulatory programs have been described in this chapter. In this section, recommendations for specific amendments to existing ordinances and regulations are suggested to better protect water quality.

### Zoning Ordinance

1. The Planning Board should develop performance standards that new or expanding business operations would have to meet to protect water quality and submit to the voters for approval.
2. The Conservation Commission and Planning Board should continue to develop and improve planning techniques designed to protect streams and wetland complexes in a manner that preserves the essential functions and values of these fragile resources and submit these to the voters for approval. As this limited science continues to evolve and improve, the Planning Board should continue to seek effective alternatives to protect these fragile environments including periodic consultation with wetland science professionals and a review of current statutes to ensure a scientifically practical and legally viable regulatory approach.

3. The Planning Board should craft a Stormwater Management Ordinance to submit to the voters to regulate and guide the management of stormwater runoff from land development on individual lots.
4. The Planning Board should develop and to submit to the voters regulations which limit the amount of permitted impervious surface coverage.
5. The Planning Board should regularly evaluate the standard for the 50 foot setback from surface waters. If warranted, the Planning Board should craft and submit to the voters a proposal to increase the minimum setback from surface waters based on the latest science to increase protection of water quality.

#### *Subdivision Regulations*

1. The Planning Board should continue to implement the new provisions in the Subdivision Regulations pertaining to the management of stormwater runoff and erosion and sediment controls for new developments. The Planning Board should ensure pollution from stormwater runoff is minimized through the use of Best Management Practices, including LID techniques, wherever the site conditions allow for their use.

#### *Site Plan Review*

1. The Planning Board should continue to be vigilant about implementing the standards and requirements for erosion and sediment control and management of stormwater runoff incorporated into the Site Plan Review Regulations by cross-reference from the Land Subdivision Control Regulations. Implementing those new requirements and standards for erosion control and management of stormwater is important when new sites are developed and when existing sites are redeveloped.
2. Require information about underground storage tanks, including type, contents, capacity and location in applications for site plan review.

#### *Enforcement*

1. The Town should continue to support effective enforcement of existing environmental ordinances and regulations. The Town should consider charging fees to pay for this service.

## **VI. HISTORIC RESOURCES**

### **Introduction**

A plan for the future without a look to the past is incomplete. This chapter was prepared in recognition of the fact that New London's historic resources and historic quality play an important role in the overall quality of life in the community. Historic structures and sites which survive from earlier periods are the visual manifestation of the story of a community's people. As vital links and tangible connectors to the past, surviving fragments of history contribute to the individuality of each town, and lend a sense of continuity. Historic structures and sites are but one part of our total environmental resources and, like many others, are nonrenewable, capable of being preserved or vanishing with a single action.

Diverse settlement patterns and structures can be found throughout Town, as witnessed in the village centers of New London and Elkins, in the rural areas and along New London's various lakefronts. The special quality that distinguishes New London's built environment from other communities in the region is, in part, a result of the dual development of an academy (now a college) and a town. Colonial-inspired architect-designed structures, expressive of the College's fine academic tradition, co-exist with the cape style and 2 ½ story frame dwellings of early settlers which sporadically dot the rolling landscape. The consistent architectural style of the College contrasts sharply with the more diverse development of the Town itself, yet the two are intimately interwoven.

The purpose of this chapter is to discuss existing tools and legislation available to help protect New London's rich cultural heritage. Significant local historic sites and resources are identified, with recommendations for their continued preservation. It is the responsibility of the community to plan a program of historical and cultural protection, based on local needs and desires. This chapter does not attempt to be a complete and comprehensive inventory of all local resources, but is intended as a departure point for future efforts.

### **Goals**

1. To continue to protect and preserve New London's historic resources.
2. To promote interest in preserving the Town's historic resources.
3. To study and implement alternative approaches to preserving New London's historic resources and historic character.

### **Community Survey Results**

In 2008, the New London Planning Board conducted a survey of the Town's property owners and registered voters to help determine the community's needs and preferences with respect to future development of the community. The following is a brief summary of the survey results relating to historic resources.

In Question #10 when asked about the importance of twenty-five possible attributes that create the unique character and rural charm of New London, respondents identified the following

importance of historic resource-related attributes after combining the important and very important categories:

- landmarks and historic buildings received the third highest ranking; and
- stone walls received the fourth highest ranking.

As reflected in the responses to Question #14 to follow, almost 6 out of 10 respondents supported the Town studying whether to create historic districts. About 1 out of 4 respondents opposed the idea. About 1 out of 8 people did not know indicating additional education on the subject is needed.

Planning Board Community Survey 2008		
Question #14: Should the Town conduct a study of whether to create historic districts such as Elkins Village, Old Main Street, and Main Street from Crockett's Corner to Spring Ledge? (Please choose one)		
Answer Options	Response Percent	Response Count
Yes	56.6%	257
No	25.6%	116
Don't Know	17.8%	81
Comments:		52
<i>answered question</i>		454
<i>skipped question</i>		61

There was strong support for preserving individual historic buildings, historic sites and historic features with more than 8 out of 10 people supporting the preservation of all of these.

Planning Board Community Survey 2008								
Question #15: How important do you think it is to preserve the following historic attributes? (Please rank each attribute)								
Answer Options	Very Important	Important	Neutral	Unimportant	Very Unimportant	Don't Know	Rating Average	Response Count
Individual historic buildings	54.3% (246)	34.2% (155)	9.3% (42)	1.3% (6)	0.4% (2)	0.4% (2)	4.392936	453
Historic sites	49.7% (222)	38.0% (170)	9.4% (42)	1.6% (7)	0.4% (2)	0.9% (4)	4.322148	447
Historic features, such as stone walls	49.4% (223)	36.8% (166)	10.6% (48)	2.2% (10)	0.4% (2)	0.4% (2)	4.312639	451
Comments:								37
<i>answered question</i>								454
<i>skipped question</i>								61

### Preservation Action to Date

Owing to the diligent efforts of the New London Historical Society, the History and Archives Committee, and numerous individuals, New London boasts a strong record of support for preservation-related activities.

The New London Historical Society was founded in 1954 by a dedicated group of residents to express their conviction that New London's past should be preserved for its future. Its purposes were declared to be: 1) to develop interest in the history of the area; 2) to collect and preserve objects and information of historical significance; and 3) to provide education about the evolution of day-to-day life in the area.

The Society's present village on Little Sunapee Road began in the early 1960s, with the gift from Maude Fellows Swift of an 1835 cottage that originally housed scythe shop workers. It was moved in 1963 from Elkins to its present site, on land donated by Walter Bucklin. Known as the Scytheville House, it has been completely furnished with period antiques and artifacts. Other 19th century buildings have been moved to the site: two barns, the schoolhouse from Pleasant Street, the schoolhouse from Burpee Hill (which has been refitted as a country store),

a carriage shed, and a blacksmith shop. A 1950s building of 1820s style was moved from Knights Hill to become the Lauridsen Acquisitions Building. New buildings erected on site include a replica of an 1830 Meeting House seating 120, a violin and carriage painting shop, and the Harriet Kidder Memorial Hearse House, which contains an elegantly restored horse-drawn hearse. The Society owns a large collection of horse-drawn vehicles, including a Concord Coach, a steam pumper fire engine, carriages, buggies and sleighs. A recent project was the construction of a building to house this valuable collection in a controlled environment.

The Society has prospered because of many long-term committed workers and the keen interest of successor generations in building on the vision of the founders. Critical, too, has been the sustained membership and volunteer support of the New London community. As noted in its mission statement, the Society's facilities may be rented for appropriate family, community organization and business gatherings as well as for educational purposes such as the annual 4<sup>th</sup> grade visits.

New London's Town Archives Committee collects and preserves letters, records, photographs, and other information needed to document the ongoing history of the town. Volunteers update and manage the collection, and they assist researchers in its use.

In 1933, the Town History Committee was established in order to plan historic observances, prepare for the publication of an updated town history, and maintain the town papers and archives.

Operating since that time under various names (Town History Committee and Town Archives Committee), the group has expanded the collection, coordinated the installation of historic markers, commemorated anniversaries, twice moved into new facilities, and published town histories covering both halves of the 20th century.

The work continues. Even as new information is added each week, existing images and records are being converted into digital format—providing greater security and access to this diverse collection of information used by local historians, family genealogists, and town planners.

Historical artifacts from 20<sup>th</sup> century New London are presented by the W. K. F. Ice House Foundation on Pleasant Street. Also, the history of the Lake Sunapee area, including information on the hotels, steamboats and the railroads, can be found in the Sunapee Historical Society Museum in Sunapee Harbor.

The Town Archives is staffed by a volunteer town archivist and four volunteer helpers. Colby-Sawyer College has its own archives, focusing on the history of the institution from its founding in 1837 as an Academy, to its present state as a co-educational, four-year college. Included in the Archives is a separate collection of materials from the Colby-Colgate-Cleveland family, which begins with the arrival of Joseph Colby to New London in 1786. Instrumental in Town government, politics, education, and religion, the family collection contains significant letters, documents, store records and ledgers, military records, photographs, maps, and diaries relating to the prominent family. It contains many documents concerning Anthony Colby (Governor of New Hampshire 1846-1847); those of his daughter Susan Colby Colgate, the first lady principal at the New London Academy; and those of his great, great grandson, James C. Cleveland, who served in the U.S. Congress for four terms and died in 1996.

An attempt to adopt an historic district ordinance was defeated at Town Meeting in 1980. No further attempt has been undertaken since then. The proposed ordinance would have established two districts: Main Street from Crockett's Corner at the intersection of Routes 11

and 114 to Homan's Corner at the intersection of Route 114 and Newport Road, and Old Main Street from Route 11 to the intersection of South Pleasant Street, extending 250' out from the center line of the roads on each side.

To date, two local structures are listed on the National Register of Historic Places. These include:

- The Dr. Solomon M. Whipple House, now known as Woodcrest, which is currently functioning as a congregate living facility for senior citizens; and
- The Baptist New Meeting House now known as the First Baptist Church of New London.

Three buildings in New London are included on the New Hampshire Register of Historic Places including:

- The Baptist New Meeting House on Main Street now known as the First Baptist Church of New London listed on 4/25/2005;
- The New London Barn Playhouse on Main Street listed on 1/30/2006; and
- Kentlands on Burpee Hill Road listed on 11/20/2008.

Special mention should be made of those structures in Town which have been adapted for a new use, yet with appropriate sensitivity to their original appearance. Of particular note is the Susan Colgate Cleveland Library Learning Center in the barns of the Colby Homestead, the Tracy Library and Woodcrest now occupying the former Dr. Solomon M. Whipple House.

### **Preservation and Enhancement of Historic Sites and Areas**

To date, the continued protection of New London's historic resources has been accomplished largely by the actions of individual owners and an overriding community-wide respect for the Town's historic assets. Uniformly high standards of upkeep and maintenance are evident in most of the structures within the Town. Decaying buildings and neglect are rare, outweighed by a sense of pride and understanding identifiable by visitors and residents alike. Currently, New London controls development through zoning. Yet, zoning regulations may not be enough to protect the Town's historic resources in the future. It should not be assumed that land use controls and federal incentives alone will be sufficient to preserve New London's important assets. It is the private sector which provides the fuel and support necessary to ensure that the Town's cultural resources remain an integral part of everyday life. It is a broad-based partnership between different levels of support which must be sought.

To ensure that New London is able to retain its historic assets in the future, the various vehicles for preservation discussed below should be considered.

#### *Private Citizens and Organizations*

Much of the responsibility for historic preservation is undertaken by private individuals or groups. According to 2000 U.S. Census figures, 22.1% of New London's housing units were built prior to 1940 (as compared to 27.9% in Merrimack County and 23.7% statewide). Pride in ownership and regular maintenance can be responsible for remarkable preservation results. Cases of neglect and decay are rare in New London; general maintenance is rewarded by a very favorable real estate market. Unfortunately, improvement work undertaken with good intentions can sometimes result in techniques or materials inconsistent or insensitive to an older building. As a result, the integrity of the building is compromised and work done may actually damage the building it was intended to preserve, often proving more expensive than the proper

treatment. A wealth of specialized information covering topics sensitive to the needs of older buildings ranging numerous topics including the pros and cons of vinyl and aluminum siding, stripping paints, window replacement, and repainting brick, is available from the New Hampshire Division of Historical Resources.

As has been mentioned previously, the New London Historical Society and the Town's History and Archives Committee have been instrumental in enhancing the public's awareness of the importance of preserving the Town's historic quality.

### Historic Resources Survey

Preservation through documentation is, perhaps, the most basic, essential and non-controversial of preservation strategies. There are several advantages in undertaking an historic resources survey. In addition to providing a permanent written and photographic record of a town's architecture, a good inventory is the foundation for other preservation tools and can be used to establish local historic districts or to prepare nominations for listing of historic structures in the National Register of Historic Places. Data gathered in a survey may encourage a greater appreciation of the built environment by local citizens. Historic resource assessments are also necessary for accomplishing environmental reviews required in projects receiving Federal funding. As the beginning of a comprehensive historic preservation strategy, information gathered should act as a firm base for future decision making, by identifying buildings suitable for and worthy of rehabilitation.

As part of a statewide effort to identify and help preserve significant resources, matching grants are available from the New Hampshire Division of Historical Preservation for historic resource surveys. Surveys documenting resources significant for their historical or architectural character and/or quality and importance are mandated by State and Federal law for the State Office to complete.

### National Register of Historic Places Listing

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

In New Hampshire, any individual may prepare a nomination application. National Register forms, maps and photographs are submitted to the N.H. State Historic Preservation Office for review by the State Review Board. Following approval at the State level, it is sent to Washington, D.C. for final review, approval and listing. Assistance in the preparation of any National Register nomination may be available from the Regional Planning Commission.

Benefits of National Register Listing: Listing on the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. Benefits include:

- Becoming part of the National Register Archives, a public, searchable database that provides a wealth of research information.

- Encouraging preservation of historic resources by documenting a property's historic significance.
- Providing opportunities for specific preservation incentives, such as:
  - Federal preservation grants for planning and rehabilitation
  - Federal investment tax credits
  - Preservation easements to nonprofit organizations
  - International Building Code fire and life safety code alternatives
- Possible State tax benefit and grant opportunities. Check with your State Historic Preservation Office (<http://www.nps.gov/history/nr/shplist.htm>) for historic property incentives available within your state.
- Involvement from the Advisory Council on Historic Preservation (<http://www.achp.gov/>) when a Federal agency project may affect historic property.
- Find out information on the care and maintenance of your historic property through various NPS Preservation Briefs (<http://www.nps.gov/history/hps/tps/>) and Tech Notes (<http://www.nps.gov/history/hps/tps/technotes/tnhome.htm>).
- Network with other historic property owners, tour historic areas, or chat with preservationists through Conferences, Workshops, and Preservation Organizations (<http://www.nps.gov/history/nr/feature/index.htm#newpreservation>).
- Celebrate listings with a bronze plaque that distinguishes your property as listed in the National Register of Historic Places (<http://www.nps.gov/history/nr/faq.htm#plaque>).

Districts can also be listed. Each individual building within a National Register District may not be an outstanding landmark on its own, but the group of structures taken as a whole must convey a strong sense of history and integrity. Structures which have been greatly altered or which do not contribute to the character of the district are noted "non-contributing". Once nominated, a National Register District must have the approval of a majority of property owners, with each owner having a single vote regardless of the number of eligible properties he may own and regardless of whether the property contributes to the District's significance. For a single privately-owned property with one owner, the property will not be listed if the owner objects. Listing in the Register does not interfere with a property owner's right to alter, manage, dispose of or even demolish his property unless, for some reason, Federal funds are involved. Nor does National Register listing require that an owner open his property to the public.

As noted above, to date two New London buildings are listed on the National Register of Historic Places: the Dr. Solomon M. Whipple House, now known as Woodcrest and the Baptist New Meeting House now known as the First Baptist Church of New London.

Nearby National Register properties include the Salisbury Academy, covered bridges in Warner, meetinghouses in Newbury and Webster, and the Springfield Town Hall. The Downtown Newport Historic District is the closest established historic district. Over fifty individual buildings on sites and eleven districts in the Upper Valley Lake Sunapee Region are listed in the National Register.

National Register listing can be an important tool for identifying and planning the future of significant resources. Listing can act as a catalyst to change public perception and improve an area's image, but cannot in itself prevent major detrimental alterations or even demolition. It remains an important psychological first step towards historic awareness, respect and protection.

### New Hampshire Register of Historic Places Listing

The New Hampshire State Register of Historic Places is one part of the state's efforts to recognize and encourage the identification and protection of historical, architectural, archeological and cultural resources. These irreplaceable resources may be buildings, districts, sites, landscapes, structures or objects that are meaningful in the history, architecture, archeology, engineering or traditions of New Hampshire residents and communities. The State Register is administered by the New Hampshire Division of Historical Resources (NHDHR), which is the state's Historic Preservation Office.

Listing on the State Register of Historic Places is one of several ways to acknowledge a property's historical significance. A property may also qualify for the National Register of Historical Places, be designated a National Historic Landmark, be part of a local historic district, or recognized in a local or regional master plan. Please feel free to contact the NHDHR to learn more about these programs.

Listing in the State Register can contribute to the preservation of historic properties in a number of ways including:

- Public recognition that a property is significant to a community.
- Consideration and advocacy in the planning of local and state funded or otherwise assisted projects.
- Qualification for state financial assistance for preservation projects, when funds are available.
- Special consideration or relief in the application of some access, building and safety code regulations.
- A complimentary one-year membership to the New Hampshire Preservation Alliance.

As previously noted, three buildings in New London are included on the New Hampshire Register of Historic Places:

1. The Baptist New Meeting House on Main Street now known as the First Baptist Church of New London listed on 4/25/2005;
2. The New London Barn Playhouse on Main Street listed on 1/30/2006; and
3. Kentlands on Burpee Hill Road listed on 11/20/2008.

### Local Historic Districts

The term "historic district" can refer either to a locally designated historic district or, as has previously been discussed, to a National Register Historic District. Both are useful preservation tools but differ in the way in which they are established and the protection they afford. An historic area may be both a locally designated historic district and a National Register District. In this area, both Claremont and Newport have designated local historic districts.

The concept of historic district exemplifies the growing recognition that buildings cannot live in a vacuum but protection must be provided to structures as part of the total environment. The purpose of an historic district is to protect and preserve areas of outstanding architectural and historic value from inappropriate alterations and additions which might detract from an otherwise distinctive character. The controls on property development serve to assure property owners that investment in rehabilitating significant structures will not be negated by incongruous development on neighboring properties. The New Hampshire legislation (RSA 674:45) identifies the following purposes of historic districts:

- preserves an area which reflects cultural, social, economic, political and architectural history;
- conserving property values;
- fostering civic beauty, strengthening the local economy; and
- promoting the use of the district for the education, pleasure and welfare of community citizens.

The most comprehensive preservation tool available to local governments under state law is the creation and administration of a local historic district. As authorized by RSA 674:45, an historic district commission may be designated by local town meeting to prepare a suitable ordinance which establishes a framework for the commission's decisions and administration.

An historic district is characterized by a grouping of structures and/or sites which physically and spatially comprise a specific environment. Buildings may represent a cross section of ages and styles but should be unified by past events or by plan or physical development. One of the most difficult aspects of creating an historic district is delineating its boundaries. Boundaries must not be arbitrary or capricious.

After preparation and approval of an appropriate ordinance, the commission is given authority to consider the appropriateness of any proposed construction, exterior changes or demolition of any structure within the district. In addition to the buildings, streetscape features, above ground utility structures and signs are often also regulated. Each individual ordinance must outline precisely permitted and prohibited actions and regulated activities. Permitted activities might include routine maintenance, painting, and replacement of exterior features with similar features, rehabilitation and routine landscaping. Prohibited uses might include artificial siding, lighted signs, mercury vapor lighting, etc.

It is important to emphasize that historic district commissions control noncontributing structures, as well as new construction, within a district. Alterations and additions within a district are individually reviewed in respect to their mass, scale and detailing in relation to surrounding structures. In communities with a zoning ordinance, the historic district is usually, but not always, an overlaying district to an underlying zoning district.

For additional information on local historic districts, refer to: [Historic Districts in New Hampshire: A Handbook for the Establishment and Administration of Historic Districts](#), and [A Guide to Delineating Edges of Historic Districts](#). These and other pertinent publications are available at the NH Division of Historical Resources.

### *Heritage Commissions*

New Hampshire now allows communities to establish heritage commissions. Heritage commissions give local governments in New Hampshire new abilities to recognize and protect historical and cultural resources. Unlike historic district commissions, whose responsibilities are limited to specific parts of a community, heritage commissions are intended to have a town-wide scope, and a range of activities that is determined by each individual community. Heritage commissions do for cultural resources what conservation commissions do for natural resources. Functionally, heritage commissions are somewhere between historical societies and historic district commissions, with their precise role determined locally. And while their primary duties are to advise and assist local boards and commissions, including the planning board, heritage commissions are also empowered to accept and expend funds for a non-lapsing heritage fund, and to acquire and manage property rights. Some communities may have heritage

commissions that are only advisory, but others will want their commissions to take a much more active role and to assume responsibilities of an historic district commission. All of these are local decisions, authorized by the state enabling legislation; it gives communities a menu, not a mandate.

#### Land and Community Heritage Investment Program Funding of Historic Preservation

The New Hampshire Land and Community Heritage Investment Program (LCHIP) is an independent state authority that makes matching grants to NH communities and non-profits to conserve and preserve New Hampshire's most important natural, cultural and historic resources. Through this investment Program every \$1 in resources brings back more than five times local, private, federal funds, and helps to secure NH's greatest business advantage: The quality of life and traditional values of our state

The intent of the program is to conserve and preserve this state's most important natural, cultural, and historical resources, through the acquisition of lands, and cultural and historical resources, or interests therein, of local, regional, and statewide significance, in partnership with the state's municipalities and the private sector, for the primary purposes of protecting and ensuring the perpetual contribution of these resources to the state's economy, environment, and overall quality of life.

There have not been any LCHIP projects in New London. However, the Center Meeting House in Newbury received \$100,000 in LCHIP funding to assist with renovations to the building. The Center Meetinghouse is 1 of 3 reverse pulpit Bullfinch-style meetinghouses known to exist. It is the crown jewel of the revitalization of Newbury. The building was 175 years old in 2007 and rehabilitation of the building is underway.

#### New Hampshire Preservation Alliance Programs & Grants

##### *Field Service Program*

In June of 2006, the New Hampshire Preservation Alliance, in partnership with the National Trust for Historic Preservation, launched the New Hampshire Shared Field Service Program. The Shared Field Service Program provides a representative who brings professional expertise and a "tool box" of resource material on historic preservation practices to the community. The Shared Field Service Rep is able to help local preservation and historical organizations choose effective strategies for community projects, provide advice on mobilizing volunteer efforts, work with community leaders and furnish preservation expertise at local meetings.

##### *Preservation Services Grant Program*

The New Hampshire Preservation Alliance provides small matching grants to assist non-profit organizations including towns in hiring a consultant to assist many different aspects of preservation planning.

##### *Barn Assessment Grant Program*

The New Hampshire Preservation Alliance's Historic Barn Assessment Grant Program offers matching funds for the hiring of a barn restoration professional to assess your old barn and prepare an in-depth report. The assessment can include everything from recommendations on how to stabilize the structure to long term revitalization planning; general maintenance, budgeting, general upkeep and even analyzing reuse strategies. Grants are offered

competitively and limited to barns and other agricultural outbuildings within New Hampshire that are at least 50 years old, or of exceptional significance. Additional consideration is given to barns still in agricultural use.

#### *African American Preservation Fund Grant*

Special one-time grants are available from the National Trust for Historic Preservation's Northeast Office for nonprofit organizations and public agencies involved with preserving places of importance to African American history. These grants are an effort to assist African American preservation organizations across the greater northeast region and to support the preservation mission and goals of those organizations.

#### *New Hampshire Division of Historical Resources Programs & Funding*

Programs and resources related to historic preservation offered to communities by the New Hampshire Division of Historical Resources not mentioned elsewhere include the following:

- Certified Local Government Program (CLG): The CLG program is a partnership between municipal governments and the state historic preservation program, to encourage and expand local involvement in preservation-related activities. [http://www.nh.gov/nhdhr/programs/cert\\_loca\\_govt.html](http://www.nh.gov/nhdhr/programs/cert_loca_govt.html)
- Historic Preservation Review & Compliance: Historic preservation "Review & Compliance" is a consultation process to identify significant historic properties so that any harm to them from government-assisted actions can be avoided or minimized. It is intended to be a conflict-resolution and problem-solving system that balances the public interest in historic preservation with the public benefit from a variety of governmental initiatives. <http://www.nh.gov/nhdhr/review/>
- New Hampshire Historical Markers Program: The New Hampshire Division of Historical Resources and the Department of Transportation are responsible for the state's historical highway marker program. Any municipality, agency, organization or individual may propose a marker to commemorate significant New Hampshire places, persons, or events. The Division of Historical Resources may also solicit suggestions for markers, texts, and proposed locations from other agencies, organizations, and the public. <http://www.nh.gov/nhdhr/markers/>
- Project Archaeology: Project Archaeology is a comprehensive archaeology and heritage education program for everyone interested in learning or teaching about our nation's rich cultural legacy and protecting it for future generations to learn from and enjoy. [http://www.nh.gov/nhdhr/programs/project\\_archaeology.html](http://www.nh.gov/nhdhr/programs/project_archaeology.html)
- SCRAP - State Conservation and Rescue Archaeology Program: The New Hampshire State Conservation and Rescue Archaeology Program (SCRAP) is a public participation program for archaeological research, management, and education. SCRAP is administered by the Archaeology Bureau in the Division of Historical Resources of the New Hampshire Department of Cultural Resources. The program is supported by state and federal funds, donated private funds, and the volunteered services of trained and certified vocational archaeologists. <http://www.nh.gov/nhdhr/SCRAP.htm>
- Tools for Preserving Barns and Farms: Historic barns and agricultural structures symbolize the distinctive New Hampshire values of heritage, hard work, productivity and stewardship. They are witnesses to the role of agriculture in our state's image and its economy, and they serve as scenic landmarks for residents and visitors alike." Tools for preserving barns include:
  - property tax relief under RSA 79-D that creates a mechanism to encourage the preservation of historic New Hampshire barns and other agricultural buildings by

authorizing municipalities to grant property tax relief to barn owners who (a) can demonstrate the public benefit of preserving their barns or other historic farm buildings, and (b) agree to maintain their structures throughout a minimum 10-year preservation easement.

- barn assessment grants administered by the NH Preservation Alliance and
- grants for barn preservation from the Conservation License Plate Program.

<http://www.nh.gov/nhdhr/programs/barns.html>

#### *Community Revitalization Tax Relief Incentive (RSA 79-E)*

RSA 79-E that became effective in 2006 encourages, among other things, investment in rehabilitation of historic buildings in village centers or downtowns through tax relief for a specific period of time. The period of time can be extended by the Board of Selectmen four additional years for historic structures.

The goals of this legislation are to encourage the rehabilitation and active use of under-utilized buildings and, in so doing, to:

- Promote strong local economies, and
- Promote smart, sustainable growth, as an alternative to sprawl, in accordance with the purpose and objectives of the State Economic Growth, Resource Protection, and Planning Policy of RSA 9-B.

In a town that has adopted the tool created by this legislation, a property owner who wants to substantially rehabilitate a building in a downtown, or in a village center, may apply to the local governing body for a period of temporary tax relief if the property owner grants a covenant ensuring there is a public benefit to the rehabilitation.

A property owner can qualify for tax relief only if:

- The building is located in the community's downtown district (or equivalent), and
- The rehabilitation costs at least 15% of the building's pre-rehab assessed value, or \$75,000, whichever is less, and
- The rehabilitation is consistent with the municipality's master plan or development regulations.

#### *Historic Building Rehabilitation Tax Credits*

The rehabilitation of older buildings, frequently less expensive than new construction, is a cost-effective solution benefitting the tax base, while filling older structures with new life. The Economic Recovery Act of 1981 (as amended in the 1986 Tax Reform Act) provides attractive incentives in the form of federal investment tax credits for the substantial rehabilitation of income-producing older buildings. The Act was enacted to support preservation by eliminating certain favorable tax incentives, which encouraged the demolition of historic structures. Credits are deducted from taxes owed, not income earned. Currently, the tax incentives take two forms:

1. 20% tax credit for the certified rehabilitation of certified historic structures.
2. 10% tax credit for the rehabilitation of non-historic, non-residential buildings built before 1936.

To be eligible for the 20% credit, a building must be a certified historic structure, either listed individually on the National Register or contributing to a Register Historic District or certified

Local District. Certified rehabilitation work must adhere to the Secretary of the Interior's Standards for Rehabilitation, a list of ten standards developed to ensure that significant features of a building will not be compromised. Municipally-owned structures are not typically eligible for these credits.

For additional information about the National Register or rehabilitation tax credits, contact the New Hampshire Division of Historical Resources, in Concord at (603) 271-3483.

### *Revolving Funds*

Revolving funds are self-replenishing loan pools. The money in the pools is mostly composed of donations and is used to restore buildings. The fund revolves when the restored building is sold. With a revolving fund, a nonprofit organization can acquire a deteriorating building, restore it and then sell it, or make low interest loans available to those who need to restore their historic buildings.

The first building restored by a revolving fund should be a highly visible one, so that donors can see their money at work. A building should be endangered, well worth saving, and have a high resale potential before it should be considered eligible for a revolving fund. Besides donations, an organization administering a revolving fund can solicit sources of revenue from private foundations and government subsidies such as Community Development Block Grants.

### *Historic Preservation Easements*

Historic preservation easements are a tool often used to insure preservation of the historic character of a property for the public's benefit. The extent of the protection of the property is dependent on the wording of the easement. Some easements protect just the face or façade of a building. Other easements protect the larger preservation values of the entire property including but not limited to the exterior and interior architectural features, materials, landscape features, outbuildings, fences, and archeological resources of a property.

An easement is a partial interest in a property, a property right that can be bought or sold. It may give a person or a right to do something with or on another person's property or, as is more common in terms of historic preservation, it can prevent an owner from doing something on his or her property (called a negative easement).

The major advantage of easements is that the costs of such a program may be significantly lower than buying properties outright to protect valuable resources, particularly when easements can be acquired by donation.

A preservation easement is an agreement between an owner of historic property and a government agency or preservation organization which gives the latter the right to review any proposed changes to the structure. In return for giving an easement, a property owner is eligible for an income tax deduction. Once recorded, an easement usually runs with the property in perpetuity, thus binding not only on the present owner who conveys it, but all future owners as well.

In rural areas, conservation easements can play a vital role in preserving the lands around historic sites. Typically, a conservation easement can be donated to protect open spaces, scenic areas, waterways, wildlife and farmland.

In those instances where it may be appropriate, historic preservation or façade easements can be implemented and enforced by the New Hampshire Preservation Alliance.

#### *Historic Barns & Agricultural Buildings Tax Relief*

RSA 79-D creates a mechanism to encourage landowners to volunteer to preserve historic New Hampshire barns and other agricultural buildings by authorizing municipalities to grant property Tax relief to qualifying barn owners. The new law is based on the widespread recognition that many of the state's old barns and other farm outbuildings are important scenic landmarks and help tell the story of New Hampshire's agricultural heritage. The law sets up a process for interested landowners to apply for tax relief and eligibility criteria for the Board of Selectmen to use in making decisions on those applications.

#### *Site and Building Design Guidelines*

Protection of historic resources can also be accomplished through development and implementation of building and site design guidelines. One option to consider is to incorporate site and building design guidelines into the Site Plan Review Regulations. This would provide the opportunity to review all types of development for consistency with site and building design guidelines, with the exception of single and two family residences.

### **Historic Landscapes/Architectural Areas**

The following is intended as a general outline of significant historic areas in New London. Some contain important concentrations or clusters of historic structures, while others are unique for retaining their historic landscape character. Scenic roads are also an important factor in the historical character of the community.

#### Main Street

Crockett's Corner at the intersection of Routes 11 and 114 to Homan's Corner at the intersection of Route 114 and Newport Road

Comprising the greatest concentration of historic structures in Town and the largest village, Main Street is the area which first comes to mind when discussing New London's historic resources. This area retains some open fields, allowing impressive views of surrounding hills, and is dotted with early homesteads, many of which retain their original barns. Constructed in the simplest of Cape, Federal or Greek Revival styles, these 18th century homes, with their outbuildings and fields, suggest the self-sufficient character of early New London farmsteads. The area from Crockett's Corner toward the center of Town is particularly significant for the number of these old farm fields still in existence. Beginning with the Crockett Farm, going uphill past the Trussell Homestead (now moved to the ridge), these farms culminate in a cluster of important structures at the top of the hill, which include Appletree Cottage and the Burpee, Herrick and Colby Homesteads. Open fields across from the Trussell Homestead, around Barnview, and across from the Colby Homestead allow important views of the surrounding hills and mountains. Development in these open areas would significantly alter the sense of timeless harmony which this approach to New London now provides. As noted in the Conservation and Open Space Lands Chapter, the Ausbon Sargent Land Preservation Trust, in 1996, purchased a 5.6 acre open field from Dr. Robert Vernlund across from the Trussell Homestead.

Buildings of special historical significance to the Town from Colby-Sawyer campus to Homan's Corner include the red brick structures of the Colby-Sawyer College campus, the Grange, the First Baptist Church of New London, the Old Academy Building (now Town Offices), the New London Inn, and the Tracy Library. Important to the visual impact of Main Street are the green spaces that have been maintained in front of the College buildings, the Old Academy Grounds, the Sargent Common, and the Town Green behind the Information Building.

Special recognition should be made of the number of buildings along Main Street which have been adapted or restored. Of particular note are the new Susan Colgate Cleveland Library Learning Center in the barns of the Colby Homestead, the Old Academy Building (now Town Offices), the Baptist New Meeting House or First Baptist Church of New London, the New London Barn Playhouse, Tracy Library, the old Hospital building, the Sholes House (located next to the library), and the Solomon M. Whipple House now known as Woodcrest.

Throughout Main Street a general sense of unity has been achieved by the compatible architectural styles, materials and colors used, and by the scale of the structures. This cohesive sense is very important to preserve.

#### Old Main Street/Knights Hill Road & Burpee Hill

Extending from hilltop to hilltop, Old Main Street was, as the name suggests, an early center of activity. The Knight-Gordon House is on the site of the first town meeting in 1779. By 1800, the first meetinghouse and burying ground, town pound, muster field, the first stores, tavern, a schoolhouse, blacksmith shop and several homes were located in the area. The Griffin Barn, previously located on the Dow/Griffin property off Knights Hill Road, was moved to the New London Historical Society property in 1968. The Burpee Hill School House was moved from Burpee Hill to Knights Hill in the 1950s and thence to the New London Historical Society property in 1977. It has been outfitted as a country store. By 1900, Knights Hill and Burpee Hill boasted three boarding houses. Today, there are approximately sixteen original houses still standing, dating from pre-1800 to 1842. Characterized by a blend of open fields, early homes and considerable new construction, care should be taken to preserve the open space and vistas of the Lake which survive.

#### Otterville

Originally called Goose Hole, Otterville, today, is a small settlement of about 10 houses, mostly Cape style structures built in the 1820s and 1830s, and clustered about the old mill dam. In 1808, the first saw and grist mill in the western part of New London was built in this vicinity. Later, in the 19th century, came cloth mills, blacksmiths, shoemakers, stores, a public hall, rooms for summer boarders and a wayside chapel. A sawmill was in operation here until the 1940s and some of its remains and the side walls of the dam are still visible today. Otterville Road was laid out in 1831 and, at one time, carried most of the traffic from New London to George's Mills. More recently, road configurations have isolated Otterville, including construction of Route 11 over Davis Hill in 1939 and I-89 which cut off part of Goose Hole Road. During the 1960s, lots were sold off around Otter Pond and new residents brought preservation interests and compatible new construction with them, though many of the structures have had many alterations over the years.

In 1980, seventy acres from the old Worthen Morgan Farm were deeded to the Town by Mrs. Stephen Phillips, to be the Phillips Memorial Preserve. South of Route 11 is Davis Hill which rises along the northeast shore of Lake Sunapee. Indian points, pottery and chippings of flint

and quartz have been found in the area and its granite rock was quarried by the stone masons who lived there in the 19th century. Davis Hill Road is currently protected to a very limited degree by scenic road designation.

### Morgan Hill

At 1,600 feet, Morgan Hill, in the extreme north corner of Town, is the highest elevation above sea level in Town and is intersected by the town lines of New London, Springfield and Wilmot. County Road, one of the first roads laid out in the area as a range road, encouraged early settlement in the area. Originally planned to extend from Newbury to Wilmot, it was built from Newbury to Morgan Hill, where it terminated. Today, this rural area is characterized by hilly terrain and the old cellar holes which remained after the early settlers moved “downhill”. The “Sheep’s Dip”, a deep, natural stone formation filled with water, is a lasting reminder of the area’s pastoral past. Surviving structures of interest include the Upper and Lower Putney Houses, constructed in 1800.

### Little Lake Sunapee

Along these shores, Indians once camped and fished. In New London’s beginnings, the Lake was the baptismal site for those who joined the first church. Beginning in the late 19th century, this area became a haven for vacationers’ summer homes, resulting in the construction of numerous cottages and Twin Lake Villa, a summer resort which has been operated by one family for over one hundred years. The Adams-Cross House, constructed in 1830, later saw use as a tavern. From the Lake’s frozen surface in winter, ice for the community was cut. Summer months saw the establishment of youth camps and sailing regattas. Although Camp Sunapee Road is protected, to a limited extent, by scenic road designation, the potential for archaeological investigation should be noted.

### New London Historical Society Property

Since 1962, the New London Historical Society has acquired, moved, and reconstructed 19th century buildings on its Little Sunapee Road property. Its collection of fourteen antique and reproduction buildings illustrates many of the architectural details commonly found in New London during the mid-1800s. Its “village” features a cape-style farmhouse, store, schoolhouse, barns and outbuildings.

### Pleasant Lake

Development in this area consists of densely developed homes along the lake shore. Additionally, two relatively large residential developments, Slope’n Shore and Hall Farm, are located within the watershed for Pleasant Lake. The character of the area is changing from rural to suburban. Older structures are concentrated at the head of the Lake and include Pleasant Lake Inn (Red Gables), parts of which predate 1800. Other noteworthy historic sites include the brick kiln, Pingree mill and a schoolhouse moved to the New London Historical Society in 1967. The view of Mt. Kearsarge over the Lake is one of the most spectacular sights in Town and should be preserved. The Pleasant Lake in this area, no doubt, holds great potential for archaeological study.

### Elkins

Located at the south end of Pleasant Lake, the village of Elkins was so-named in July 1896, in honor of Dr. John Elkins. Initially, the village was known as “Scytheville” for the industry which gave it its birth in 1835. During the 19th century, the headwaters of the Blackwater River powered the Scythe Company, a shingle mill, saw mill, grist mill, woolen mill, tannery and other small industries. Although the Scythe Company closed in 1888, virtually all of the houses survive today, as do the dam and mill pond. On the bank, side by side, overlooking the Scythe Company in Elkins, were two identical houses erected for their foremen. In 1963, one was moved to the site of the New London Historical Society to be the first building in their complex, “Old New London,” and is known as the “Scytheville House.” Before it was moved, it was lovingly referred to as Maude Swift’s “Cat House,” as she housed her extensive collection of stray cats in it. The other building was moved in 1965 to the east end of Main Street overlooking the magnificent view to the south and west to Mt. Sunapee and Vermont, and became a private home known as ‘Low Sweep’.

### Low Plain Area

The quality which distinguished this low plain area owes as much to its open space and views as its structures. The focal point for open space in this area is the 200 acre Esther Currier Wildlife Management Area at Low Plain. This natural wetland area which abounds with wildlife can be viewed from a self-guiding trail.

### Crockett’s Corner (the intersection of Routes 11 and 114 /Hominy Pot) to King Hill

The view from Crockett’s Corner at the intersection of Routes 11 and 114 is universally valued among local residents. This area, in particular the “Hominy Pot” district, was the destination of New London’s earliest settlers who followed Lyon Brook from North Sutton and here they constructed the Town’s first homes and original schoolhouse. One of three industrial areas in Town, early residents used water power from Messer and Clark Ponds to propel grist and saw mills for the infant community, according to the provisions of the original Town charter. Later, industry included a carding and cloth dressing mill, a hat factory and a shingle mill. Over the years, the area has been called “Minot’s Square”, “Harvey’s Mills”, “Trussell’s Mills”, and, finally, “Hominy Pot”. Important surviving early structures include the Crockett Homestead and Brocklebank-Todd Homestead, both of which were constructed before 1800. Two outbuildings from the Morgan Farm on King Hill Road were moved to the New London Historical Society in 1972. These buildings are the Carriage Shed and Blacksmith Shop. Route 11, the interstate, and subsequent development have, unfortunately, done much to obliterate the original appearance and historic integrity of this area.

### Tracy Road Area

Located in the west part of Town, this was historically one of the areas of earliest settlement, with settlers moving up through Hominy Pot. Several pre-1800 houses survive on King Hill Road. In 1895, Willow Farm, a historic farm, became the summer residence of Mr. and Mrs. James J. Tracy of Cleveland, Ohio. During the ensuing years, they directed the construction of magnificent stone walls, introduced advanced methods of agriculture, erected the first greenhouse in Town and developed a 9-hole golf course, abandoned in 1942 which was due to World War II. Nearby and worthy of note is St. Andrews Chapel, a stone structure dating to 1905. County Road from Knights Hill to Tracy Road has been designated a scenic road.

### West Part of Town, Lake Sunapee

Its lakeside location has historically given the west part of Town a district identity compared to other neighborhoods. Serving as the site of Indian Council meetings, early houses in the area were few and include the Davis Homestead (pre-1800). The West Part's potential began to be realized in 1874, when Dr. John Quackenbos came to New London, establishing a sanitarium here. In 1883, Dr. Quackenbos began work on his Soo-Nipi Park development, New London's earliest development, comprised of 400 acres of land from the historic Currier and Pike farms, and extending for almost 2 miles along the lake shore. At its height, the Park included a Lodge, individual cottages, a golf course, tennis courts, horseback trails, a steamboat landing, a fish hatchery and wildlife sanctuary. It was torn down in 1967. Over the years, the development was supplemented by additional sanitariums, lodges, cottages, and religious retreats such as the Lake Sunapee Spiritualist Association. In the Golden Age of steam boating on the Lake, between 1876 and 1933, Herrick Cove was the principal landing point for New London's hotels and boarding houses. Although Soo-Nipi Lodge and the steamboat landing have all but disappeared, remnants of the area's history include the deteriorated Hastings Steamboat landing and the older summer cottages along Hastings Shore. The former Weetamoo Park has seen the recent construction of summer houses. One of the most distinctive vistas in Town is that from Herrick Cove with its light house.

### **Issues**

1. The town lacks a complete historic survey for New London with information updated periodically to indicate changes to buildings, including remodeling, fire, demolition or changes to surroundings. The location of early mill sites, rock quarries, graveyards, cellar holes, and other valuable historic sites need to be mapped as part of the historic survey.
2. Interest in historic buildings and sites needs to be promoted.
3. Significant architectural and historic resources need protection, enhancement and renovation using the various mechanisms described in this chapter.
4. Some historic structures and areas may be eligible for either individual or district listing on the National or State Register of Historic Places, including, but not limited to, the following:
  - a. Main Street Area;
  - b. Old Main Street Area;
  - c. Elkins Area;Otterville Area;
  - d. New London Inn;
  - e. Tracy Memorial Library;
  - f. Old Stone Chapels (Elkins, Goosehole, & King Hill Road);Colby Homestead; and
  - g. Old Academy Building (now Town Offices).

The Town should appoint a Historic District Study Committee to again investigate/study the feasibility/desirability of establishing a Historic District.

5. New London's historic structures and open space could be protected through the use of preservation and conservation easements and innovative tax options.

6. The public needs access to information regarding appropriate rehabilitation techniques to encourage the appropriate renovation of older homes and buildings.
7. It is important that historic documents and photos be stored in a secure, fireproof and dust proof structure.
8. Early handwritten records should be reproduced. Copies need to be kept in more than one location.
9. All handwritten records should be transcribed into modern print, with annotations to explain early meaning of terms, interrelationships of people, place names, etc.
10. A nonprofit foundation to dispense monies at low interest from a revolving fund for the renovation of significant historic structures which may require rehabilitation standards owners could not afford may be needed.
11. The Town does not have a Heritage Commission. Heritage Commissions are established to recognize, use, and protect the resources, primarily man-made, that are valued for their historic, cultural, aesthetic, or community significance.
12. Gravestones in the Town's cemeteries, especially in the Old Main Street, Elkins and West Part Cemeteries continue to need repair and maintenance. These stones should be digitally photographed before they are lost forever. The digital photos should be stored with other Archives materials.
13. The location of grave sites outside the Town cemeteries and the location of Native American sites are not known.

## **Recommendations**

1. A complete historic survey for New London should be completed with information updated periodically to indicate changes to buildings, including remodeling, fire, demolition or changes to surroundings. The location of early mill sites, rock quarries, graveyards, cellar holes, and other valuable historic sites need to be mapped as part of the historic survey.
2. Historical interest should be promoted through:
  - a. photographs and murals in public and commercial buildings;
  - b. continuation of the marker program;
  - c. brochures describing the Town's history;
  - d. tours of historic structures and sites;
  - e. continuation of an oral history project; and
  - f. introduction of a local history course into the school curriculum.
3. The Town should continue to encourage the protection, enhancement and renovation of significant architectural and historic resources using the various tools and mechanisms available to them, as described in this chapter.

4. Eligible historic structures and areas should be considered for individual or district listing on the National or State Register of Historic Places, including, but not limited to, the following:
  - a. Main Street Area;
  - b. Old Main Street Area;
  - c. Elkins Area;
  - d. Otterville Area;
  - e. New London Inn;
  - f. Tracy Memorial Library;
  - g. Old Stone Chapels (Elkins, Goosehole & King Hill Road);
  - h. Colby Homestead; and
  - i. Old Academy Building (now Town Offices).

The Town should appoint a Historic District Study Committee to again investigate/study the feasibility/desirability of establishing a Historic District.

5. Utilization of preservation and conservation easements and innovative tax options should be explored to support the preservation of New London's historic structures and open space.
6. Copies of literature from the New Hampshire Division of Historical Resources regarding appropriate rehabilitation techniques should be placed on file in the Town Library and the New London Town Offices to encourage the appropriate renovation of older homes and buildings.
7. Historic documents and photos should be stored in a secure, fireproof and dust proof structure.
8. Early handwritten records should be reproduced and copies kept in more than one location.
9. All handwritten records should be transcribed into modern print, with annotations to explain early meaning of terms, interrelationships of people, place names, etc.
10. The Town should study the development of a nonprofit foundation to dispense monies at low interest from a revolving fund for the renovation of significant historic structures which may require rehabilitation standards owners are not able to afford.
11. The Town should study the establishment of a Heritage Commission to recognize, use, and protect the resources, primarily man-made, that are valued for their historic, cultural, aesthetic, or community significance.
12. Support the repair and maintenance of gravestones in the Town's cemeteries, especially in the Old Main Street, Elkins and West Part Cemeteries. These stones should be digitally photographed before they are lost forever. The digital photos should be stored with other Archive materials.
13. The location of grave sites outside the Town cemeteries and the location of Native American sites should be inventoried.

## VII. COMMUNITY FACILITIES & SERVICES

### Introduction

The fundamental purpose of a local municipal government is to provide services to community residents and properties. The quality and operations of these facilities and services contribute to the general welfare of residents, businesses, and institutions. It is important to assess existing community facilities and services and, based on public input and evaluation, attempt to project future community needs based on demographic and lifestyle changes.

This chapter reviews community facilities and services with a strong emphasis on the condition and capacity of existing facilities and now and in the near future. The existing community facilities are shown on Map VII-1 (Page 98) Community Facilities.

The Community Facilities and Services Chapter is divided into sections addressing a specific community facility, service, or functionally similar facilities and services. They include:

- Town Government Facilities and Services
  - ▶ Town Offices (Old Colby Academy Building)
  - ▶ Town Government
- Social Services
- Community Safety and Emergency Facilities and Services
  - ▶ Police Department/Whipple Memorial Town Hall
  - ▶ Fire Department
  - ▶ Hospital & Ambulance Service
- Public Works Department
  - ▶ Highway Division
  - ▶ Solid Waste Management
- Tracy Memorial Library
- Recreation Department
- Cemeteries
- Kearsarge Regional School District

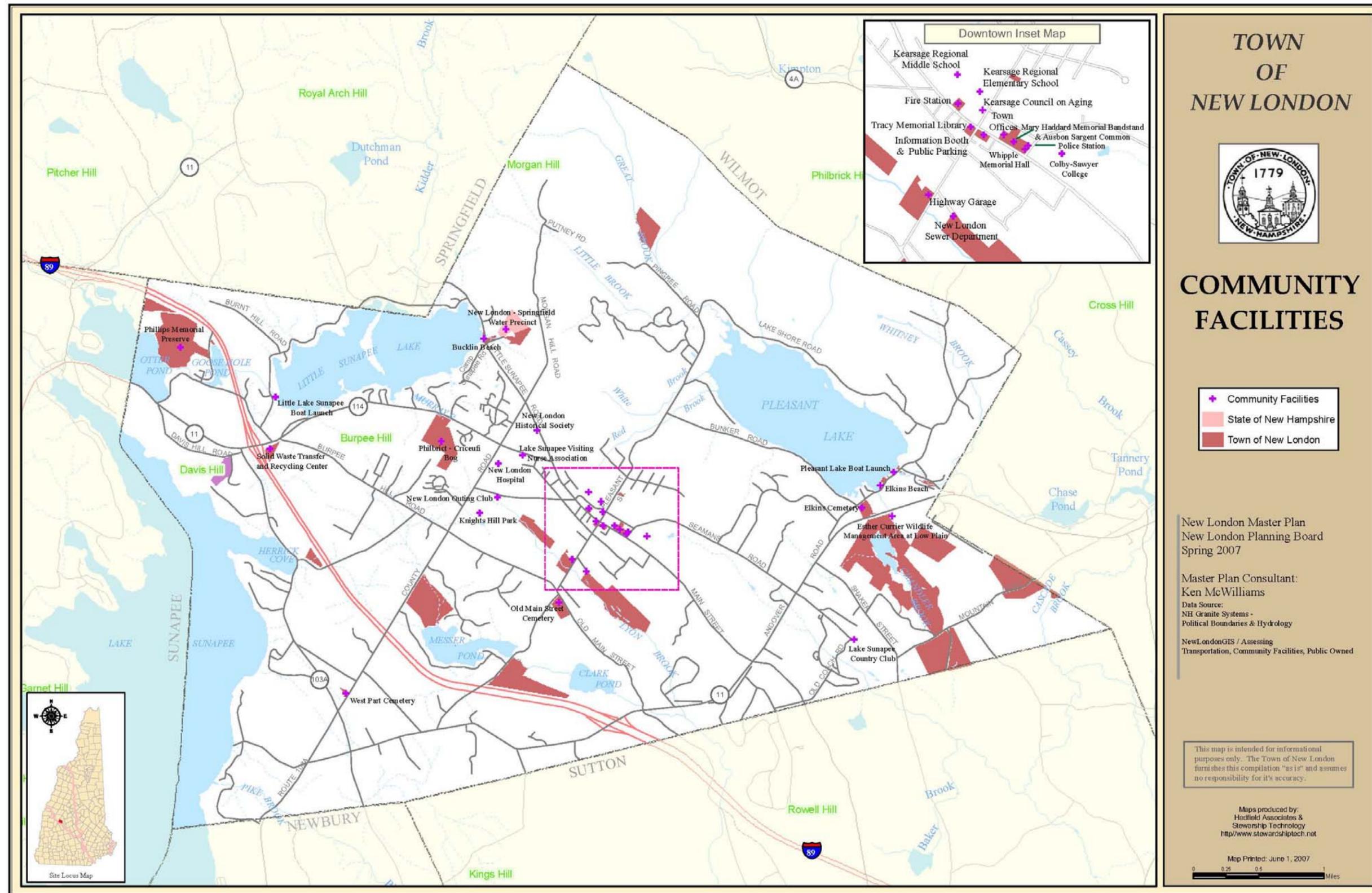
In addition to the Master Plan, the Planning Board maintains a Capital Improvement Program (CIP), which is distinct from the Master Plan and serves as a tool for fiscal planning related to capital improvements in Town. The information in the CIP is incorporated in this chapter by reference. Reference is also made to the Utilities Chapter, which includes water, sewer, electrical, communications, and mineral resources.

### Town Government Facilities and Services

#### Old Colby Academy Building Town Offices

At Town Meeting in March 1999, voters accepted the Old Colby Academy building, a gift from the Colby-Sawyer College Board of Trustees, and voted to spend \$1.65 million to renovate the Academy Building into Town Offices and to renovate the Whipple Memorial Town Hall for use by the Police Department (discussed later in this chapter). New London resident and long-time Planning Board member Sydney L. Crook donated \$25,000 towards the project, and the Town dedicated its large second floor conference room in recognition of Mr. Crook's generosity.

MAP VII-1: Community Facilities

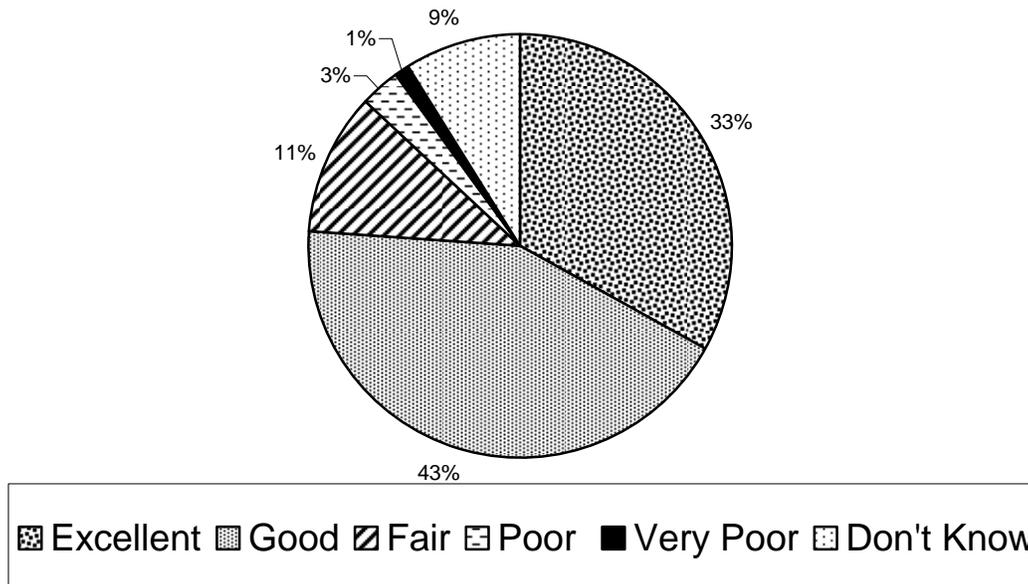


The Town Offices renovation project was completed in the spring of 2000, and currently house the Board of Selectmen’s Office, the Office of the Town Clerk/Tax Collector, the Recreation Department, the Zoning Administrator’s Office, and the Town’s boards and committees. The basement storage rooms for the Archives Committee and the Town Offices are filled to capacity with overflow being stored in off-site facilities. Due to the number of board and committee meetings and the popularity of the Sydney Crook Conference Room with community groups, there is again a shortage of public meeting space.

Community Survey Results: Town Government Service

The 2008 Community Attitude Survey addressed public opinion about the management of the Town Government. Survey results are illustrated in Figure VII-1 (Page 99).

**FIGURE VII-1  
Management of Town Government**



Issues: Town Government Facilities & Services

1. Public communications and outreach is a necessary function of the municipal government to keep the citizens and property owners aware of public meetings and the development of policies that may affect the community. Over the past ten years, the Town government has worked to increase communication with the public through regular newsletters, building a website with features like a public meeting calendar and meeting minutes, and developing a town-wide e-mail list to send announcements.
2. Volunteerism: While town government relies heavily on volunteers for its boards and committees, it is often difficult to find volunteers with enough time to commit to the requirements of the committees.

3. Facilities: The Town Offices currently have a shortage of storage space for town files and archives.
4. Facilities: Meeting spaces in the Town Offices are in high demand resulting in the need to utilize other facilities that may be less appropriate for public meetings.

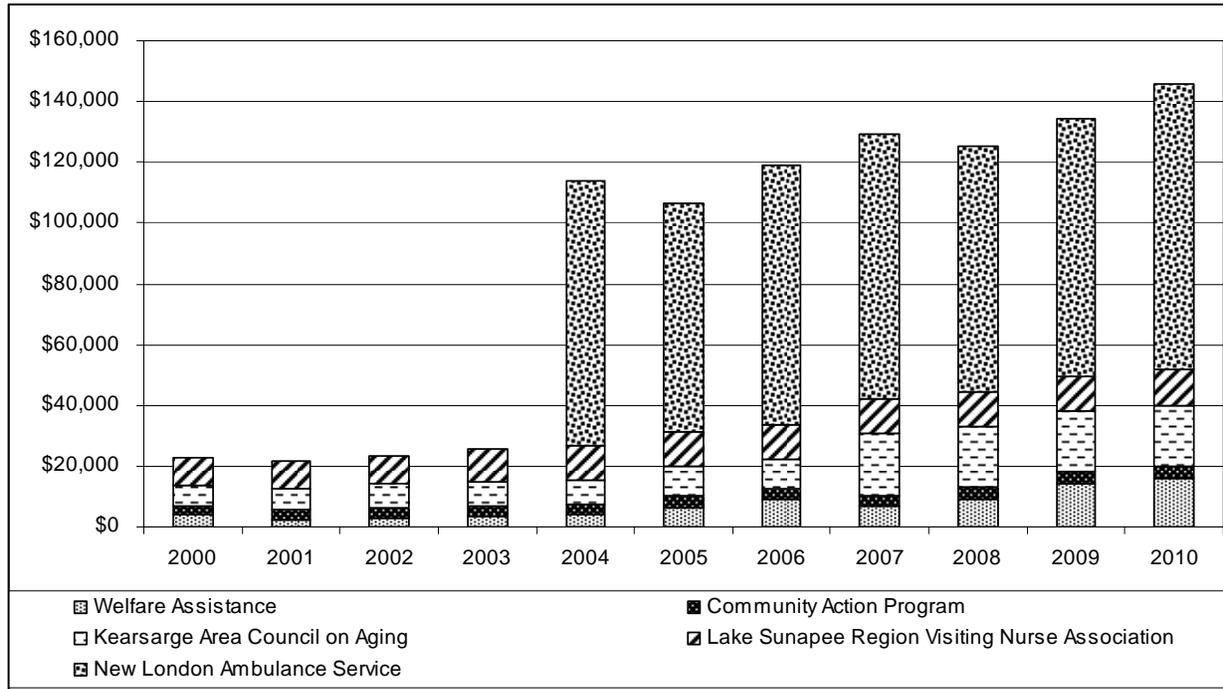
*Recommendations: Town Government Facilities & Services*

1. Continue using electronic and other means to inform the community about issues facing the town government and the decision-making process.
2. Encourage the continued use of volunteers for town boards and committees and find innovative ways to engage the community to be involved in Town policy development, activities, and events.
3. Encourage the continued use of volunteers to first address additional community needs.
4. Form a Building and Facilities Committee to conduct an annual Town-wide assessment of municipal facilities to identify needs and opportunities for capital improvements, maintenance, and operational efficiencies. For example, the Committee could identify underutilized facilities and identify appropriate uses and operations that may have a need for space.

## **Social Services**

Social support services to the residents of New London are provided primarily through State-assisted programs and, to a lesser degree, by direct financial assistance from the Town to the Kearsarge Council on Aging, the Welfare Office, the Lake Sunapee Region Visiting Nurse Association, and the New London Ambulance Service. A summary of the total annual Town expenditures for these human services is shown graphically in Figure VII-2 (Page 101) and outlined in Table VII-1 (Page 101). The average Town expenditure for human services over the past eleven years has been \$87,914 and has increased significantly since the Town began contributing to the New London Ambulance Service.

**FIGURE VII-2  
Town Human Service Expenditures**



Source: Approved Budgets 2000-2010

**TABLE VII-1  
Summary of Town Expenditures for Human Services: 2000-2010**

Year	Welfare Assistance	Community Action Program	Kearsarge Area Council on Aging	Lake Sunapee Region Visiting Nurse Association	New London Ambulance Service	Total
2000	\$3,931	\$2,912	\$6,678	\$9,145	\$0	\$22,666
2001	\$2,516	\$3,203	\$6,678	\$9,368	\$0	\$21,765
2002	\$2,960	\$3,203	\$8,000	\$9,368	\$0	\$23,531
2003	\$3,265	\$3,363	\$8,000	\$10,804	\$0	\$25,432
2004	\$4,041	\$3,363	\$8,000	\$11,251	\$87,000	\$113,665
2005	\$6,378	\$3,699	\$9,600	\$11,495	\$75,146	\$106,318
2006	\$8,871	\$3,699	\$9,600	\$11,664	\$85,260	\$119,094
2007	\$6,707	\$3,809	\$20,000	\$11,672	\$86,913	\$129,101
2008	\$9,355	\$3,809	\$20,000	\$11,472	\$80,742	\$125,378
2009	\$14,246	\$3,809	\$20,000	\$11,360	\$85,060	\$134,475
2010	\$16,000	\$3,809	\$20,000	\$11,913	\$93,902	\$145,624
<b>Totals</b>	<b>\$57,949</b>	<b>\$32,871</b>	<b>\$81,456</b>	<b>\$110,409</b>	<b>\$264,162</b>	<b>-</b>

Source: Approved Budgets 2000-2010

Town Welfare Assistance

New Hampshire RSA 165:1 states: “Whenever a person in any town is poor and unable to support himself, he shall be relieved and maintained by the overseers of public welfare of such

town, whether or not he has residence there.” Individuals and families residing in New London are eligible for direct financial assistance through the Town Welfare Office based on a simple formula of expenses versus income as outlined in that statute. The Town has a part-time Welfare Officer who meets with clients on an as-needed basis and carefully administers the annual budget for local assistance, seeking state or private assistance when possible.

#### *Kearsarge Valley Community Action Program*

The Kearsarge Valley Community Action Program (CAP), part of the Community Action Program Belknap Merrimack Counties, Inc., provides help when needed to the income eligible and elderly, as well as the community at large. Support for this local area center is derived from a combination of federal appropriations and local tax dollars. This combination allows the Kearsarge Valley CAP to provide a variety of services to the residents of New London, from the development of programs that meet local needs, to outreach, referral and direct assistance.

#### *Kearsarge Area Council on Aging – Chapin Senior Center*

The Kearsarge Area Council on Aging (also known as the Chapin Senior Center) was established in 1992. The Chapin Senior Center, open five days a week, is dedicated to the support and enhancement of the health, well-being, dignity and independence of the senior adults in the area. The Chapin Senior Center serves approximately 2400 members from nine area towns (Andover, Danbury, Grantham, Newbury, New London, Sunapee, Springfield, Sutton and Wilmot). Financial support comes from a variety of sources, with the nine member towns in the area contributing about 30% of the annual operating budget. The rest of the Center’s financial support comes from private donations and fundraising. The Center employs one full time executive director and one part-time administrative assistant with support from a substantial volunteer force.

Because of its massive volunteer force, Chapin Senior Center is able to deliver quality services and programs. However the future of this organization may well depend on the continued and increased financial support from its towns. Programs and services and fulfillment of driving requests are going to be increasingly stressed, and the current facility is going to be inadequate due to current limits on parking and capacity issues. Judging by growth of programs and services in the past ten years, the Chapin Senior Center expects to be serving a senior population in the future ten years that is well above 50% of the area town’s population.

#### *Lake Sunapee Region Visiting Nurse Association*

The Lake Sunapee Region Visiting Nurse Association, a not for profit organization founded in 1970, provides home health, hospice and community services for individuals of all ages and income levels. In the fall of 2004, the VNA purchased and moved into its first “home” at 107 Newport Road.

Lake Sunapee Region VNA has added services over the years to help people stay healthy, deal with chronic illness, recover from surgery and cope with life-threatening illnesses. Support groups for caregivers, parents and bereaved individuals, as well as educational opportunities are part of the VNA’s array of services. In addition, the VNA offers a menu of personal care support services to facilitate the individual’s desire to remain at home.

Issues: Social Services

1. The most significant issue in this rural area continues to be assistance with the transportation needs of area seniors and others. The Kearsarge Valley Community Action Program's Rural Transportation Program and the Kearsarge Area Council on Aging's "Dial-a-ride" are efforts to meet this need. Should the Town consider a role in the provision of public transportation?
2. The Chapin Senior Center lacks kitchen facilities in their new offices and is unable to offer any on-site meals. Additionally, its new facility cannot accommodate large gatherings above 48 people. There is a need to identify available public and private facilities for larger, catered meals and events.
3. The pressure for support of social services by the Town is anticipated to grow as federal and state sources of funding decline. The Town should anticipate an increasing demand for financial support in the operating budget for a variety of social service programs.

Recommendations: Social Services

1. The Town should continue to provide financial support for the various social service agencies and anticipate those funding requests will increase as state and federal sources of funding decline.
2. The Town should encourage collaboration of municipal volunteers and committees with area schools, churches, and non-profit agencies to develop facilities to meet common needs.
3. The Town should consider amending zoning or other regulations that would assist in this process.

**Community Safety and Emergency Facilities and Services**

The Town of New London operates a robust public safety program that benefits citizens and property owners in Town and the surrounding communities. The facilities and services based in New London include a regional dispatch service for police, fire, First Aid Stabilization Team (FAST) Squads, and ambulance services in the surrounding area. Additionally, the Fire Department is a member of the Kearsarge Mutual Aid Compact and the Mid-Western Regional Hazmat Team.

Police Department/Whipple Memorial Town Hall

The New London Police Department (NLPD) is centrally located in the Harold J. Buker Municipal Building/Whipple Memorial Town Hall at the intersection of Main Street and Seamans Road. The building houses the Communications Department, Police administrative offices, records, investigations, and patrol. Within the facility are three holding cells, a booking/processing area, evidence storage, locker rooms, a small kitchen and the large renovated area in the basement that contains evidence room, training and exercise area, and a meeting room.

Renovations and an addition to Whipple Memorial Town Hall, completed in January 2001, movement of other municipal operations to the Town Office enabled the Police and

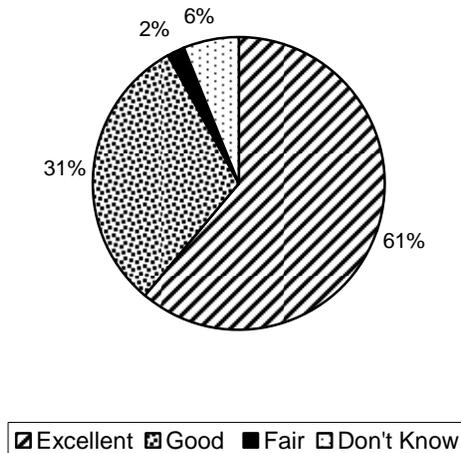
Communications Departments to move out of the basement of Whipple Memorial Town Hall. A portion of the renovated facilities was leased to New London District Court from until the court was closed in October 2009.

The NLPD has two marked police cruisers, one unmarked four-wheel drive vehicle, and one unmarked minivan for investigations. An inventory and replacement program of the police vehicles is included in the Town's Capital Improvement Program.

Community Survey Results: Police Protection Service

Respondents to the Community Survey were very pleased with the Police Protection service in New London. As shown in Figure VII-3 (Page 104), 92% of those surveyed indicated they thought the Police Protection service was excellent or good, and no one ranked Police Protection service as poor or very poor.

**FIGURE VII-3  
Police Protection Service**



Issues: Police Protection Service

1. Technology is always changing, and the need to stay current is a necessity. More often now the internet is being used to commit crime, from ID theft to credit card scams. The NLPD has been progressive in the fight against crime using this medium and needs to remain current with these types of criminal activity.
2. As the community continues to grow, NLPD needs to monitor the trends and calls for service to make sure that staffing levels and areas of focus are appropriate. For example, if we continue to see the trend in crimes against the elderly, then more attention and training should be concentrated on that subject. If Colby-Sawyer College continues to grow, then additional resources might be required to meet their needs.
3. Training staff to meet and exceed the needs of the community should be one of the most important functions.

Recommendations: Police Protection Service

1. Stay current on technology for the purposes of both solving existing crimes more efficiently, tracking new trends in criminal activity, and tracking police activity.
2. Maintain a highly visible presence in the community, particularly on State and Town roads that see higher rates of speed.
3. Investigate and recommend alternative means of effectively managing and enforcing vehicle speed limits by utilizing technology such as active feedback mobile trailers and fixed signs incorporating radar and variable messaging for motorists.

Fire Department

The New London Fire Station is centrally located at 237 Main Street. The Station is sited on a one-half acre lot that provides room for off-street parking, although parking at times can be limited. The original 1972 masonry-construction Fire Station is a single story building. In 2004, the Fire Department added a two-story addition between the storage garage and the original building. The facility currently contains a meeting room, offices, sleeping quarters, a day room, and locker rooms with showers. During the expansion the heating system was upgraded to two high efficiency propane boilers that feed the forced hot water system.

The Fire Station has three main apparatus bays and two additional bays for the pick-up trucks. The remaining original space, consisting of about 3,400 square feet, includes a communications room, repair room, and a restroom. Although current facilities are adequate for existing staff levels, it is anticipated that another bay may be needed if any new apparatus is added, especially if the new apparatus does not fit the existing door openings.

The Fire Department Equipment Replacement Program is incorporated into the Town's Capital Improvement Program (CIP) and the Town makes annual deposits (subject to Town Meeting approval) into a capital reserve fund for the replacement of the firefighting apparatus. The CIP maintains a detailed inventory of Fire Department equipment.

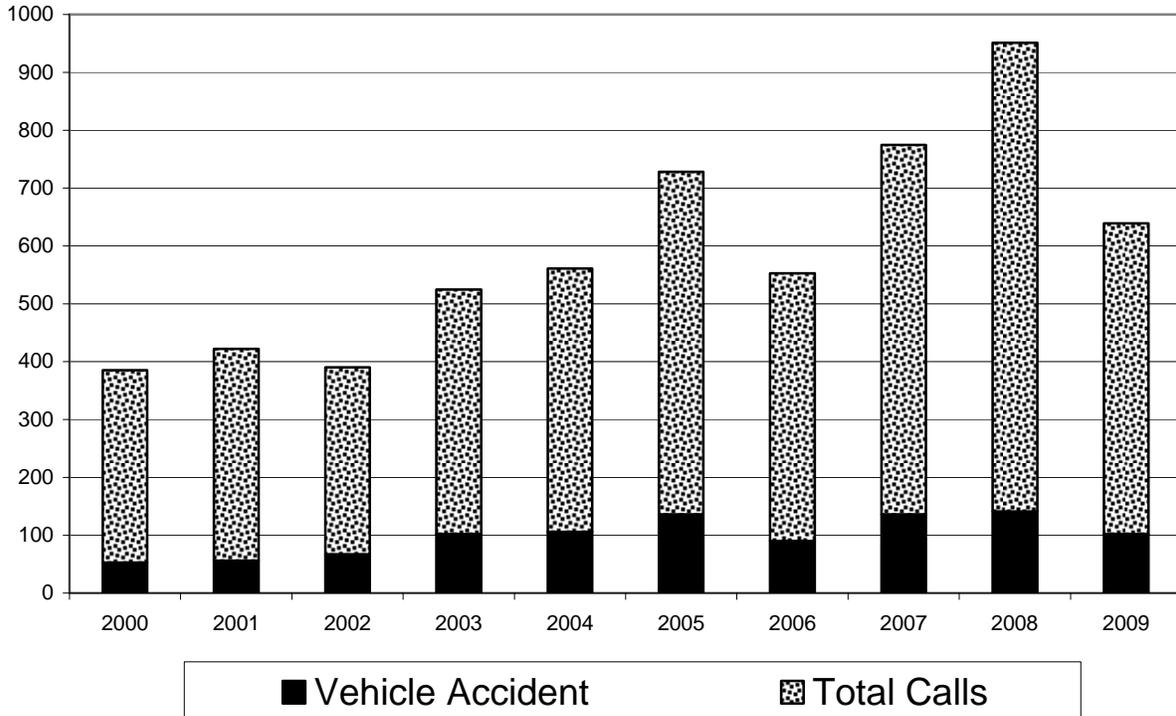
In 1998, voters changed the governing structure of the New London Fire Department, creating a Board of Firewards that is appointed by the Board of Selectmen. In 1999, a full time position was added to be available during the daytime to complete fire inspections and code review, train department personnel, clean the station, make sure the department was ready to respond at a moment's notice, and additional duties as assigned by the Fire Chief.

The Board of Firewards is responsible for the appointment of a Fire Chief, which became a full-time position in 2007. The New London Fire Department is considered a combination department, with two full-time career firefighters and 43 call firefighters. All department personnel are under the direction of the Fire Chief, who also completes all aspects of fire prevention, from site plan reviews to inspections. The Fire Chief also is in charge of day-to-day operations, short- and long-term budgetary planning, and expenditures.

In 1980 there were 74 recorded service calls to the Fire Department. This number has substantially increased to 332 calls in 2000 and 537 calls in 2009. These increases in calls over the last three decades are a result of numerous factors including record keeping methods at the Town, operating procedures for the municipal public safety departments, and the size and

composition of the community’s population. Figure VII-4 (Page 106), below, illustrates the general trend of increasing fire calls from 2000 to 2009.

**FIGURE VII-4  
Fire Department Calls: 2000-2009**



The Fire Department has been concerned with the availability of sources of water for firefighting purposes to serve areas located outside the boundaries of the New London/Springfield Water Precinct. To address this concern, the Department mapped the existing sources of water and identified those areas within the community that are in need of additional water supply sources as reflected on Map XI-1 (Page 201) Community Utility Infrastructure found in the Utility Chapter.

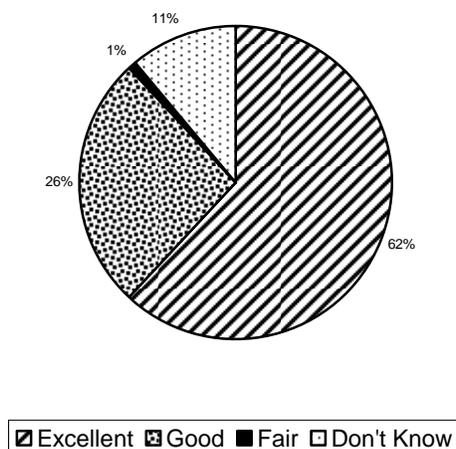
Community Survey Results: Fire Protection Service

As shown in Figure VII-5 (Page 107), 88% of respondents to the Community Survey ranked the Fire Protection Service as good or excellent, with no respondents saying that service was poor or very poor.

Issues: Fire Protection Service

1. Although many areas of concern have been addressed since the last update, there still remain areas outside the New London-Springfield Water Precinct boundaries that do not have adequate water supplies for firefighting purposes. The Fire Department is aware of areas in need of additional water supplies or suitable access to water sources. One area of concern is around Pleasant Lake, where there is a lot of water but limited access.

**FIGURE VII-5**  
**Fire Protection Service Rating**



2. Recruitment and retention will always be an issue for the fire service. As calls and the demands for service increase there is the potential need for career firefighters.
3. The next major piece of apparatus to be replaced is the ladder truck in 2012. Such larger firefighting apparatus is constructed more heavily than in the past. Fitting the equipment in the station will require some careful planning and designing of new apparatus and design review of the existing facility when planning for new apparatus.

*Recommendations: Fire Protection Service*

1. The Fire Department continues to develop additional rural water supplies for firefighting. Such an effort would require creating a target list of areas of greatest concern and incorporating the capital costs associated with improving these rural water supplies into the Town's Capital Improvement Program and the annual budget.
2. The Fire Department and Planning Board should discuss how current land use regulations address fire safety in new developments, particularly residential subdivisions, in accordance with state law. One option is for the Planning Board to require adequate water supply for firefighting purposes as part of the subdivision development.
3. If the demographics of the community continue to change and calls for service continue to increase, and if New London Hospital chooses not to offer ambulance service in the future, the Town may want to investigate alternative ambulance services or consider operating an ambulance out of the Fire Station. The latter would likely increase the number of full-time firefighters and other emergency service staff.
4. As full-time firefighter staffing needs increase the Town should seek ways to ensure reasonably affordable housing opportunities are available within New London and preferably in proximity to the Fire Department. This program would not necessarily be limited to Fire Department employees and will assist with recruitment and retention of Town Staff.

5. Planning for new and replacement apparatus should include an assessment of the capacity of the Fire Station to house the equipment. If conflicts arise, then the assessment should address whether equipment redesign or facility improvements are the cost-effective option to resolve the conflict. If facility improvements are necessary, then they should be incorporated as part of the apparatus cost and planned for in the CIP.

### Hospital and Ambulance Service

New London Hospital is a 25-bed facility serving the Kearsarge/Lake Sunapee/Newport area. Founded in 1918 as a non-profit community hospital, that status is still maintained today. The Hospital provides the 15 towns within its service area appropriate healthcare services and strives to improve the health status of the region. The Hospital works closely with Dartmouth-Hitchcock Medical Center (DHMC) and Concord Medical Center to provide designated specialized clinical services by providers from those institutions close to home in the community. The hospital also has a helicopter-landing pad on-site for transfers by DHART from DHMC. The Hospital projects that patient volume will grow 7% each year for the next five years. The recent building project anticipated growth and incorporated plans for an increased number of primary care providers and specialists.

The New London Ambulance Service (NLAS), which operates three ambulances, is based at the hospital. One ambulance is staffed 24/7 with full-time Paramedic level Emergency service personnel. The second ambulance operates from 8 AM to 4 PM. This vehicle is dedicated to any transfers that are required and is also available for 911 calls when it is not on a transfer run. In times of need, the Hospital also has the ability to staff a third ambulance. The Town of New London has appropriated the following sums in support of the New London Hospital Ambulance Service, including payments towards the five-year replacement of the ambulances themselves. Town funding of the NLAS has been summarized in Table VII-1 (Page 101), above.

### Issues: Hospital and Ambulance Service

1. As the demographics of the Hospital's service area changes (e.g.: a larger population with a likely increase in older patients) the need for clinical services will increase. The uncertainty of how healthcare will be financed in the United States in the next few years causes the Hospital great concern as it plans each year.
2. As a nonprofit, New London Hospital depends on the generosity of the community to support the hospital's needs beyond the operating budget, especially through the Annual Fund. The Annual Fund is critical for the purchase of medical equipment and implementing specific programs delivered by the Hospital.
3. Currently New London Hospital provides Emergency Medical Service to the Town of New London and seven other towns. Although the Hospital has three ambulances, there is often only one primary ambulance to cover the citizens of New London and the other towns. The other ambulances are used frequently to transport patients to other hospitals or destinations as necessary and may not be available for back-up assistance if needed.
4. An immediate and direct impact to the community is the NLAS operations and management by the New London Hospital. Under lean or problematic funding it is

possible that the New London Hospital may determine operating the NLAS is not in the interest of the overall organization.

Recommendations: Hospital and Ambulance Service

1. The Town needs to undertake a collaborative effort with New London Hospital to assess the capacity and operations of the existing NLAS. This assessment may consider whether NLAS has the capacity to meet the community's current and long-term needs.

## **Public Works Department**

The New London Public Works Department is responsible for the Highway Division, Transfer Station and Recycling Center, Brush and Metal Disposal Center, Grounds Maintenance, and the recently formed Wastewater Division (discussed in the Chapter XI – Utilities).

There are 14 full-time employees in the Public Works Department. Public Works personnel include the Public Works Director and the following positions: one Maintenance Level III/Foreman, four Maintenance Level II/Heavy Equipment Operators, three Maintenance Level I/Laborers, one Wastewater Operator, one Transfer Station Supervisor, two Recycling Attendants, and one Administrative Assistant.

Highway Division

The New London Public Works Department and the Highway Division are located on a four-acre site at 184 South Pleasant Street. The facility consists of a single story garage (approximately 2,400 square feet) with five bays and a 24'x36' space with two offices, a lunch room, locker room and bathroom; a 9,000 square-foot equipment garage with capacity to store 12 full-size trucks outfitted with plows and sanders; a 1,800 square-foot cold storage building; a salt storage shed; a 2,000-gallon diesel fuel storage tank.

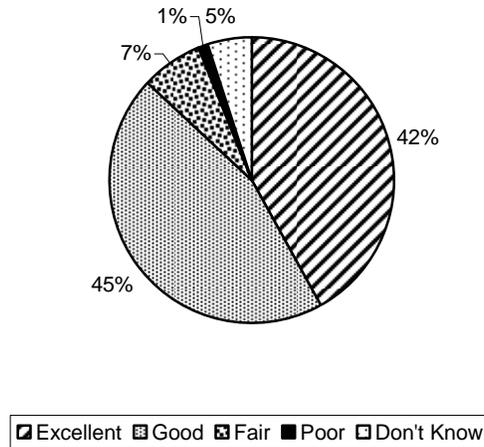
The Highway Division is responsible for maintaining roads and features within public rights-of-way in the Town that are not maintained by the NH Department of Transportation. The Highway Division shares resources including staff and equipment with other divisions in the Department of Public Works and other departments in Town on an as-needed basis. A full equipment inventory, equipment replacement plan, and facility capital improvements are outlined in the CIP.

The Town's Capital Improvement Program allocates money each year towards a capital reserve fund for the Highway Department Equipment Replacement Program. In 2007 the Board of Selectmen adopted a schedule to gradually pave a number of gravel roads in town, which is incorporated in the CIP. Budget constraints have resulted in attenuating the paving schedule.

Community Survey Results: Highway Division

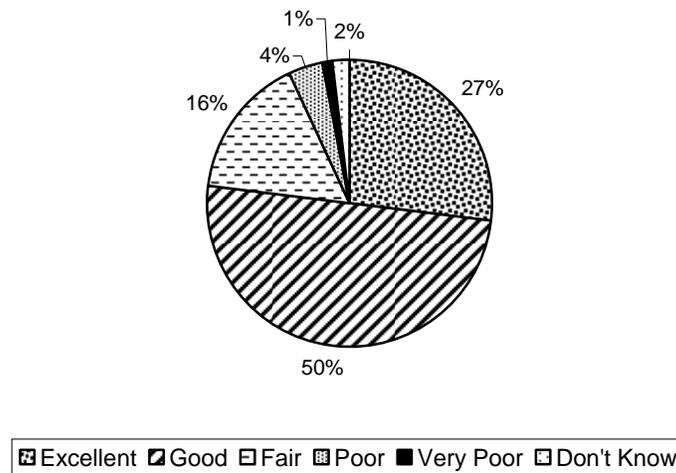
The Highway Department was rated separately in the Community Survey for its snowplowing service and its road maintenance service. Snowplowing service provided by the Highway Department was rated as excellent or good by 87% of those responding to the Community Survey, with only 7% indicating fair service and 1% as poor.

**FIGURE VII- 6  
Rating of Snowplowing Service**



Rating of summer road maintenance is slightly lower, with 77% of respondents rating the service as excellent or good, and 16% rating the service as fair. It is believed that some of the dissatisfaction with road maintenance is due to residential concerns about living on gravel roads.

**FIGURE VII-7  
Rating of Road Maintenance Service**



Issues: Highway Division

1. The oldest Building at the facilities is in need of some improvements such as adding insulation in the walls, replacing the sinking concrete floor, additional electrical work and new energy efficient windows.
2. The salt/sand shed will need to be replaced.

3. There is an ongoing debate about the costs and benefits of salt and sand road treatments in the winter months. There is one salt reduction zone in Town along Little Sunapee Road. Otherwise there are no designated salt reduction zones or policies enacted by the Town.

Recommendations: Highway Division

1. Develop a building improvement plan for the old building and the salt/sand shed and incorporate it into the capital improvement plan.
2. Conduct a study to see if we are doing justice to the environment, traveling public and maintenance personnel with current winter road maintenance practices. Identify feasible alternative options to using winter applications of salt and sand.

Solid Waste Management

New London's solid waste disposal responsibilities fall into two categories: 1) collection, disposal and recycling of household trash; and 2) septage disposal.

New London's household trash is collected at the Transfer Station near Exit 12 off I-89. Since the termination of the New Hampshire/Vermont Solid Waste District in 2007, the Town has hauled solid waste from the Transfer Station to the Town of Meredith Transfer Station facility. From there a private hauler takes solid waste from Meredith and New London to the Mount Carberry Landfill in Berlin, NH (managed by the Androscoggin Valley Regional Refuse Disposal District).

The old landfill on Mountain Road was closed in the mid-1990s. The Town monitors the site and immediate surrounding area for methane gas and for contamination of ground water through testing of ground water wells.

The Transfer Station also functions as a recycling facility. Table VII-2 (Page 111) shows the Town's trash disposal and recycling levels since 2001.

**TABLE VII-2  
Town Trash & Recycling Levels**

	Total Solid Waste (tons)	Trash Disposal		Recycled Material	
		Reported Trash (tons)	Proportion of Total (%)	Reported Recycling (tons)	Proportion of Total (%)
<b>2001</b>	3,642.26	2,948.78	81%	693.48	19%
<b>2002</b>	3,807.22	2,933.80	77%	873.42	23%
<b>2003</b>	3,810.54	3,150.40	83%	660.14	17%
<b>2004</b>	3,831.42	3,049.10	80%	782.32	20%
<b>2005</b>	3,969.23	3,181.24	80%	787.99	20%
<b>2006</b>	3,921.23	3,122.11	80%	799.12	20%
<b>2007</b>	3,611.63	2,799.19	78%	812.44	22%
<b>2008</b>	3,357.31	2,594.75	77%	762.56	23%
<b>2009</b>	3,203.56	2,455.29	77%	748.27	23%

Source: New London Public Works Department

Although there are no immediate plans to expand the buildings or equipment at this facility, there are plans to change the manner in which recycling is collected. The Board of Selectmen is actively investigating the merits of “single stream recycling,” in which all recycled material is combined in the same receptacle and brought to a sorting facility. Although it is anticipated that this would bring less net recycling revenue to the Town, the Town anticipates hauling less trash, which will decrease hauling and tipping costs.

In addition, the Town is investigating the merits of pay-as-you-throw (PAYT) trash disposal, which has been adopted in a number of New Hampshire communities. A PAYT program transfers disposal costs directly to the residents, who must dispose of their non-recyclable trash in plastic bags purchased from the Town. The sale of the bags would offset the Transfer Station budget, thereby reducing the overall tax burden.

Additional waste disposal and waste management programs include:

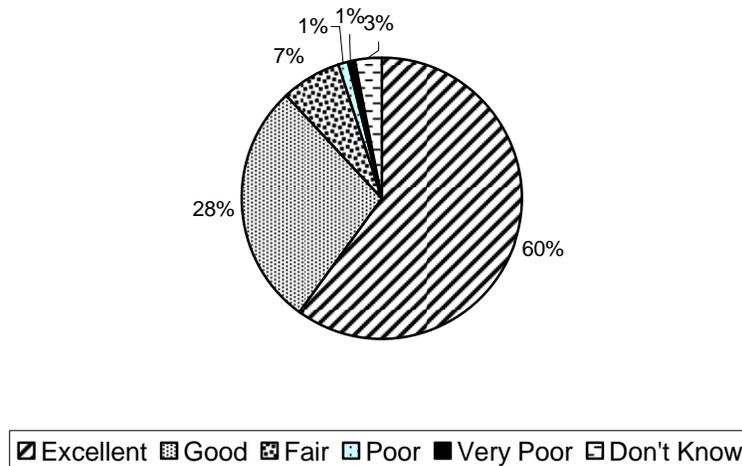
- The Town has participated in household hazardous waste collection days with other area towns. Although this waste collection was eliminated from the budget in the past few years, it should be reinstated to ensure proper disposal of hazardous waste.
- The Town collects electronic waste at the Public Works Department for a disposal fee.
- The Town Highway Division accepts used oil, engine and other types of batteries, and empty printer cartridges.
- The Town’s Brush and Metal Disposal (also known as the “Stump Dump”) is located off Old Dump Road. This site receives brush, scrap metal, leaves, yard debris, certain residential appliances, and unpainted/untreated lumber. Hydrological and geophysical studies indicated the Stump Dump could be not causing detrimental impacts to local surface water and groundwater resources. Regardless, State of New Hampshire Department of Environmental Services requested an increase in the number monitoring wells in the area in 2007.

Septage pumped from individual on-site wastewater disposal systems in New London can be hauled to the Franklin sewage treatment plant for disposal by private septage haulers. Service connections to the Town’s sewer system (described in the Utilities Chapter) enables New London to be a relatively small septage generator considering the Town population. The Town has an obligation under state laws governing solid waste to plan for and provide a disposal facility for septage pumped in the Town of New London. The Town of Sunapee has suggested that the redesign of the Sunapee Wastewater Treatment Plant include the ability to accept septage from private haulers serving New London and Sunapee.

#### Community Survey Results: Solid Waste Management

Respondents were very positive about the Transfer Station, with 60% indicating excellent service and 28% indicating good service. Comments indicated that the largest dissatisfaction came from the inability to recycle certain plastics and other material, which would be addressed by implementing single stream recycling.

**FIGURE VII-9  
Transfer Station Service**



Issues: Solid Waste Management

1. Since closure of the landfill, the Town has been monitoring the site and surrounding area for any potential ground water contamination through routine sampling of monitoring wells installed by the Town. A couple of times in the past after heavy rains the closed landfill has experienced problems with slumping on side slopes. The Town has repaired and stabilized the whole landfill, doing the last section in 2006.
2. Hazardous wastes from residential households pose a threat to the environment if not disposed of in the proper and safe manner. The costs associated with disposal support a regional approach to addressing the problem.
3. Additional educational efforts are needed to better inform the public about household hazardous wastes and the potential negative environmental impacts associated with improper disposal.
4. Increasing New London's recycling rate would be good for the environment without significant financial impact.

Recommendations: Solid Waste Management

1. The Town should continue to monitor the closed landfill site and the Stump Dump and respond appropriately as soon as practical to any concerns raised by the monitoring program.
2. The Town should continue to work with neighboring communities and the Regional Planning Commission to collect and dispose of hazardous waste in a cost-effective way, and make educational materials about hazardous waste disposal available to the public.

3. Encourage recycling in the community, consider using a single stream recycling model to increase participation in recycling practices, and continue to explore new markets for recyclables. These efforts will help keep municipal waste disposal costs down.
4. Evaluate whether the Pay As You Throw waste collection model would be practical and effective at the New London Transfer Station. If it is a desirable model to follow, then seek implementation as quickly as possible.
5. The Town should continue to monitor the amount of solid waste that goes through the transfer station recycling center so that it can plan ahead to meet demand first through increasing hours of operation, then through potential expansion of the buildings.

### **Tracy Memorial Library**

Tracy Memorial Library is located at the corner of Main and South Pleasant Streets. Constructed in 1823, the handsome two-story building of yellow clapboard was built as a private dwelling. In 1918, while owned by Jane Tracy, it was used as the first New London Hospital. When the Hospital moved in 1923, Mrs. Tracy had the building converted into a new Town Library. It was opened and accepted by the Town in 1926.

The Library occupies just over 14,000 square feet of space. The principal spaces include a circulation area, new materials browsing area, adult stack room, reference and audio-visual room, large print publications, reading room, photocopier and bulletin board area, public meeting room, office, the New Hampshire Room, a staff lounge and workrooms, children and youth rooms, and mechanical and storage space. Ongoing maintenance and improvements to the Library facilities are incorporated in the CIP, which provides a detailed summary of the work plan and schedule.

In 2002, the Community Garden was completely restored to the original design of the renowned Olmsted Brothers Landscape Architects. This beautiful garden features a wide variety of perennials, annuals, shrubs, and welcoming benches for visitors. Volunteers work with a professional gardener to maintain the garden.

The Library sees over 100,000 visits per year, making it one of the busiest in the region. Accessibility is an important aspect of this high-use public building. The building is set back on a corner lot consisting of approximately 14,500 square feet with an entrance and circular drive on South Pleasant Street. There are four on-site short-term parking spaces plus one designated handicap space. Additional parking is available on Main Street and in the Town parking lot located across South Pleasant Street. An important planning consideration for Library operations is safe pedestrian access to and from the building, which integrates a broader goal of community pedestrian facilities in the surrounding area.

The Library is unique in that it is the only institution freely providing opportunities for recreational reading, educational growth, and personal development throughout one's lifetime. While fulfilling this special role, the policy of Tracy Library is to develop collections and services in the context of the total library offerings of the community. Recognizing the rich resources of the college and school libraries, the intention is to complement, rather than compete with, their collections and services.

The general objectives of Tracy Memorial Library, as approved by the Board of Trustees in 1996, are:

1. To assemble, organize, preserve, and make easily and freely available, print and non-print library materials and services that will meet the educational, informational, and recreational interests and needs of the community.
2. To develop broad community awareness of the Library and its services and to encourage full use of these services through guidance and personal attention to library users of all ages.
3. To expand objectives and services through cooperation with local libraries and organizations, through system membership at the regional and state library level, and through the use of computer technology to secure materials and information beyond the scope of the Library itself.
4. To maintain and improve Library facilities which shall be adequate for carrying out these objectives and services.

Total staff hours for librarians, assistants and pages equal the FTE (Full Time Equivalent) of 5.09 employees based on the Library's 42 hour operating week. In addition, volunteers provide an FTE of 2.05 employees, engaged in tasks including homebound delivery, new material annotations, carpentry projects, shelf reading, book covering, newspaper filing, book and audiovisual repair, and the ongoing book sale.

As of December 2009, there were 3,029 resident adult and 977 youth cardholders. In addition, 885 non-resident adults belonged to the Library. Short term cardholders number 364. Total membership was 4,779.

From 1970 through 2009, the Library circulation increased from 13,675 to 101,449 checkouts. The Library's per capita circulation of 19.04 is the highest in the State for libraries serving populations of 3,000-6,000.

The current collection contains about 35,000 holdings, including 1,500 audio books (books on cassette and CD, Playaways); 1,500 films (DVD, VHS); 115 periodicals and 10 newspaper subscriptions. About 3,000 new items are reviewed, ordered, processed, and added to the collection annually. Worn-out, dated, lost or damaged materials are withdrawn on a continuing basis. The Library also offers free passes to area attractions, including The Fells, Mt. Kearsarge Indian Museum, SEE Science Center, VINS Nature Center, and Currier Museum of Art.

The Library owns 19 networked computers with high-speed internet access, 11 of which are available for public use, as well as wireless internet access patrons with wireless-capable computers. Other technology-based services include a frequently updated and informative website ([www.tracylibrary.org](http://www.tracylibrary.org)), eleven online book clubs, and twenty online research databases.

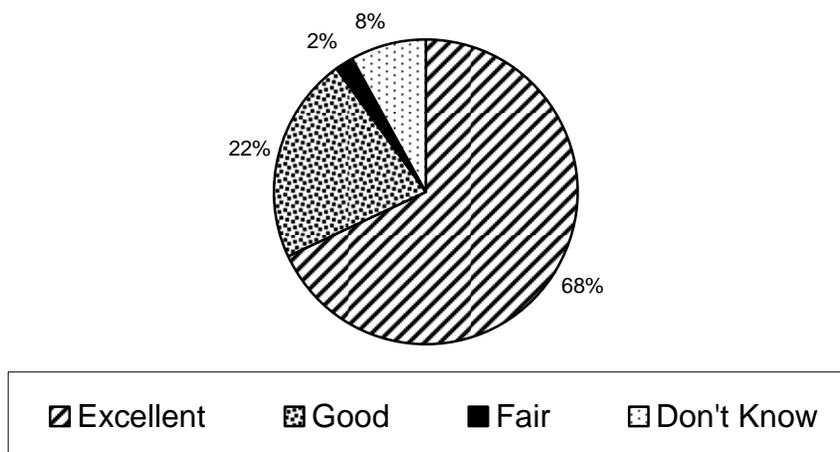
The Library offers a variety of programs for all ages and interests. Children's programs include regular visits from various school groups, weekly story hours, after school programs, and a Summer Reading Program. Adult programs include book discussion groups, foreign policy seminars, movie screenings, and joint ventures with the New Hampshire Humanities Council.

These programs are often sponsored by the Friends of the Library and the Council on Aging. The Library often partners with Morgan Hill Bookstore to bring notable authors for book signings and speaking engagements.

Community Survey Results: Tracey Memorial Library

As shown in Figure VII-10 (Page 116), 90% of respondents rated Library Services as excellent or good:

**FIGURE VII-10**  
**Library Service**



Issues: Tracy Memorial Library

1. **Building Repair:** While embarking on a renovation project in 2007-08, it became clear that the Library's historic building faces significant repair and handicap accessibility issues.
2. **Technology:** Providing patrons with electronic access to information is increasingly important, requiring significant investment in technology. The Library always seeks to balance traditional library service, such as reader's advisory and interlibrary loan, with current technology, such as downloadable audio and video.
3. **Future Expansion:** The Library is weighing future space needs versus a lack of physical expansion area. Dedicated space is needed for Library programs, collection storage, office/work areas, a separate young adult area, quiet study areas for patrons, and a second bathroom on the main floor. Additionally, the director's office has become an overflow work area for staff due to lack of space and storage.
4. **Circulation Area:** The heart of this busy Library is the circulation area, and it is frequently congested, especially in the summer. The existing setup of counters, desks, and shelving is inefficient and in disrepair.
5. **Parking and Pedestrian Safety:** Parking continues to be an issue, especially during the busy summer months or when the Library or other community groups are holding

programs/meetings. Also, the Library is located at an intersection that is not pedestrian-friendly. There is poor visibility at the crosswalk at S. Pleasant Street, linking the Library to the municipal parking lot.

*Recommendations: Tracy Memorial Library*

1. Any renovations must be sensitive to the Library's setting, architecture and history. Continued funding of the building maintenance Capital Improvement Plan and appropriate funding of the Library maintenance budget is necessary.
2. It is important to maintain Town funding for the Library's initiative to promote high quality technology services.
3. Town use of Library meeting rooms and space puts a strain on its facilities. It will be necessary for the Town to seek a broader town-wide solution for Town meeting space so that the Library may reclaim the two public meeting rooms for its own purposes. This would likely defer the need for a building addition on a constrained, historic site.
4. The Library will embark on the space planning of the circulation desk and surrounding area. Specialized library furniture and shelving that is designed and built to withstand the rigors of heavy daily use is necessary.
5. The Library acknowledges that parking and pedestrian safety are outside of its purview and budget and looks to the Town to hold discussions about improving parking and safety downtown.

### **New London Recreation Department**

The mission of the New London Recreation Department is to provide diverse and challenging life-long leisure activities to the community, thereby encouraging participation in programs that enhance one's education and develop good citizenship and overall well-being.

The Recreation Commission is a five-member board that was established by the Board of Selectmen. Until 1997, the primary responsibility of the Recreation Commission had been to oversee the operations of Bucklin and Elkins Beaches. In 1998, the Board of Selectman and the Town agreed to a Full Time Recreation Department Director and the position was filled in 1999. The full-time Recreation Director organizes and promotes year-round recreational, educational and cultural programs for all ages.

From 2000 to present the Recreation Commission has played a significant role in the progression of the New London Recreation Department's diversity of offerings, forming lasting collaborative relationships and guiding the department into the future.

The New London Recreation Commission and Recreation Department promote:

1. A culture of commitment to foster year round recreational, educational and cultural programs for all ages;
2. Community conversation & communication;

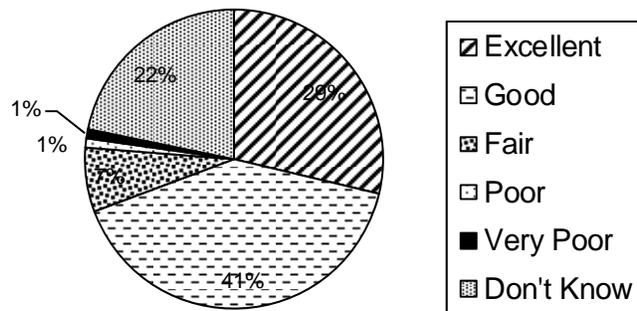
3. Community-based participation;
4. Collaborative connections with neighboring recreation departments;
5. Collaborative, community-based framework under which the goals of the New London Recreation Department are met.

Current Staffing of the New London Recreation Department includes one Full Time Director, two part-time Beach Directors (summer), two part-time Summer Camp Directors (Summer); 12 part-time Lifeguards (Summer); five part-time Summer Day Camp Counselors (Summer); and 2-3 student interns a year, usually in the fall and summer

Community Survey Results: Recreation Department

As reflected in Figure VII-11 (Page 118), 70% of those responding to the 2008 Community Survey rated the Recreation Service as excellent or good.

**FIGURE VII-11  
Recreation Service**



New London Recreation Department Needs Assessment 2007: A needs assessment was conducted in 2007 to follow-up on the two previous focus groups conducted in 1999 and 2001. The general consensus that came from focus groups was the following:

- Coordinate programs & special events with other community groups and organizations
- More after school youth programs
- Teen programs and social gathering place (No social gathering place still exists)
- Youth summer day camp
- Senior citizen programs
- Family-oriented programs
- Nature study, hikes and outdoor educational programs
- Day trips/ tours
- Entertainment
- Community Ice Skating Rink

- Recreation Field Area
- Community services
- Community center

Over half of those surveyed in 2008 (53.4%) support the development of a community center in New London to serve people of all ages and provide a variety of activities, up from 47% support in the 1998 survey. However, when asked whether the Town should be involved with financing the community center, responses were more evenly divided, with 39.7% still in favor and 36.7% opposed.

*New London Recreation Facilities and Programs as of 2007*

The Town of New London operates and maintains two beaches with playground structures, a community Ice Skating Rink on the Town Common, and a cross-country skiing trail system within the town.

Bucklin Beach is located on Little Lake Sunapee and consists of .88 acres and attracts many swimmers, picnickers, sailors and kayakers during the summer months. The department offers American Red Cross swimming lessons at this location taught by certified instructors, as well as kayaking and sailing lessons by certified instructors. This location includes a large beach area, a small grassy play area, a small picnicking pavilion, a playground structure and a picnic area with grills. A building located at the entrance of the facility houses the men's and women's changing and restroom areas, a lifeguard office and storage area.

The Bucklin Beach facility septic system upgrade was completed in 2009, but the facility needs to be overhauled. Proposed plans have been drawn up that include more storage for the beach facilities, ADA compliant bathrooms, low water fixtures, outdoor showers and a lifeguard station.

Elkins Beach is located on Pleasant Lake and consists of 1.5 acres and attracts swimmers and picnickers during the summer months. The department offers American Red Cross swimming lessons taught by certified water safety instructors. This facility includes two small beach areas, a picnic area, grills and a playground area. The existing building houses the men's and women's changing areas and restrooms, a lifeguard office and storage.

The Town owns and operates a Porta Rinx lined ice facility that measures 80 feet by 40 feet. The rink is placed on the Town Common between the New London Inn and the Town Offices and has a warming hut, an Eagle Scout project from Max Cooper, dedicated in memory of Bob Andrews, the Town's first Full-Time Recreation Director. The rink is typically open from mid-December through March. The Recreation Department maintains the facility.

The Recreation Department maintains a cross country ski corridor starting behind the former New London Middle School and terminating at Morgan Hill Road.

*Land/Facilities:*

New London Recreation uses a variety of land and facilities that are either Town-owned or privately-owned with access for Recreation Department programs. The following is a list of lands and their use and the state of ownership:

1. Developed/Existing land in New London
  - a. Ice Skating rink (Town)

- b. Bucklin Beach (Town)
  - c. Elkins Beach (Town)
  - d. X-C trail system behind Kearsarge Regional Elementary School (Town /private)
  - e. Playgrounds at Kearsarge Regional Elementary School
  - f. New London Outing Club (private)
2. Undeveloped or underdeveloped land
- a. Connected trail/walking/biking path – plan to interconnect for integrated town-wide system
  - b. Lagoon property – possible skate park/high-ropes course
3. Facilities in New London
- a. Bucklin Beach building (Town)
  - b. Colby Sawyer College – pools, gym, tennis (Private)
  - c. Bob Andrews warming hut (Town)
  - d. Middle School/OCIC (School/Private)
4. Regional Lands & Facilities
- a. Lake Sunapee Beach (boating programs)
  - b. Mt. Sunapee (ski and hiking programs)
  - c. Ragged Mountain (ski and hiking programs)
  - d. Mt. Kearsarge (hiking/trail programs)
  - e. Sunapee-Ragged-Kearsarge Greenway trail system
  - f. Monadnock Sunapee Greenway Trail

### *Equipment*

Maintaining and providing continued access to the land and facilities above requires use of the following equipment.

- 1. Recreation equipment
  - a. Boats – sail (5 sunfish), kayak (8)
  - b. Aluminum boat with outboard engine (beach rescue)
  - c. Docks (8)
  - d. Picnic tables (10)
  - e. Vehicle for transport – van (leased)
- 2. Maintenance equipment
  - a. Snow blower
  - b. Snowmobile
  - c. Chainsaw

### *Programming Offered (as of 2009):*

Winter: Dinner with Jack Frost Town Winter Carnival, Winter Wild Race Series, Elementary School Intramural program, Pre School Climbing Classes, Kearsarge Outdoor Adventures, Learn to Skate Program, Karate, Dance Classes, Tot Time, Ice Skating

Spring: Elementary School Intramurals, Easter Egg Hunt, Karate, Dance Classes, Red Sox games

Summer: Sailing classes, Kayaking classes, Kearsarge Outdoor Adventures, Swimming Lessons at both beaches, Red Sox Games, NH State Wiffleball Tournament, Sun N Fun Summer Day Camp, Sun N Fun for your Little One Summer Day Camp, Western NH Trail Running Series, Soccer Camps, Dance Classes, Karate, Adult Soccer and Softball programs

Fall: Dance Classes, Karate, Pre School Climbing, Tot Time, Red Sox Games, Western NH Trail Running Series, Halloween Haunted House, Elementary School Intramurals

*Future Programming and Facility Options:*

Future programming:

- Expanded day camp opportunities/ Vacation Day Camps during Christmas Break and February Vacation school weeks
- Bike and walk to school activities for children
- Bike Rodeos
- Skateboard Camps/ How to ride camps
- Team building exercises for local youth, students and businesses
- Community Special Events in all seasons
- More collaboration with existing youth groups

Sewer Plant/ Frothingham Road: There are possibilities for developing Town property at the end of Frothingham Road for the following purposes:

- In conjunction with other community institutions and partners, a High and Low Element Ropes Course
- A more formal trail network along the Lyon Brook Interpretive Trail system
- A state of the art skate park facility

Four natural areas offer opportunities for nature study and appreciation: the Philbrick-Cricenti Bog, the Phillips Memorial Preserve, the Esther Currier Wildlife Management Area at Low Plain, and the Clark Pond Natural Area purchased by the Town in 2008. In 2005, the Town received a gift of property from Sydney L. Crook that overlooks Lake Sunapee. This property, known as Clark Lookout, is accessible by foot from Davis Hill Road. Hiking trails maintained by the Town's Conservation Commission provide access to these and many other scenic spots in town.

Sidewalk / Bikeway Plan: The following infrastructural needs over the next 5-10 years would enable pedestrians to travel via non-motorized methods in a safe manner, especially children en route to school:

- Add 1500 feet of bikeway/ pedestrian path along the north side of roadway (Pleasant St. from Main Street to Job Seamans Rd.) (scheduled for 2010)
- More formalized summer trail system behind the Old New London Middle School.
- Add a Bikeway/ Sidewalk along the south side of Parkside Rd then use a power line easement to access Newport Rd.
- County Rd and Parkside Road from Newport Rd to the Power Line. Add a sidewalk along the west and south side of these roadways including other necessary changes.
- Bikeway under power line easement from NL Post Office to NL Transfer Station
- Sidewalk along South Pleasant Street from Main to Public Works Department
- Sidewalk along Route 114 from Main Street to Bucklin Beach

Although the Town does not have any designated bicycle paths, several roads within New London are suitable for recreational bicycling. Routes 11 and 103A are often used for bicycling, and Town roads provide an idyllic setting for bicycling. The Town has recently heard from local bicyclists that more of a focus should be made on improving bicycle facilities.

### Private Recreation

The New London Outing Club provides a broad range of recreational programs and facilities including: tennis, baseball, softball, soccer, lacrosse, basketball, picnic facilities, playground equipment, T-ball and summer and winter programs at Knight's Hill Park. In 2007, the Outing Club entered into a long-term lease with the Kearsarge Regional School District to use the indoor gymnasium at the former middle school, which it named the Outing Club Indoor Center (OCIC). The New London Outing Club continues to play a very important role in providing affordable sports opportunities for local children through membership fees, fund raising and volunteer support. Additional private recreational opportunities are provided through the Kearsarge Youth Basketball Association and the Kearsarge Youth Hockey Association.

Colby-Sawyer College has a number of recreational facilities and programs available to New London residents. The Hogan Athletic Center provides a number of opportunities, particularly the Van Cise Fitness Center and the indoor swimming pool. A swim team for area youth is based at the Hogan pool where swimming lessons are also provided. Indoor and outdoor tennis courts are available and summer basketball and soccer camps are conducted at the College.

### Commercial Recreation

Several commercial recreation facilities in the New London area serve New London residents. The Mt. Sunapee Ski Area and the Ragged Mountain Ski Area provide downhill skiing opportunities. The Mountainside Racquet and Fitness Club serves about 2,300 people monthly. Its facilities and programs include tennis, racquet ball, aerobics, walleyball and fitness. Tournaments and social functions are also held there.

The Lake Sunapee Country Club has an 18-hole golf course in New London, and Twin Lake Villa offers a nine-hole course in Springfield.

### Recommendations: Recreation Department

1. Explore installation and use of sidewalks, multi-use paths and/or bike trails where appropriate.
2. Explore areas for potential beach expansion or additional beach space or water access in New London.
3. Encourage positive interaction with private organizations for the provision of recreational services

## **Cemeteries**

The Town of New London owns three cemeteries as listed in TABLE VII-3. Three elected Cemetery Commissioners oversee the Town cemeteries and the Highway Department maintains them. The Cemetery Commissioners have indicated that the sale of cemetery plots

ranges between 40 and 75 plots per year. The number of interments has averaged about 35 per year.

**TABLE VII-3  
Cemeteries**

<b>Cemetery Name</b>	<b>Location</b>	<b>Size</b>	<b>Estimated Number of Full Sized Plots</b>
Old Main Street	Old Main Street & Bog Road	7.5 ac.	200
Elkins	Elkins Village Road	4 ac.	500
West Part	County Road near Route 103A	1.5 ac.	350
Total		13 ac.	1,050

The Cemetery Commissioners noted that a recent trend has been an increasing percentage of people choosing cremation rather than burial with about 50% choosing either option today. Additionally, the Commissioners have noted a recent trend for more of the people choosing cremation who also choose to purchase a burial plot in one of the cemeteries for the cremated remains rather than non-burial of the cremated remains. The typical burial plot measuring 3.5 feet x 11 feet can accommodate up to six burial plots for cremated remains in urns.

While burial plots for cremated remains may increase the demand for additional cemetery land, the smaller sized plots will minimize this increased demand. The estimated number of cemetery plots provided in Table 3 is a rough estimate since the actual plots have not been laid out in many of the undeveloped portions of the existing cemeteries. Additionally, the estimated number of remaining cemetery plots is for full sized plots. If 50% of the plots are used for burial of cremated remains, then about 525 full size cemetery plots and up to 3,150 cemetery plots used for burial of cremated remains could be provided within the land remaining to be developed in the existing cemeteries.

Issue: Cemeteries

1. Demand for Additional cemetery land will increase near the center of Town. The Cemetery Commissioners have indicated the Old Main Street Cemetery receives the highest demand for cemetery lot sales and has the fewest remaining plots. Although the Old Main Street Cemetery has some undeveloped land, it may prove unsuitable for cemetery use due to poor drainage.

Recommendation: Cemeteries

1. The Cemetery Commissioners and the Town should consider acquiring additional land to expand the Old Main Street Cemetery or to identify and acquire another cemetery property near the center of Town. The need is not immediate, but potential properties should be considered as they become available for purchase. The Cemetery Commissioners and the Town should coordinate with the Ausbon Sargent Land Preservation Trust in this effort in hopes of finding a property owner who might be willing to donate property for future cemetery use.

**Kearsarge Regional School District**

The Town of New London is part of the Kearsarge Regional School District (KRSD) consisting of seven towns: Bradford, Newbury, New London, Springfield, Sutton, Warner and Wilmot. New London students attend Kearsarge Regional Elementary School in New London (Kindergarten and Grades 1-5), Kearsarge Regional Middle School in Sutton (Grades 6-8), and Kearsarge Regional High School in Sutton (Grades 9-12).

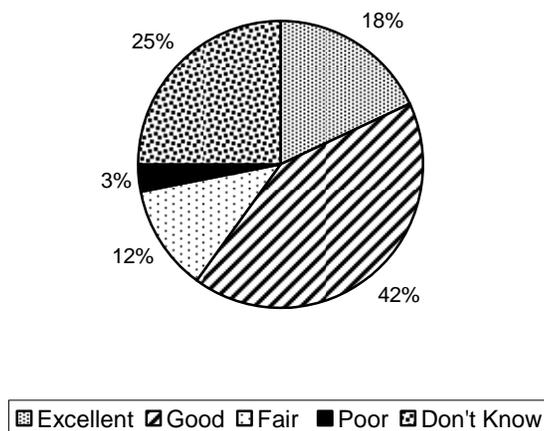
The Kearsarge Regional Elementary School-New London is located on a 28-acre site located between Main Street and Pleasant Street. The Kearsarge Regional Elementary-New London is attended by kindergarten students from New London and grades 1-5 from New London, Springfield, and Wilmot. This brick structure was built in 1987. The practical student capacity for this facility is estimated to be 350 students. The former Kearsarge Regional Middle School is on this site, which is currently occupied by the Elementary School, New London Outing Club, and the KRSD administrative offices. The majority of the Middle School building remains unoccupied and KRSD is considering alternative uses.

Kearsarge Regional High School, located on 92 acres on North Road in Sutton, has been periodically renovated and upgraded, with a second floor added in 2006/2007. Enrollment in 2010-2011 is 651 students.

Community Survey Results: Kearsarge Regional School District

Approximately one quarter of the respondents to the Community Survey did not have enough information to rate the Educational Services in New London. However, the remaining respondents were favorable in their responses, with 60% ranking Educational Services as good or excellent, as shown in Figure VII-12 (Page 124), below.

**FIGURE VII-12  
Ranking of Educational Services**



Kearsarge Regional School District Student Enrollment & Projections District-Wide

Student enrollments for New London students in the elementary, middle and high schools for the past 10 years are presented in Table VII-4 (Page 125). Table VII-5 (Page 125) compares

the enrollments for the two school years during which the decennial Census counts were conducted. Table VII-5 indicates a significant difference between the total enrolled students in the Kearsarge Regional School District cited in Table VII-4 and school-aged population in New London according to the Census counts. Both comparison periods indicate approximately one third of school-aged children are not enrolled in the public school system and very likely enrolled in one of many local and regional private schools.

**TABLE VII-4**  
**New London Student Enrollment History**

School Year	Elementary	Middle	High	Total
1999-2000	162	117	116	395
2000-2001	167	111	109	387
2001-2002 <sup>1</sup>	191 (183)	106	124	421 (413)
2002-2003	196 (176)	114	116	426 (406)
2003-2004	195 (166)	119	122	436 (407)
2004-2005	212 (175)	123	115	450 (413)
2005-2006	196 (168)	137	129	462 (434)
2006-2007	191 (164)	119	140	450 (423)
2007-2008	188 (163)	118	138	444 (419)
2008-2009	198 (176)	90	151	439 (417)
2009-2010	196	90	151	437

<sup>1</sup> Kindergarten students added starting in 2000-01; number in parentheses excludes kindergarten

Source: Kearsarge Regional School District

**TABLE VII-5**  
**Comparison of New London Student Enrollment and Census Counts**

School Year	Total Student Enrollment	Census Headcount for School-Aged Children (5-18 yrs old)	Proportion Apparently Not Enrolled
1999-2000	395	583	32%
2009-2010	437	679	35%

Source: Kearsarge Regional School District, US Census

The school district does not have student enrollment projections by Town. However, a report prepared by R. Dean Michener and Dr. Mark V. Joyce for the school district in November 2003 entitled "Assessment of Demographic Characteristics and Projection of Future Enrollments" provides student enrollments and projections district-wide. That report provides the following information about district-wide student enrollments and projections.

As revealed by this data in Table VII-6 (Page 126) to follow, the student enrollments district-wide decreased by 2.5% from 1980 to 1985, but since 1985 they have increased for each succeeding five year period although decreasing in number and percentage gain each five year period.

**TABLE VII-6**  
**Kearsarge Regional School District Student Enrollments**

<b>Year</b>	<b>Enrollment</b>	<b>Change</b>	<b>% Change</b>
1980	1,586		
1985	1,545	-41	-2.5%
1990	1,712	167	10.8%
1995	1,868	156	9.1%
2000	1,991	123	6.6%

Source: "Assessment of Demographic Characteristics and Projection of Future Enrollments" prepared by Mr. R. Dean Michener and Dr. Mark V. Joyce

Student enrollment projections for all seven communities in the KRSD are provided in Table VII-6 (Page 126) to follow. These district-wide projections indicate an increase of an average of 22 students in the school system each year over the next five years for an average annual increase of 1.2%.

**TABLE VII-6**  
**Kearsarge Regional School District Projected Student Enrollments**

<b>School Year</b>	<b>Grade</b>					<b># Change</b>	<b>% Change</b>
	<b>K</b>	<b>1-5</b>	<b>6-8</b>	<b>9-12</b>	<b>K-12</b>		
2007-08	145	849	525	683	2,202		
2008-09	148	848	532	699	2,227	25	1.1%
2009-10	150	869	560	661	2,240	13	0.6%
2010-11	153	903	574	645	2,275	35	1.6%
2011-12	156	911	575	665	2,307	32	1.4%
2012-13	158	903	616	657	2,334	27	1.2%

Note: Student enrollment projections were done by using the Simple Grade Progression Ration Model

In 2007 the Superintendent of Schools, in cooperation with the Kearsarge Regional School Board, conducted a survey to compile a SWOT Analysis of the districts "strengths, weaknesses, opportunities and threats." This strategic planning tool is used to identify the internal and external factors that may have a positive or negative impact on the organizations ability to achieve its goals.

Emerging as strengths in that study were: a highly qualified and committed staff; strong support by the public; leadership; community and volunteer efforts; geographic location and community resources. Weaknesses were cited as technology and transportation. Opportunities identified encouraging expanded community involvement, increase the use of technology, and develop a vision of innovation. The greatest threat at the time appeared to be the current economic conditions.

As a result of that analysis, new Vision, Mission and Core Beliefs documents were created and with those documents serving as a guide, a new strategic plan developed. The Plan can be accessed by visiting the KRSD website ([www.kearsarge.org](http://www.kearsarge.org)).

Part of that plan has included the development of a five-year Capital Improvement Plan for the school district. The CIP, not yet adopted by the school board, addresses issues throughout the school district including sprinkler system needs, an aging inventory of kitchen equipment and building security issues that will require re-keying various schools (including New London). Among other considerations for the CIP are renovations to the high school auditorium, gym bleachers at the high school, wastewater treatment facilities and the installation of a biomass

heating system for the New London campus. The next Strategic Plan revision is slated to begin during 2011 with the intent of developing a road map for the next three-five years.

Curriculum continues to be reviewed and aligned to New Hampshire State Standards. Within the next three years, teachers in all schools will begin to align curriculum with the Common Core that is being developed at the federal level and has been accepted by the New Hampshire Department of Education. Over the past several years, curriculum has been revised and developed kindergarten through eighth grade to align with the New Hampshire State Frameworks. All schools have received school approval status from the New Hampshire Department of Education.

## VIII. POPULATION

### Introduction

An analysis of population trends and characteristics, and a projection of future population, is one of the most important elements of the master planning process. Any significant changes in the population will, consequently, affect land use patterns, the town's economic base, and local demand for housing, transportation, human services and community facilities. Awareness of shifts in the population composition is a prerequisite for planning; specifically, changes in the school age and senior populations could require corresponding reviews of educational, housing and service policies and provisions of new or expanded community facilities and services.

New London is a unique town, serving a diversity of constituents. Permanent residents, seasonal residents, students, commuters and visitors all contribute to the Town's lifeblood. This chapter concentrates on the populations of New London including permanent and seasonal residents, and the students of Colby-Sawyer College. This is done to reflect the full extent of demands placed on the Town. When possible, distinctions between resident and student populations are made to clarify the role that each plays in New London's history, present situation and future prospects.

Five facets of New London's population are examined here. First, a brief history of the Town and its population is presented, setting a context for discussion. Second, natural increase and migration patterns affecting New London's population growth are analyzed. Third, the age and sex distributions of the Town's population are examined. Fourth, a brief look at the seasonal population in Town is followed by a discussion of the student population at Colby-Sawyer College. Finally, population projections through the year 2020 for the Town are set forth, indicating the degree of change which may be expected.

Information for this report was derived from a variety of sources. The U.S. Census of Population and Housing provided most of the data. Publications from the New Hampshire Office of Energy and Planning (OEP) and the Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC), information from the Town of New London and student enrollment data from Colby-Sawyer College were supplementary sources of data.

### Historic Trends

New London's first residents were Penacook Indians, who lived off the fish and game of this mountain and lakes region. After the Revolutionary War, settlers, including many veterans, fled the congestion of Boston for the open territory of New London. In 1779, the Town was granted a charter. Sixteen families participated in New London's first town meeting, which was devoted to the issue of surveying and building roads. The influx of population after the Revolutionary War led to the development of civic and industrial services. At "Hominy Pot", at the foot of Clark Pond near the intersection of Old Main Street and Route 11, a number of mills were established. The first post office, store, meeting house and school were also located on Old Main Street near this "Hominy Pot" section, which was to remain the commercial center of New London for almost fifty years. The center's importance began to decrease in the 1830s, and a new commercial and residential center began to form around the newly built Baptist Church and New London Academy on Main Street. In the mid-19th Century, mills and other services were established at Otter Pond, by the foot of Pleasant Street Hill and at Elkins. By the turn of the century, farming was still the main source of income for New Londoners; the small industries

had declined, but replacing them was a lively summer tourist trade.

Attracted by the Town's first hotel built at Soo-Nipi Park on Lake Sunapee, large numbers of vacationers journeyed by carriage and steamship to enjoy New London's summer recreational and scenic amenities. Many visitors built seasonal homes in Town, stimulating the development of New London's commercial and service industries. Seasonal residents became a major source of population, as many summer visitors moved to the area permanently.

Colby Academy was established in 1837, and nearly a century later, in 1928, became Colby Junior College for Women. In 1975, the College added a four year bachelor degree program and changed its name to Colby-Sawyer, honoring its former president, H. Wesley Sawyer (1928-1955). In 1990-91, Colby-Sawyer College became a coeducational institution. Since the school's early days, Colby students have represented a significant portion of the town's population.

In the recent past, New London has developed into a small regional center for commercial, medical and other services. New London hosts a broad variety of small shops, businesses, inns and restaurants popular with both seasonal and permanent residents. Multiple children's programs entertain and educate area youth, while the Barn Playhouse summer theater continues to supply musicals and plays, as it has for over 50 years.

In 2008 the New London Hospital celebrated 90 years of service in New London. The New London Hospital was founded in 1918 and was first located in the Morgan House. In 1923 the hospital moved to a 12-bed building in the Griffith House. In 1958 a 25-bed hospital was built at the current County Road location. The William P. Clough Extended Care Center was opened in 1971. Eight years later in 1979 a new 4-bed Special Care Unit was added. A new wing was added to the Emergency Room in 1985. The Newport Health Care Center opened in 1991. The Grantham Family Care Center and the New London Pediatric Care Center opened in 2005. In 2007 the New London Hospital began the expansion project known as "Building Towards the Future".

Another important medical care facility based in New London is the Lake Sunapee Region Visiting Nurse Association (VNA). Since its founding in 1970, this not for profit organization has provided home health care, hospice and community services for individuals of all ages and income levels. In the fall of 2004, the VNA purchased and moved into its current facility located at 107 Newport Road. With a staff of 120 members and almost 100 active volunteers, the VNA provided more than 1,100 New London residents with services in 2007.

From a small agrarian community with a few mills in the early 1800s, New London has become, in 150 years, not only a college town, but an important year-round and seasonal residential community, as well as a small regional center offering goods and services for New London and the surrounding communities.

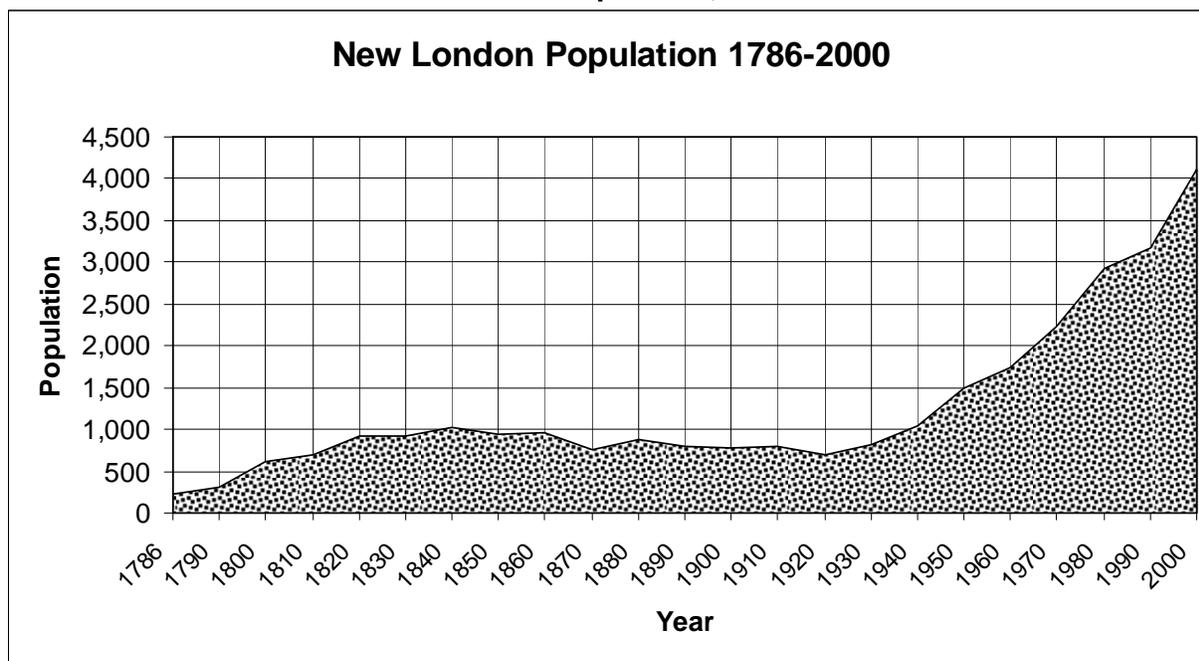
Table VIII-1 (Page 130) and Figure VIII-1 (Page 131), on the following pages present the historical trend of New London's population growth.

**TABLE VIII-1:  
Historical Population Tabulations for  
New London, Merrimack County & New Hampshire, 1786-2010**

<b>Year</b>	<b>New London</b>	<b>Percent Change</b>	<b>Merrimack County</b>	<b>Percent Change</b>	<b>State of N.H.</b>	<b>Percent Change</b>
1786	219					
1790	311	42.0%	17,972		141,885	
1800	617	98.4%	24,498	36.3%	183,858	29.6%
1810	692	12.2%	29,032	18.5%	214,460	16.6%
1820	924	33.5%	34,281	18.1%	244,161	13.8%
1830	914	-1.1%	36,490	6.4%	269,328	10.3%
1840	1,019	11.5%	38,052	4.3%	284,547	5.7%
1850	945	-7.3%	42,225	11.0%	317,976	11.7%
1860	952	0.7%	43,273	2.5%	326,073	2.5%
1870	759	-20.3%	42,947	-0.8%	318,300	-2.4%
1880	875	15.3%	46,300	7.8%	346,991	9.0%
1890	799	-8.7%	49,435	6.8%	376,530	8.5%
1900	768	-3.9%	52,430	6.1%	411,588	9.3%
1910	805	4.8%	53,335	1.7%	430,572	4.6%
1920	701	-12.9%	51,770	-2.9%	443,083	2.9%
1930	812	15.8%	56,152	8.5%	465,293	5.0%
1940	1,039	28.0%	60,710	8.1%	491,524	5.6%
1950	1,484	42.8%	63,022	3.8%	533,242	8.5%
1960	1,738	17.1%	67,785	7.6%	606,921	13.8%
1970	2,236	28.7%	80,925	19.4%	737,578	21.5%
1980	2,935	31.3%	98,302	21.5%	920,475	24.8%
1990	3,180	8.3%	120,005	22.1%	1,109,252	20.5%
2000	4,116	29.4%	136,225	13.5%	1,235,786	11.4%
2010	4,397	6.8%	146,445	7.5%	1,316,470	6.5%

Source: U.S. Census

**FIGURE VIII-1  
New London Population, 1786-2000**



Source: U.S. Census

The population information in Table VIII-1 (Page 130) and Figure VIII-1 (Page 131) shows that in the early years, New London’s population rose steadily to a peak of 1,019 in 1840. With the migration of the farmers to the mid-west and west, New London’s population then declined, like so many other New England communities, and did not reach the 1840 population level again until 100 years later. From a low of 701 persons in 1920, New London’s population has risen steadily to 4,116 in 2000. As reflected in Figure VIII-1 (Page 131), New London has experienced the most dramatic increase in population since 1940, with a fourfold increase of the year-round population in the past 60 years.

## **Regional Population and Demographic Comparisons**

### Regional Growth and Development Comparison

A comparison of the population growth experienced by New London with other communities in the Region between 1980 and 2010, as detailed in Table VIII-2 (Page 132), reveals that New London had a spike in average annual growth between 1990 and 2000 compared with the other neighboring communities, Merrimack County, and the state. Over the 30-year period from 1980 to 2010, the New London population growth rate was at an average 1.36%, which is moderate compared with neighboring municipalities with substantially higher growth rates (Springfield – 3.05%) and lower growth rates (Lebanon – 0.56%). New London’s 30-year average growth rate matches the County and is consistent with statewide population growth.

Table VIII-3 (Page 133) details total housing units and average annual growth rates for regional communities, Merrimack County, and the state. The growth in housing units in New London between 1980 and 2010 is equivalent to the statewide growth for the same period and has not indicated dramatic fluctuations for the three decades of Census data.

Density of development is another metric of comparison for rural communities with relatively sparse development patterns. Population density is measured in persons per square mile of area in town and provides a relative comparison to understand overall land use conditions in New London and its neighbors. Table VIII-4 (Page 134) provides information for comparison of densities among neighboring communities. New London's higher density is more consistent with a community that has a distinctly built-out landscape like the region's cities and larger towns. It is important to note the public sentiment that New London maintains a rural atmosphere; a sense that the Town is a rural town. New London's accomplishment of achieving a higher population density while maintaining a rural/small town atmosphere indicates the Town's success applying its land use ordinances and development controls to encourage density while maintaining a community with appreciable rural and small town characteristics.

**TABLE VIII-2**  
**Comparison of Population Growth with Neighboring Communities: 1980-2010**

Area	Population 1980	Population 1990	Avg. Annual Growth Rate 1980-1990	Population 2000	Avg. Annual Growth Rate 1990-2000	Population 2010	Avg. Annual Growth Rate 2000-2010	30-Yr Avg. Annual Growth Rate
New London	2,935	3,180	0.8%	4,116	2.6%	4,397	0.7%	1.36%
Newbury	961	1,347	3.4%	1,702	2.4%	2,072	2.0%	2.59%
Bradford	1,115	1,405	2.3%	1,454	0.3%	1,650	1.3%	1.31%
Springfield	532	788	4.0%	945	1.8%	1,311	3.3%	3.05%
Sunapee	2,312	2,559	1.0%	3,055	1.8%	3,365	1.0%	1.26%
Sutton	1,091	1,457	2.9%	1,544	0.6%	1,837	1.8%	1.75%
Wilmot	725	935	2.6%	1,144	2.0%	1,358	1.7%	2.11%
Hanover	9,119	9,212	0.1%	10,850	1.7%	11,260	0.4%	0.71%
Lebanon	11,134	12,183	0.9%	12,568	0.3%	13,151	0.5%	0.56%
Merrimack County	98,302	120,240	2.0%	136,225	1.3%	146,445	0.7%	1.34%
New Hampshire	920,610	1,109,252	1.9%	1,235,786	1.1%	1,316,470	0.6%	1.20%

Source: U.S. Census, 1980 – 2010

**TABLE VIII-3  
Comparison of Housing Growth with Neighboring Communities: 1980-2010**

Area	Total Housing Units 1980	Total Housing Units 1990	Avg. Annual Growth Rate 1980-1990	Total Housing Units 2000	Avg. Annual Growth Rate 1990-2000	Total Housing Units 2010	Avg. Annual Growth Rate 2000-2010	30-Yr Avg. Annual Growth Rate
New London	1,492	1,806	1.9%	2,085	1.4%	2,303	1.0%	1.46%
Newbury	1,021	1,184	1.5%	1,311	1.0%	1,559	1.7%	1.42%
Bradford	696	757	0.8%	762	0.1%	917	1.9%	0.92%
Springfield	351	481	3.2%	534	1.1%	702	2.8%	2.34%
Sunapee	1,645	1,904	1.5%	2,143	1.2%	2,431	1.3%	1.31%
Sutton	660	776	1.6%	826	0.6%	985	1.8%	1.34%
Wilmot	401	458	1.3%	530	1.5%	659	2.2%	1.67%
Hanover	2,373	2,623	1.0%	2,989	1.3%	3,445	1.4%	1.25%
Lebanon	4,758	5,718	1.9%	5,707	0.0%	6,649	1.5%	1.12%
Merrimack County	39,636	50,870	2.5%	56,224	1.0%	57,069	0.1%	1.22%
New Hampshire	386,381	503,904	2.7%	547,024	0.8%	614,754	1.2%	1.56%

Source: U.S. Census, 1980 - 2010

### Population Density

The rapid population growth recently experienced in New London has resulted in a changing landscape as the Town's land has developed. Table VIII -4 (Page 134) shows that, although the Town has a relatively small population, New London's population density is quite high in comparison to neighboring towns and somewhat higher than Merrimack County and the State. In part, New London's relatively high population density compared with neighboring towns is due to a larger population within a relatively small land area compared with the other towns. In 1980, New London's density was 115.6 persons per square mile, as compared to a county density of 105.5 persons per square mile and a State density of 99.1 persons per square mile. By 1990, the Town's density had risen to 1252 persons per square mile, as compared to a county density of 128.8) and State density of 119.4 persons per square mile. By 2000, New London's population density jumped to 161.9 persons per square mile compared with the county density of 146.2 and a state density of 136.9 persons per square mile. Within the region in 2000, New London surprisingly had the fourth highest density behind Lebanon, Claremont and Hanover. This is not readily evident due good planning practices in New London over the years.

The existing relatively high density, combined with New London's rising population, makes the Town's future development decisions all the more critical. Increased density decreases the amount of open space further threatening the town's rural character, places greater demand on local resources, and increases the possibility of conflicting land uses. Thus, despite the Town's relatively small population, there is a strong need for New London to plan wisely for the future, to assure that the Town will grow in a desirable manner.

**TABLE VIII-4  
Comparison of Population Density with Neighboring Communities: 1980-2010**

Area	Land Area (Sq. Mi.)	Persons per Sq. Mi. - 1980	Persons per Sq. Mi. - 1990	Persons per Sq. Mi. - 2000	Persons per Sq. Mi. - 2010
New London	25.4	115.6	125.2	162.0	173.1
Newbury	38.1	25.2	35.4	44.7	54.4
Bradford	34.9	31.9	40.3	41.7	47.3
Springfield	43.6	12.2	18.1	21.7	30.1
Sunapee	25.2	91.7	101.5	121.2	133.5
Sutton	42.1	25.9	34.6	36.7	43.6
Wilmot	29.4	24.7	31.8	38.9	46.2
Hanover	48.8	186.9	188.8	222.3	230.7
Lebanon	40.3	276.3	302.3	311.9	326.3
Merrimack County	931.5	105.5	129.1	146.2	157.2
New Hampshire	9,294.0	99.1	119.4	133.0	141.6

Source: U.S. Census

### Median Ages

In comparison to other New Hampshire communities, New London's median age has increased. For example, Hilltop Place Condominiums (147 units), which were built during the early 1970s, are occupied primarily by seniors. Table VIII-5 (Page 134) shows that in 1980, the median age of New London's population was five years higher than the County and State. By 2000 the gap widened to ten years higher than the median age in the County and State.

**TABLE VIII-5  
Median Ages for New London, Merrimack County and New Hampshire: 1980-2010**

	1980	1990	2000	2010
New London	35.6 yrs.	44.6 yrs.	47.3 yrs.	48.7 yrs.
Merrimack County	30.8 yrs.	33.5 yrs.	37.7 yrs.	41.4 yrs.
New Hampshire	30.1 yrs.	32.8 yrs.	37.1 yrs.	41.1 yrs.

Source: U.S. Census

## **Detailed Demographic Analysis**

### Natural Increase and Migration

The two major determinants of population change are natural increase and migration. The excess of births over the number of deaths, in any one period, is called natural increase. Migration refers to the number of people who have moved into and out of the town. If a community has little in- and out-migration, almost all changes in population are attributable to natural factors alone. The total amount of natural increase and migration in New London is

based on the following formula: “The population of New London at the close of a period is equal to its population at the start of the period, plus natural increase (the excess of births over deaths) during the period, plus the net migration during the period.”

In the period from 1980 through 2001, there was not any year in which there was a natural increase in population, as reflected in the data in Table VIII -6 (Page 135). Between 1980 and 2000, there was a natural decrease in New London’s population of 500 persons. Over the same time period, New London’s population increased by 1,181 persons. With a natural decrease of 500 persons over this same twenty year period, there was a net in-migration of 1,681 persons. Thus, all of New London’s population growth since 1980 is attributable to people moving into Town.

**TABLE VIII-6**  
**Births, Deaths & Natural Increase/Decrease, New London: 1980-2009**

Year	Births	Deaths	Natural Increase/Decrease
1980	20	35	-15
1981	20	21	-1
1982	18	26	-8
1983	11	28	-17
1984	18	42	-24
1985	22	38	-16
1986	20	31	-11
1987	22	36	-14
1988	23	36	-13
1989	26	47	-21
1990	16	51	-35
1991	20	53	-33
1992	25	38	-13
1993	23	57	-34
1994	19	40	-21
1995	22	44	-22
1996	15	48	-33
1997	19	60	-41
1998	16	69	-53
1999	15	63	-48
2000	23	50	-27
2001	18	58	-40
2002	29	-	N/A
2003	22	-	N/A
2004	24	-	N/A
2005	17	-	N/A
2006	19	-	N/A
2007	11	-	N/A
2008	18	-	N/A
2009	22	-	N/A

Source: NH Department of Health and Human Services

Age Distribution

The age composition of a community has great importance in planning for future needs. An increase in the school-age population, for example, indicates the need for greater investment in educational facilities. Likewise, growth in the senior population requires a different range of services and facilities. Tables VIII-6 (Page 136) and VIII-7 (Page 136), and Figure VIII-3 (Page 137), present and compare New London's age distribution by age group in 1990 and 2000.

*Preschool Age Population*

Between 1990 and 2000, the preschool age (0-4 years) population of New London increased in actual numbers by only 5 children. This represented a 4.3% increase over the ten year period.

*Student Age Population*

The student age (5-21 years) population of New London increased over the ten year period. Between 1990 and 2000, there was an increase of 336 persons in this age bracket, resulting in about a 44.1% increase compared with the 1990 numbers.

**TABLE VIII-7**  
**Age Distribution by Group, New London: 1990 and 2000**

Age Group	1990	Share of Population (%)	2000	Share of Population (%)	2010	Avg. Annual Growth Rate 2000-2010
Preschool (0-4)	115	3.6%	120	2.9%	99	2.3%
Student (5-21)	762	24.0%	1,098	26.7%	1,196	27.2%
Working Age (22-64)	1,436	45.1%	1,670	40.6%	1,749	39.8
Seniors (65+)	867	27.3%	1,228	29.8%	1,352	30.7%

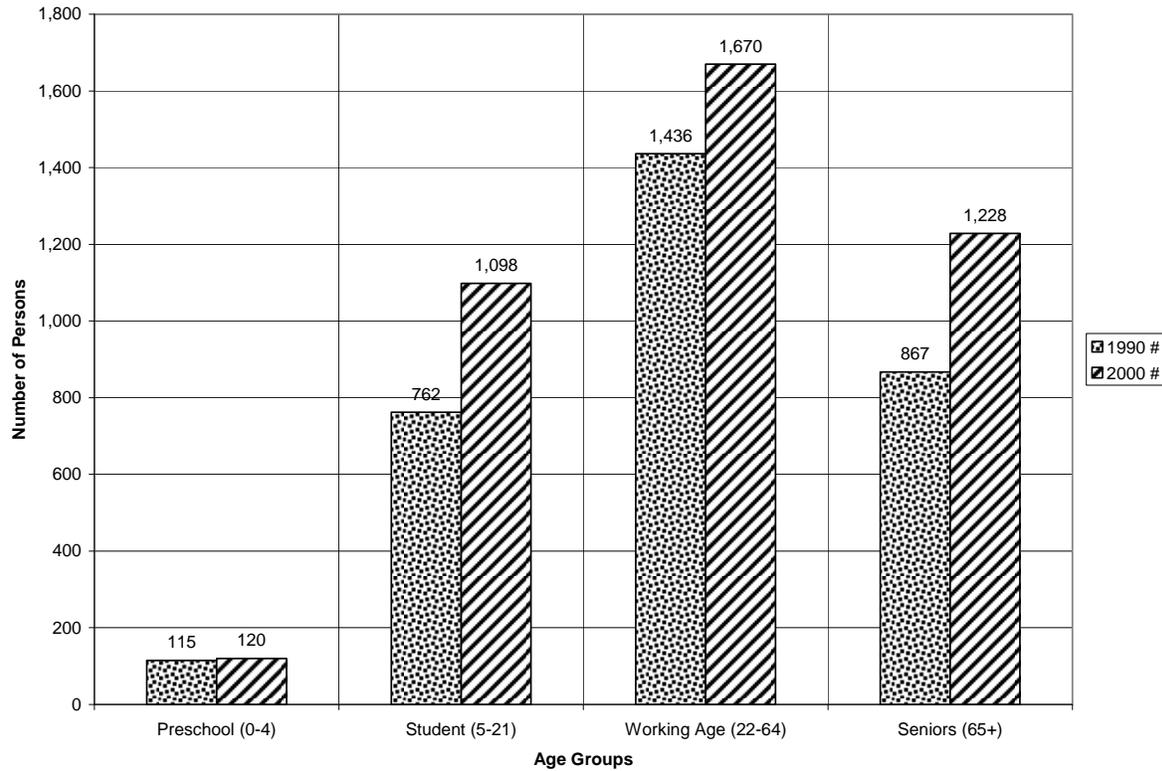
Source: U.S. Census

**TABLE VIII-8**  
**Change in Age Distribution by Group, New London: 1990 and 2000**

Age Group	1990 #	2000 #	# Change	% Change
Preschool (0-4)	115	120	+5	+4.3%
Student (5-21)	762	1,098	+336	+44.1%
Working Age (22-64)	1,436	1,670	+234	+16.3%
Seniors (65+)	867	1,228	+361	+41.6%

Source: U.S. Census

**FIGURE VIII-2  
Age Distribution, New London: 1990-2000**



Source: U.S. Census

*Working Age Group*

The working age group (22-64) is often referred to as the labor force, although not all persons in this age group are actually in the labor force, i.e. employed or looking for work. Some of the people in this age bracket in the last two censuses are Colby-Sawyer College students.

The working age bracket (22-64) has exhibited growth in the past ten years. During the 1990s, this age group increased by 16.3% (234 persons).

*Senior Population*

The senior population is comprised of people sixty-five years of age or older. Although most of the people in this age group are retired, some are employed full or part-time. There are almost always more women than men in this age group.

The growth in the senior population in New London has been dramatic over the past thirty years. From 316 in 1970, New London’s senior segment of the population increased to 867 in 1990 and to 1,228 in 2000. That equates to a fourfold increase over thirty years. As a percentage of the total population for each census, the senior age group almost doubled, going from 15% in 1970 to 30% in 2000. Nationwide, the senior population is increasing rapidly and will become a larger percentage of the population over the next twenty years with retirement of the “baby boomers”. In New London, considering the national trend coupled with the in-migration of retirees, it is expected that the senior age group will continue to increase dramatically as a percentage of the total population. The need for senior housing will obviously

accelerate along with this rise in the senior population.

#### Age Group Comparisons with County and State

A comparison of the percentage of each age group of the total population for New London, the County and the State for the last two censuses is presented in Table VIII-9 (Page 139). Conclusions of this comparison are:

##### *Preschool Age Population Comparison*

New London's slight decrease in the percentage of the population in this preschool age group as a percentage of the total population over the ten year period mirrors the trends in the County and State. However, New London's preschool age group population as a percentage of the total population is about one-half of the percentage in the County and State for each census.

##### *Student Age Population Comparison*

A small increase in New London's student age population between 1990 and 2000 is also exhibited in the County and State data. In 2000, the percentage of the population in this age bracket in New London was slightly higher than the County and State.

##### *Working Age Population Comparison*

The data shows that between 1990 and 2000, both the County and State have remained constant in the working age population as a percentage of the total population while the percentage of the population in this age group in New London has decreased by 4.5% over the ten years. This age group in New London in 2000 accounted for about 17% less of the total population compared with the County and State.

##### *Senior Age Population Comparison*

The percentage of the population in this age bracket rose in New London from 27.3% in 1990 to 29.8% in 2000. Over the same period, the percentage of the population in this age bracket increased slightly in the County and in the State. The percentage of the population in this senior age bracket in New London in 1990 was 29.8% which was more than double the percentage in either the County (12.4%) or the State (12.0%).

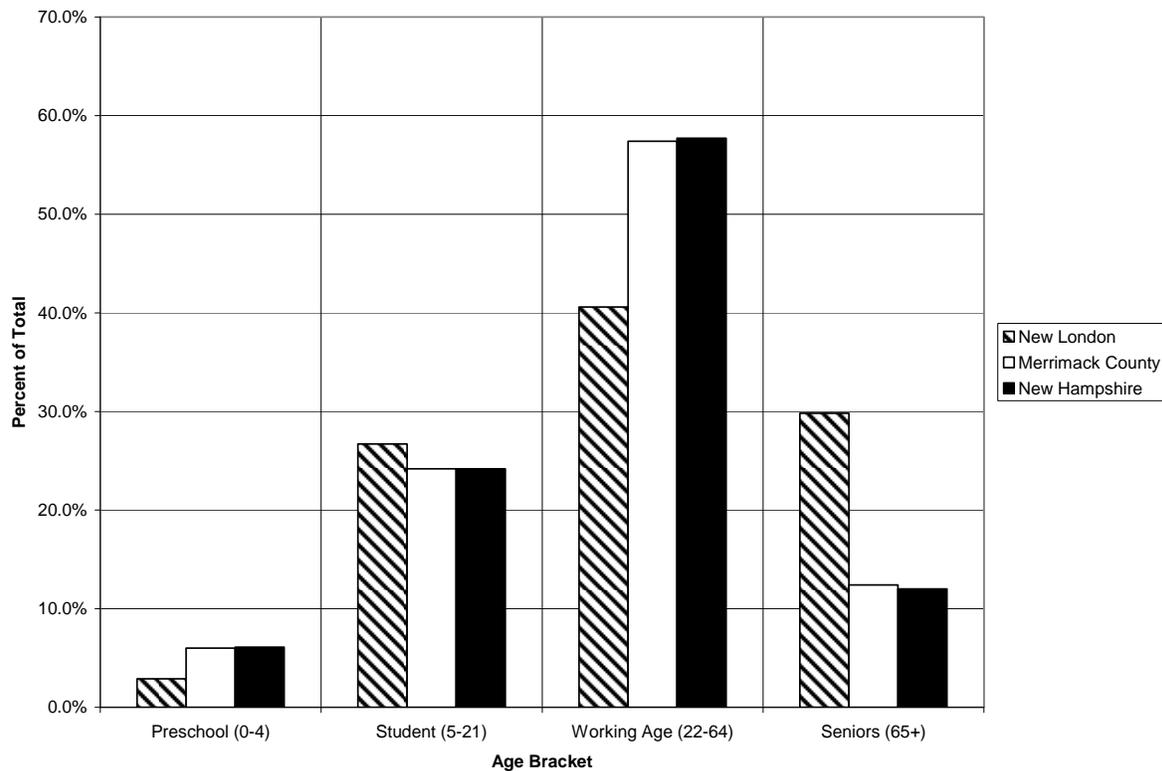
The 65-plus age group population of the United States will increase as a result of the aging of the "Baby Boomer" generation. New Hampshire, Merrimack County and New London will feel the effects of this national trend. This national trend coupled with the in-migration of retirees is expected to increase dramatically the number of seniors in New London in the future.

**TABLE VIII-9  
Comparative Age Distributions by Group,  
New London, Merrimack County and New Hampshire: 1990 & 2000**

Age Group	New London		Merrimack County		New Hampshire	
	1990	2000	1990	2000	1990	2000
Preschool (0-4)	3.6%	2.9%	7.5%	6.0%	7.6%	6.1%
Student (5-21)	24.0%	26.7%	23.2%	24.2%	23.8%	24.2%
Working Age (22-64)	45.1%	40.6%	57.2%	57.4%	57.3%	57.7%
Seniors (65+)	27.3%	29.8%	12.1%	12.4%	11.3%	12.0%

Source: U.S. Census

**FIGURE VIII-3  
Comparative Age Distributions by Group for  
New London, Merrimack County and New Hampshire: 2000**



Source: U.S. Census

*Disabilities by Age Group*

Disabilities by age group 5 years and over in New London is provided in Table VIII-10 (Page 140) to follow. Not surprisingly, the 65 years and over age group has the highest percentage of persons with disabilities with 226 persons representing 19.4 % on the people in that age group.

**TABLE VIII-10**  
**Disabilities by Age Group 5 Years & Over, New London: 2000**

	Age Group							
	5 to 15 Yrs		16 to 20 Yrs		21 to 64 Yrs		65 Yrs & Over	
Disability	#	%	#	%	#	%	#	%
One Type of Disability	3	0.7	25	4.7	64	3.5	136	11.7
Two or more Types of Disabilities	0	0	7	1.3	94	5.1	90	7.7
No Disability	406	99.3	503	94	1681	91.4	941	80.6
Total Persons with Disabilities	3	0.7	32	6	158	8.6	226	19.4
Total Persons in Age Group	409	100	535	100	1839	100	1167	100

Source: NH Housing Finance Authority, U.S. Census

### Seasonal Population

The seasonal population is an important factor in New London. Most of the seasonal homes in New London are located around the shore land of lakes, such as Lake Sunapee, Little Lake Sunapee and Pleasant Lake. Many others are scattered throughout the Town, and some concentrated in condominium developments such as The Seasons and Highland Ridge. The size of New London's seasonal population is largely determined by the number of seasonal homes in the community. However, in addition to second homes, those staying in guest houses, hotels, motels and cabins add to the influx of summer visitors who make up the seasonal population. It should also be noted that those staying in or traveling to neighboring communities also have an effect on New London by increasing traffic, buying goods and services, and using Town facilities.

### *Seasonal Homes & Population*

For the purpose of this section, seasonal homes are homes used for only part of the year such as summer or winter. The precise number of seasonal homes in New London is difficult to determine. A major consideration is that many seasonal homes are used for different periods of time during the year. With the winterization of seasonal homes, many are now used throughout the year, but by non-residents. In contrast, many "regular" residents (legally registered voters) are away some or much of the year, usually during the winter months. A further complication is that a "summer" resident may rent his house to a "year-round" resident during the period that he is away. The number of seasonal residents, obviously, varies according to the month and day.

The only local information about the number of persons occupying a seasonal home is dated. It is based on a survey conducted in 1984 by the Regional Planning Commission of seasonal homes around Lake Sunapee. The average seasonal household size around Lake Sunapee in 1984 was 4.2 persons per unit. Adjusting this figure to reflect the local trend toward smaller family size for year-round housing, Table VIII-10 (Page 141) to follow presents the estimated and projected persons per seasonal home:

**TABLE VIII-11  
Estimated and Projected Persons per Seasonal Home**

Year	Persons Per Seasonal Home
1970	5.4
1980	4.5
1984	4.2 <sup>1</sup>
1990	3.9
2000	3.5
2010	3.3
2020	3.1

<sup>1</sup> Based on a survey conducted in 1984 by the UVLSRPC of seasonal homes around Lake Sunapee

Source: KBM & Associates

The census data for the number of seasonal homes in New London from 1970 through 2000 is outlined in Table VIII-12 (Page 142) to follow. Between 1970 and 1980 there was a decrease of 12 seasonal homes in New London presumably an indication of conversions to year-round homes. From 1980 to 1990 there was a growth of 37 units of seasonal housing with developments like the Seasons and Highland Ridge. The number of seasonal homes in New London during the 1990s declined by 43 units. Again this may be a reflection of seasonal homes, primarily around the lakes, being converted into year-round use.

As noted, the trend of converting New London's seasonal homes to year-round use has been occurring around the lakes in Town for some years now. The conversion issue is important for the following reasons:

- the Town has no control over the use of seasonal homes;
- if the existing 418 seasonal homes were converted to year-round use, then the Town's year-round population could increase by 903 persons without the construction of a single new home assuming use of the 2.16 persons per household figure for New London in 2000 (2000 U.S. Census figure for New London);
- some seasonal homes have poor road access (especially for fire-fighting equipment) and some septic systems which are close to lakes and streams are inadequate for year-round use; and
- the fiscal impact on the Town could be substantial since seasonal residents demand services for only a portion of the year, whereas the year-round residents would demand Town services (possibly including education) throughout the year.

There is no definitive formula for projecting seasonal home growth. Will the trend prevalent in the 1970s and 1990s of declining numbers of seasonal homes prevail or will the growth in seasonal units that occurred in the 1980s predominate in the future? Continued conversion of seasonal cabins and camps into homes for year-round use will diminish the supply of seasonal housing. Development of new seasonal housing projects can add to the number of seasonal housing units in town. In developing the projections of seasonal units, the assumption is made that these two trends will balance out resulting in no net increase or decrease in seasonal units

until 2020.

Assuming the persons per seasonal unit outlined above and the numbers of seasonally used units presented in Table VIII-11 (Page 142), results in a projected seasonal population of 1,296 persons in 2020.

**TABLE VIII-12  
Seasonal Population Estimates and Projections, New London: 1970- 2020**

Year	# Seasonally Used Homes	Estimated Persons/ Seasonal Home	# Estimated Seasonal Population
1970	436	5.4	2,354
1980	424	4.5	1,908
1990	461	3.9	1,798
2000	418	3.5	1,463
2010	418	3.3	1,397
2020	418	3.1	1,296

Sources: U.S. Census and KBM & Associates

#### *Tourist Accommodations*

Table VIII-13 (Page 143) to follow reveals that as many as 506 additional persons are staying in tourist accommodations during the summer months (including all of Twin Lake Villa on the Springfield/New London town line). Significantly, most facilities are open during the winter months, as well, although usually at reduced levels. Year round accommodations have a capacity of 258 persons.

**TABLE VIII-13  
Tourist Accommodations in New London 2008**

Name of Facility	Capacity	Use	Location
Twin Lake Villa*	200	Seasonal	Little Sunapee Road (on Little Lake Sunapee)
Fairway Motel	48	Year Round	Route 11 & Country Club Lane
Lamplighter Motor Inn	54	Year Round	Newport Road
New London Inn	60	Year Round	Main Street
The Inn at Pleasant Lake	28	Year Round	Pleasant Street (on Pleasant Lake)
Colonial Farm Inn	11	Year Round	Route 11 (north of Seamans Road)
Maple Hill Farm	22	Year Round	Route 11 (near I-89, Exit 12)
Camp Wallula	26 (winter) 56 (summer)	Year Round/ Seasonal	Little Sunapee Road (on Little Lake Sunapee)
Shaker Meeting House Bed & Breakfast	9	Year Round	King Hill Road
The Point Cottages	18	Seasonal	Elkins Road

\* Note: Of the 200 person capacity, 10% are located in New London and 90% are just across the town line in Springfield. All of the waterfront, and most of the golf course, are in the Town of New London. Therefore, the total of 200 has been used.

### College Population

As discussed previously, the students enrolled at Colby-Sawyer College inflate the Town's year-round population statistics and have a major impact on the Town. Please note that the college students commuting to the college from where they live outside New London are not counted in the institutional population numbers included in the New London year-round population figures. For example, in 2000 there was an institutional population of 626 reported by the U.S. Census while 130 students lived off-campus in the spring of 2000.

As is the case at almost all small private colleges, Colby-Sawyer's enrollment figures have fluctuated over the years. Table VIII-14 (Page 144) and Figure VIII-4 (Page 144) on the following pages present the College's enrollment trends from 1970 to 2007. As shown on the graph, from 1970 the College's enrollment grew to 730 students in 1974, declined fairly steadily to a low of 408 students in 1985, and grew from there to a peak enrollment of 986 students in 2003.

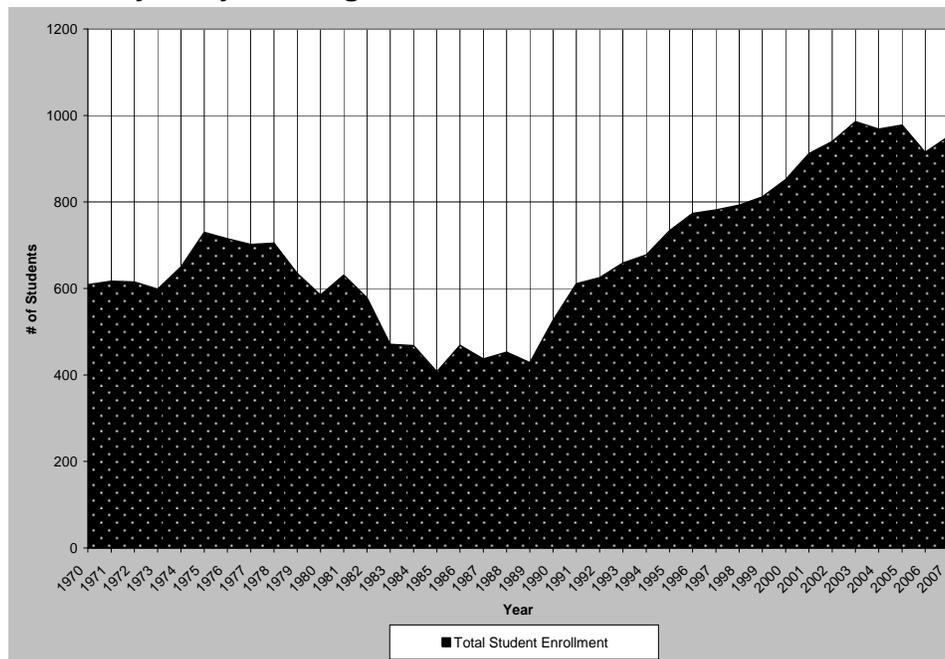
Colby-Sawyer College representatives have projected the student enrollment to reach no more than 1,100 students by the year 2020.

**TABLE VIII-14**  
**Matriculated Student Enrollment & Student Residency, Colby-Sawyer College: 1970-2007**

Year	Matriculated Students	Resident Students (#)	Resident Students (%)
1970	600	586	98%
1975	704	633	90%
1980	555	465	84%
1985	386	316	82%
1990	503	418	83%
1995	712	586	82%
2000	828	729	88%
2001	894	786	88%
2002	929	817	88%
2003	974	844	87%
2004	954	826	87%
2005	964	867	90%
2006	898	806	90%
2007	942	852	90%

Sources: U.S. Census and KBM & Associates

**FIGURE VIII-4**  
**Colby-Sawyer College Total Student Enrollment: 1970-2007**



Sources: Colby-Sawyer College, Office of Institutional Research

Educational Attainment

Comparative data from the 2000 U.S. Census on the highest level of educational attainment of persons 18 years and older is presented in Table VIII-15 (Page 145). Compared with the Merrimack County and the State, New London residents have a higher level of educational attainment with higher percentages of its population earning bachelor or graduate degrees. Hanover is the only New Hampshire community in the Region with a higher percentage of persons over 18 years with graduate degrees.

**Table VIII-15  
Comparative Data on Educational Attainment for Persons 18 Years & Older 2000**

Entity	No School Diploma	High School Diploma	Some College/Associates Degree	Bachelor Degree	Graduate Degree
New London	3.8%	11.3%	25.2%	39.0%	20.7%
Grantham	3.3%	17.4%	28.1%	29.4%	21.8%
Hanover	3.4%	6.8%	12.2%	35.1%	42.6%
Newbury	6.7%	23.5%	28.8%	28.5%	12.6%
Springfield	11.0%	37.0%	23.6%	17.8%	10.5%
Sunapee	7.7%	27.4%	27.7%	22.3%	14.7%
Merrimack County	11.9%	29.6%	29.4%	18.8%	10.3%
New Hampshire	12.6%	30.1%	28.7%	18.7%	10.0%

Sources: U.S. Census

**Population Forecasts**Comparison of Population Projections with Neighboring Communities

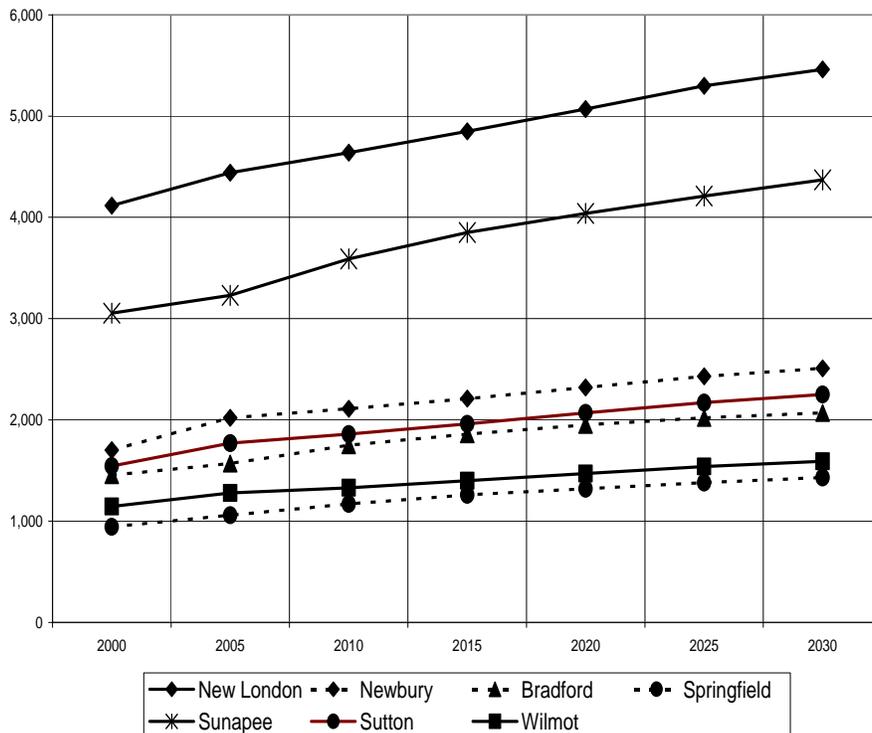
A comparison of population projections for New London with neighboring communities is provided in Table VIII-15 (Page 146) and Figure VIII-6 (Page 146) to follow based on population projections by the New Hampshire Office of Energy & Planning. New London's annual projected growth between 2000 and 2025 is 1.2%. This is a slightly slower rate compared with neighboring towns, but would result in a larger population increase with the larger starting population base.

**TABLE VIII-16**  
**Comparison of Population Projections with Neighboring Communities**

Area	2000 Census	2010 Estimate	2015 Estimate	2020 Estimate	2025 Estimate	2030 Estimate	Annual Projected Growth Rate 2000-2030
New London	4,116	4,640	4,850	5,070	5,300	5,460	0.95%
Newbury	1,702	2,110	2,210	2,320	2,430	2,510	1.30%
Bradford	1,454	1,750	1,860	1,950	2,020	2,070	1.18%
Springfield	945	1,170	1,260	1,320	1,380	1,430	1.39%
Sunapee	3,055	3,590	3,850	4,040	4,210	4,370	1.20%
Sutton	1,544	1,860	1,960	2,070	2,170	2,250	1.26%
Wilmot	1,144	1,330	1,400	1,470	1,540	1,590	1.10%
Merrimack County	136,225	154,110	161,600	169,050	176,620	181,850	0.97%
New Hampshire	1,235,786	1,365,140	1,420,000	1,470,010	1,520,310	1,565,040	0.79%

Sources: U.S. Census

**FIGURE VIII-5**  
**Comparison of Population Projections With Neighboring Communities**



Sources: NH Office of Energy & Planning

### New London Alternative Population Projections

Unfortunately, a totally accurate method of predicting the future population of small towns has not been devised; hence, the alternative projections. Any unexpected change, such as the addition of a large industry, institution, or housing development, can alter the projections considerably. One should, therefore, view these projections as a general guide that should be updated periodically as conditions change or new information is available.

As reflected in Table VIII-16 (Page 146) and Figure VIII-6 (Page 146), five alternative population projections are presented. The New Hampshire Office of Energy and Planning's projection is based on a computer model projecting the State's population and then breaking down this projection to the County and then Town level. This State computer method projects an annual growth rate of 1.28% for New London over the next fifteen years.

Four other linear or straight-line projections are presented based on past trends. One projection is based on the growth trend experienced in New London between 1980 and 2003, which equated to a compound annual growth rate of 1.75%. A second projection is presented based on the growth trend experienced in New London between 1970 and 2003, which was equivalent to an annual growth rate of 2.06%. The third projection presented is based on the 2.49% annual growth rate experienced by New London from 1990 to 2003. The final projection is based on the projection used by the Planning Board in the 1998 Master Plan which equates to an annual growth rate of 1.99% by adding 100 people per year. These alternative population projections would add between about 956 and 2,615 people between 2000 and 2020. An average of the four projections results in adding about 1,800 more people by 2020.

The passage of time will tell which projection was most accurate. Only time will tell. However, it's better to plan for the worst and hope for the best, than to do the opposite.

This is one of the major trends to monitor, since the growth in population has such a significant effect on the other elements of the Master Plan. If it changes significantly, then it should be used as an indicator that perhaps other parts of the Master Plan should be revisited.

The Planning Board believes there are some factors which, combined, will bring more growth than projected by the State computer method or straight-line projections:

1. The attractiveness of New London as a retirement community will continue to fuel the migration of retirees to New London. In addition to the tranquil and scenic natural environment, New London offers the recreational amenities, medical services, commercial facilities and cultural activities desirable in a retirement community.
2. The desirability of New London as a second or seasonal home market will continue over the next fifteen years. The tremendous numbers of the "baby-boomer" generation now maturing into a financial position to be able to afford a seasonal or second home should spur growth of this type of development in New London. Further down the road, it is anticipated that many of these new seasonal homes will be converted to year-round use for retirees as the "baby-boomer" generation ages, further fueling the population growth in year-round residents.
3. Another factor which is anticipated to affect future growth in the community is the desirability of New London as a work place for professionals, particularly those who want

to work from their home. With the technological advances in computers and telecommunications, many professionals have the flexibility to work from their homes in any location. New London has already seen some of this type of development and should anticipate more in the future particularly if fiber optic service is provided throughout the community.

Due to these factors, and to be on the conservative side, the Planning Board has chosen to project that New London's year-round population will increase by about 100 persons per year, or by about 1,500 from 2005 through 2020. This same projection was used in the 1998 Master Plan and proved to be the most accurate projection of New London's population.

**TABLE VIII-17**  
**Alternative Population Projections, New London: 2000-2020**

Year	NHOEP Projection <sup>1</sup>	1970-2003 New London Trend <sup>3</sup>	1980-2003 New London Trend <sup>2</sup>	1990-2003 New London Trend <sup>4</sup>	Planning Board Projection <sup>5</sup>
2000	4,116	4,116	4,116	4,116	4,116
2005	4,440	4,558	4,489	4,654	4,616
2010	4,640	5,047	4,896	5,264	5,116
2015	4,850	5,589	5,339	5,952	5,616
2020	5,070	6,189	5,823	6,731	6,116

Notes:

1. NHOEP Projection - 1.28% Annual Growth Rate
2. 1980-2003 New London Trend - 1.75% Annual Growth Rate
3. 1970-2003 New London Trend - 2.06% Annual Growth Rate
4. 1990-2003 New London Trend - 2.49% Annual Growth Rate
5. Planning Board Projection in 1998 Master Plan - 100 persons per year = 1.99% Annual Growth Rate

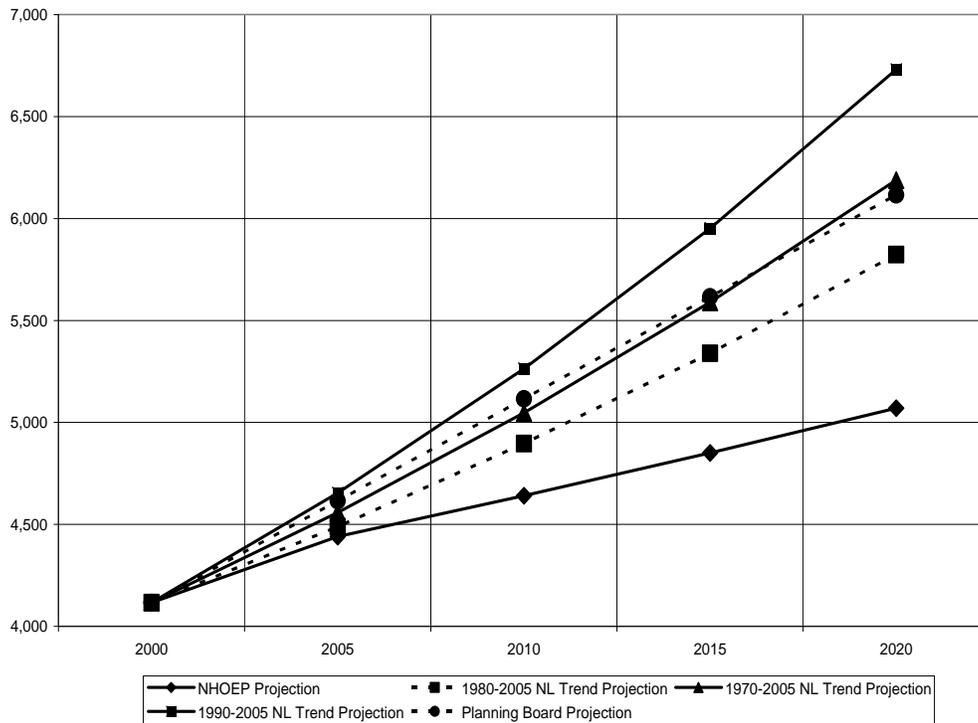
#### Breakdown of Seasonal & Year Round Population Estimates & Projections

A breakdown of the winter and summer populations is provided in Table VIII-18 (Page 149). The Colby-Sawyer student numbers are based on the number of students residing in New London (73% in 2000). The total winter population consists of year-round residents, Colby-Sawyer students, and people in winter tourist accommodations. The total summer population includes year-round residents, summer residents, people in summer tourist accommodations and the average number of people attending the Gordon Research Conference at Colby-Sawyer. As the years pass, the gap between the size of the winter population and the larger summer population is projected to diminish, but the summer population is still projected to continue to be the larger population.

#### **Summary of Population Trends**

1. New London's population growth rate during the 1980s (0.8%) was less than one-half of the County (2.0%) and State (1.9%) growth rates. The tables turned in the next decade during the 1990s when New London's growth rate (2.6%) was double the population growth rate in the County (1.3%) and State (1.1%).
2. New London was the third fastest growing community in the Upper Valley Lake Sunapee Region as measured by both number and percent increase between 1990 and 2000.

**FIGURE VIII-6  
Alternative Population Projections  
New London, 2000-2020**



Source: KBM & Associates

3. New London had a higher growth rate (2.6%) between 1990 and 2000 compared with neighboring communities. It was followed by Newbury (2.4%), Wilmot (2.0%), Sunapee (1.8%), Springfield (1.8%), Sutton (0.6%) and Bradford (0.3%).
4. The Colby Sawyer College student enrollment has risen steadily, from a low of 408 in 1985 to the peak enrollment to date of 986 in 2003. The anticipated peak enrollment is estimated by College officials to be about 1,100.
5. With a relatively small land area and a comparatively large population, New London's population density is quite high in comparison to neighboring towns. Only Sunapee comes close in comparing population density. The population density in New London is also higher than the density of the County and the State.
6. All of New London's population growth has been attributable to in-migration since 1980 since the number of resident deaths has been greater than the number of resident births over that period of time
7. New London's preschool age group (0-4 years) changed little from 1990 to 2000. The working age group (20-64 years) grew by 16.3%. The student age group (5-19 years) and senior age group (65+ years) grew the most between 1990 and 2000 increasing by 44.1% and 41.6% respectively.

**TABLE VIII-18**  
**Break-Down of New London Population**  
**Actual Population, Population Estimates & Population Projections by Season: 1990-2020**

Population Category	1990		2000		2005		2010		2020	
	Winter	Summer								
Year-Round Population	2,653 <sup>1</sup>	2,653 <sup>1</sup>	3,490 <sup>1</sup>	3,490 <sup>1</sup>	3,573 <sup>2</sup>	3,573 <sup>2</sup>	4,386 <sup>6</sup>	4,386 <sup>6</sup>	5,313 <sup>6</sup>	5,313 <sup>6</sup>
Colby-Sawyer Students	527 <sup>1</sup>		626 <sup>1</sup>		714 <sup>5</sup>		730 <sup>5</sup>		803 <sup>5</sup>	
Tourist Accom.	258 <sup>7</sup>	506 <sup>7</sup>								
Summer Residents		1,798 <sup>3</sup>		1,463 <sup>3</sup>		1,430 <sup>3</sup>		1,397 <sup>3</sup>		1,296 <sup>3</sup>
Gordon Research Conference		250 <sup>4</sup>								
Seasonal Population Estimate	3,438	5,207	4,374	5,709	4,545	5,759	5,374	6,539	6,374	7,365

## Notes:

1. Source: Actual population numbers based on U.S. Census, 1990 & 2000
2. Source: Population estimates provided by the NH Office of Energy & Planning
3. Source: Based on Table IV-11: Seasonal Population Estimates and Projections, New London: 1970-2020
4. Source: Based on information from the Office of Institutional Research at Colby-Sawyer
5. Assumes 978 total students in 2005, 1,000 total students in 2010 and 1,100 total students in 2020 with 73% living in New London as was the case in 2000
6. Assumes a population growth projection of 100 persons per year
7. Estimate of number of tourists from Table IV-12 Tourist Accommodations in New London and assumes no additions by 2020
8. New London's median age has increased considerably over the past twenty years from 35.6 years in 1980 to 47.3 years in 2000.
9. The number of seniors (65+ years) in New London has steadily increased since 1980, and this age group is expected to continue to experience considerable growth over the next fifteen years.
10. It is projected that New London's summer population will continue to exceed the winter population in 2020 due to the influx of seasonal residents and those staying at tourist accommodations in the summer months.
11. New London's seasonal population is projected to decrease slightly over the next fifteen years.
12. New London's year-round resident population is projected by the Planning Board to increase by about 100 persons per year, or by about 1,500 persons over the fifteen year planning period.

## **IX. HOUSING**

### **Introduction**

Housing is a basic component of a community's development process, both influencing and influenced by the natural environment, community facilities, the area's economic base, transportation and social interactions.

Housing is a unique commodity in the marketplace. Its production or lack thereof, has repercussions throughout the local, regional and national economy. About one-fourth of our national wealth is in the form of housing. Similarly, about one-third of our incomes are used for housing, and housing is often the single largest financial commitment that we make during our lifetime.

The fact that housing provides shelter for our basic social unit, the family, and because it has such far-reaching implications for the quality of human life and the character of a community, housing and the environment in which it is located are of primary importance for local decision-making. A large portion of our local regulations and ordinances are designed to protect and enhance the residential environment.

This chapter presents a summary of housing conditions in New London, discusses key issues and presents recommendations to solve problems and work toward stated goals. Data used are from several sources, including the U.S. Bureau of the Census, the 2008 New London Community Attitude Survey, the New Hampshire Office of State Planning, and the Upper Valley Lake Sunapee Regional Planning Commission.

### **Community Survey Results**

In 2008, the New London Planning Board conducted a survey of the Town's property owners and registered voters to help determine the community's needs and preferences with respect to future planning activities. The following is a brief summary of the survey results relating to housing.

Question # 1: The Housing related responses to Question #1 (See table to follow) about which attributes make New London a desirable place to live and/or own property received varied responses. Combining the response categories of significant and very significant:

- village centers with New England charm received the third highest rating; and
- availability of a mix of housing types for all income levels received the next to lowest response (12 out of 13 responses).

Planning Board Community Survey 2008								
Question #1: Which of the following attributes do you think significantly contribute to making New London a desirable place to live and/or own property? (Please rate each attribute)								
Answer Options	Very Significant	Significant	Neutral	Insignificant	Very Insignificant	Don't Know	Rating Average	Response Count
Village centers with New England charm	58.5% (300)	34.7% (178)	5.7% (29)	0.6% (3)	0.6% (3)	0.0% (0)	4.499025	513
Small town atmosphere with rural charm	63.5% (324)	31.6% (161)	4.3% (22)	0.2% (1)	0.4% (2)	0.0% (0)	4.57647	510
Scenic vistas of lakes, mountains & open spaces	72.8% (372)	25.0% (128)	1.6% (8)	0.2% (1)	0.2% (1)	0.2% (1)	4.694716	511
High visual quality of the built environment	44.5% (223)	38.9% (195)	13.0% (65)	2.0% (10)	0.8% (4)	0.8% (4)	4.219561	501
Good schools	51.5% (261)	28.8% (146)	16.0% (81)	0.4% (2)	1.0% (5)	2.4% (12)	4.22288	507
Friendly people with community spirit	49.7% (254)	40.3% (206)	8.4% (43)	0.8% (4)	0.6% (3)	0.2% (1)	4.37182	511
Availability of numerous outdoor recreational activities	43.5% (223)	42.7% (219)	10.3% (53)	2.3% (12)	0.8% (4)	0.4% (2)	4.245614	513
Availability of cultural & indoor recreational opportunities	29.2% (150)	44.6% (229)	18.3% (94)	5.7% (29)	1.6% (8)	0.6% (3)	3.925926	513
Convenient availability of commercial goods	21.5% (110)	40.9% (209)	27.6% (141)	7.4% (38)	2.2% (11)	0.4% (2)	3.710372	511
Convenient availability of professional services (health care, legal, etc.)	39.4% (201)	44.3% (226)	11.6% (59)	3.3% (17)	1.2% (6)	0.2% (1)	4.168627	510
Availability of a mix of housing types for all income levels	20.6% (105)	33.1% (169)	24.7% (126)	10.6% (54)	10.0% (51)	1.0% (5)	3.407843	510
Convenient access to the interstate highway system	23.1% (118)	42.1% (215)	24.3% (124)	7.4% (38)	2.3% (12)	0.8% (4)	3.737769	511
Employment opportunities	14.0% (71)	31.0% (157)	35.3% (179)	9.7% (49)	6.7% (34)	3.4% (17)	3.258383	507
Comments:								72
answered question								515
skipped question								0

Question #2: The housing related responses to Question #2 about how important people thought the following objectives are for planning for the future of New London over the next fifteen years received the two lowest responses. Combining the response categories of significant and very significant:

- continuing trend as a retirement community was the second lowest response (30.9%); and
- encouraging continued development of seasonal second homes was the lowest response (22%).

Planning Board Community Survey 2008								
Question #2: Please indicate how important you think each of the following objectives are for planning for the future of New London over the next fifteen years. (Please rate each objective)								
Answer Options	Very Important	Important	Neutral	Unimportant	Very Unimportant	Don't Know	Rating Average	Response Count
Attracting a more balanced mix of resident age groups	31.6% (162)	36.9% (189)	20.1% (103)	6.3% (32)	4.9% (25)	0.2% (1)	3.835938	512
Encouraging continued development of seasonal,	3.7% (19)	19.3% (98)	37.5% (190)	26.2% (133)	13.2% (67)	0.0% (0)	2.741617	507
Continuing to function and expand as a regional	13.5% (69)	36.9% (189)	26.4% (135)	14.8% (76)	8.0% (41)	0.4% (2)	3.318359	512
Expanding commercial & professional services only	14.1% (72)	42.4% (216)	26.7% (136)	11.0% (56)	5.1% (26)	0.6% (3)	3.477407	509
Attracting more tourist-related businesses	7.1% (36)	24.3% (124)	39.6% (202)	19.8% (101)	9.2% (47)	0.0% (0)	3.001961	510
Continuing trend as a retirement community	5.5% (28)	25.4% (129)	42.9% (218)	16.3% (83)	9.1% (46)	0.8% (4)	2.996063	508
Attracting more outdoor recreation-related businesses	9.6% (48)	35.5% (177)	36.5% (182)	13.2% (66)	5.0% (25)	0.2% (1)	3.308617	499
Attracting clean, non-polluting light or high-tech	20.0% (102)	34.6% (176)	25.1% (128)	10.0% (51)	9.8% (50)	0.4% (2)	3.438114	509
Limiting commercial development	27.8% (142)	33.5% (171)	21.3% (109)	10.2% (52)	6.8% (35)	0.4% (2)	3.639922	511
Restricting industrial development	44.0% (224)	24.4% (124)	17.7% (90)	5.9% (30)	6.9% (35)	1.2% (6)	3.891945	509
Comments:								75
answered question								515
skipped question								0

Question #3: This question asked respondents their preference for the future pattern of residential development in Town. Combining the response categories of significant and very significant:

- the highest response received at 65.1% was to concentrate residential development within or adjacent to village centers with outlying areas remaining low density.

Planning Board Community Survey 2008								
Question # 3: What overall pattern of future residential development would you prefer to see in Town? (Please rate each pattern)								
Answer Options	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know	Rating Average	Response Count
Concentrate residential development within or adjacent	30.9% (146)	34.2% (162)	17.1% (81)	12.7% (60)	4.2% (20)	0.8% (4)	3.723044	473
Scattered throughout Town	12.3% (58)	38.4% (181)	26.3% (124)	16.8% (79)	4.7% (22)	1.5% (7)	3.324841	471
Residential strip development along State and Town	1.5% (7)	5.8% (27)	22.5% (104)	37.8% (175)	29.6% (137)	2.8% (13)	2.034557	463
Spread evenly throughout Town, but not in visible,	14.5% (67)	42.8% (198)	21.8% (101)	13.4% (62)	5.6% (26)	1.9% (9)	3.412527	463
Focus residential development around lakes and ponds	1.3% (6)	5.1% (24)	17.9% (84)	35.0% (164)	39.5% (185)	1.1% (5)	1.903846	468
Comments:								45
<i>answered question</i>								480
<i>skipped question</i>								35

Question #12: This question was about workforce or affordable housing which is housing affordable to all income levels and generally applies to rent or mortgage, insurance and taxes being no more than 30% of a household's income. About two thirds (66%) of the people responding to the survey indicated they thought there was a need for workforce/affordable housing for people who work in New London.

Question #12: Workforce or affordable housing is housing affordable to all income levels and generally applies to mortgage or rent, insurance and taxes being no more than 30 percent of a household income.		
Do you think there is a need for workforce/affordable housing for people who work in New London such as police, firefighters, teachers, health care providers, etc.? (Please choose one)		
Answer Options	Response Percent	Response Count
Yes	66.0%	301
No	18.0%	82
Don't know	16.0%	73
Comments:		80
<i>answered question</i>		456
<i>skipped question</i>		59

Question #13: This question asked respondents to identify their level of support for alternative methods of how New London could address the need to accommodate housing for people who work in Town. Combining the response categories of significant and very significant, the following alternatives all received a majority of support:

- expand opportunities for “mother-in-law” apartments (71.8%);
- expand opportunities for rental units (55.9%);
- encourage housing over businesses in the Commercial District (55.3%);
- permit conversion of single family homes into multiple units in New London village; and
- provide a density increase for workforce/affordable housing.

Question # 13: Please indicate your level of support for the following methods of how New London could address the need to accommodate housing for people who work in Town? (Please rate each method)								
Answer Options	Very Supportive	Supportive	Neutral	Unsupportive	Very Unsupportive	Don't Know	Rating Average	Response Count
Expand opportunities for "mother-in-law" apartments	26.9% (120)	44.8% (200)	17.3% (77)	5.8% (26)	3.4% (15)	1.8% (8)	3.807175	446
Provide a density increase for workforce/affordable	16.8% (75)	33.6% (150)	19.5% (87)	13.2% (59)	12.1% (54)	4.9% (22)	3.149888	447
Expand opportunities for rental units	16.5% (74)	39.4% (177)	23.8% (107)	10.7% (48)	7.6% (34)	2.0% (9)	3.405345	449
Permit conversion of large single family homes into	18.7% (85)	34.3% (156)	19.6% (89)	14.7% (67)	11.6% (53)	1.1% (5)	3.303297	455
Encourage housing over businesses in the Commercial	17.3% (78)	38.0% (171)	26.2% (118)	10.7% (48)	6.0% (27)	1.8% (8)	3.446667	450
Zone additional areas served by water & sewer for	18.9% (85)	25.4% (114)	20.0% (90)	18.7% (84)	14.5% (65)	2.4% (11)	3.082405	449
Encourage infill & redevelopment projects in the	14.8% (66)	23.0% (103)	24.8% (111)	12.5% (56)	12.3% (55)	12.5% (56)	2.778523	447
							Comments:	47
							<i>answered question</i>	456
							<i>skipped question</i>	59

## Housing Goals

The Planning Board developed the following housing goals based on input received from public meetings on updating the Master Plan, feedback compiled from the results of the Community Survey and considerable discussion among board members.

1. Encourage the provision of a safe, adequate and affordable supply of housing for residents of all income levels.
2. Provide housing opportunities to attract a more balanced mix of resident age groups.
3. Assist households and individuals with special housing problems to attain suitable housing, including the senior, handicapped, minorities, low and moderate income persons, young families, and large families.

## Description of Housing Characteristics

Concentrations of a mix of housing types exist in the villages of New London and Elkins. In addition, all the lakes and ponds in Town, except Clark Pond, are surrounded by predominantly seasonal and year-round single family residences with comparatively small lot sizes. Outside of these areas, the pattern and type of residential development is low density, single family housing. These patterns become evident in viewing the Current Land Use Map, found in the Land Use Chapter.

### Type of Housing Units

Between 1980 and 1990, the total number of housing units in New London increased 21%, as shown in Table IX-1 (Page 155). The total number of housing units in New London increased another 15.4% between 1990 and 2000. In both decades, the largest number increase was in year-round occupied units.

**TABLE IX-1  
Number and Type of Housing Units  
New London: 1980 - 2000**

Type of Unit	1980	1990	2000	Change 1980-1990		Change 1990-2000	
				#	%	#	%
Occupied Year-Round Units	1,031	1,265	1,574	234	22.7%	309	24.4%
Seasonal Units	424	461	418	37	8.7%	-43	-9.3%
Vacant Units	37	80	93	43	116.2%	13	16.3%
Total Units	1,492	1,806	2,085	314	21.0%	279	15.4%

Source: U.S. Census

The persons per household for the year-round population occupying year-round housing units were 2.85 in 1980. The persons per household declined to 2.51 in 1990 and rose again to 2.61 in 2000. Between 1980 and 1990, there was a 22.7% increase in occupied year-round housing units, but only an 8.3% increase in the year-round population. During the 1990s, there was a 24.4% increase in occupied year-round housing units, with a 29.4% increase in the year-round population.

In 2000, about 75.5% of the total housing units in New London were occupied year-round. About 20% were occupied on a seasonal basis, with the remaining 4.5% units being vacant. As shown in Table IX-2 (Page 155), New London had a significantly lower percentage of year-round occupied units and a much higher percentage of seasonally occupied housing units as compared with the County and State percentages. The overall vacancy rate in New London in 2000 was 4.5%, which was higher than the vacancy rate in the County and the State.

**TABLE IX-2  
Comparison of Type of Housing Units by Percentage  
New London, Merrimack County & New Hampshire  
1980 & 1990**

Type of Unit	New London	Merrimack County	New Hampshire	New London	Merrimack County	New Hampshire
	1990	1990	1990	2000	2000	2000
Occupied Year-Round Units	70.1%	87.7%	81.6%	75.5%	92.2%	86.8%
Seasonal Units	25.5%	6.9%	7.1%	20.0%	5.1%	10.3%
Vacant Units	4.4%	5.4%	11.3%	4.5%	2.7%	2.9%
Total Units	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Census

*Building Permit Data on New Dwelling Units*

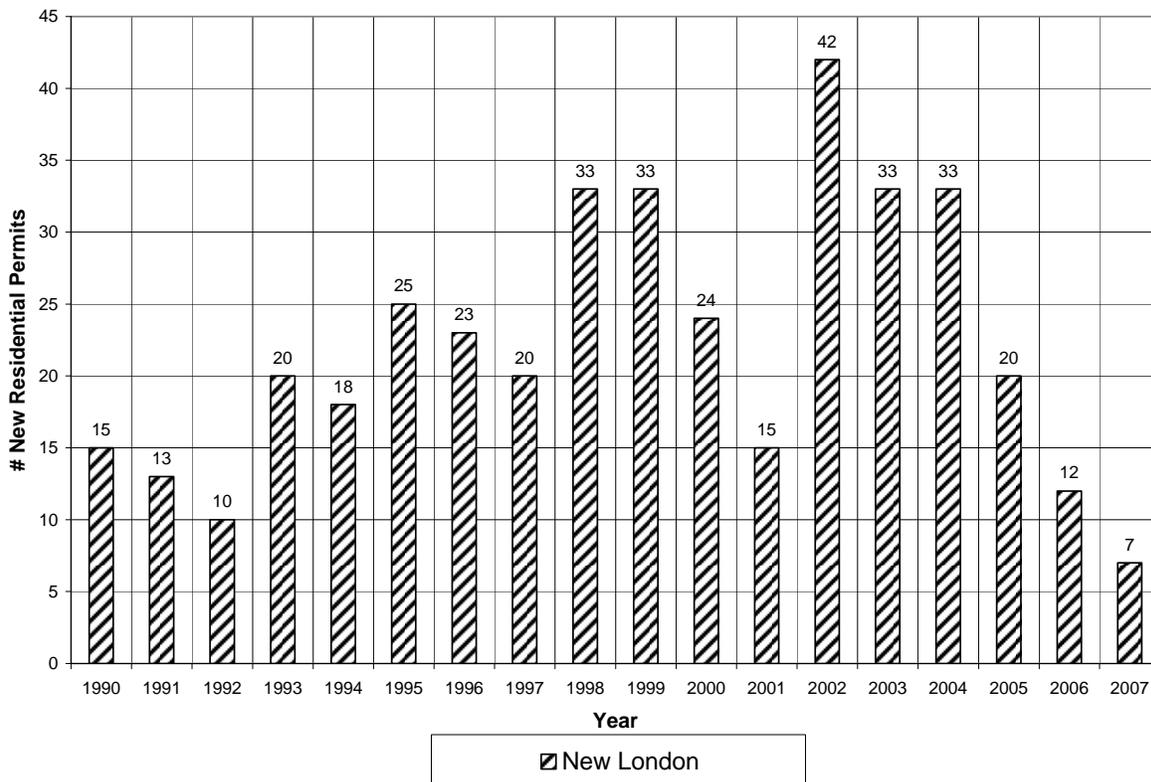
The number of building permits for new residences over the past fifteen years is outlined in Table IX-3 (Page 156) and Figure IX-1 (Page 156). This building permit data supplements the housing information available from the 2000 Census. It indicates that a total of 396 new homes were built in New London over this eighteen year period with an average of twenty-two new homes per year.

**TABLE IX-3**  
**Number of New Residential Building Permits**  
**New London & Neighboring Communities: 1990 - 2007**

Area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New London	15	13	10	20	18	25	23	20	33	33	24	15	42	33	33	20	12	7
Newbury	13	20	12	17	12	14	21	15	19	32	28	29	80	46	36	22	24	20
Bradford	7	8	4	0	1	0	3	2	9	11	14	13	18	14	9	18	7	13
Springfield	9	8	6	10	13	14	12	14	8	15	12	15	22	23	22	15	15	3
Sunapee	12	17	9	10	13	0	23	25	22	18	37	22	20	31	32	44	34	24
Sutton	9	5	7	6	6	2	4	0	10	11	25	17	33	32	27	22	13	13
Totals	62	71	48	63	53	55	86	76	101	120	140	111	215	179	159	141	105	80

Source: Town Report & Town Office

**FIGURE IX-1:**  
**Number of New Residential Building Permits**  
**New London: 1990 - 2007**



Source: Selectmen's Office

Mix of Year-Round Housing Unit Types

The mix of year-round housing types is presented in Table IX-4 (Page 157) for the past three censuses. During the 1980s, the number of detached, single family homes increased by 538.

Over the next ten years, another 208 homes of this type were built. In 2000, almost eight out of ten homes were this type of housing. New London added 46 single family, attached units (condominiums) during the 1990s. The number of two family residential or duplex units has steadily declined from 91 units in 1980 to 51 units in 2000. Conversely, the number of multi-family residential units has steadily increased from 136 units in 1980 to 213 units in 2000.

**TABLE IX-4**  
**Types of Year-Round Housing Units**  
**New London: 1980, 1990 and 2000**

Type of Unit	1980 Year-Round Units		1990 Year-Round Units		2000 Year-Round Units	
	#	%	#	%	#	%
Single Family Residential – Detached	890	70.5%	1,428	80.7%	1,636	78.5%
Single Family Residential – Attached	139	11.0%	133	7.5%	179	8.6%
Two Family Residential – Duplex	91	7.2%	65	3.7%	51	2.4%
Multi-Family Residential	136	10.7%	144	8.1%	213	10.2%
Manufactured (Mobile) Home	6	0.5%	0	0.0%	0	0.0%
Other	0	--	0	0.0%	6	0.3%
Total	1,262	99.9%	1,770	100.0%	2,085	100.0%

Source: US Census

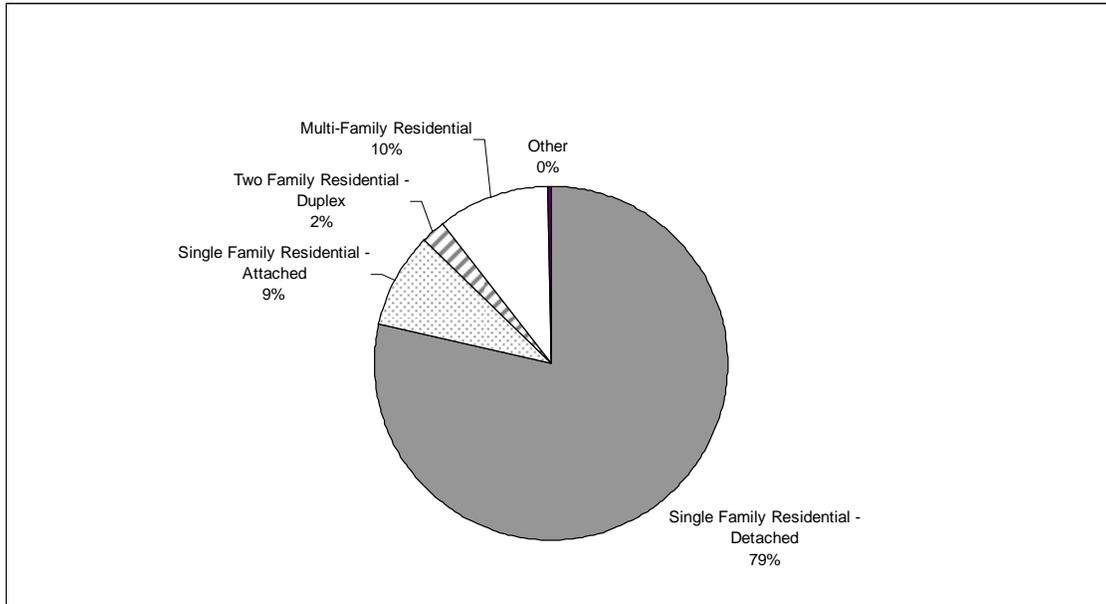
Table IX-5 (Page 157) compares the type of year-round housing by percentage with the data for the County and the State. New London has a higher percentage of both detached and attached single family residential units and a lower percentage of two family residential units, multi-family residential units and manufactured homes.

**TABLE IX-5**  
**Comparison of Type of Year-round Housing Units by Percentage**  
**New London, Merrimack County & New Hampshire: 1990 and 2000**

Type of Unit	New London		Merrimack County		New Hampshire	
	1990	2000	1990	2000	1990	2000
Single Family Residential – Detached	80.7%	78.5%	60.0%	62.5%	59.1%	62.4%
Single Family Residential – Attached	7.5%	8.6%	3.2%	3.3%	4.6%	4.4%
Two Family Residential – Duplex	4.2%	2.4%	7.3%	6.5%	7.1%	6.5%
Multi-Family Residential	11.8%	10.2%	21.5%	20.1%	22.2%	20.0%
Manufactured (Mobile) Home	0.0%	0.0%	8.0%	7.5%	7.0%	6.5%

Source: U.S. Census

**FIGURE IX-2  
Types of Year-Round Housing Units  
New London 2000**



Source: U.S. Census

**Housing Occupancy**

As reflected in Table IX-6 (Page 158), the number of owner-occupied housing units in New London increased by 266 units during the 1990s, representing a 25.8% increase. During the same time frame, the number of renter-occupied units increased by 43 units, accounting for an 18.4% increase. In 2000, 82.4% of the total occupied housing units were owner-occupied with the other 17.6% being renter-occupied.

**TABLE IX-6  
Housing Occupancy, New London: 1990 & 2000**

Type of Occupancy	1990		2000		Change	
	#	%	#	%	#	%
Owner Occupied	1,031	81.5%	1,297	82.4%	266	25.8%
Renter Occupied	234	18.5%	277	17.6%	43	18.4%
Total Occupied	1,265	100.0%	1,574	100.0%	309	24.4%

Source: US Census 1990 and 2000

A comparison of New London's housing occupancy with that of the County and State as shown in Table IX-7 (Page 159) reveals that owner occupancy in New London in 2000 was 11.8% and 13.3% higher than either the County or the State percentages. Conversely, the renter occupancy in New London in 2000 was 11.8% and 13.3% lower than either the County or the State percentages.

**TABLE IX-7**  
**Comparison of Housing Occupancy by Percentage of Total Housing**  
**New London, Merrimack County & New Hampshire: 1990 and 2000**

Type of Occupancy	New London		Merrimack County		New Hampshire	
	1990	2000	1990	2000	1990	2000
Owner Occupied	81.5%	82.4%	69.7%	70.6%	68.2%	69.1%
Renter Occupied	18.5%	17.6%	30.3%	29.4%	31.8%	30.9%

Source: US Census 1990 and 2000

### Age of Housing Stock

The recent growth in population and housing is confirmed by the information in Table IX-8 (Page 159) which shows that 41.5% of the residential units in New London were built between 1980 and 2000. Also about one-fifth (22.1%) of the total housing stock in New London was constructed prior to 1940.

Given the important role that older buildings play in shaping New London's character, care should be taken to protect these important structures against incompatible buildings and uses developing adjacent to them. In general, there are very few homes that would be considered dilapidated or in poor condition. High demand for housing in New London has made rehabilitation and reuse of the older housing stock a viable and rewarding venture.

**TABLE IX-8**  
**Comparison of Age of Housing Stock**  
**New London, Merrimack County & New Hampshire: 2000**

Year Built	New London		Merrimack County		New Hampshire	
	Number	Percent	Number	Percent	Number	Percent
1990-2000	390	18.7%	7,081	12.6%	64,238	13.4%
1980-1989	476	22.8%	12,304	21.9%	117,865	21.5%
1970-1979	279	13.4%	9,180	16.3%	95,757	17.5%
1960-1969	210	10.1%	5,526	9.8%	57,023	10.4%
1940-1959	270	12.9%	6,474	11.5%	73,643	13.5%
1939 & Earlier	460	22.1%	15,679	27.9%	129,498	23.7%
Total	2,085	100.0%	56,244	100.0%	538,024	100.0%

Source: U.S. Census

A comparison of the age of housing stock in New London with the County and the State, as outlined in Table IX-8 (Page 159), reveals that New London has a slightly higher percentage of housing units built since 1970 (54.9%) than either the County (50.8%) or the State (52.4%) and a lower percentage of homes built prior to 1940 (22.1%) than either the County (27.9%) or the State (23.7%).

### Senior Housing

As discussed in the Population Chapter, the growth in the senior population in New London has been dramatic over the past thirty years. From 316 in 1970, New London's population aged 65 and older increased to 867 in 1990 and to 1,228 in 2000. That equates to a fourfold increase

over thirty years. As a percentage of the total population for each census, the senior age group almost doubled, going from 15% in 1970 to 30% in 2000. Nationwide, the senior population is increasing rapidly and will become a larger percentage of the population over the next twenty years with retirement of the “baby boomers”. In New London, considering the national trend coupled with the in-migration of retirees, it is expected that the senior age group will continue to increase dramatically as a percentage of the total population. The need for senior housing will obviously accelerate along with this rise in the senior population.

Housing alternatives for the senior in New London include several specific projects, as well as scattered single family residences throughout the Town. The Bittersweet project located on Pleasant Street is a complex of 32 multi-family, subsidized, residential units constructed in 1981 which were funded by the Farmers Home Administration. Woodcrest Village is another senior housing project. This congregate assisted living residence provides 44 bedrooms, with meals served by a resident manager. It opened in 1984 and is situated in a rehabilitated 1850 residence on Main Street. The project was recently expanded from 11 bedrooms to 44 bedrooms. The Lyon Brook retirement development on Lakeside Road consists of 31 condominium units where limited food service, transportation, and personal services are offered to residents, and housekeeping and nursing services are available upon request. In addition, housing developments such as Hilltop and the recently completed Fenwood project serve primarily senior clients. In addition to these projects, the William P. Clough Extended Care Center at the New London Hospital provides 58 beds for short-term skilled nursing and rehabilitative care as well as long-term and intermediate nursing care.

**TABLE IX-9  
Housing in New London Serving Seniors: 2008**

Housing Project	# & Type of Units
Bittersweet	32 Apartments
Woodcrest Village	44 Bedrooms – Congregate, Assisted Living
Wm. R. Clough Extended Care Center – New London Hospital	58 Beds – Nursing & Rehabilitative Care
Lyon Brook	31 Condominiums
Hilltop	147 Condominiums
Fenwood	214 Condominiums

Source: Town Office

#### Housing for Colby-Sawyer College Students

The location of Colby-Sawyer College in New London potentially has a variable impact on housing needs, costs and availability in the community. Like most small private colleges, the enrollment at the College and the corresponding demand for student and staff housing has fluctuated over the years. As detailed in the Population Chapter, the Colby-Sawyer student enrollment dipped to a low of 408 students in 1985 and since has climbed steadily to a peak enrollment of 986 in 2003.

As reflected in Table IX-10 (Page 161) to follow, 88% to 90% of the students enrolled from 1998 through 2007 were housed on-campus. The College housed 123 more students on-campus in 2007 compared with 1990 which represents a 17% increase. Colby-Sawyer completed three new dormitories on campus housing about 100 students each. Rooke Hall was opened in 1994, Lawson Hall was completed in 1996 and Danforth Hall was finished in 2001.

The steady decline in percentage of students residing off-campus since 1990 is evident in

reviewing Table IX-10 (Page 161). The percentage of students residing off-campus has remained steady at 10% from 2005 through 2007. A breakdown of the off-campus student residency for the fall terms of 2000 and 2007 is provided in Table IX-11 (Page 161). Most of these students are residents of surrounding communities in the region who commute to the college on a daily basis.

**TABLE IX-10**  
**Student Residency**  
**Colby-Sawyer College: 1990-2007**

Year	Matriculated Students					
	Total Enrollment	Total	On-Campus Resident		Off-Campus Resident	
			#	%	#	%
2007	952	942	852	90%	90	10%
2006	915	898	806	90%	90	10%
2005	978	964	867	90%	97	10%
2004	969	954	826	87%	128	13%
2003	986	974	844	87%	130	13%
2002	940	929	817	88%	112	12%
2001	912	894	786	88%	108	12%
2000	852	828	729	88%	99	12%
1999	812	786	691	88%	95	12%
1998	793	769	676	88%	93	12%
1997	782	758	661	87%	97	13%
1996	774	755	655	87%	100	13%
1995	734	712	586	82%	126	18%
1994	678	662	561	85%	101	15%
1993	659	634	520	82%	114	18%
1992	625	598	495	83%	103	17%
1991	611	580	488	84%	92	16%
1990	527	503	418	83%	85	17%

Source: Colby-Sawyer College, Registrar's Office

**TABLE IX-11**  
**Off-Campus Student Residency Breakdown**  
**Colby-Sawyer College**  
**Fall Term 2000 & 2007**

FALL TERM	New London Residents Commuting from Home	Students from Elsewhere Living Off-campus in New London	Students Commuting from their Homes in Other Towns	Students Living Off Campus, but not at home, in Other Towns
2000	17	25	52	22
2007	4	22	55	20

Source: Colby-Sawyer College, Registrar's Office

### Barrier-Free Housing

An accurate count of the number of persons with mobility impairments in New London is not available. The Vermont Center for Independent Living estimates that one percent of the population has mobility impairments. Assuming this estimate, in 2000 about 41 persons in New

London had mobility impairments. Since the incidence rate for physical handicaps jumps dramatically in the senior segment of the population, this estimate is probably low. With the number of senior persons anticipated to rise substantially over the next twenty years, the number of mobility impaired persons should also rise dramatically.

Currently, there is limited availability of handicapped accessible housing in the New London area. Housing projects providing handicapped accessible housing in New London include Lyon Brook, Woodcrest, and Bittersweet. The new homes in Fenwood, although not fully constructed as handicapped accessible units, are designed under the "Universal Design" concept whereby they can easily be converted to handicapped accessible units since they include features such as wider hallways, bathrooms which provide for wheelchair turning space and master bedrooms located on the ground level. Additionally, many senior residents with mobility impairments are still able to reside in their own single family homes scattered throughout the community thanks, in large part, to the availability of services such as the Lake Sunapee Visiting Nurse Association and the Meals on Wheels program. Clearly, more handicapped accessible housing, particularly for the senior segment of the population, will be needed in the future.

### Seasonal Housing

The precise number of seasonal homes in New London is difficult to determine. The biggest problem is that many seasonal homes are used for different periods of time. With the winterization of seasonal homes, many are now used throughout the year, but by non-residents. In contrast, many "regular" residents (legally registered voters) are away much of the year, usually during the winter months. A further complication is that a "summer" resident may rent his house to a "year-round" resident during the period that he/she is away.

Two recent trends in seasonal housing in New London include construction and use of year-round homes for seasonal use and construction of condominium seasonal housing. The development of condominium projects such as The Seasons at Lake Sunapee Country Club and Highland Ridge have many homes which, to date, have been used primarily on a seasonal basis.

As presented as Table VIII-11 (Page 142) in the Population Chapter and again in Table IX-12 (Page 163) to follow, the number of seasonal housing units in ten year intervals since 1970 and seasonal housing unit projections up to 2020 are presented in the table.

It is expected that many of New London's seasonal homes will continue to be converted to year-round use. The conversion issue is of concern for the following reasons: (1) the Town has no control over the use of seasonal homes; (2) since there are 418 seasonal homes, the Town's year-round population could increase by 903 persons without the construction of a single new home; (3) some seasonal homes have poor road access, especially for fire-fighting and other emergency vehicles; (4) some seasonal homes have older septic systems which are close to the lake and inadequate for year-round use; and (5) the Town's property tax burden could be substantially impacted, since homes which once demanded services for only a portion of the year, would demand Town services (possibly including education) throughout the year.

**TABLE IX-12  
Seasonal Population & Housing Estimates and Projections  
New London: 1970- 2020**

Year	# Seasonal Homes	Estimated # Persons/ Seasonal Home	Estimated Seasonal Population
1970	436	5.4	2,354
1980	424	4.5	1,908
1990	461	3.9	1,798
2000	418	3.5	1,463
2010	418	3.3	1,397
2020	418	3.1	1,296

Source: U.S. Census and KBM & Associates

### Waterfront Housing

Due to concerns for potential adverse impacts on lake water quality resulting from inappropriate shore land development and with the goals of maintaining high lake water quality and protecting lake shore property values, the Town enacted a Shore Land Overlay Protection District as part of the New London Zoning Ordinance. The Shore Land Overlay Protection District established standards for shore land development, including setbacks for buildings, septic systems and construction of roads; prohibited new sand beach construction and set standards for replenishment of existing beaches; established a natural vegetative buffer along the shoreline; and established standards for shore land lots used as common land for residential developments.

The adoption of the Shore Land Protection Overlay District was the culmination of a cooperative effort which began several years earlier between the three communities bordering Lake Sunapee, the Lake Sunapee Protective Association and the Regional Planning Commission. This regional effort led to the development of a model shore land protection ordinance which was subsequently adopted in similar form by all three communities around Lake Sunapee. New London continues to participate with those other organizations in addressing water quality concerns and watershed planning efforts. Most recently New London participated with other towns and organizations in the Sunapee Area Watershed Coalition's (SAWC) effort to develop a Watershed Management Plan for the Lake Sunapee Watershed.

In the early 1990s, the New Hampshire legislature adopted the State Comprehensive Shoreland Protection Act (CSPA). The State used the model ordinance developed by the three towns bordering Lake Sunapee in developing the CSPA and as a result included many of the same provisions. Over the ensuing years, many revisions have been made to the CSPA. Major revisions were made in 2007 that changed the standard for the natural woodland buffer and added a section on standards for impervious surface coverage. Additional changes were made in 2008 to the CSPA.

Value of Owner-Occupied Housing Units

Information on the value of owner-occupied housing units in New London in 1990, 2000 and 2008 is provided in Table IX-13 (Page 164). In 1990, just over half of the owner-occupied housing was valued at \$200,000 or more. By 2008, owner-occupied housing valued at \$200,000 or more had jumped to 88% of the total number of owner-occupied homes. The percentage of homes with a value under \$150,000 decreased by 6.2% from 1990 to 2000 and decreased another 14.2% between 2000 and 2008.

A comparison of the value of owner-occupied housing in New London with the County and the State in 2000 is presented in Table IX-14 (Page 164). The percentage of homes valued less than \$199,999 in New London is about one-half of the percentage for the County and State. Conversely, the percentage of homes valued over \$199,999 in New London is about six and three times the percentages in the County and State respectively.

**TABLE IX-13**  
**Value of Specified Owner-Occupied Housing Units**  
**New London: 1990 & 2000**

Value Range of Housing Units	1990		2000		2008	
	#	%	#	%	#	%
Less than \$99,999	24	3.2%	27	2.7%	6	0%
\$100,000 - \$149,999	142	19.2%	132	13.5%	47	2%
\$150,000 - \$199,999	194	26.2%	284	29.0%	204	10%
\$200,000 or more	380	51.4%				
\$200,000 - \$299,999			338	34.5%	600	30%
\$300,000 - \$499,999			112	11.4%	712	35%
\$500,000 - \$999,999			74	7.6%	320	16%
\$1,000,000 or more			12	1.2%	136	7%

Source: U.S. Census 1990 & 2000; Assessor's Data for 2008

**TABLE IX-14**  
**Comparison of Value of Specified Owner-Occupied Housing Units by Percentage**  
**New London, Merrimack County & New Hampshire: 2000**

Value of Specified Owner-Occupied Housing Unit	New London	Merrimack County	New Hampshire
Less than \$99,999	2.7%	34.3%	26.7%
\$100,000-\$149,999	13.5%	37.0%	34.9%
\$150,000-\$199,999	29.0%	16.0%	19.4%
\$200,000-\$299,999	34.5%	9.4%	13.2%
\$300,000-\$499,999	11.4%	2.5%	4.6%
\$500,000-\$999,999	7.6%	0.6%	1.0%
\$1,000,000 or more	1.2%	0.1%	0.2%

Source: U.S. Census

Rental Housing Costs

The next two tables provide rental cost information available from the 1990 and 2000 Census. Table IX-15 (Page 165) shows that the median rent in New London decreased from \$582 in

1990 to \$546 in 2000. Between 1990 and 2000, the number of units with rents less than \$299 and between \$500 and \$749 increased dramatically while there was a substantial decrease in the number of rental units with rents over \$1,000 per month.

The following information on the housing rental market was developed through an informal survey of local housing rental agents by Michele Holton, Planning Board member in October 2008. The following is a list of average rents charged in 2008 according to this informal survey of local rental agents:

<u>Type of Residence</u>	<u>Rent per Month or Per Week</u>
Three-bedroom Home	\$1,300 per month plus utilities
Larger Home	\$1,500 - \$2,200 per month plus utilities
Waterfront Home - Summer	Minimum of \$2,000 per week plus utilities
Waterfront Home- Winter	Minimum of \$2,000 per month plus utilities
Apartments	\$800 - \$1,000 per month plus utilities
<i>Condominiums:</i>	
Hilltop Place	\$1,000 to \$1,200 per month plus utilities
Fenwood	\$1,200 to \$1,300 per month (w/ monthly fee of \$285) plus utilities
The Seasons	\$1,400 to \$1,800 per month (includes monthly fee of \$500 to \$700) plus utilities
Highland Ridge	\$1,400 to \$1,800 per month (includes monthly fee of \$465) plus utilities

**TABLE IX-15**  
**Renter-Occupied Housing Units by Monthly Rental Cost for**  
**New London: 1990 & 2000**

Monthly Rental Cost Range	1990		2000	
	#	%	#	%
Less than \$299	0	0.0%	30	10.8%
\$300-\$499	83	35.0%	61	22.0%
\$500-\$749	72	30.0%	120	43.3%
\$750-\$999	44	19.0%	17	6.1%
More than 1,000	28	12.0%	9	3.2%
No Cash Rent	10	4.0%	40	14.4%
Median Rent	\$582		\$546	

Source: U.S. Census

A comparison of the New London rental cost data with the County and State data in 2000 presented in Table IX-16 (Page 166) reveals that the median rental cost in New London (\$546) is less than both the County (\$613) and the State (\$646) median rental costs. New London (22.0%) has a slightly higher percentage of rental units in the \$300-\$499 monthly rent category compared with the County (17.5%) and the State (15.8%). However, New London has lower percentages of rental units in the upper rent categories (\$750 - \$999 and more than \$1,000) compared with the County and State. It may be that seasonal homes that were rented in 1990

have been converted to owner-occupied non-rental year-round housing in 2000.

Median gross rental information is available from the New Hampshire Housing Finance Authority. Table IX-17 (Page 166) outlines the median gross rental cost for all rental units for each year in Merrimack County from 1990 through 2007. From 2000 through 2007 there was an increase of 27% in the median gross rental cost per month in Merrimack County.

**TABLE IX-16**  
**Comparison of Renter-Occupied Housing Units by Monthly Rental Cost Categories**  
**New London, Merrimack County & New Hampshire: 2000**

Monthly Rental Costs	New London	Merrimack County	New Hampshire
	%	%	%
Less than \$299	10.8%	10.0%	9.0%
\$300-\$499	22.0%	17.5%	15.8%
\$500-\$749	43.3%	44.0%	39.9%
\$750-\$999	6.1%	18.1%	21.5%
More than \$1,000	3.2%	6.3%	9.8%
No Cash Rent	14.4%	4.1%	4.1%
Median Rent	\$546	\$613	\$646

Source: U.S. Census 2000

**TABLE IX-17**  
**Median Gross Rental Cost**  
**Merrimack County: 1990-2007**

Year	Median Gross Rental Cost
1990	\$626
1991	\$525
1992	\$549
1993	\$580
1994	\$576
1995	\$543
1996	\$559
1997	\$604
1998	\$626
1999	\$643
2000	\$740
2001	\$735
2002	\$789
2003	\$839
2004	\$841
2005	\$872
2006	\$888
2007	\$941

Source: New Hampshire Housing Finance Authority

Affordable Housing*“Fair Share” of the UVLS Region’s Need for Low Income Housing?*

The inability of low and moderate income households to locate housing in desirable areas at affordable costs is an issue that has received increasing attention in recent years. As a result of a series of court decisions, many communities elsewhere in the state and nation have taken steps to provide for low and moderate income housing needs.

The "fair share" concept is one approach which has been taken to address the affordable housing issue. The "fair share" idea originated from the Mount Laurel cases in New Jersey, in which it was established that exclusionary zoning is not a legitimate land use technique. In the Mount Laurel II decision, the New Jersey Supreme Court indicated that all municipalities are responsible for providing a realistic opportunity for filling their fair share of the region's present need for low income housing.

In New Hampshire, a number of situations give the "fair share" idea active status:

1. a 1991 New Hampshire Supreme Court case (Britton v Town of Chester) in which the Court held that municipal regulations may not unduly restrict low and moderate income families from having a realistic opportunity to acquire affordable housing and that a community must consider the needs of the region;
2. a 1984 New Hampshire superior court case (Atkinson) in which similar findings were made to Mount Laurel II;
4. rapid growth during the late 1970s, the 1980s and the 1990s giving rise to concern with growth management in many communities;
5. State-mandated requirement found in RSA 674:2, III. for inclusion of a housing element in municipal master plans in New Hampshire addressing "...needs of residents of all levels of income..." ;
6. State-mandated requirements for regional planning commissions to prepare and make available to the communities in New Hampshire "...a regional housing needs assessment, which shall include an assessment of the regional need for housing for persons and families of all levels of income"; and
7. State-mandated inclusionary requirements for affordable housing, in the form of mandatory allowance of manufactured housing in all communities.

The 2006 UVLS Regional Plan projected the housing needs of the Region based on a number of parameters. In particular, the Regional housing needs assessment projected the regional need to meet the demand for low and moderate income households. Region-wide there is a projected need of 4,848 units of housing for low income families by 2010 and another 4,523 units of housing for moderate income families by 2010. New London continues to cooperatively work with the UVLSRPC in meeting the region’s need for affordable housing.

*Reasonable Opportunities for Affordable Housing in New London’s Land Use Regulations?*

The law does not require the Town to construct the residential units to meet this affordable housing need. Rather, the Town is required to provide reasonable opportunities for the provision

of affordable housing in its land use regulations. New London's land use regulations do make reasonable opportunities available for the development of affordable housing, including:

- manufactured (mobile) homes are permitted in all residential districts as single family residences. The Zoning Ordinance defines a "Manufactured Home" as any Structure, transportable in one or more sections, which, in the traveling mode, is 8 body feet or more in width and 40 body feet or more in length, or when erected on site, is 320 square feet or more, and which is built on a permanent chassis and is designed to be used as a dwelling with or without a permanent foundation when connected to required utilities, which include plumbing, heating and electrical heating systems contained therein.
- the R-1 Residential District permits a minimum lot size of 20,000 square feet and a population density of one family per 10,000 square feet when the lot is served by public water and sewer;
- the Commercial District permits a population density of one family per 10,000 square feet;
- two-family residences are permitted in the R-1 Residential District, the R-2 Residential District, and the ARR Agricultural & Rural Residential District;
- multi-family residences (lodging and apartment houses) are permitted in the Commercial District;
- cluster developments permitting single and two-family dwellings with provisions for reduced lot sizes are permitted in the R-1 Residential, the R-2 Residential, the ARR Agricultural & Rural Residential, and CON -Conservation Districts; and
- Planned Unit Developments served by public water and sewer which allow single family, two-family and multi-family dwellings with provisions for reduced lot sizes are permitted where served by gravity sewer service in the R-1 Residential, the R-2 Residential, and Commercial Districts.

The major obstacle to development of affordable housing in New London is economics. The land costs are prohibitive even with districts permitting smaller lot sizes. The Habitat for Humanity has purchased and developed three residential lots off Pingree Road for the explicit purpose of constructing affordable homes for those in need. Through the financial arrangements with the low and moderate income purchasers of these homes, they have controlled the amount of equity inflation these people can benefit from with the goal of maintaining these homes as affordable. Another challenge in providing affordable housing is maintaining the affordability of the housing units after they have been constructed. As noted above for the homes constructed by the Habitat for Humanity, the amount of equity inflation the purchasers of these homes can accrue is controlled through financial arrangements with the purchasers. Another approach is to control the affordability of the housing units through subsidized housing.

#### *What Determines Housing Affordability and Who is Affected?*

The primary factors that determine housing affordability are the supply and price of housing, available income, and general housing market trends. Local wages need to support local housing costs. When housing costs rise and wages are reduced, wages increase slower than rapidly rising cost of housing, or jobs are cut, working residents may be forced to move to other areas to find suitable wages and affordable housing. Also affected by affordability are the senior and other residents on fixed incomes, young residents leaving home to start their own households, and other low- to moderate-income residents. Changes in demographics such as a decreasing young adult population indicate that existing resident families or individuals are moving away from Town. The gap in housing affordability is reflected by growth in nonresident, seasonal owners, and/or growth in new residents with higher-than-average incomes.

*How is “Affordable Housing” Defined?*

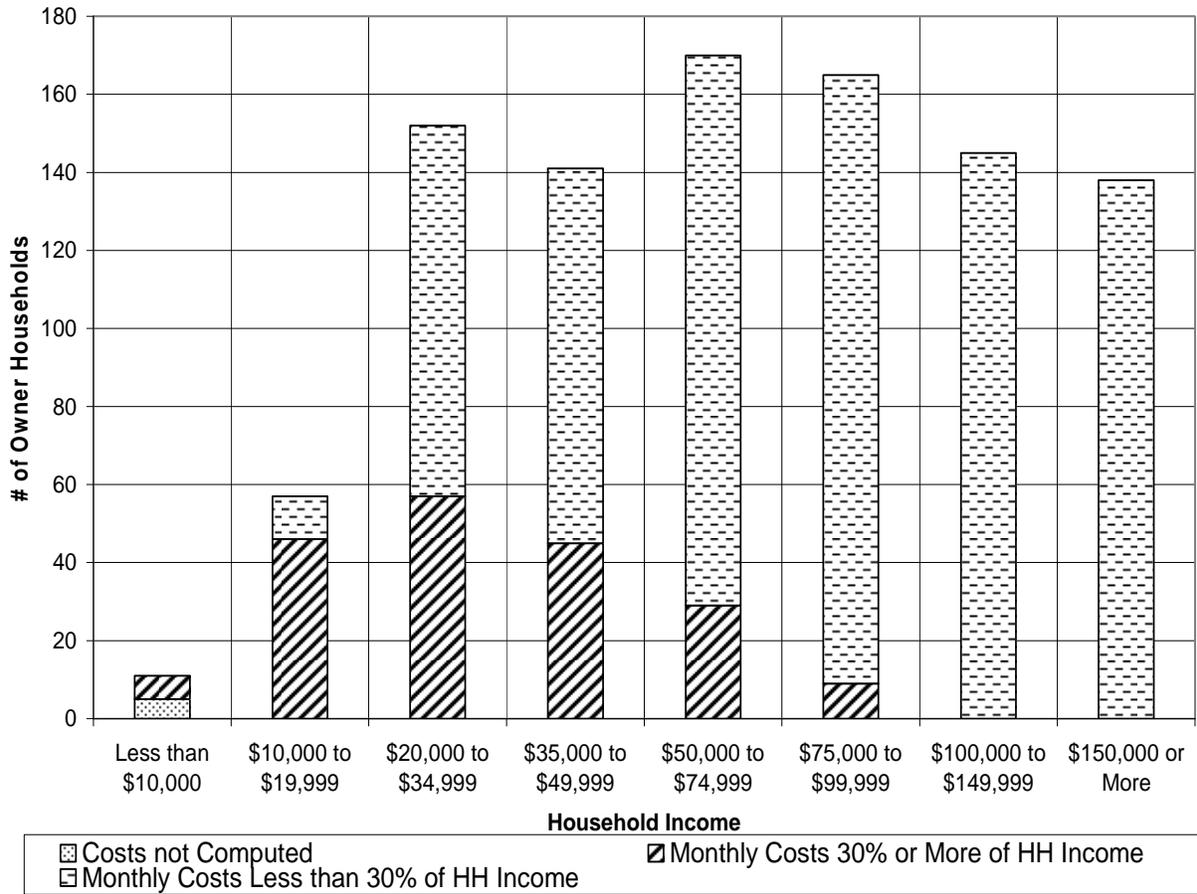
“Affordable Housing” is typically defined as “a housing unit which is (a) a rental unit in which the rent, including heat and utilities, does not exceed 30 percent of the household income, or (b) an owner occupied unit, including a condominium, for which the total cost of a monthly mortgage (principal and interest) taxes, insurance, condominium fees, heat and utilities does not exceed 30 percent of household income.”

The HUD guideline indicates that the income limit to qualify as a low income family is 80% of the Merrimack County median family income, adjusted for family size. The HUD guideline indicates that the income limit to qualify as a very low income family is 50% of the Merrimack County median family income, adjusted for family size.

*Households and Renter Households with Financially Burdensome Housing in 2000?*

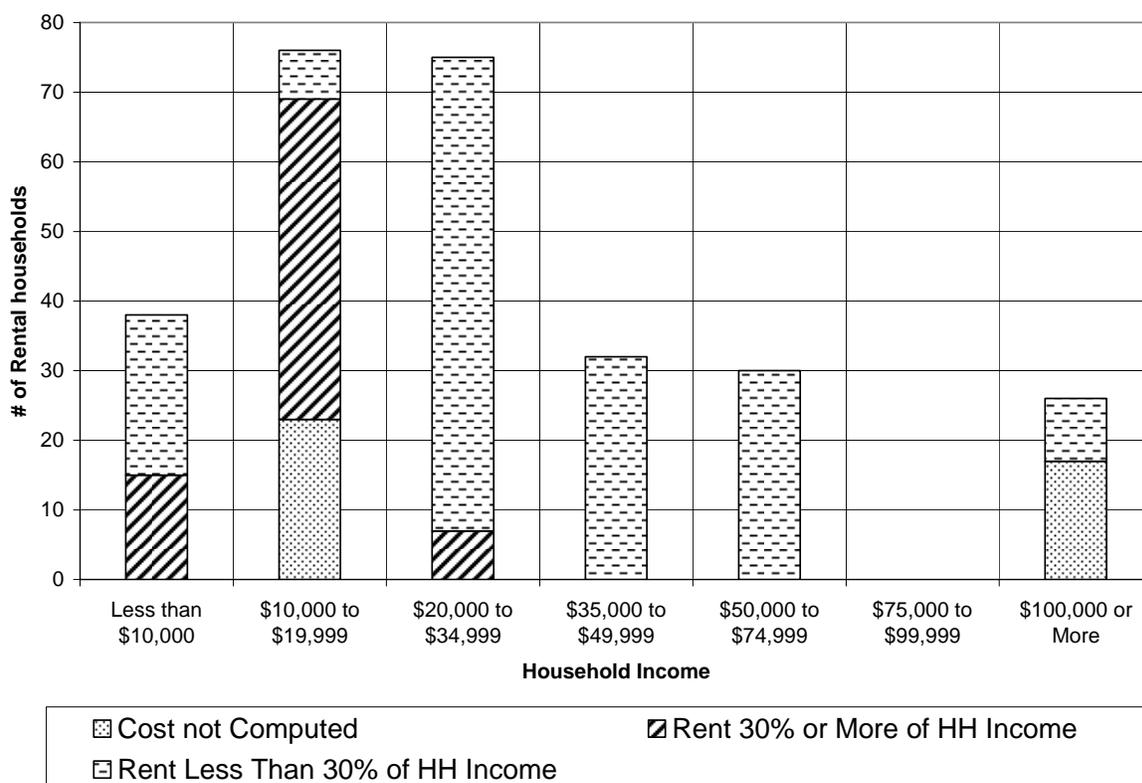
The relationship between housing costs and income level for both owner and renter-occupied dwelling units as reported in the 2000 Census for New London are outlined in Figures IX-3 (Page 170) and IX-4 (Page 171). Figure IX-3 clearly indicates that a significant percentage of households with incomes less than \$74,999 spend more than the recommended HUD guideline of no more than 30% of income on housing costs. Almost sixty percent of the households with incomes between \$20,000 and \$34,999 spend more than the recommended HUD guideline of no more than 30% of income on housing costs. Figure IX-4 shows that just less than seventy percent renters with a household income between \$10,000 and \$19,999 spend 30% of their income for housing.

**FIGURE IX-3  
NEW LONDON OWNER COST OVERPAYMENT  
AT 30% OF 1999 HOUSEHOLD INCOME**



Source: U.S. Census

**FIGURE IX-4  
NEW LONDON GROSS RENT OVERPAYMENT  
AT 30% OF 1999 HOUSEHOLD INCOME**



Source: U.S. Census

*Is New London Housing Affordable?*

In 2008 the Merrimack County median family income for a family of three, for example, was \$63,000. Using the definitions of “Affordable Housing”, a low income family, and a very low income family, a family of three in 2008 with an income of less than \$50,400 would qualify as a low income family and a family of three in 2008 with an income of less than \$31,500 would qualify as a very low income family.

As the table to follow illustrates, in 2008 a family of three meeting the definition of a low income family would have \$945 per month available for rent or mortgage. Assuming a 30 year 6.5% fixed rate mortgage with no points, a family of three earning 80% of the 2008 Merrimack County median family income could afford a maximum home purchase price of \$155,428.

Under the HUD guideline, a family of three in 2008 with an income of less than \$31,500 would qualify as a very low income family. The table documents that a family of three in 2008 with a family income of \$31,500 would have \$591 available for rent or mortgage. Assuming a 30 year 6.5% fixed rate mortgage with no points, a family of three in 2008 earning 50% of the Merrimack County median family income could afford a maximum home purchase price of \$97,204. Housing affordability for the alternative income limits discussed above is illustrated in Table IX-18 (Page 172) to follow. Indirect housing costs include utilities for renters, and real estate taxes, utilities and insurance for homeowners.

**TABLE IX-18**  
**Housing Affordability for Renters or Homeowners**  
**Based on Income Limits for a Family Size of Three Persons**

	Income Limits	
	80% MFI <sup>1</sup>	50% MFI
Income per Year	\$50,400	\$31,500
Income per Month	\$4,200	\$2,625
Total Housing Cost per Month (30% MFI)	\$1,260	\$788
Indirect Housing costs per Month (25% total housing costs)	-\$315	-\$197
Net Housing Cost for Mortgage or Rent per Month	\$945	\$591
Maximum House Purchase Price assuming a 30 year 6.5% Fixed Rate Mortgage	\$155,428	\$97,204

Sources: New Hampshire Housing Finance Authority & KBM & Associates

Note:

1. Median Family Income (MFI) for Merrimack County in 2008 for a family of three was \$63,000.

Table IX-19 (Page 172) to follow compares the median family incomes in New London with those in Merrimack County in 1990, 2000 and 2008. Please note the 2008 median family income for New London is an estimated figure using the assumptions as footnoted. New London's median family income level in 1990 was about \$15,000 higher compared with Merrimack County. By 2000, the median family income in New London was more than \$25,000 higher than in Merrimack County. In 2008 in Merrimack County the median family income was \$64,290. Based on the assumptions outlined in Note 4 for the table below, the median family income in New London in 2008 was estimated to be \$94,639.

**TABLE IX-19**  
**Comparison of Median Family Income**  
**New London & Merrimack County: 1990, 2000 & 2008**

Area	Median Family Income		
	1990 <sup>1</sup>	2000 <sup>2</sup>	2008
New London	\$56,404	\$82,201	\$94,639 <sup>4</sup>
Merrimack County	\$41,410	\$56,842	\$64,290 <sup>3</sup>

Sources:

- 1 1990 Census adjusted for inflation
- 2 2000 Census
- 3 2008 Information from the New Hampshire Housing Finance Authority
- 4 New London 2008 median family income figure generated by KBM & Associates as follows: New London's median family income increased 1.47 times faster than the growth in the median family income for Merrimack County between 1990 and 2000. Assuming continuation of the same growth rates for the 2000 – 2008 period, then New London's median family income increased 1.67 times the increase in the Merrimack County median family income for an increase of \$12,438 between 2000 and 2008.

*Is New London Rental Housing Affordable?*

Based on a 2007 residential rental cost survey by the New Hampshire Housing Authority, the median monthly rent for a two bedroom unit in Merrimack County was \$1,020. Those households meeting the HUD income limits for a low income family (\$945 per month) or a very low income family (\$591 per month) definition for “Affordable Housing” would not have been affordable since their housing costs would exceed 30% of their income.

*Are New London Homes for Purchase Affordable?*

According to the New Hampshire Housing Finance Authority, the median purchase price for a home in New London in 2007 was \$386,500. Using the guidelines in Table IX-1 (Page 155), a house purchase price of \$386,500 did not meet the definition of “Affordable Housing” as defined by the HUD guidelines (\$155,428 for a low income family and \$97,204 for a very low income family).

**Workforce Housing**

Senate Bill 342 on Workforce Housing was approved by the New Hampshire Legislature on June 30, 2008 to become effective on July 1, 2009. This legislation essentially requires municipalities to provide reasonable opportunities for the development of workforce housing and establishes a mechanism for expediting relief from municipal actions which deny, impede, or delay qualified proposals for workforce housing.

“Workforce Housing” is defined in the legislation to mean housing which is intended for sale and which is affordable to a household with an income of no more than 100 percent of the median income for a 4-person household for the county in which the housing is located as published annually by the U.S. Department of Housing and Urban Development. “Workforce Housing” also means rental housing which is affordable to a household with an income of no more than 60 percent of the median income for a 3-person household for the county in which the housing is located as published annually by the U.S. Department of Housing and Urban Development. Housing developments that exclude minor children from more than 20 percent of the units, or in which more than 50 percent of the dwelling units have fewer than two bedrooms, shall not constitute workforce housing for the purposes of this legislation. “Affordable” is defined as housing with combined rental and utility costs or combined mortgage loan debt services, property taxes, and required insurance that do not exceed 30 percent of a household’s gross annual income.

This legislation requires that every municipality shall provide reasonable and realistic opportunities for the development of workforce housing, including rental multi-family housing. The law indicates that in order to provide such opportunities, lot size and overall density requirements for workforce housing shall be reasonable. It requires that a municipality shall allow workforce housing to be located in a majority, but not necessarily all, of the land that is zoned to permit residential uses within the municipality. It provides that a municipality shall have the discretion to determine what land areas are appropriate to meet this obligation. It also provides that this obligation may be satisfied by the adoption of inclusionary zoning as defined by RSA 674:21, IV (a). It clarifies that the law shall not be construed to require a municipality to allow for the development of multi-family housing in a majority of its land zoned to permit residential uses.

## Recommendations

1. Encourage a diversity of affordable housing to meet the needs of low and moderate income persons, particularly senior or handicapped persons, through development of housing projects, including congregate, assisted living facilities, in the village areas;
2. Consider amendments to the Zoning Ordinance which will reinforce the traditional, small town New England settlement pattern of smaller lots and higher density housing in and around the village centers with predominantly open space in the outlying areas through:
  - a. enactment of transfer of development rights provisions whereby the density allowed on a property located in an outlying area can be transferred to a property located in a village area;
  - b. consider amendments which would provide for lower densities of development in the outlying areas and higher densities in and around the village centers where water and sewer service is available
  - c. enactment innovative land use techniques outlined in RSA 674:21.
3. Site and building appearance guidelines should be incorporated into the Site Plan Review Regulations for the development of any multi-family housing.
4. Consideration should be given to encouraging the use of Cluster Developments through density bonuses and/or allowing the Planning Board to require a Cluster Development in instances where significant natural or historic resources would be adversely affected through use of the traditional “cookie cutter” approach.
5. The Town should continue to work closely with Colby-Sawyer College in ensuring that the housing needs of the student body are met primarily through on-campus housing in order to minimize the impact of student housing on the surrounding residential neighborhoods.
6. The Town should encourage energy-efficient subdivision and site design and to permit maximum solar access. East-west streets where the topography allows, south-oriented lots, Cluster Developments and Planned Unit Developments should be encouraged.
7. The process of meeting the Town’s housing needs should be done in such a way as to preserve architecturally and historically significant buildings.
8. The Town should continue to carefully monitor the conversion or reconstruction of old cottages along the shore lands into year-round housing and the construction of new homes to ensure provision of adequate on-site waste disposal systems and to ensure that site development is consistent with the provisions of the Shore Land Overlay District.
9. The Town should encourage the construction of “Green Buildings” that conserve energy, lower operating costs, reduce harmful greenhouse gas emissions, and provide a healthier and safer environment for occupants.
10. The Town should consider amending the Zoning Ordinance to respond to Senate Bill 342 on Workforce Housing by:

- a. Allowing multi-family dwellings in residential zones where properties are served by public water and sewer either as a permitted use or as a use permitted by special exception; and
- b. Providing for inclusionary zoning in residential developments by offering a density bonus for workforce housing that will remain affordable.

## **X. ECONOMIC BASE**

### **Introduction**

The term “economic base” refers to many different aspects of the local economy, including factors relating to employment, commuting patterns, financial status and taxes. All of these factors are interrelated: a change in one often affects one or more of the others. For example, factors that affect business development in the region determine what kinds of jobs are available to residents and how well these jobs pay. Local business development and personal incomes both influence how much property tax income is available to the Town for the provision of facilities and services. Consequently, the condition of a community’s economic base affects the quality of life for its citizens in many different ways.

The economic base of a community is evaluated using economic indicators. These economic indicators are numbers compiled by various sources that indicate one or more things about the trends and interrelationships of the local and regional economy. In this chapter on Economic Base, the Master Plan looks at available information on employment, commuting patterns, financial status and taxes.

New London, like most communities, has been affected by the recent economic turmoil in the United States and globally. The dramatic drop in the stock and housing markets and the instability of many financial institutions has created economic challenges not seen in this country since the Depression. New London historically has had a strong local economy based on the health care and education sectors that remain consistently strong and are less affected by downward shifts in the economy. Assuming these sectors remain strong, New London will again be able to weather well the current downturn in the economy. This planning effort should provide useful guidelines and direction for New London now and once the economy rebounds.

Following these sections presenting the data and trends on economic indicators, this Economic Base Chapter outlines the economic assets and limitations of the community and concludes with recommendations pertaining to the future economic development of the community over the next fifteen years.

### **Community Survey Results**

In 2008, the New London Planning Board conducted a survey of the Town’s property owners and registered voters to help determine the community’s needs and preferences with respect to future development of the community. The following is a brief summary of the survey results relating to economic development.

Question #1: The Economic Development related responses to Question #1 (See table to follow) about which attributes make New London a desirable place to live and/or own property received relatively low marks. Combining the response categories of significant and very significant:

- convenient availability of professional services (health care, legal, etc.) received the sixth highest rating;
- convenient availability of commercial goods received the eleventh highest rating; and
- employment opportunities received the thirteenth or lowest rating.

Planning Board Community Survey 2008								
Question #1: Which of the following attributes do you think significantly contribute to making New London a desirable place to live and/or own property? (Please rate each attribute)								
Answer Options	Very Significant	Significant	Neutral	Insignificant	Very Insignificant	Don't Know	Rating Average	Response Count
Village centers with New England charm	58.5% (300)	34.7% (178)	5.7% (29)	0.6% (3)	0.6% (3)	0.0% (0)	4.499025	513
Small town atmosphere with rural charm	63.5% (324)	31.6% (161)	4.3% (22)	0.2% (1)	0.4% (2)	0.0% (0)	4.57647	510
Scenic vistas of lakes, mountains & open spaces	72.8% (372)	25.0% (128)	1.6% (8)	0.2% (1)	0.2% (1)	0.2% (1)	4.694716	511
High visual quality of the built environment	44.5% (223)	38.9% (195)	13.0% (65)	2.0% (10)	0.8% (4)	0.8% (4)	4.219561	501
Good schools	51.5% (261)	28.8% (146)	16.0% (81)	0.4% (2)	1.0% (5)	2.4% (12)	4.22288	507
Friendly people with community spirit	49.7% (254)	40.3% (206)	8.4% (43)	0.8% (4)	0.6% (3)	0.2% (1)	4.37182	511
Availability of numerous outdoor recreational activities	43.5% (223)	42.7% (219)	10.3% (53)	2.3% (12)	0.8% (4)	0.4% (2)	4.245614	513
Availability of cultural & indoor recreational opportunities	29.2% (150)	44.6% (229)	18.3% (94)	5.7% (29)	1.6% (8)	0.6% (3)	3.925926	513
Convenient availability of commercial goods	21.5% (110)	40.9% (209)	27.6% (141)	7.4% (38)	2.2% (11)	0.4% (2)	3.710372	511
Convenient availability of professional services (health care, legal, etc.)	39.4% (201)	44.3% (226)	11.6% (59)	3.3% (17)	1.2% (6)	0.2% (1)	4.168627	510
Availability of a mix of housing types for all income levels	20.6% (105)	33.1% (169)	24.7% (126)	10.6% (54)	10.0% (51)	1.0% (5)	3.407843	510
Convenient access to the interstate highway system	23.1% (118)	42.1% (215)	24.3% (124)	7.4% (38)	2.3% (12)	0.8% (4)	3.737769	511
Employment opportunities	14.0% (71)	31.0% (157)	35.3% (179)	9.7% (49)	6.7% (34)	3.4% (17)	3.258383	507
Comments:								72
answered question								515
skipped question								0

Question # 2: The economic development related responses to Question #2 about how important people thought the following objectives are for planning for the future of New London over the next fifteen years received a majority of support. Combining the response categories of significant and very significant:

- restricting industrial development was the second highest response (68.4%);
- limiting commercial development was the third highest response (61.3%);
- expanding the commercial and professional services only to meet the Town's needs was the fourth highest response (56.5%);
- attracting clean, non-polluting light or high-tech industries was the fifth highest response (54.6%); and
- continuing to function and expand as a regional commercial and professional service center was the sixth highest response (50.4%).

Planning Board Community Survey 2008								
Question #2: Please indicate how important you think each of the following objectives are for planning for the future of New London over the next fifteen years. (Please rate each objective)								
Answer Options	Very Important	Important	Neutral	Unimportant	Very Unimportant	Don't Know	Rating Average	Response Count
Attracting a more balanced mix of resident age groups	31.6% (162)	36.9% (189)	20.1% (103)	6.3% (32)	4.9% (25)	0.2% (1)	3.835938	512
Encouraging continued development of seasonal,	3.7% (19)	19.3% (98)	37.5% (190)	26.2% (133)	13.2% (67)	0.0% (0)	2.741617	507
Continuing to function and expand as a regional	13.5% (69)	36.9% (189)	26.4% (135)	14.8% (76)	8.0% (41)	0.4% (2)	3.318359	512
Expanding commercial & professional services only	14.1% (72)	42.4% (216)	26.7% (136)	11.0% (56)	5.1% (26)	0.6% (3)	3.477407	509
Attracting more tourist-related businesses	7.1% (36)	24.3% (124)	39.6% (202)	19.8% (101)	9.2% (47)	0.0% (0)	3.001961	510
Continuing trend as a retirement community	5.5% (28)	25.4% (129)	42.9% (218)	16.3% (83)	9.1% (46)	0.8% (4)	2.996063	508
Attracting more outdoor recreation-related businesses	9.6% (48)	35.5% (177)	36.5% (182)	13.2% (66)	5.0% (25)	0.2% (1)	3.308617	499
Attracting clean, non-polluting light or high-tech	20.0% (102)	34.6% (176)	25.1% (128)	10.0% (51)	9.8% (50)	0.4% (2)	3.438114	509
Limiting commercial development	27.8% (142)	33.5% (171)	21.3% (109)	10.2% (52)	6.8% (35)	0.4% (2)	3.639922	511
Restricting industrial development	44.0% (224)	24.4% (124)	17.7% (90)	5.9% (30)	6.9% (35)	1.2% (6)	3.891945	509
Comments:								75
answered question								515
skipped question								0

Question # 5: The responses were evenly split with no clear direction when asked how New London should respond to pressure for additional commercial growth generated by the population growth in the greater Kearsarge/Sunapee area.

Planning Board Community Survey 2008		
Question #5: How should New London respond to pressure for additional commercial growth generated by the population growth in the greater Kearsarge/Sunapee area?		
Answer Options	Response Percent	Response Count
Promote regional commercial growth	36.5%	175
Promote local commercial growth	32.1%	154
Do not promote commercial growth	31.5%	151
Comments:		62
<i>answered question</i>		480
<i>skipped question</i>		35

Question # 6: Respondents provided the following feedback when asked in what part(s) of Town they would support adding areas to be zoned for commercial use:

- on Main Street between Parkside Road and Little Sunapee Road was the highest response with 33.5%;
- around the I-89 interchanges with 31.9% was the second highest response;
- only where there is access to public water and sewer service was the third highest response with 30.2%; and
- nowhere/no further commercial development with 27.3% was the fourth highest response. Again with the responses fairly evenly split there was no clear direction.

Overall, no location received a majority of support to be zoned for commercial use. Two uses not receiving a majority of support were banks (46.6%) and high tech industry (research & development park) (37.8%).

Question #6: Existing commercially zoned areas include:

- Main St. from Seamans Rd. to Parkside Rd. (from the Police Station to Peter Christian's);
- Newport Rd. from Little Sunapee Rd. to the Post Office; and
- The center of Elkins (from Elkins Chapel to Hillcrest drive).

In what part(s) of Town do you support adding areas to be zoned for commercial use? (Please choose all that apply)

Answer Options	Response Percent	Response Count
Nowhere/no further commercial development	27.3%	131
Anywhere in Town	2.7%	13
Only where there is access to public water & sewer service	30.2%	145
Along all State highways and major town roads	16.7%	80
Behind existing commercial zone on Main Street	26.0%	125
On Main St. between Parkside Rd. and Little Sunapee	33.5%	161
Elkins area	17.3%	83
Route 11 between Main Street and Seamans Road	18.5%	89
Around the I-89 interchanges	31.9%	153
Comments:		71
<i>answered question</i>		480
<i>skipped question</i>		35

Question # 7: After combining the agree and strongly agree categories, the responses receiving a majority of support when asked which types of commercial/industrial uses should be permitted, assuming additional areas are zoned for commercial/industrial development, included:

- professional business offices (81.2%);
- medical offices (80.4%);
- restaurants (71.1%);
- inns and bed & breakfasts 67.1%);
- home occupations and home businesses (60.5%);
- professional services (barbers, laundries, hairdressers, etc.) (57.9%); and
- retail sales (53.2%).

Planning Board Community Survey 2008								
Question #7: Assuming additional area is zoned for commercial/industrial development in New London in the future, which types of commercial/industrial uses should be permitted in those areas? (Please rate each type of development)								
Answer Options	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know	Rating Average	Response Count
Professional business offices	30.7% (146)	50.5% (240)	12.4% (59)	3.6% (17)	2.1% (10)	0.6% (3)	4.023158	475
Medical offices	30.7% (145)	49.7% (235)	13.1% (62)	3.6% (17)	3.0% (14)	0.0% (0)	4.014799	473
Banks	14.3% (66)	32.3% (149)	30.3% (140)	15.2% (70)	8.0% (37)	0.0% (0)	3.296537	462
Personal Services (barbers, laundries, hairdressers,	16.2% (76)	41.7% (195)	26.9% (126)	10.3% (48)	4.7% (22)	0.2% (1)	3.538461	468
Restaurants	27.4% (128)	43.7% (204)	19.1% (89)	6.0% (28)	3.4% (16)	0.4% (2)	3.843683	467
Home occupations & home businesses	22.2% (103)	38.3% (178)	27.1% (126)	8.0% (37)	3.4% (16)	1.1% (5)	3.645161	465
Inns and Bed & Breakfasts	20.6% (96)	46.5% (216)	22.6% (105)	7.1% (33)	2.8% (13)	0.4% (2)	3.737634	465
Motels	5.8% (26)	13.6% (61)	27.7% (124)	26.8% (120)	25.3% (113)	0.7% (3)	2.458613	447
Retail sales	16.1% (74)	37.1% (171)	28.0% (129)	9.5% (44)	9.1% (42)	0.2% (1)	3.407809	461
Movie theater/entertainment center	17.0% (79)	19.8% (92)	19.8% (92)	20.0% (93)	22.2% (103)	1.1% (5)	2.862069	464
Convention/function center	6.4% (29)	13.2% (60)	17.8% (81)	27.9% (127)	33.8% (154)	1.1% (5)	2.27193	456
High tech industry (Research & development park)	15.0% (69)	22.8% (105)	21.3% (98)	16.7% (77)	24.1% (111)	0.2% (1)	2.872017	461
Light manufacturing	7.8% (36)	13.8% (64)	25.2% (117)	25.6% (119)	26.1% (121)	1.5% (7)	2.469828	464
Auto gas, service & repair	8.7% (40)	24.9% (115)	27.7% (128)	17.5% (81)	20.6% (95)	0.6% (3)	2.816017	462
Heavy industry	2.2% (10)	1.3% (6)	4.9% (22)	18.1% (81)	69.9% (313)	3.6% (16)	1.372768	448
Comments:								45
answered question								480
skipped question								35

Question # 8: Almost two out of three people completing the survey thought the Town should continue to encourage the development of a fiber optic network to serve all areas of New London.

Planning Board Community Survey 2008		
Question #8: A regional fiber optic network could deliver advanced telecommunications capabilities to every resident, public safety agency, educational institution, healthcare facility, and business in participating towns. The Town would not provide actual service, but would construct and manage the fiber network over which such services could be offered. The construction can be funded privately or using tax dollars. Should New London continue to encourage the development of a regional fiber optic network to serve all areas of Town?		
Answer Options	Response Percent	Response Count
Yes	65.8%	316
No	11.7%	56
Don't know – not enough information about what it is	22.5%	108
Comments:		64
answered question		480
skipped question		35

Question # 9: Seven out of ten people who encouraged continued efforts to develop a fiber optic network supported the Town investing in such a regional fiber optic network.

Planning Board Community Survey 2008		
Question #9: If yes to the question above, should the Town invest in a regional fiber optic network?		
Answer Options	Response Percent	Response Count
Yes	70.1%	230
No	29.9%	98
Comments:		67
<i>answered question</i>		<b>328</b>
<i>skipped question</i>		<b>187</b>

## Personal Employment and Income

### Employment

The distribution of New London's work force among various types of industries changed considerably between 1990 and 2000, as reflected in Table X-1 (Page 180). Overall the number of employed New London residents increased from 1,263 in 1990 to 1,699 in 2000 for a 35% increase in ten years. The major employment increase between 1990 and 2000 occurred in the Health & Education Services sector with the number of employees increasing from 280 in 1990 to 574 in 2000. Employment increases were also experienced in Other Professional Services, Personal, Entertainment & Recreation Services, and Agriculture & Forestry. Employment decreased in Finance, Insurance & Real Estate, Retail Trade, and Manufacturing.

**TABLE X-1**  
**Distribution of Employed New London**  
**Residents\* by Type of Industry: 1990 and 2000**

Type of Industry	1990		2000	
	#	%	#	%
Manufacturing	127	10.1%	107	6.3%
Construction	83	6.6%	84	4.9%
Agriculture, Forestry, Fisheries & Mining	0	0%	25	1.5%
Transportation, Communication & Utilities	71	5.6%	90	5.3%
Wholesale Trade	69	5.5%	82	4.8%
Retail Trade	234	18.5%	203	11.9%
Finance, Insurance & Real Estate	187	14.8%	124	7.3%
Public Administration	48	3.8%	56	3.3%
Business & Repair Services	17	1.3%	40	2.4%
Personal Entertainment & Recreation Services	71	5.6%	141	8.3%
Health & Educational Services	280	22.2%	574	33.8%
Other Professional Services	76	6%	173	10.2%
Totals	1263	100%	1699	100%

\* Employed persons 16 years and older  
 Source: U.S. Census

A comparison of the type of occupations of New London's employed residents in 1990 with those in 2000 is presented in Table X-2 (Page 181). The most substantial employment increase

occurred in the Managerial & Professional category (+430) and the Service Organizations category (+97). Employment declines were experienced in the Technical Sales & Administrative Support category (-76) and the Precision Production & Craft Repair category (-35).

**TABLE X-2**  
**Distribution of New London's Employed Residents\***  
**By Occupational Categories: 1990 and 2000**

Type of Occupation	1990		2000	
	#	%	#	%
Managerial, Professional	459	36.3%	889	52.3%
Technical, Sales, Administrative Support	517	40.9%	441	26%
Service Occupations	126	10%	223	13.1%
Farming, Forestry, Fishing	0	0%	11	0.6%
Precision Production, Craft, Repair	83	6.6%	48	2.8%
Operators, Fabricators, Laborers	78	6.2%	87	5.1%
Totals	1263	100%	1699	100%

\* Employed persons 16 years and older  
Source: U.S. Census

As reflected in Table X-3 (Page 181), the percentage of New London's employed workers in the private wage and salary category and the government worker category rose significantly between 1990 and 2000 according to the New Hampshire Department of Employment Security.

**TABLE X-3**  
**Class of Worker in New London: 1990 & 2000**

Class of Worker	1990		2000	
	#	%	#	%
Private Wage & Salary Worker	962	76.2%	1200	70.6%
Government Worker	98	7.8%	263	15.5%
Self-Employed Worker	187	14.8%	226	13.3%
Unpaid Family Worker	16	1.3%	10	0.6%
Total	1263	100%	1699	100%

\* Employed persons 16 years and older  
Source: New Hampshire Department of Employment Security

A comparison of New London's class of workers with those in the county and state reveals that New London has a considerably lower percentage of workers in the private wage & salary category, and a higher percentage of workers who are self-employed, as reflected in Table X-4.

**TABLE X-4**  
**Comparison of Class of Worker\***  
**New London, Merrimack County & New Hampshire: 2000**

	New London	Merrimack County	New Hampshire
Class of Worker	%	%	%
Private Wage & Salary Worker	70.6%	74.9%	79.4%
Government Worker	15.5%	17.1%	12.8%
Self-Employed Worker	13.3%	7.7%	7.6%
Unpaid Family Worker	0.6%	0.3%	0.2%
Total	100%	100%	100%

\* Employed persons 16 years and older  
Source: U.S. Census

The latest available employment projections for Merrimack County were done in 2006 by the New Hampshire Department of Employment Security. These projections are published in a report entitled: "Employment Projections by Industry and Occupation Merrimack County – 2004-2014". In 2000, over three out of four New London residents were employed in either the "Managerial/Professional" (52.3%) or the "Technical, Sales or Administrative Support" (26%) occupational categories. Table VI-5 presents the projections by the New Hampshire Department of Employment Security growth in employment in Merrimack County from 2004 through 2014 by industrial category. In its report, the New Hampshire Department of Employment Security projected the largest employment growth in Merrimack County between 2004 and 2014 in health care & social assistance (3,520), retail trade (1,938), educational services (1,277), accommodations & food services, and government (753).

### Commuting Patterns

According to the 2000 U.S. Census, there were 1,645 of New London's residents 16 years and older that were employed. After excluding the Colby-Sawyer College student population of 3,490, the 1,645 employed persons represents 47.1% of the total year-round population. About six out of ten of these employed residents were employed in New London in 2000. The work destinations of the remaining forty percent of New London's employed residents are reflected in Table X-6 (Page 183). Only Hanover/Lebanon (9.3%) and Concord/Manchester (8.1%) are work destinations for any significant number of New London's employed residents as reflected in Table VI-6.

The origins of workers employed in New London are outlined in Table X-7 (Page 184). Almost one-third (31.2%) of the workers employed in New London live in New London. Over one-fourth of the workers in New London commute from the surrounding towns of Sunapee (7.2%), Sutton (6.5%), Wilmot (6.4%), and Newbury (5.9%) as shown in Table X-7. All of this data about workers commuting into and out of New London would be useful background information in evaluating a service area for public transportation.

**TABLE X-5**  
**Merrimack County Employment Projections by Industry: 2004-2014**

Industry	2004	2014	Change	% Change
Health Care & Social Assistance	10,409	13,929	3,520	33.8%
Retail Trade	9,929	11,867	1,938	19.5%
Educational Services	6,618	7,895	1,277	19.3%
Accommodations & Food Services	4,473	5,284	811	18.1%
Government	10,585	11,338	753	7.1%
Construction	3,358	3,963	605	18.0%
Professional, Scientific & Tech Svcs.	2,714	3,302	588	21.7%
Arts, Entertainment & Recreation	1,698	2,282	584	34.4%
Wholesale Trade	3,575	4,109	534	14.9%
Other Services (Excl. Government)	3,134	3,608	474	15.1%
Administrative & Waste Mgmt Svcs	1,736	2,191	455	26.2%
Self-Employed & Unpaid Workers	6,750	7,040	290	4.3%
Transportation & Warehousing	1,414	1,639	225	15.9%
Real Estate & Rental & Leasing	852	997	145	17.0%
Agri., Forestry, Fishing & Hunting	321	380	59	18.4%
Finance & Insurance	4,174	4,228	54	1.3%
Mgmt of Companies & Enterprises	291	442	51	13.0%
Information	684	725	41	6.0%
Mining	209	225	16	7.7%
Utilities	431	398	-33	-7.7%
Manufacturing	6,855	6,425	-430	-6.3%
Total Employment	80,310	92,267	11,957	14.9%

Source: New Hampshire Department of Employment Security, Merrimack County Employment Projections by Industry & Occupation 2004 - 2014

**TABLE X-6**  
**Workers\* by Place of Work Destination**  
**New London: 2000**

New London Workers Commuting To	Number of Employees	Percent of Employees
New London	935	56.8%
Lebanon	99	6.0%
Concord	86	5.2%
Hanover	54	3.3%
Manchester	47	2.9%
Sutton	46	2.8%
Warner	33	2.0%
Newport	30	1.8%
Newbury	26	1.6%
Andover	21	1.3%
Sunapee	21	1.3%
Hopkinton	17	1.0%
Grantham	15	0.9%
Springfield	14	0.0%
All Other Towns	201	12.2%
Total	1,645	100.0%

\* Employed persons 16 years and older

Source: U.S. Census

**TABLE X-7**  
**Origin of Workers\* Employed in New London: 2000**

Commuting to New London From	Number of Employees	Percent of Employees
New London	935	31.2%
Sunapee	216	7.2%
Sutton	195	6.5%
Wilmot	191	6.4%
Newbury	178	5.9%
Newport	165	5.5%
Concord	128	4.3%
Andover	122	4.1%
Bradford	102	3.4%
Springfield	70	2.3%
Warner	48	1.6%
Manchester	41	1.4%
Danbury	41	1.4%
Pembroke	32	1.1%
Lebanon	28	0.9%
Hillsboro	28	0.9%
Grantham	27	0.9%
All Other Towns	450	15.0%
Total	2,997	100.0%

\* Employed persons 16 years and older  
 Source: U.S. Census

### Unemployment

In 2000, unemployment<sup>1</sup> in New London was comparatively high at 6.3% as reflected in Table X-8 (Page 185). This was about triple the percentage of unemployment in the County (2.3%) and the state (2.8%) as depicted in Table X-8. Please note this unemployment data precedes the economic crisis in 2008-09 that makes predictability no longer viable.

Unemployment information is not available at the community level in non-census years. The unemployment rate in Merrimack County had risen from 2.3% in 2000 to 3.3% in 2007. In similar fashion the unemployment rate statewide rose about 1% from 2.8% in 2000 to 3.6% in 2007.

**TABLE X-8  
Comparison of Unemployment in 2000 & 2007**

Area	2000 % Unemployment	2007 % Unemployment
New London	6.3%	NA
Newbury	2.0%	NA
Bradford	2.7%	NA
Springfield	1.9%	NA
Sunapee	0.8%	NA
Sutton	1.3%	NA
Wilmot	2.2%	NA
Merrimack County	2.3%	3.3%
New Hampshire	2.8%	3.6%

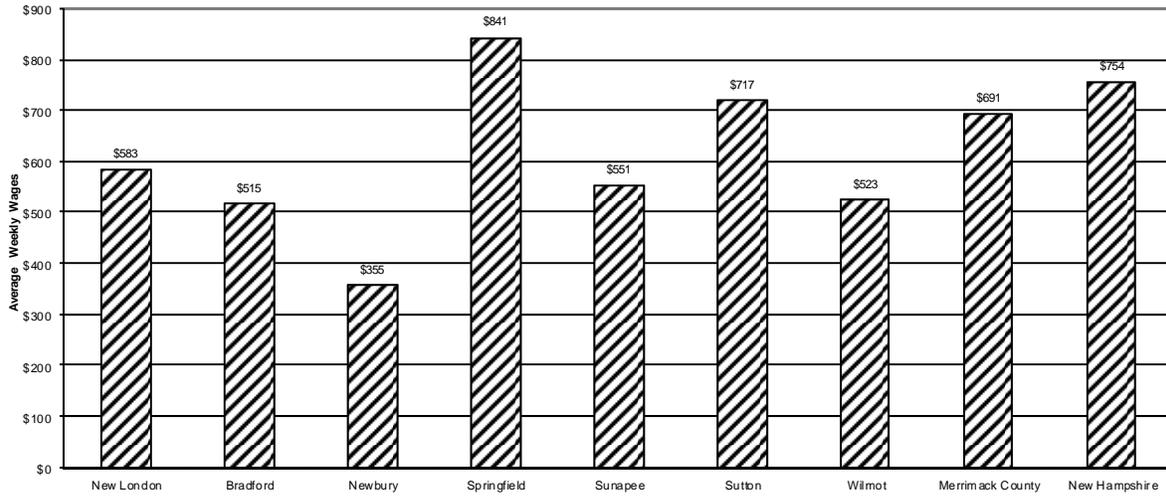
Source: U.S. Census

Unemployment is defined as all civilians 16 years old and over if they were neither at work nor with a job but not at work during the reference week, were looking for work during the last 4 weeks, and were available to start a job. Also included as unemployed were civilians 16 years and over who: did not work at all during the reference week, were on temporary layoff from a job, had been informed that they would be recalled to work within the next 6 months or had been given a date to return to work, and were available to return to work during the reference week, except for temporary illness.

#### Overall Income Information

In 2004, the average weekly wages of employed New London residents 16 years and older was \$583. Figure X-1 (Page 186) provides a comparison of the average weekly wages of New London's employed residents with those of surrounding communities, the county and the state. The average weekly wage of New London's residents is in the middle of the pack compared with neighboring communities and less than the average weekly wage in both Merrimack County and the state.

**FIGURE X-1  
Comparison of Average Weekly Wages: 2004**

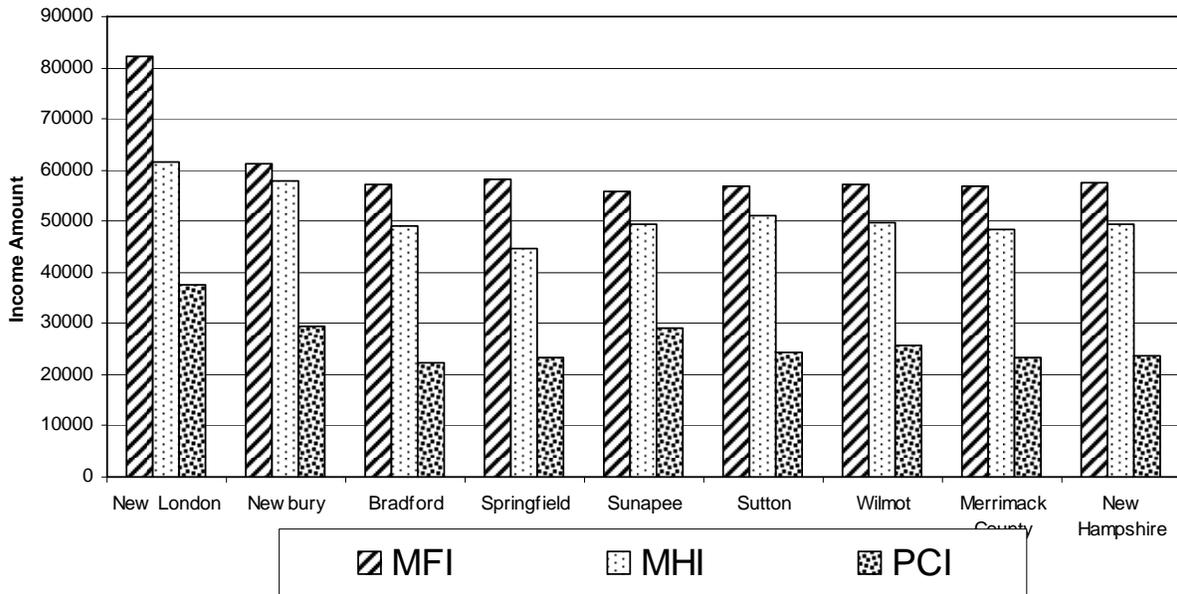


Source: N.H. Department of Employment Security

The latest available income data for New London comes from the 2000 U.S. Census, which is actually income data for 1999. Figure X-2 (Page 187) compares the median family income, the median household income and per capita income in New London with that information for neighboring communities, Merrimack County and the State. In 1999, New London had a considerably higher median family income compared with the other towns, the County and the State. The median household income and per capita income in New London was a little higher compared with the other towns, the county and the state.

The fact that the average weekly wage for New London workers is lower than the county and state figures, while the median family income and per capita income in New London exceed both the county and state levels, seems to be inconsistent. However, New London’s households have other sources of income, such as interest, dividend and rental income, which, when combined with the wage and salary income, makes their household incomes greater than other communities.

**FIGURE X-2  
Comparison of 1999 Income Types by Town**



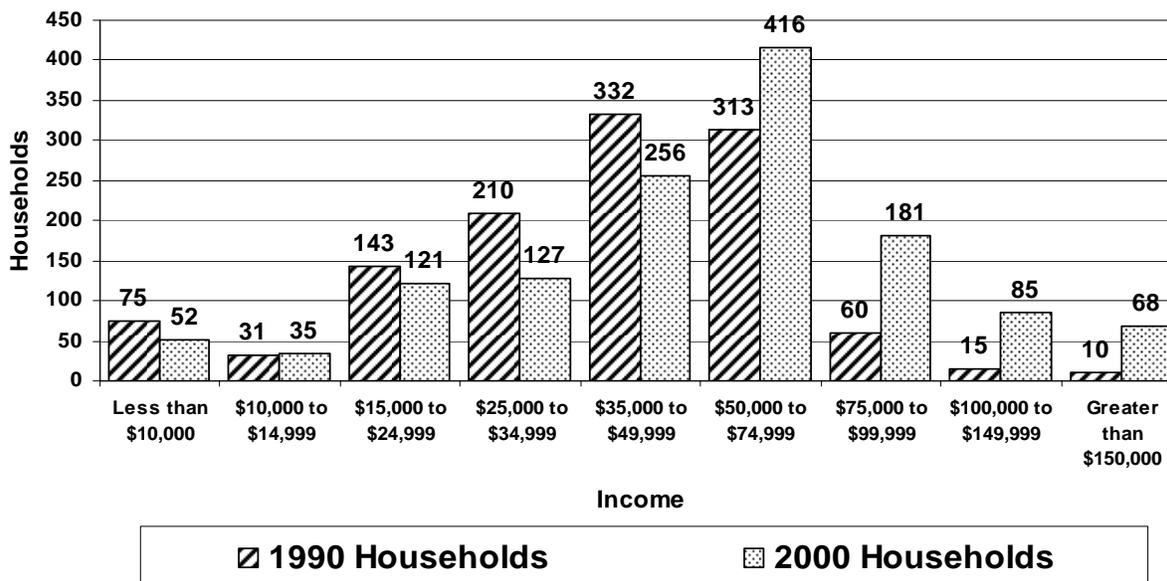
Source: U.S. Census

Notes:

MFI = Median Family Income;  
 MHI = Median Household Income; and  
 PCI = Per Capita Income.

A comparative breakdown of household income categories for New London in 1990 and 2000 is illustrated in Figure X-3 (Page 188). Between 1990 and 2000, the number of households increased in all the income categories in excess of \$50,000 and decreased in all but one of the income categories below \$50,000.

**FIGURE X-3**  
**New London Households by Household Income: 1990 & 2000**



Source: U. S. Census

Poverty Level

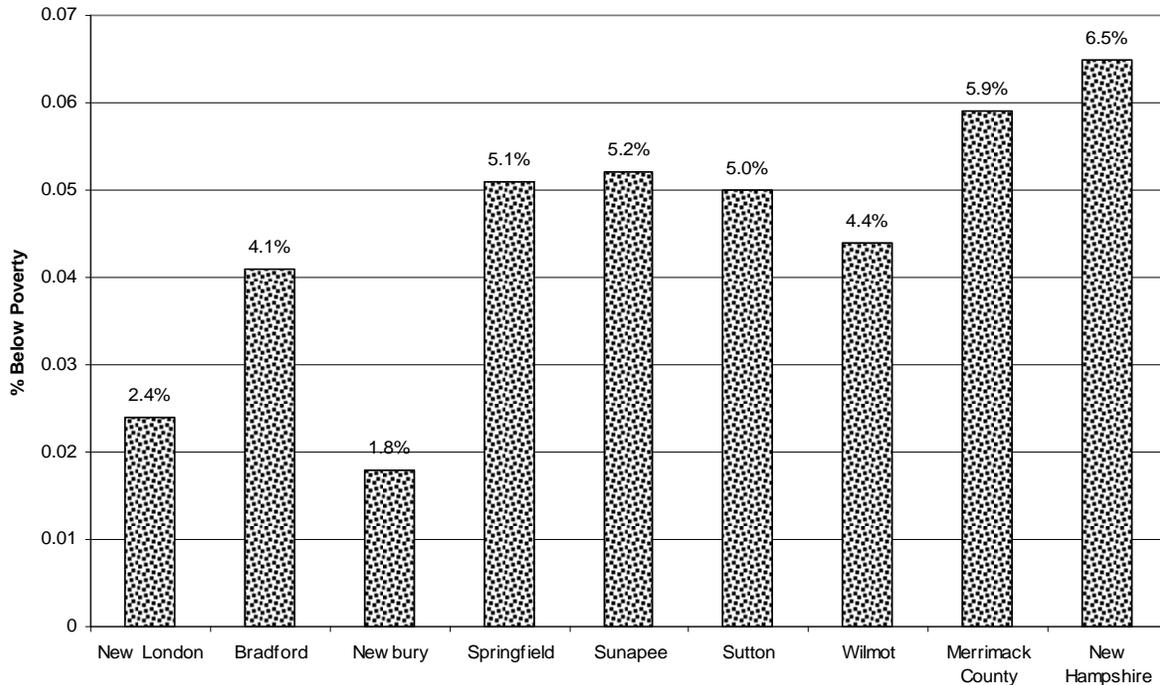
The national poverty level, which varies according to family size, is defined by the U.S. Bureau of Census, and is adjusted annually to allow for changes in the cost of living as reflected in the Consumer Price Index (CPI). The income thresholds for poverty by family size and number of related children under 18 years old are outlined in Table X-9 (Page 188) to follow. Local-level data on poverty is published only every ten years with the U.S. Census. The percentage of persons in New London in 1999 below the poverty level was only 2.4%. As shown in Figure X-4 (Page 189), the percentage of New London residents below poverty level was significantly lower compared with neighboring towns, the County and the State.

**TABLE X-9**  
**Poverty Thresholds for 2007 by Family Size and Number of Related Children Under 18 Years**

Size of Family Unit	Weighted Average Thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	8 or more
One person (unrelated individual)	10,590									
Under 65 years	10,787	10,787								
65 years and over	9,944	9,944								
Two people	13,540									
Householder under 65 years	13,954	13,884	14,291							
Householder 65 years and over	12,550	12,533	14,237							
Three people	16,530	16,218	16,689	16,705						
Four people	21,203	21,386	21,736	21,027	21,100					
Five people	25,080	25,791	26,166	25,364	24,744	24,366				
Six people	28,323	29,664	29,782	29,168	28,579	27,705	27,187			
Seven people	32,233	34,132	34,345	33,610	33,098	32,144	31,031	29,810		
Eight people	35,816	38,174	38,511	37,818	37,210	36,348	35,255	34,116	33,827	
Nine people or more	42,739	45,921	46,143	45,529	45,014	44,168	43,004	41,952	41,691	40,085

Source: U.S. Census Bureau

**FIGURE X-4  
Comparison of Percentage of Population  
Below Poverty Level: 2000**



Source: U.S. Census

**Property Tax Base**

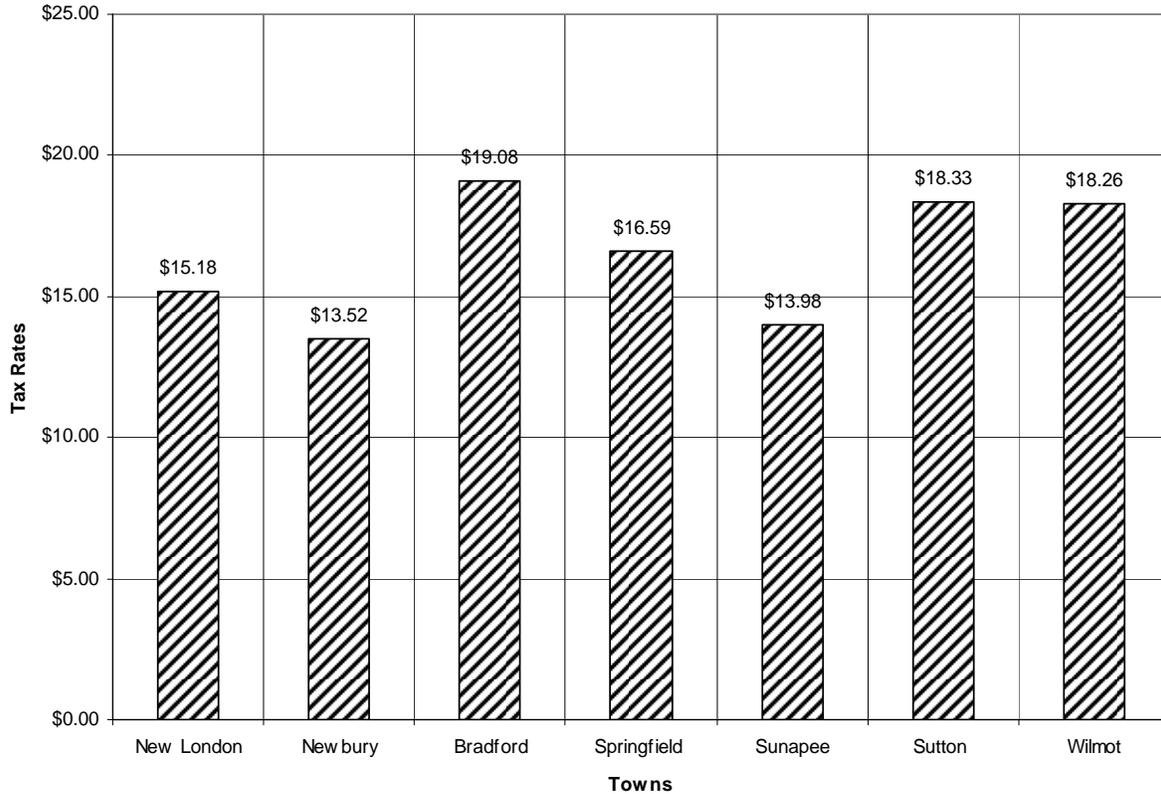
New London has one of the strongest tax bases in the Region due, in part, to significant numbers of high valued seasonal homes. A comparison of town valuations and tax rates in 2008 is outlined in Table X-10 (Page 189). New London’s valuation is second only to Sunapee’s valuation. As reflected in Figure X-5 (Page 190) New London has the third lowest tax rate (\$15.18 per \$1,000 assessed valuation) compared with its neighboring towns with only Newbury and Sunapee exhibiting a lower tax rate (\$13.52 and \$13.98 per \$1,000 assessed valuation respectively) in 2008.

**TABLE X-10  
Comparison of Town Valuations & Tax Rates – 2008**

Town	2008	
	Town Valuation	Tax Rate
New London	\$1,063,587,037	\$15.18
Newbury	\$700,395,537	\$13.52
Bradford	\$235,267,102	\$19.08
Springfield	\$211,928,819	\$16.59
Sunapee	\$1,068,138,994	\$13.98
Sutton	\$295,590,530	\$18.33
Wilmot	\$190,613,720	\$18.26

Source: N.H. Department of Revenue Administration

**FIGURE X-5  
Comparison of Total Tax Rates by Town  
2008**



Source: N.H. Department of Revenue Administration

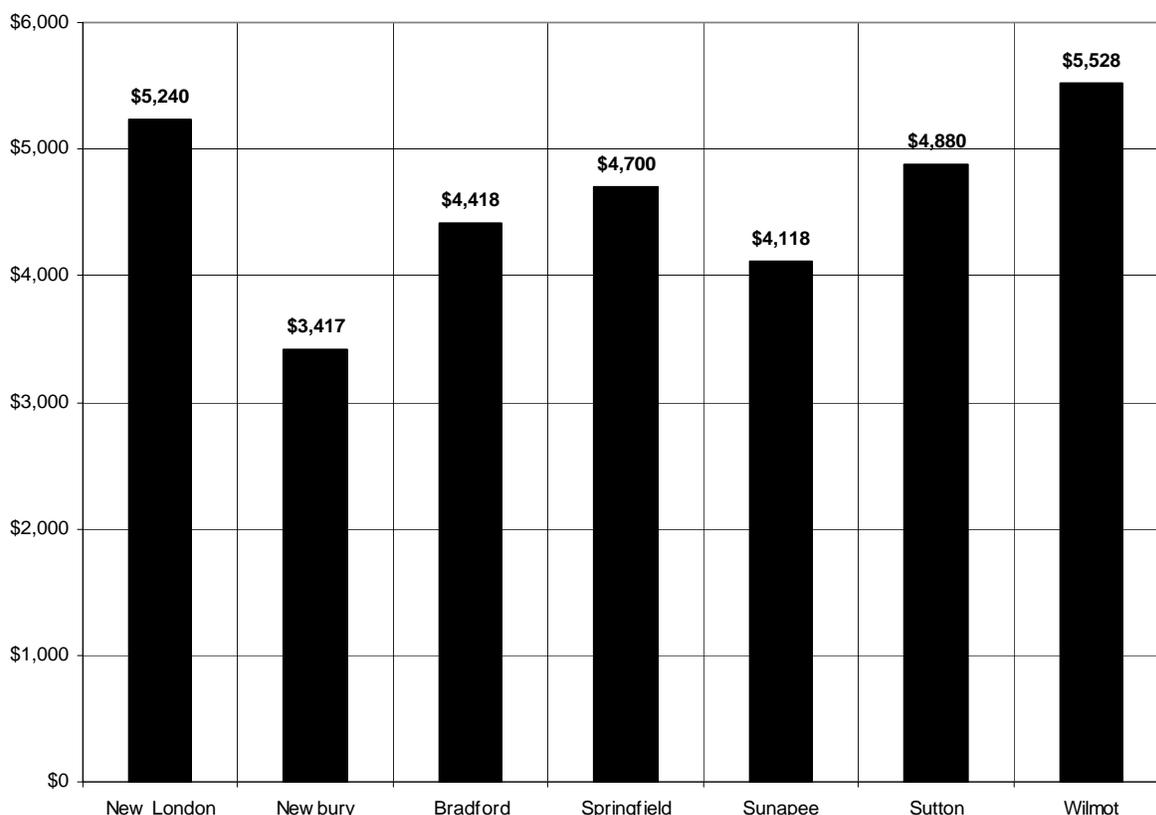
Table X-11 (Page 190) and Figure X-6 (Page 191) compare the property tax revenues by town on the median purchase price of all homes in 2008 in New London and the neighboring communities. Despite having the third lowest tax rate among the seven towns New London had the second highest property tax revenues on the median purchase price of all homes in 2008 due to the highest median purchase price of all homes in 2008 (\$389,000) compared with the other six towns.

**TABLE X-11  
Comparison of Property Tax Revenues by Town on the  
Median Purchase Price of All Homes – 2008**

Town	Median Purchase Price All Homes 2008	Property Tax Rate 2008	Property Tax Revenues 2008
New London	\$389,000	\$13.47	\$5,240
Newbury	\$262,450	\$13.02	\$3,417
Bradford	\$257,000	\$17.19	\$4,418
Springfield	\$315,000	\$14.92	\$4,700
Sunapee	\$305,000	\$13.50	\$4,118
Sutton	\$280,000	\$17.43	\$4,880
Wilmot	\$315,000	\$17.55	\$5,528

Source: New Hampshire Housing Finance Authority Purchase Price Database

**FIGURE X-6**  
**Comparison of Property Tax Revenues by Town on the**  
**Median Purchase Price of All Homes - 2008**



Source: N.H. Department of Revenue Administration

### **Benefits of Shopping in New London**

There are many benefits to shopping in New London and it should be promoted. By shopping locally the same dollar is turned over several times in the local economy supporting many local businesses in the process. Shopping locally helps local businesses survive in a challenging seasonal market while competing with larger businesses outside town. A balance between a vibrant business community and diversified residential community improves the vitality of New London and indirectly supports the tax base.

Ten reasons to shop locally include:

1. Protect Local Character and Prosperity: By supporting locally-owned businesses, you help maintain our unique community.
2. Community Well-Being: Locally-owned businesses build strong neighborhoods by sustaining communities, linking neighbors, and by contributing to local causes.
3. Local Decision Making: Local ownership means that important decisions are made locally by people who live in the community and who will feel the impacts of those decisions.
4. Keeping Dollars in the Local Economy: Dollars spent in locally-owned businesses have three times the impact on the community as dollars spent at national chains.

5. Job and Wages: When shopping locally, you create jobs and promote community development. Locally-owned businesses create more jobs locally and generally provide better wages and benefits than chains do.
6. Support Entrepreneurship: Entrepreneurship fuels our economy and elevates our families.
7. Public Benefits and Costs: Local stores in town centers require comparatively less infrastructure and make more efficient use of public services relative to big box stores and shopping malls.
8. Environmental Sustainability: Local stores help sustain vibrant, compact, walkable town centers, which are essential to reducing sprawl, automobile use, habitat loss, and air and water pollution.
9. Competition: A marketplace of small businesses is the best way to ensure innovation and low prices over the long-term.
10. Product Diversity: A multitude of small businesses, each selecting products based on the needs of local customer guarantees a broader range of product choices.

## **Economic Assets and Limitations**

The New London economy is directly affected by its economic assets and the markets which it serves, as well as its limitations for economic growth and expansion. Although many of the forces which affect the local economy are beyond local control, there remain many factors which the Town government and business community can affect to achieve a desired vision for the New London economy. It is important for those people in the Town government and the local business community to recognize these assets and limitations, and to work together cooperatively to maintain a strong economic base. By using public improvements as a stimulus and complement to private investments, the town government and business community can work together towards achieving the desired economic future. This section briefly outlines New London's economic assets and limitations.

### Economic Assets

1. Accessibility to distant markets via the Interstate Highway System: Without a doubt, the most significant factor affecting growth and development in New London, as well as the entire Region, was the construction of I-89 in 1969. The construction of I-89 has provided convenient accessibility to New London from the heavily populated areas in southern New Hampshire and Massachusetts. Boston is now an easy one and one-half hour drive on the interstate. The widening of the I-93 corridor south of Concord will increase the road carrying capacity bringing more people and traffic to this area, will decrease traffic congestion and will decrease travel time. This interstate widening project should again spur growth in the region.
2. Regional Market/Service Location: New London's location midway between the larger commercial centers in Concord and Hanover/Lebanon supports the Town's role as a small regional market and service center for people living in New London, as well as those living in the greater Kearsarge/Sunapee area.
3. Retirees' Market: The growth in the senior population in New London has been dramatic over the past thirty years. From 316 in 1970, New London's senior segment of the population increased to 867 in 1990 and to 1,228 in 2000. That equates to a fourfold increase over thirty years. As a percentage of the total population for each census, the

senior age group almost doubled, going from 15% in 1970 to 30% in 2000. Nationwide, the senior population is increasing rapidly and will become a larger percentage of the population over the next twenty years with retirement of the “baby boomers”. In New London, considering the national trend coupled with the in-migration of retirees, it is expected that the senior age group will continue to increase dramatically as a percentage of the total population.

This segment of the population already accounts for 30% of the local year-round population and is predicted to increase rapidly over the next fifteen years. Retired seniors are a major market for local businesses. Additionally, retirees, more than any other age group, are major contributors to the community as volunteers. Their volunteer contributions are invaluable to the community that runs on volunteers.

4. **Summer Residents and Tourist Markets:** The summer resident population of New London in 2000 was estimated to be about 1,463 (refer to Population chapter). The neighboring communities of Newbury, Sunapee and Grantham all have additional summer seasonal populations which are served by the New London market and service center. The majority of these seasonal residents have built high quality, high valued homes. With relatively high disposable incomes or “nest-eggs”, these people add significantly to the “Up-Scale Market”.

In addition to the seasonal populations, tourism adds significant numbers of people served by the New London regional market and service center, particularly during the summer months.

5. **Institutional Markets:** Two major institutions in New London provide significant support for the local economy. The combination of employees, students, parents, visitors and alumni from Colby-Sawyer College forms a significant group supporting the local market. The New London Hospital was ranked the tenth best hospital in New Hampshire. New London Hospital employees, patients and visitors combined make another significant group supporting the local economy.
6. **Recreational Amenities:** Year-round recreational attractions are abundant in the surrounding area. Summertime recreational amenities include lake-oriented activities such as boating, swimming and fishing, as well as hiking, camping and golf including the Lake Sunapee Country Club. New London residents have access to indoor athletic facilities at the Hogan Athletic Center at Colby-Sawyer College and the nearby Mountainside Racquet Club. The New London Recreation Department in concert with the Recreation Commission offers a variety of recreation activities for people of all ages in the community. The Outing Club provides a number of athletic facilities for use by the community. There is also an extensive network of walking and hiking trails in the area, many of which are maintained by the New London Conservation Commission. There are several State Parks in the area offering many of these facilities and services. Skiing dominates the winter time recreational activities, including both downhill and cross-county skiing at area facilities.
7. **Cultural Amenities:** Another asset for New London is the combination of the cultural activities that support local businesses by drawing people into the community. These include the Barn Playhouse, the concerts at the Mary Haddad and Elkins Bandstands and the Adventures In Learning classes.

8. **Scenic and Historical Resources:** The scenic and historic resources of New London attract permanent and seasonal residents, tourists, shoppers and new businesses, and enhance property values. The Community Survey results supported the premise that the scenic and historic resources of New London, including scenic vistas of lakes, mountains and open spaces, historic landmarks and buildings, and the small town atmosphere with rural charm, are central to the local economy.
9. **Availability of Water and Sewer Services:** The core area of New London is served by both water and sewer services. Water service is provided by the New London/Springfield Water System Precinct. With their gravel-packed groundwater wells on Colby Point, the Water Precinct has much improved water quality.  
  
Sewer service is provided by the Town for primarily the New London village area. Please refer to the Utilities Chapter for more details on the water and sewer services.
10. **Community Services and Infrastructure:** The Town of New London offers a diversity of community services providing excellent service to community residents. These include: administration, police, fire, recreation, library, planning & zoning, and public works including highways, waste management and sewer. In addition to the water and sewer services and facilities noted above, the Town has a good road system that is well maintained.
11. **Low Tax Rate:** The relatively low property tax rate in New London is attractive to both new businesses and residents alike.
12. **Educational Attainment of Residents:** As discussed in the Population Chapter, New London residents have a relatively high educational attainment compared with other communities in the surrounding area. Along with the presence of Colby-Sawyer College, the New London Hospital, and professional retirees, the community should continue to attract people with higher educational levels. People with higher educational levels tend to correlate with people with higher disposable incomes which support the local economy.
13. **Volunteer Time & Donations:** The countless hours of volunteer time and other donations made by non-profit organizations and local businesses is a tremendous asset to the community.
14. **Strong Financial Institutions:** New London is served by healthy local banks and non-traditional financial resources.
15. **New London Village:** New London's classic New England village offers a variety of shops and restaurants that attract people to this downtown area.
16. **Agricultural Resources:** New London's agricultural resources are an economic asset because they provide jobs in the community and in addition they are an integral part of many scenic views and vistas in Town that attract residents, shoppers and visitors to the community.

17. Undeveloped I-89 Interchanges: New London has maintained a policy for decades of not developing the areas around the I-89 interchanges. Not developing the interchanges will support existing businesses in Town and will preserve the scenic quality of the major entrances to the community.

#### Economic Limitations

4. Competitive Markets: The competitive markets in other areas such as Hanover/Lebanon, Concord, Manchester and Boston which offer larger shopping centers, often anchored with national retail chain stores, compete with the smaller New London market. Here, the accessibility afforded by the interstate highway system works to the detriment of the local economy. The New London market offers location and service.
5. Seasonal, not Year-Round Market: Many of New London's commercial establishments rely on the strong summer season to carry them for the year. Summer is when most of the seasonal residents and tourists are present to support those businesses. The winter season is unpredictable. Bolstering the fall, winter and spring markets for existing businesses offering retail sales and services is an important goal and direction for the business community.
6. Small Labor Force: With a relatively low percentage of the population in the working age group (about 17% less than County and State levels), New London probably does not have a sufficiently large labor force attractive to a potential employer seeking a site to establish a new relatively-large business.
7. Business Community not visible from the Interstate: Businesses in the village do not capture business from the travelers just passing through on the interstate since the business community is located about two miles from either of the two interstate interchanges. The business loop accessing the businesses in the village is not well signed.
8. Lack of Mixed Population: The Town lacks a balanced mix of population groups.
9. Lack of School in Town: The Town now lacks a major school in the center of town that generates considerable business activity from parents, kids, visitors and employees associated with a major school.
10. Water Service: Public water service is provided by the New London Springfield Water System Precinct. Having a governmental entity managing this utility service separate from the Town makes it more difficult for New London to plan and provide for water service. Another limitation is that the Water Precinct Commissioners consistently have taken the position that they do not want to expand the service area for the water precinct.
11. Sewer Service: The Sunapee Wastewater Treatment plant serves both the Towns of New London and Sunapee. The decision-making process for planning and constructing upgrades to this facility is made more difficult with two towns involved in managing the facility.

## Summary and Vision for the New London Economy

Overall, the Town of New London has a healthy, stable economy which provides employment, shopping and service needs for both New London residents and those in neighboring communities. The retail sector of the local market which relies on the summer boom season needs greater stability by attracting more year-round business.

New London, like most communities, has been affected by the recent economic turmoil in the United States and globally. The dramatic drop in the stock and housing markets and the instability of many financial institutions has created economic challenges not seen in this country since the Depression. New London historically has had a strong local economy based on the health care and education sectors that remain consistently strong and are less affected by downward shifts in the economy. Assuming these sectors remain strong, New London will again be able to weather well the current downturn in the economy. This planning effort should provide useful guidelines and direction for New London now and once the economy rebounds.

The Town's rural small-town atmosphere, strong volunteer spirit and natural/environmental features are cherished by most people who live, work or vacation here. In comparison with other communities in the Region, New London's tax rates are relatively low, while valuations are relatively high. These desirable features must be protected, in part, to protect the economic well-being of the community.

The Town feels it is possible to encourage desirable economic growth in appropriate locations, while, at the same time, protecting and enhancing the desirable features of New London through land use planning, site design and other regulations designed to protect the public interest. This will enable the people of New London to enjoy the benefits of economic growth without limiting the quality of life enjoyed by all.

The overall economic goal for the Town of New London is "To encourage and provide for selected economic growth which will provide for diversification of the local economic base, provide for employment and shopping opportunities for New London's residents, and contribute to the Town's tax base without degrading the natural, scenic and cultural resources and quality of life in general."

## Recommendations

The following recommendations are made to strengthen and improve New London's economy and thereby achieve the overall economic goal for the community.

1. **Build on New London's Existing Strengths:** First New London needs to support and build on its existing strengths such as health care, education and being an attractive location for retirees.
2. **Economic Development Committee:** The Town should have an active Economic Development Committee to promote and preserve the local economy. The Committee should be a diverse group representative of the community to provide the economic direction for the Town.
3. **Retirement Community:** The senior population in New London accounts for 30% of the year-round population. The projections are that this segment of the population may

expand rapidly over the coming fifteen years with the aging of the “baby boomers” making this an even larger proportion of the market for local businesses in future years.

4. Accommodate Economic Growth, Protect the Natural, Scenic and Cultural Resources, the Quality of Life and Preserve the Small-Town Character: New London’s single most important assets are the scenic and natural resources of this rural residential community. This is the key factor in attracting residents, businesses and tourists. All commercial and light industrial project proposals should continue to be closely scrutinized to ensure that they fit harmoniously into the community and do not degrade the scenic and natural resources, thereby ensuring they are a positive addition to the local economy. New London’s scenic visual resources should be protected and enhanced by continuing to require attractive landscaping and maintaining strict sign regulations. Additionally, the Town should develop and adopt regulations which prevent development from locating in open fields and ensuring sensitive and compatible building and site design.
5. Continue to Require Location of Commercial and Light Industrial Uses in the Commercial Zone District: With the exception of home occupation and home business uses, any commercial and light industrial uses should continue to be required to locate within the Commercial Zone District in the village centers and along Newport Road. These centralized locations will ensure convenient accessibility from all parts of the community and protect residential property values in the surrounding residential districts.
6. Continue to Exclude Medium and Heavy Industrial Uses from Locating in New London: The location of medium or heavy industrial uses in the community which would create adverse noise, visual and other environmental impacts are incompatible with the rural residential character of the community and should continue to be excluded from locating in Town.
7. Continue to Prevent the Spread of Strip Commercial Development Along Major Roads: Strip commercial development, particularly along the major state highways such as Routes 11, 103A and 114, should not be permitted. These and other major roads are the main transportation corridors in the community, serving the permanent and seasonal residents, tourists and businesses. Commercial strip development along these major transportation routes would:
  - a. transform scenic, visually pleasing roads into a potentially ugly line of commercial establishments adversely affecting the image of the community and making it less appealing for residents, tourists and businesses;
  - b. create traffic congestion and safety hazards; and
  - c. draw business activity away from the village centers.
8. Continue to Require All Developers to Pay Their Proportional Fair Share of Off-site Improvements Attributable to Their Projects: To ensure that an undue burden does not fall on the public’s shoulders, the Planning Board should continue its practice of requiring developers to pay their proportional fair share of off-site improvements, including road and signal improvements.
9. Encourage Home Occupations and Home Businesses: The Town should continue to accommodate home occupations and home businesses which are secondary and accessory to the principal residential use of the property and are compatible with neighboring residential uses.

10. Encourage the Concentration of Housing Near the Village Centers: Concentrating housing in and around the villages may benefit businesses located in the village centers. With the increased population generated by the nearby housing, more people may shop at those businesses located in the village centers, particularly during leisure hours (evenings, weekends, etc.). In addition, concentrating housing in and around the village centers has the added benefit of minimizing the cost of providing Town services which are also located in the village centers.
11. Promote Mix of Housing: The Town should aim to provide a balanced mix of housing types and values, and promote housing for all income levels.
12. Develop and Adopt Site and Building Appearance Guidelines for Non-Residential Development: Support for this recommendation comes from both the general public and from the business community. The Community Survey conducted by the Planning Board revealed that seventy-six percent (76%) of those surveyed supported Site and Building Appearance Guidelines for non-residential development. Only fourteen percent (14%) of those surveyed did not support Site and Building Appearance Guidelines for any type of development. A majority (52%) of those surveyed supported Site and Building Appearance Guidelines throughout Town. In meetings with the Planning Board discussing the Master Plan, representatives of the business community have indicated their support, as well as recognizing the link between maintaining a positive visual image of the community and attracting people to their businesses.

These Site and Building Appearance Guidelines should be integrated with or linked to the Site Plan Review process which addresses site development for new non-residential uses, a change in use for non-residential development or conversion of residential uses to non-residential uses.

13. Require Water and Sewer Services for Multi-Family Residential, Commercial and Light Industrial Developments: Multi-Family Residential, commercial and light industrial uses should be required to tie into the water precinct system in order to provide an adequate water supply for domestic and firefighting purposes. Sewer service should be required for these uses to protect both surface and groundwater resources.
14. Connect the Main Street and Newport Road Commercial Zones with Sidewalks/Bike Paths: Currently, the two commercially zoned areas are connected by roads, but alternative means of access by foot or bicycle is limited. Constructing pedestrian/bike paths may provide safe access between the two commercial areas by means other than vehicles and may encourage people to park their vehicles in one place and enjoy walking or biking between businesses.
15. Research and Development Park: The survey does not provide a consensus and leaves no clear direction on whether a Research and Development Park should be developed. If a Research and Development Park is sited in New London, it should be located in an area and developed in a manner that does not detract from the Town. This land use issue is considered in developing alternatives for the Future Land Use Plan in the Land Use Chapter.
16. Commercial Uses to Support: Respondents to Question # 7 showed support for 50% or

more of the following uses:

- professional business offices – 81.2%;
- medical offices – 80.4%;
- restaurants – 71.1%;
- professional services (barbers, laundries, hairdressers, etc.) – 57.9%;
- inns and bed & breakfasts – 67.1%; and
- retail sales – 53.2%.

These uses should continue to be supported by the Town.

17. Fiber Optic System: Continue to encourage the development of a fiber optic system to serve all areas of New London, and, at the appropriate time, have the Town of New London invest in the fiber optic system.
18. Regional vs. Local Commercial Growth: When combined the responses to Questions # 2 and # 5 do not provide a clear consensus on a preferred future commercial growth option:
- Local commercial development;
  - Regional commercial development; and
  - Limit/Do not promote further commercial development.

The survey responses are fairly evenly split between these three categories leaving no clear direction from the survey responses. These land use issues are considered in developing alternatives for the Future Land Use Plan in the Land Use Chapter.

19. New Commercial Areas: The survey responses to Question # 6 about where people would support adding areas for commercial use are fairly evenly split between:
- I-89 – 31.9%;
  - Areas served by water & sewer – 30.2%; and
  - Nowhere/No Further Commercial Development – 27.8%

The survey does not provide a consensus and leaves no clear direction. This land use issue is considered in developing alternatives for the Future Land Use Plan in the Land Use Chapter.

20. Improve Village Business Signage for Business Loop off I-89: The signage directing travelers on I-89 to the businesses in the New London village needs to be improved.
21. Support Local Agriculture: The Town should support and promote continuation and further development of working farms, farm families and agricultural enterprises.
22. Reuse of Former Middle School and/or Site: The School District and the Town should continue to work cooperatively together to find an alternative use or uses for the former Middle School. Some ideas in addition to the Community Center include:
- Business incubator site;
  - Senior housing; or
  - Private or charter school.

## **XI. UTILITIES**

### **Introduction**

This chapter will serve as an overview of public and private utility services and discusses planning-related issues related to communications and earth mineral resources. It will outline the extent of existing facilities and services, and indicate the remaining capacity to serve future development of the community. Issues and recommendations are addressed at the end of each section.

A discussion of utilities is important in the Master Plan because the availability and capacity of utilities have a significant impact on the type and intensity of land use development in a community. The value and development potential for a parcel depends on the availability, quality, and capacity of the utilities serving it. For example, New London's Zoning Ordinance allocates increased density in some zoning districts when water and sewer services are used. Another example is the increasing demand for broadband internet and communication services in rural New Hampshire by both residential and commercial customers.

Please note the geographical “service area” is different for each utility. Also please note that a discussion of community energy topics and potential energy sources is included in Chapter XII Energy.

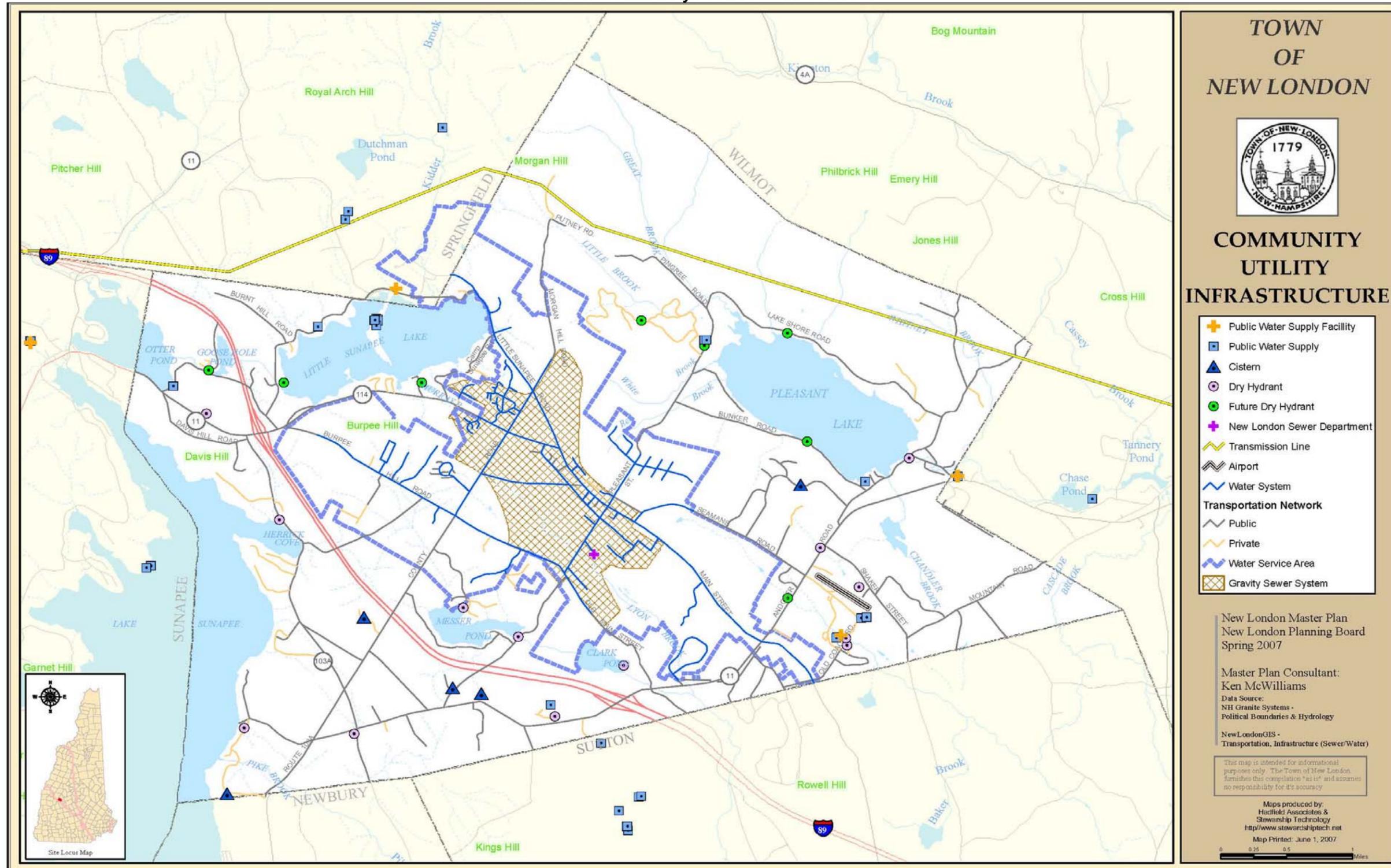
In addition to the Master Plan, the Planning Board maintains a Capital Improvement Program (CIP), which is distinct from the Master Plan and serves as a tool for fiscal planning related to capital improvements in Town. The information in the CIP is incorporated in this chapter by reference.

### **Municipal Wastewater Collection and Treatment**

A portion of New London has been served by the Town’s municipal sewer system since 1931. From 1939-2007 the sewer system was governed by an elected Board of Sewer Commissioners. In 2006 based on a memorandum of understanding, the Highway Department was assigned the day to day operation of the New London Sewer Department after a study demonstrated that the sewer department could be run more efficiently within the Public Works Department. A vote at the 2007 Town Meeting returned management of the Sewer Department (now known as the Wastewater Department) to the Board of Selectmen, who assigned oversight to the Director of Public Works.

The original system was designed and built to operate by gravity and serve the central area of the Town, including Colby-Sawyer College. The sewer collection lines ranged in diameter from 6-10 inches and fed into a primary treatment plant located off South Pleasant Street. Treated sewage was then discharge into Lyon Brook, permitted and monitored by the State of New Hampshire. Modifications to upgrade the primary treatment plant occurred periodically between 1940 and 1970 to increase capacity and sewage treatment processes to reduce the release of untreated wastes and nutrients into Lyon Brook. Due to the lack of plant capacity a moratorium on new sewer connections was placed in 1972.

MAP XI-1: Community Facilities – Infrastructure



In 1976 the N.H. Water Supply and Pollution Control Commission ordered the Towns of Sunapee and New London to accommodate transport and treatment of New London wastewater to the Sunapee Treatment Plant. In 1977 the Towns of Sunapee and New London signed an agreement to allow New London to pump its wastewater to Sunapee for treatment. A Federal Grant was approved in 1979 and construction of a new, 11-mile-long force main from New London to Sunapee was completed in 1981. There are two pump stations along this route: one located at the site of the old treatment plant in New London and one in Georges Mills in Sunapee. This line also has a meter vault at the New London-Sunapee town line (called the "Town Line Meter") to measure flows from New London. Upon completion of the force main New London shut down its Lyon Brook treatment plant and began pumping wastewater to Sunapee for treatment and discharge. Along with the opening of this line the Town was allowed to lift the 1972 new sewer connection moratorium.

The inter-municipal agreement between Sunapee and New London provided New London with the right to convey wastewaters generated from New London into the joint system. The agreement also entitled the Town of Sunapee to connect wastewater lines within the Town of Sunapee to the main line from New London. New service in Sunapee includes Georges Mills and many properties along Jobs Creek Road located along the western shore of Lake Sunapee.

New London's wastewater allocation to the system is limited to an annual average flow of 400,000 gallons per day (GPD), or 65% of the 620,000 GPD design capacity of the Sunapee Treatment Plant. Presently, New London is utilizing anywhere from 50% to 65% of its allocated 400,000 GPD. New London pays a proportional share of the treatment plant's net costs based on flow figures recorded daily throughout the year at Town Line Meter.

### Sewer Service

There were an estimated 2,256 total housing units in New London in 2007 based on The Current Estimates and Trends in New Hampshire's Housing Supply Update: 2008 prepared by the New Hampshire Office of Energy and Planning. The New London Public Works Department reported that 680 residential units were served by their sewer system in 2007 or 30% of the total number of estimated residential units in 2007.

Table XI-1 (Page 203) shows that the number of homes served by the public sewer system increased by 70 homes for an 11.5% increase between 1990 and 2007. The table also reveals that the percentage of new homes served by the public sewer system is declining compared with the percentage of new homes served by on-site septic systems. Of the 467 new homes constructed between 1990 and 2007, 85.0% were served by individual on-site sewage disposal systems and 15.0% were served by the public sewer system.

New London's wastewater flows for disposal by the public sewer system for each of the last 15 years are presented in Table XI-2 (Page 203) and Figure XI-1 (Page 204). These annual average daily flows indicate a spike in flows in 2006 and subsequent 20% drop in flows in 2007. A number of operational changes and issues arose around this time that precipitated in this reduction in wastewater flows. In 2005 a wastewater spill led to State fines and penalties. In 2006, the NH Department of Environmental Services directed the Town to address inflow and infiltration deficiencies. In 2007, Town vote shifted management of the sewer network to the Department of Public Works. Subsequently, the Department of Public Works repaired manholes across the system and made other improvements that have reduced the overall annual flow.

**Table XI-1  
Method of Sewage Disposal: 1990 and 2007**

Type of Disposal	1990 <sup>1</sup>		2007 <sup>2</sup>		Change 1990-2007	
	# Dwelling Units	% Dwelling units	# Dwelling Units	% Dwelling units	# Dwelling Units	% Change 1990-2007
Public Sewer	610	33.9%	680 <sup>4</sup>	30.0%	70	11.5% increase
Septic Systems	1,164	64.7%	1,561	68.9%	397	34.1% increase
Other Means	24	1.4%	24 <sup>3</sup>	1.1%	0	No Change
Total	1,798	100%	2,265	100%	467	26.0% increase

Footnotes:

<sup>1</sup> Source: US Census 1990

<sup>2</sup> Source: The Current Estimates and Trends in New Hampshire's Housing Supply Update: 2007

<sup>3</sup> No data for 2007. Assumes same number as 1990

<sup>4</sup> Source: NL Public Works Department, 2010

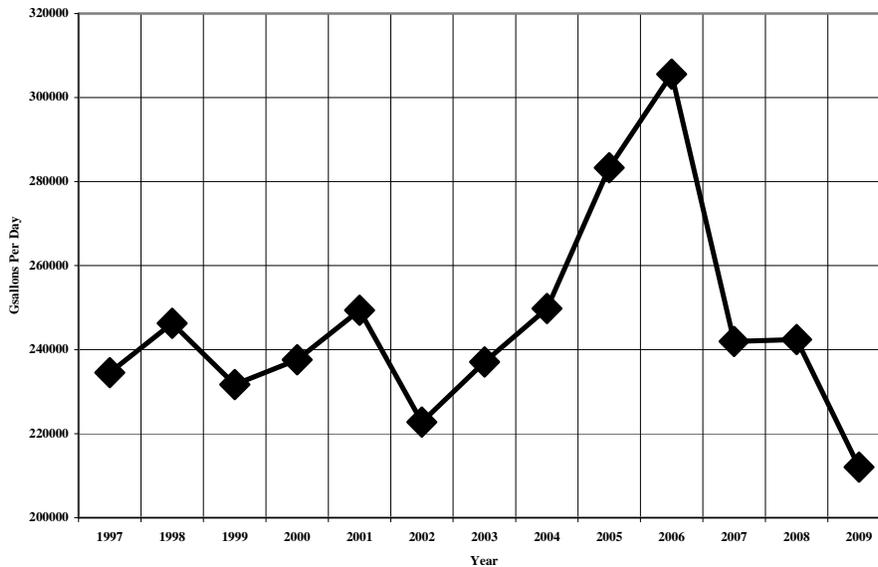
The daily wastewater flows generated in 2009 by type of use have been broken down as shown in Table XI-2 (Page 203) below. In 2009 about one-half (50.7%) of the daily wastewater flows were generated by residences and businesses. Infiltration accounted for about one-third of the daily wastewater flows. Colby-Sawyer College and the New London Hospital produced 10.3% and 5.4% respectively of the daily wastewater flows in 2009.

**TABLE XI-2  
Wastewater Flows  
New London: 1997-2009**

Year	Gallons per Day
1997	234,560
1998	246,318
1999	231,671
2000	237,639
2001	249,368
2002	222,763
2003	237,052
2004	249,784
2005	283,264
2006	305,507
2007	241,955
2008	242,372
2009	212,047

Source: New London Public Works Department, 2010

**FIGURE XI-1  
Average Daily Wastewater Flows  
Town of New London: 1997-2009**



**Table XI-3  
Daily Wastewater Flows by Type of Use – 2009**

Type of Use	Gallons Per Day	Percent Daily Use
Residences and Businesses	107,520	50.7%
Colby-Sawyer College	21,770	10.3%
New London Hospital	11,458	5.4%
Infiltration	71,299	33.6%
<b>TOTAL</b>	<b>212,047</b>	<b>100.0%</b>

Source: New London Public Works Department, 2010

*Sunapee Wastewater Treatment Plant*

The wastewater treatment plant located in Sunapee provides tertiary wastewater treatment. In 2010, the entire wastewater treatment plant is being redesigned in anticipation of upgrade and reconstruction. The original 1974 plant was designed for a 20-year life and most of the components of the facility have outlived their useful life or are no longer operable.

- The “headworks” (the initial grit and screening machinery) are inadequate and are underperforming, which increases the maintenance requirements of the downstream equipment.
- The oxidation tank provides insufficient aeration capacity, resulting in reduced efficiency and higher operational costs.
- Other components of the treatment system lack sufficient capacity to continue to operate, even with regular maintenance.
- In this day of increased EPA regulations, the current plant relies solely on chemical treatment to meet new phosphorus standards, which increases costs. The plant also has inadequate storage for the chemicals.

- The fact that there are only two sludge pumps means that there is insufficient redundancy, requiring excessive operator oversight. The sludge dewatering process is cumbersome and not cost effective (the liquid sludge is trucked to Concord for processing and disposal at an annual cost of over \$100,000).
- There are numerous building and life safety code issues associated with the existing facilities.

These deficiencies reduce the overall operational efficiency of the Sunapee treatment plant, increase the likelihood of discharge permit compliance violations, reduce actual capacity of the facility, and result in increased operations and maintenance costs. Upgrades will allow the facility to maintain compliance with discharge permit requirements, maintain adequate capacity growth of both communities, and more effectively accommodate increasingly stringent Federal and State sewage treatment standards. The refurbishing project will bring the current facilities up to current code requirements and improve the overall workplace conditions.

#### *New London Sewer Collection System Maintenance*

From 1990 to present, the demand for more accurate flow measuring has necessitated extensive replacement of all flow meters and electrical upgrading in all pump stations. The two pumps at the South Pleasant Street Plant in New London have been retrofitted with dry pit submersible pumps. This is a great improvement over the old vertical centrifugal pumps. By utilizing this type of pump, no electrical controls are at risk due to flooding. Rights-of-way have been cleared, manhole structures repaired or replaced, and the ongoing costs of replacing the original clay lines have been built into the annual budget. A preventative maintenance program was developed with the intention of level funding the annual budget in the area of equipment and sewer line repair and replacement.

In 2007, the Department of Public Works conducted a smoke test of the entire system to determine areas of weakness and mapped all manholes using Global Positioning System (GPS) technology. In 2009 the Department of Public Works completed the upgrade of the High Pine Pump Station, installing new pumps in the wet well, a new generator for emergency power and upgrading the power and phone lines into the station.

The operations of the wastewater system are funded by the users of the system, at no expense to the Town of New London. In 1986, the operations budget was \$190,000. In 1996 it had doubled to \$380,000 and in 2010 it was \$628,000. Expansion to the sewer system is currently accessible by pump stations or gravity connections. Several private and public pump stations have been added to the system since the 1980s. Private pump stations are located at the Hilltop Place Condominium Association, the Lake Sunapee Country Club, the Seasons Condominium Association, and the Highland Ridge Condominium Association. These pump stations will continue to be owned and maintained by the associations. Public pump stations added are located at Job Seamans /Birch Acres, Autumnwood, and Edmunds Road. The initial installation of these pump stations is funded by the developer or the area residents who are benefitted. Once the public pump stations are accepted by the Town, repair and future replacement costs associated with these pump stations are the responsibilities of the Town's Public Works Department.

#### *Wastewater Flow Projections*

Wastewater flow projections are presented in Tables XI-4 (Page 206) and XI-5 (Page 207). These projections are based on the following assumptions:

1. Base flow rates for 2010 will be equal to 2009 sewer flow rate reported in Table XI-3 (Page 204), above;
2. The base population in 2010 is 4,397. Population growth is assumed to be 50 persons per year as stated in the Population Chapter;
3. Conversion of the year-round population projections into dwelling units is 2.35 persons per dwelling unit based on the 2009 American Community Survey by the US Census Bureau;
4. The public sewer system will serve 30% of new dwelling units;
5. Each dwelling unit will generate an average of 180 gallons of wastewater flow per day as reported by the Public Works Department, which matches the assumed water consumption rate per dwelling unit;
6. The Colby-Sawyer College student population in 2007 is 942 and will increase to no more than 1,300 students by 2020, as discussed in the Population Chapter (assume a constant growth rate for the projection interval), and;
7. Estimated wastewater flow generation for Colby-Sawyer College students will be 60 gallons per day per student as reported by the Public Works Department.

**TABLE XI-4**  
**Wastewater Flow Projections**  
**Year-Round Dwellings: 2010-2020**

<b>Year</b>	<b>Total Dwelling Units</b>	<b>Overall Estimated Increase In Dwelling Units</b>	<b>Increase in Dwelling Units Served by Sewer</b>	<b>Increase in Sewer Flows</b>
2010	2,303 D.U.	-	-	-
2015	2,409 D.U.	116 D.U.	32 D.U.	5,760 GPD
2020	2,515 D.U.	116 D.U.	32 D.U.	5,760 GPD
<b>Total</b>		232 D.U.	64 D.U.	11,520 GPD

**TABLE XI-5  
Wastewater Flow Projections  
Colby-Sawyer College Student Population  
2010-2020**

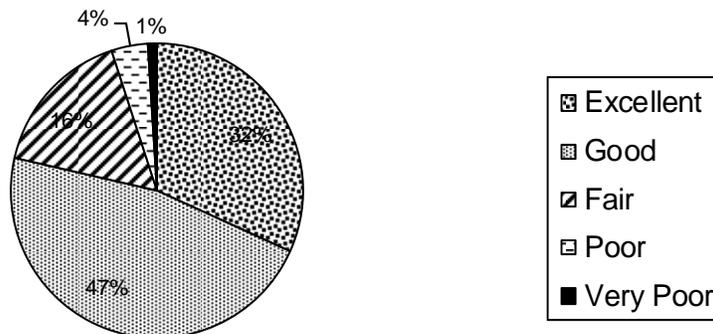
Year	Total Number Matriculated Students	Increase in Matriculated Students	Increase in Flows (GPD)
2010	1,103	78 (since 2007)	4,680 GPD
2015	1,202	140	8,400 GPD
2020	1,300	140	8,400 GPD
Total		358	21,480 GPD

As reflected in Tables XI-4 (Page 206) and XI-5 (Page 207), the Town sewer system is projected to serve an additional 358 students at Colby-Sawyer College and 64 additional dwelling units. The projected residential and student growth translates to approximately 33,000 GPD increased sewer demand. These projected flows do not include estimates for increased commercial or industrial wastewater flows which may vary widely based on proposed use and size. If New London is utilizing 65% (260,000 GPD) of its allocated 400,000 GPD treatment capacity in Sunapee, the 33,000 GPD of additional wastewater flows would increase the rate of utilization up to approximately 73% of total capacity.

*Community Survey Results: Municipal Wastewater Collection and Treatment*

When all respondents were asked to rate the Sewer Service in the 2008 Community Survey 52.9% of the survey respondents indicated they don't know how to rate the service; we assume that many of these respondents may not be connected to the sewer system and therefore do not use the service. When the survey responses to that question are tabulated with those people familiar with the service and eliminating the "Don't Know" responses, 78.6% of those familiar with the service rated it excellent or good, 16.4% rated the service as fair, and 5% rated the service as poor or very poor as reflected in Figure XI-2 (Page 207) to follow.

**FIGURE XI-2  
Sewer Service Rating - Respondents Familiar with Service**



*Issues: Municipal Wastewater Collection and Treatment*

1. Lack long-term planning addressing impacts of sewer collection and treatment capacities on future land use in New London including development of a future service area in the Town with revised sewer line extension policies.
2. Inflow and infiltration of stormwater and ground water into the wastewater collection system accounts for over 30% of the average daily flows. Addressing inflow and inflow issues will increase existing available sewer capacity.
3. Communication between the Public Works Department and the Planning Board on proposals from developers.

*Recommendations: Municipal Wastewater Collection and Treatment*

1. The Public Works Department should continue to communicate to the Planning Board the capital needs and priorities of the Public Works Department annually updating the 10-year Capital Improvements Program (CIP).
2. Form a task force consisting of representation from the Board of Selectmen, the Planning Board, the Public Works Department and the public to discuss and investigate wastewater treatment capacity for New London or whether the remaining existing wastewater treatment capacity is adequate to serve the long-term growth needs of the Town. Additionally, identify and prioritize areas in Town that should be served by new municipal sewer service.
3. The Public Works Department should continue its efforts to reduce storm water infiltration into the sewer collection system through enforcement of the Town's Sewer Ordinance and replacement of old sewer mains through the CIP process.
4. The Planning Board should understand and support the policies on providing new service by the Board of Selectmen and the Public Works Department through the CIP and the development review process. The Planning Board, the Board of Selectmen and the Public Works Department need to continue to communicate about the needs and impacts created by new development proposals.
5. The Planning Board should discuss revised sewer line extension policies with the Board of Selectmen and the Public Works Department. The impetus to discuss development of a Sewer Service Area stems from several points:
  - a. appropriately allocate costs of system improvements and maintenance to users directly benefiting from the improvements;
  - b. address the potential conflict between the current wastewater collection line extension policy and goals and recommendations of the Master Plan; and
  - c. review existing land use regulations and municipal ordinances to plan for appropriate areas to be supported for more intensive residential development around the village area.

## **New London-Springfield Water System**

New London is served by a municipal water works which is owned by the New London-Springfield Water System Precinct and governed by a three member Board of Water Commissioners. The original water system was constructed in 1925. The Precinct boundaries generally encompass the village center and the surrounding area. The area served by the New London-Springfield Water System Precinct is shown on Map XI-1 (Page 201). Areas outside the Precinct boundaries are served by private on-site wells.

The Water Precinct is now supplied by six gravel packed wells located on Colby Point on Little Lake Sunapee. These wells, which came on line in May 1996, have a design capacity of 500,000 gallons per day (GPD) and a yield of 720,000 gallons per day. The water from the wells is fed directly into the water distribution system via a water line connecting to the existing line located in the Twin Lake Villa Road. A 1,000,000-gallon water storage tank is located along the Kidder Brook in Springfield and is situated next to the existing water storage reservoirs which will be retained for emergency use. The entire water system can be fed by gravity from the new storage tank. The construction of the gravel packed well system and the storage tank brings the water system into compliance with the Federal Safe Drinking Water Act of 1977, as amended.

In 2009, the precinct provided water service to a total of 1032 connections in New London and Springfield. This includes year-round services (988) and seasonal services (44) for residential, commercial and institutional uses. The bulk of the customers (999 connections or 97 % of the total number of connections) were in New London. The Precinct extends into a portion of Springfield to serve 33 connections in the Twin Lake Villa area.

In 1990, 36% of the dwelling units in New London were served by the New London/Springfield Water System Precinct, about 60% were served by on-site wells and about 4% were served by other sources. By 2009 the numbers of residential units had increased, but the percentage splits between the sources of the water supply remained relatively constant. There were an estimated 2,271 total housing units in New London in 2009 based on The Current Estimates and Trends in New Hampshire's Housing Supply Update: 2009 prepared by the New Hampshire Office of Energy and Planning. The New London-Springfield Water System Precinct reported that 827 residential units in New London were served by their water system in 2009 or 36.4% of the total number of estimated residential units in New London in 2009 as outlined in Table XI-6 (Page 210). Out of the remaining 1,444 residential units, 1,373 residential units or 60.5% were served by on-site wells. The remaining 71 residential units or 3.1% were served by other sources.

This data in Table XI-6 comparing water supply sources reveals that 180 additional homes were served by the precinct in 2009 compared with 1990 for a 27.8% increase. In comparing the growth between 1990 and 2009, new homes were served by about the same percentage splits for the sources of water supply as they were in 1990.

Water line extensions have been made as part of the following subdivisions: Trussell Ridge, Highland Ridge, Woodland Trace, and Fenwood. Additionally, the Water Precinct has closed grid loops in the water system through the installation of 8" water mains on Lakeside Road, Knights Hill, and a connection between the Fenwood Subdivision and Pine Hill Road.

**Table XI-6  
Source of Water Supply: 1990 & 2009**

Type of Source	1990		2009		Change 1990-2009	
	Dwelling Units	Percent of Total	Dwelling Units	Percent of Total	Dwelling Units	% Growth
Precinct Water	647 <sup>2</sup>	36.0%	827 <sup>1,6</sup>	36.4%	180	38.1%
Wells	1,080 <sup>2</sup>	60.1%	1,373 <sup>5</sup>	60.5%	293	61.9%
Other	71 <sup>2</sup>	3.9%	71 <sup>3</sup>	3.1%	0	0%
Total	1,798 <sup>2</sup>	100%	2,271 <sup>4</sup>	100%	473	100%

## Footnotes:

<sup>1</sup> Source: New London/Springfield Water System Precinct, 2010<sup>2</sup> Source: US Census 1990<sup>3</sup> No data for 2009. Assumes same number as 1990<sup>4</sup> Source: The Current Estimates & Trends in New Hampshire's Housing Supply Update 2009<sup>5</sup> Calculation based on other numbers<sup>6</sup> Please note that the number of services for some of the multi-family units may be undercounted since some of the multi-family units have one water service for all of the units

The Water Precinct constructed a booster pump station and water storage tank on the Colby-Sawyer campus in 2006. This now provides a back-up water supply should service be interrupted on the main water line from Springfield. A new water flow meter was installed as part of that construction project.

The average daily water consumption in gallons per day (GPD) for each month from April 2009 through March 2010 is presented in Figure XI-2 (Page 211). The data indicates fluctuations in demand that are consistent with seasonal water demands (e.g.: peak summer demands associated with irrigation and recreational uses). The average daily flow throughout the year from April 2009 through March 2010 was 218,333 GPD. Table XI-7 (Page 211) identifies the water consumption by type of use.

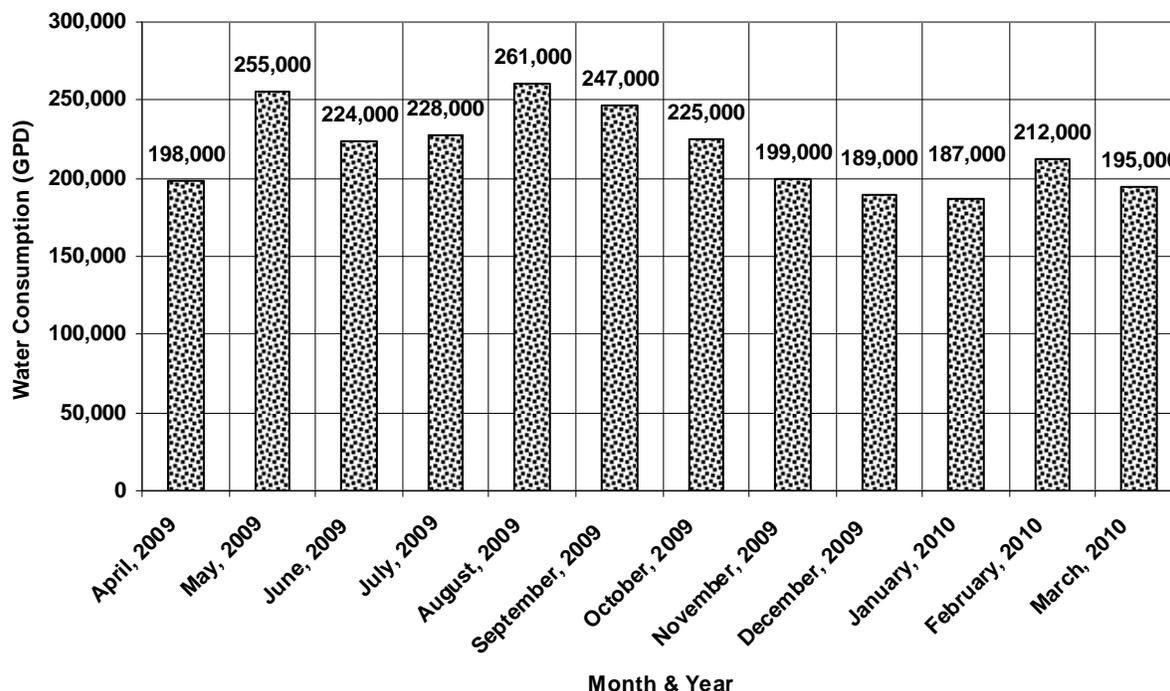
The information indicates that residential uses were by far the major water user each day by consuming almost one-half (49.3%) of the daily water use. Commercial uses were the second major water user and consume one-fourth (25.1%) of the daily water use. Colby-Sawyer College was the third major water user and consume 17.0% of the water used each day.

### Water Consumption Projections

Water consumption projections are presented in Tables XI-8 (Page 212) and XI-9 (Page 212) to follow. These projections are based on the following assumptions:

1. The base population in 2010 is 4,397. Population growth is assumed to be 50 persons per year as stated in the Population Chapter;
2. Conversion of the year-round population projections into dwelling units is 2.35 persons per household based on the 2009 American Community Survey by the US Census Bureau;

**FIGURE XI-2**  
**Average Daily Water Consumption by Month**  
**New London/Springfield Water System Precinct: April 2009 – March 2010**



Source: Superintendent, New London/Springfield Water System Precinct

Note: The figures above are based on total system demand including both metered and unmetered use.

**TABLE XI-7**  
**Water Consumption by Type of Use for Metered Water Services**  
**New London/Springfield Water System Precinct: October 2009-April 2010**

Type of Use	Services	Total Usage (GPD)	Percent of Total Usage	Average Usage per Service
Residential	827 <sup>1</sup>	77,261	49.3%	93
Commercial	163 <sup>2</sup>	39,356	25.1%	241
Colby-Sawyer College	29	26,717	17.0%	921
Hospital	4	10,800	6.9%	2,700
Laundromat	1	2,700	1.7%	2,700
Irrigation	8	4,289 <sup>4</sup>	NA <sup>4</sup>	427
<b>Total</b>	<b>1,032<sup>3</sup></b>	<b>156,811</b>	<b>100%</b>	<b>152</b>

Source: Superintendent, New London/Springfield Water System Precinct, 2010

Notes:

<sup>1</sup> The number of services for some of the multi-family units is undercounted since some of the multi-family units have one water service for all of the units

<sup>2</sup> The number of services for some of the commercial uses is undercounted since some of the commercial uses have one service for several uses

<sup>3</sup> Forty-four are seasonal services

<sup>4</sup> Irrigation figures are for the summer of 2009 and not included in total GPD figure

3. The 2009 percentage of homes served by the precinct (36.4%);
4. The average water consumption rate is 180 GPD per dwelling unit. This is lower than the consumption rate per dwelling unit used by the New Hampshire Department of Environmental Services for planning purposes, but higher than the water consumption rate in Table XI-7 (Page 211) for the period from October 2009 through April 2010. This assumption of matches the assumed average wastewater flow generation rate per dwelling unit;
5. The Colby-Sawyer College student population will increase to no more than 1,300 students by 2020 as discussed in the Population Chapter; and
6. The average water consumption is 60 GPD per student.
7. Water usage rates do not consider periods of peak demand (e.g.: private irrigation of fields and lawns) or likely consumption by new commercial or industrial uses.

**TABLE XI-8**  
**Water Consumption Projections**  
**Year-Round Population: 2010-2020**

Year	Total Dwelling Units	Overall Estimated Increase In Dwelling Units	Increase in Dwelling Units Served by Water District	Increase in Water Consumption
2010	2,303 D.U.	-	-	-
2015	2,409 D.U.	116 D.U.	39 D.U.	7,020 GPD
2020	2,515 D.U.	116 D.U.	39 D.U.	7,020 GPD
Total		232 D.U.	78 D.U.	14,040 GPD

**TABLE XI-9**  
**Water Consumption Projections**  
**Colby-Sawyer College Student Population: 2010-2020**

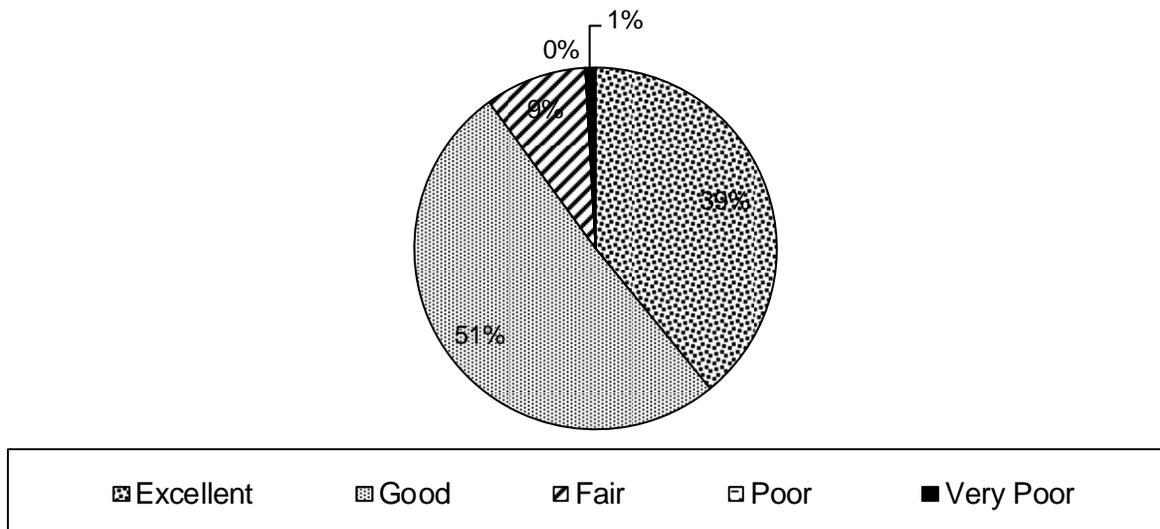
Year	Total Number Matriculated Students	Increase in Matriculated Students	Increase in Flows (GPD)
2010	1,103	78 (since 2007)	4,680 GPD
2015	1,202	140	8,400 GPD
2020	1,300	140	8,400 GPD
Total		358	21,480 GPD

Based on these projections for the year 2020, the growth in year-round population will consume an estimated additional 14,040 GPD and the growth in the Colby-Sawyer College student population will consume an estimated additional 21,480 GPD. Combined, the total increase in water consumption by the year 2020 is projected to be 35,520 GPD. Adding this projected growth in water consumption to the peak demand experienced in August 2009 (261,000 GPD) would result in an estimated peak consumption rate of 296,520 GPD, or approximately 59% of the design capacity in 2020. Based on this information the water system can adequately serve the increase demand generated by projected residential and institutional growth by the year 2020 and still retain an excess of 40.1% of the system's design capacity.

Community Survey Results

When all survey respondents were asked to rate the public water service in the 2008 Community Survey 46.1% of those rating the water service indicated they don't know how to rate the service perhaps due to the possibility these respondents are not connected to the public water supply. When the survey responses for rating the water service are tabulated with those people familiar with the service and eliminating the "Don't Know" responses, 90.0% of those people familiar with the service rated it excellent or good, 9.1% rated the service as fair and 0.9% rated the service as very poor as depicted in Figure XI-3 (Page 213).

**Figure XI-3  
Water Service Rating - People Familiar with Service**



Issues: New London-Springfield Water System

1. Maintain and improve the water supply and distribution system as necessary.
2. Improve communications between the Water Precinct and the Town of New London concerning development proposals.

### Recommendations: New London-Springfield Water System

1. The Water Commissioners should continue to advise and communicate the planned capital projects and priorities of the Water Precinct for the water supply and the distribution system to the Planning Board to aid in the Planning Board's annual CIP update.
2. The Planning Board should understand and cooperatively reinforce policies on providing new service by the Water Precinct through the CIP and the development review process. The Planning Board and the Water Commissioners should continue to communicate about the needs and impacts created by new development proposals. The groups should continue to work together and to find ways to improve their communications and be responsive to the needs and constraints of the Water Precinct and its Commissioners, the applicant, and the Planning Board.

### **Stormwater Utility**

Continued development of land and corresponding increases to impervious land cover will cause broader impacts to the quality and quantity of stormwater runoff. New London development patterns and future land use goals of focusing development in village-scale or smaller residential-scale clusters where appropriate. The infrastructure to serve these areas, as they develop and increase in size and complexity, may become incorporated into a municipally managed stormwater utility and adoption of some private stormwater systems as public utilities in the interest of the public health and welfare.

### **Electric Utility**

As of January 2010 approximately 3,237 customers in New London, including residences and businesses, receive electricity from Public Service of New Hampshire (PSNH). Three-phase power, which serves high capacity/high demand commercial, residential, and institutional properties, is available along Newport Road and Main Street from the Post Office to Colby-Sawyer College, Pleasant Street, Seaman's Road, at the Transfer Station and on Route 11 from just east of Brookside Drive to Country Club Lane. Single phase service is offered in the rural areas of Town principally serving individual residences with relatively limited power demands.

About 80 miles of electrical distribution lines are maintained by PSNH in New London. A power substation is located on South Pleasant Street, which was upgraded in 2009 with approximately double the capacity of the older substation to accommodate current electrical demand and accommodate growth in Town.

### **Communications**

#### Telephone

TDS Telecom is a nationally based telephone company which provides service to most New London residents. As of November 2009, they had a total of 6,600 access lines in New London. Of that total, 4,800 are residential access lines. The number of customers or residents served is hard to determine, since many homes have multiple lines and some businesses have as many as twenty access lines or more. FairPoint serves a limited number of residents in the western parts of New London.

### Cable Television

Cable television has been available to most New London residents since about 1983. Cable television service is currently provided by Comcast. There are 111 miles of cable line in Town with a few areas remaining without service. As of December 2009 about 1,600 customers were utilizing the cable system.

### Broadband Internet

Broadband Internet access, often shortened to just broadband, is a high data rate Internet access capable of providing high-speed transmission of data, voice and video services over the Internet. Broadband is typically contrasted with the substantially slower dial-up access using a modem.

As of 2009 the United States (US) Federal Communications Commission (FCC) defined "Basic Broadband" as data transmission speeds exceeding 768 kilobits per second (Kbps) in at least one direction: downstream (from the Internet to the user's computer) or upstream (from the user's computer to the Internet). The trend appears to be to raise the threshold speed of the broadband definition as the marketplace provides faster services.

"Broadband penetration" is now treated as a key economic indicator as reported in the 2007 Broadband Report by The Organization for Economic Co-operation and Development (OECD).

In New London, broadband Internet access is typically provided by the telephone or cable provider. TDS Telecom and FairPoint Communications both offer Digital Subscriber Line (DSL) service, which provides Internet service and telephone service simultaneously over the phone line. Comcast provides Internet service via a cable modem, often packaged with cable TV service. A third type of broadband Internet service is available in the parts of New London with mobile wireless data service; Verizon Wireless, AT&T, T-Mobile and US Cellular are four major providers of this type of service.

### Broadband Internet Expansion

While basic broadband service is currently available in much of New London, there is strong demand for better service in town and the region. In the fall of 2005, in response to public interest, the towns of Orford, Lyme, Hanover, Enfield, Springfield, New London, Newbury and Sunapee formed the West Central NH Regional Health and Security Communications Consortium (now called WCNH.net). This non-exclusive group of municipalities put together seed money, with Board of Selectmen and/or Town Meeting approval, to hire a consultant that specializes in community broadband networks to study the feasibility of such a network in our communities. During the course of the feasibility study, educators expressed great interest in reducing telecommunications costs, creating opportunities for distance teaching and learning, and connecting students to the vast research capabilities of the Web. Dartmouth and Colby-Sawyer colleges see tremendous opportunities for improving on and off campus communications, and the colleges and local hospitals agree that access to high speed internet is a must for recruiting high caliber professors and healthcare professionals. Support has been received from New London Hospital and the Lake Sunapee Region VNA, as well as physicians in the Hanover area who envision the expansion of home healthcare and telemedicine that will lower healthcare costs while improving its delivery. Police, fire, EMS and other emergency services, particularly in the most rural parts of the WCNH.net area, know that a fiber optic network would greatly improve their spotty emergency communications.

In 2010, WCNH.net joined forces with 35 other communities and the Monadnock Economic Development Corporation to create a coalition named New Hampshire FastRoads to seek federal funding for broadband expansion. New Hampshire FastRoads intends to build an open-access fiber-optic broadband network in the Upper Valley and Southwest regions of the state. Fiber-optic networks provide substantially more capacity and faster Internet service speeds than standard cable or DSL service.

New Hampshire FastRoads, in conjunction with the University System of New Hampshire and the State Department of Resources and Economic Development, among others (jointly known as “Network NH Now”), was awarded a \$44.5 million federal grant to expand broadband in New Hampshire, with funding through the American Recovery and Reinvestment Act. The FastRoads portion of this funding is \$5.3 million, with \$2.4 million in matching funds, to construct an open-access fiber-optic network in 19 communities stretching from Rindge to Orford. As an open-access network, any Internet service provider could tap into the FastRoads fiber-optic network to provide service to households and businesses. In New London, twelve community institutions on Newport Road and Main Street are slated to be connected directly to the fiber-optic network, including New London Hospital, Colby-Sawyer College, and Kearsarge Regional Elementary School at New London as well as the town facilities (Town Offices, Police, Fire and Library) and several healthcare providers. The timeframe for network construction is Spring 2013. Once this regional network infrastructure is in place, the goal of FastRoads is to expand and provide a connection that will deliver advanced telecommunications capabilities to every resident, public safety agency, educational institution, healthcare facility, and business in the participating towns.

### Telecommunications Towers

The use of cellular (cell) phones has exploded in the last ten years generating stiff competition between cell providers. Verizon, Sprint, AT & T, US Cellular and T-Mobile are a few of the major providers. With increasing frequency people are using their cell phones in place of their old land-line phones.

The undulating topography of the Lake Sunapee Region constrains the coverage areas of cell phone service. Cell towers have been constructed on Mount Kearsarge, Mount Sunapee, and other high points in the region, which have been augmented by several towers constructed along the Interstate 89 corridor to improve service. However, demand for better coverage continues, and more cell towers are needed to improve the coverage and eliminate “dead zones.”

One of the land uses presenting a particular challenge for communities to manage in the future is communication towers for wireless telecommunications. The maintenance of a modern and accessible telecommunications network is considered essential to the public welfare. Numerous economic, social and cultural benefits are available to communities that possess open access through communication facilities. Public safety agencies, such as emergency medical services, fire and police departments, rely on communication facilities to provide essential services.

The field of telecommunications is undergoing rapid change. Advancements in this technology have and will continue to affect growth in the Region and in New London. Technological improvements, more likely, will enable people to work at home and telecommute to work or to other remote or central offices more readily. Development of alternative technologies, such as

use of satellites, may preclude the need for communication towers in the future, although current trends show that major wireless carriers are focusing on upgrading and improving wireless voice and data service through land-based towers.

The major physical planning issue that emerges from this wireless communications technology is the siting and construction of new communication towers. In the hilly topography characteristic of this area, towers and related facilities need to be located on the hilltops or higher elevation points in order to provide the broadest service area coverage. Yet, towers sited on these prominent vantage points often degrade scenic resources.

In addition, there is some uncertainty about the health effects of the electromagnetic fields generated by broadcast and telecommunications facilities upon people living near them. The Telecommunications Act of 1996 provides that no local government may regulate a telecommunication facility on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Federal Communication Commission's (FCC) regulations concerning such emissions. An applicant for a communication tower must prove to the satisfaction of the local government that the proposed facility will be in compliance with the FCC's regulations on radio frequency emissions.

The FCC retains jurisdiction over the public airwaves and the telecommunications industry in general. Additionally, the Federal Aviation Administration (FAA) exercises control over the location and height of towers and similar structures to prevent interference with aircraft and airport operations.

The Telecommunications Act of 1996 restricts the authority granted under New Hampshire law to municipalities to regulate, by zoning, wireless telecommunication facilities. New London may not prohibit or unduly frustrate efforts to provide telecommunication facilities and must provide reasonable opportunities for location of such facilities. New London has adopted a Telecommunications Facilities Ordinance as part of the Zoning Ordinance that regulates the siting of telecommunications facilities in Town.

New communications towers and supporting infrastructure are incongruous with the beauty of the Town and should be sited and constructed only as necessary to meet changing needs. Those wishing to provide new or expanded communications services should use existing structures when possible. Owners or operators of existing tower space should facilitate the sharing of that space unless sharing is prohibitive due to frequency interference, adverse aesthetic impacts or a demonstrated risk to public health. An applicant for installation of new transmission facilities shall demonstrate that public exposure to Radio Frequency (RF) radiation will not exceed the applicable FCC standards for human exposure. In the event that use of a tower is discontinued, the site should be restored to its natural condition, or to the condition that existed prior to construction, as appropriate. Siting and design of new communications towers and facilities (including any support and maintenance structures, necessary access corridors and utility lines) shall minimize impacts on natural, scenic and aesthetic resources. The use of a high point (hills, mountains, ridges) for telecommunications towers and related facilities should be discouraged or undertaken in a manner that will neither unduly detract from nor adversely affect the Town's scenic values.

To minimize conflict with scenic values, facility design and construction should adhere to the following principles:

where feasible, towers should be sited in areas not highly visible to the traveling public, nor visible from residential areas, historic districts, public use or outdoor recreation areas such as hiking trails and beaches;

1. towers should be located in forested areas or be sufficiently landscaped to screen the lower sections of towers and related ground fixtures from public vantage points such as trails, roads or water bodies;
2. use of camouflage materials, architectural styles, color schemes, lighting fixtures, and other elements to promote aesthetic compatibility with surrounding uses and to avoid adverse visual impacts;
3. where prominent views of a site exist, towers should be located downgrade of the height of land so as not to exceed the elevation of the immediate elevation of land;
4. where access roads are proposed, they should be located to follow the contours of the land and to avoid open fields or meadows in order to minimize their visibility;
5. towers should not be sited on peaks and ridges that function as regional focal points; and
6. owners or operators of existing tower space should facilitate the sharing of that space unless sharing is prohibitive due to frequency interference, adverse aesthetic impacts or a demonstrated risk to public health.

### **Earth Mineral Resources**

Construction materials resources are valuable for their use in local construction and for commercial export. Responsible excavation operations, which provide careful attention to environmental concerns and site restoration, can continue to provide New London with a stable economic resource that also meets other goals of preserving rural character, aesthetics and the environment. Sand and gravel operations occupy a prominent place in our economy by providing construction aggregate for roads and other development activities.

However, earth excavations can be a disruptive land use, resulting in noise and air pollution issues, heavy truck traffic, and leaving a damaged landscape. If excavation activities are not properly managed many issues may occur including pollution of surface water and groundwater from soil erosion and sedimentation, fuel spills, and overstripping the soils to expose the water table. Further, excavation too close to the water table may result in local flooding in wet years when the water table is unusually high. Thus, it is important that excavation operations be performed with care. Plans for excavations should consider impacts on aesthetics, wildlife, ground and surface waters, air quality, roads, adjacent land uses, and the character of the surrounding area. Appropriate restoration plans and a financial security to ensure implementation of those plans are needed for every proposed excavation operation.

Construction materials located in the Town of New London include:

1. Construction material deposits of sand, gravel, roadfill, and topsoil have been identified by the 1961 Merrimack County Soils Survey.

2. Stratified-drift aquifers contain prime sand and gravel deposits and are important local and regional groundwater resources. Map V-1 (Page 49) in the Water Resources Chapter illustrates the existence of several aquifers in New London.

The locations of the existing active and abandoned sand and gravel excavations in New London, based on information provided by the Public Works Director are shown on Map IV-2 Agricultural Resource & Earth Excavations Map in the Conservation & Open Space Chapter. The only active sand and gravel excavation in New London is the Town-owned Shepard Pit located off Mountain Road. The Town still excavates a small amount of sand and gravel from this pit as needed. All the other sand and gravel excavations identified on Map IV-2 (Page 27) are abandoned pits which were opened and operated for construction of I-89 and Route 11.

RSA 155-E, the state law governing earth excavations, states a town must allow reasonable opportunities somewhere in town for excavations. Local earth excavation regulations currently provide for reasonable opportunities with local review processes to ensure appropriate locations for such uses. These provisions include adequate standards and safeguards to minimize environmental impacts.

Issue: Earth Mineral Resources

1. Outdated soils information (last revised in 1961)

Recommendation: Earth Mineral Resources

1. Once the updated Soil Survey of Merrimack County is available, the Planning Board should have maps prepared identifying the locations of construction materials in Town.

## **XII. TRANSPORTATION**

### **Introduction**

New London's transportation network is defined by its good connections with larger regional centers via Interstate 89 and New Hampshire Route 11. New Hampshire Routes 114 and 103A also make the Town a focal point for nearby towns which share our commitment to retaining this region's rural character. Because of its combination of scenic geographic location and easy access to surrounding towns and to larger, more distant population and commercial centers, New London has maintained its role as a strong sub-regional center for tourism, services and employment despite economic fluctuations. Consequently road transportation systems continue to figure prominently in the Town's overall planning strategy. Additionally, hiking and biking trails are an essential component of the area's tourism economy. Trails provide important recreational benefits for residents and visitors and can be developed as the basis for the long-term goal of creating a "livable, walkable community" enriching the commercial and residential center of New London while reducing the density of motorized transportation as the town grows.

### **Goals**

The New London Planning Board continues to support the same broad transportation goals that have successfully guided the community's growth over the past decade:

1. To provide a cost-effective transportation infrastructure which will meet, to the greatest extent possible, the mobility needs of local residents; and which will provide for the safe, efficient movement of goods, services and people within and through New London;
2. To continue the excellent Town road maintenance and reconstruction program;
3. To minimize the negative impacts of traffic and transportation infrastructure on New London's natural and cultural resources.
4. To emphasize in the Town's transportation planning the importance of a "livable, walkable community" based on the development of a network of non-motorized pathways, trails, bike lanes and sidewalks enabling residents and visitors to enjoy pedestrian and bicycle access to the Town's business centers and recreational assets.
5. To develop cooperative planning processes with neighboring towns on transportation issues that build a healthy economic base while preserving our core commitment to retain the rural character of the region.

### **Community Survey Results**

New Londoners, in the 2008 Community Survey, registered their opinions on transportation-related issues not specifically addressed elsewhere in this Master Plan that included the following.

Question # 1: There was only one transportation-related response in Question #1. When asked about the attributes that significantly contribute to making New London a desirable place to live and/or own property, respondents indicated that convenient access to the interstate highway system was the tenth highest attribute out of a total of thirteen attributes.

Question # 10: People responding to Question #10 asking about the importance of the twenty-five attributes listed indicated that:

- charming rural roads was the tenth highest rated attribute; and
- maintaining a natural vegetative buffer along rural roads was the eighteenth highest rated attribute.

Question # 23: As reflected in the responses to Question #23 to follow, about two out of three respondents were supportive or very supportive of expanding public transportation to major regional transportation hubs.

Planning Board Community Survey 2008		
Question #23: Do you support expanding public transportation to major regional transportation hubs? (Please choose one)		
Answer Options	Response Percent	Response Count
Very Supportive	31.0%	139
Supportive	35.5%	159
Neutral	16.3%	73
Unsupportive	6.0%	27
Very Unsupportive	9.6%	43
Don't Know	1.6%	7
Comments:		61
<i>answered question</i>		<b>448</b>
<i>skipped question</i>		<b>67</b>

Question # 24: Just over half of the people responding to Question #24 indicated they were supportive or very supportive of studying the feasibility of developing public transportation within the greater New London regional area.

Planning Board Community Survey 2008		
Question #24: Do you support studying the feasibility of developing public transportation within the greater New London regional area? (Please choose one)		
Answer Options	Response Percent	Response Count
Very Supportive	22.3%	100
Supportive	29.5%	132
Neutral	22.5%	101
Unsupportive	14.5%	65
Very Unsupportive	11.2%	50
Comments:		55
<i>answered question</i>		<b>448</b>
<i>skipped question</i>		<b>67</b>

Question # 25: When asked in Question #25 about the support for developing a local transportation center in New London, responses were fairly evenly split providing no clear direction.

Planning Board Community Survey 2008		
Question #25: Do you support developing a local transportation center in New London? (Please choose one)		
Answer Options	Response Percent	Response Count
Very Supportive	14.5%	65
Supportive	22.5%	101
Neutral	27.2%	122
Unsupportive	16.7%	75
Very Unsupportive	12.3%	55
Don't Know	6.7%	30
Comments:		60
<i>answered question</i>		<b>448</b>
<i>skipped question</i>		<b>67</b>

Question # 28: The following conclusions can be drawn from the responses to Question #28 that inquired about where and what type of improvements for pedestrian and bicycle connections people supported:

- Overall the most support was for multi-use paths;
- There was not a majority of support for any type of improvement in any identified location;
- Overall, the do not know responses were too high throughout reflecting the need for more education about the options.

Planning Board Community Survey 2008								
Question #28: Where and what type of improvements for pedestrian and bicycle connections do you support?								
Sidewalks are paved and allow pedestrians but not bicyclists. Multi-Use Paths are constructed of crushed gravel and allow multiple uses such as walkers, runners, & mountain bikers. Bike Lanes are built on the side of the road with a painted stripe separating the bike lane from vehicle lanes for bike use only. Bike Paths are separate paved paths for bike use only that are built off-road. Check one response for each location.								
Answer Options	No Improvement	Sidewalk Paved	Multi-Use Path	Crushed Gravel	Bike Lane Side of Road	Bike Path Off-Road	Don't Know	Response Count
Along Pleasant Street from Main Street to Job Seamans	19.7% (82)	21.1% (88)	26.5% (110)	1.4% (6)	12.0% (50)	3.4% (14)	16.1% (67)	417
Along Parkside Road & under the power line to	17.6% (72)	9.3% (38)	34.1% (140)	1.5% (6)	9.3% (38)	5.1% (21)	23.2% (95)	410
Along County Road from Newport Road to Parkside	15.7% (64)	19.6% (80)	26.0% (106)	0.7% (3)	13.2% (54)	3.9% (16)	20.8% (85)	408
Along Parkside Road from County Road to power line	19.1% (76)	8.6% (34)	28.2% (112)	1.0% (4)	13.9% (55)	4.0% (16)	25.2% (100)	397
Along Pleasant Street from Main Street to the Public	26.9% (108)	13.2% (53)	22.9% (92)	1.2% (5)	11.4% (46)	2.5% (10)	21.9% (88)	402
Along Route 11 from the NL Post Office to the Transfer	25.5% (106)	3.1% (13)	25.1% (104)	3.4% (14)	19.3% (80)	8.2% (34)	15.4% (64)	415
Along Seamans Road from Gould Road to the Colby-	22.9% (94)	14.6% (60)	25.5% (105)	2.2% (9)	10.2% (42)	5.4% (22)	19.2% (79)	411
Along Route 114 from Main Street to Bucklin Beach	21.8% (90)	6.6% (27)	31.1% (128)	1.5% (6)	16.5% (68)	4.4% (18)	18.2% (75)	412
From Town to Bucklin Beach	21.9% (90)	6.6% (27)	30.4% (125)	0.7% (3)	14.8% (61)	3.9% (16)	21.7% (89)	411
Comments:								74
<i>answered question</i>								<b>425</b>
<i>skipped question</i>								<b>90</b>

## Land Use – Transportation Dynamics

National and state transportation agencies have, in recent years, come to recognize that transportation planning, in order to be effective, must be integrated with land use planning. Federal legislation, primarily the Intermodal Transportation Efficiency Act (ISTEA), has created

an entirely new framework for state transportation planning programs, in that it articulates the need for a multimodal, intermodal and multi-goal approach.

Transportation is not only closely linked to land use, it is a land use. A large percentage of New London's land area is taken up by transportation infrastructure, primarily roads and parking lots. Transportation uses have increasingly replaced other land uses as the settlement pattern has become more and more dispersed, and the Town's residents have come to rely on automobile travel as their primary mode of transportation.

Like any other land use, transportation impacts the environment, both through development of infrastructure and through motor vehicle use. ISTE's more holistic approach to transportation planning permits protection of environmental and cultural resources to play a more important role in future infrastructure expansions. The presence of wetlands, rare flora, scenic views, historic buildings and interesting natural land forms all influence the planning process to a greater degree than in the past. Since most New Londoners cherish their high environmental quality, this integrated approach is a good idea.

New London has a vibrant and diversified core with a variety of commercial and residential uses. Most of the time, the village is buzzing with visitors, local shoppers and business people. There is usually a good mix of foot-traffic, cyclists and motor vehicles. The peripheral areas have largely followed the more recent national development trend of sharply segregated land uses, resulting in considerable travel distances between places that are essential to people's lives, such as home, work, shopping and school. A case can be made for returning to more traditional neighborhoods with a mix of diverse, but compatible, land uses. There are multiple benefits of such a development model, e.g. shorter travel distances and times, reduced number of trips, increased walking and bicycling, reduced infrastructure costs, improved environmental quality and greater social interaction within the community. Future zoning amendments in New London should, therefore, also be evaluated in terms of their transportation impacts.

## **Public Road System: Motorized Transportation**

### *Transportation Infrastructure*

#### *Maintained and Unmaintained Roads*

The public maintained road system in New London totals 81.29 miles. This number represents a moderate increase over the past decade. The Town is responsible for maintaining 54.9 miles of Town roads (67.5% of the total) and the State of New Hampshire is responsible for maintaining 26.4 miles of state and interstate roads in New London (32.5% of the total).

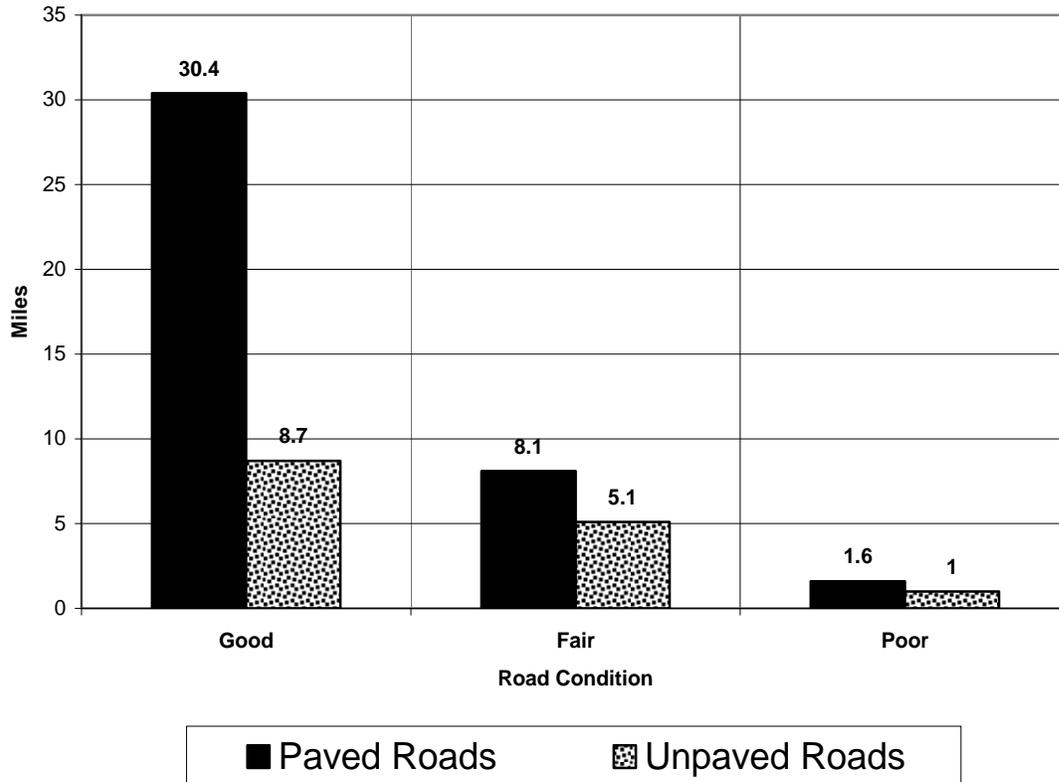
Putney Road is the only unmaintained Class VI town road in New London. The New London Board of Selectmen's policy is to not issue building permits along Class VI roads. This practice is prudent and should continue.

#### *Road Conditions*

The Town's roads are, overall, in good condition. In 1996, the Upper Valley Lake Sunapee Regional Planning Commission completed a Road Surface Management Survey (RSMS) of all the town-maintained roads and state highways, except interstates, in New London. Unfortunately the RSMS Data has not been updated since 1996 and since it is so outdated it is not presented here. However, the Director of the Public Works Department has indicated that over the past thirteen years the Town has been aggressively grinding and repaving paved roads

and working on gravel roads with ditch cleaning and gravel replacement. As reflected in the figure to follow, the Director of Public Works estimates that 39.1 miles of Town-maintained roads are in good condition, 13.2 miles are in fair condition and 2.6 miles are in poor condition. In 2008 the Board of Selectmen approved a plan to start paving some of the gravel roads.

**FIGURE XII-1  
Condition Ratings for Roads in New London - 2009**



Source: Director of New London Public Works in May 2009

Bridges

There are thirteen state-owned and six town-owned bridges in the Town of New London. Most of the state-owned bridges are I-89 under- or overpasses. Town-owned bridges exist in the following locations: Goose Hole Road, Old Main Street, Lake Shore Road, Elkins Road, Hillcrest Road and Sherman Road.

Both state and town-owned bridges are generally in good condition. The NHDOT evaluates bridges utilizing a federal sufficiency rating from 0 to 100%. Bridges scoring less than 50% are considered in substandard condition. Bridges rated below 50% makes them eligible for federal funds that pay for 80% of the repair or replacement cost. In 2007, there were three bridges in New London rated below 50%. The lowest score in New London, 29%, is associated with the Elkins Road Bridge over the brook from Pleasant Lake just before the Wilmot Town line. Goose Hole Road bridge over the brook below Goose Hole Pond is rated at 40.5% and Elkins Road Bridge below Pleasant Lake Dam is rated at 49.7%. All other bridges have scores in excess of 50%. Hillcrest Drive bridge over brook from Pleasant Lake is rated at 57%, Lakeshore Drive bridge over Great Brook is rated 70.9% and Old Main Street bridge over Clark Pond Brook is

rated 96.9%. The state inspects the bridges every two years and the town is provided with a copy of the written report.

### Off-Site Improvements

New Hampshire's development law is closely tied to transportation concerns. A town's Planning Board has the authority to adopt regulations which provide against scattered and premature subdivision of land due to lack of transportation infrastructure leading to the subdivision.

The New London Planning Board requires that any new subdivision road be built to the street standards specified in the Subdivision Regulations. However, even if a new road in a subdivision meets the Town's specifications, the other roads in the area may not be able to adequately handle the increased traffic resulting from the subdivision.

Although the Town of New London has a duly adopted Capital Improvements Program, the Town does not utilize an impact fee system, due to the small number of subdivision proposals/approvals and the complexity of implementing such a system. Instead, the Planning Board evaluates each application to determine whether or not it is "scattered and premature." Developers, as part of the approval process, may be required to pay their proportional fair share of relevant off-site road work.

As part of off-site improvements for proposed subdivision developments the Planning Board should require the developer to provide connections to trails and sidewalks to promote the Town as a "livable, walkable community".

### Scenic Roads

Scenic Roads can be designated by a town meeting vote under RSA 253:17 and 18 allowing a town to designate any road, other than a state highway, as scenic. The main purpose of a scenic road designation is to help protect the scenic qualities of a town maintained road. To the people who live or travel along that road, the trees and stone walls may add significantly to the visual quality and may contribute greatly to the rural character of the area. The designation of a road as scenic is a declaration by the town that the road has important visual qualities which must be recognized and treated with care. Routine maintenance and repair of the road are not affected by this law.

Scenic roads are often enjoyed for recreational uses such as walking, hiking, jogging or biking. Some local roads are preferred by bikers specifically for their scenic values as well as their connections to long distance day-trip loops. Improving the reputation of New London and the Sunapee-Kearsarge region as a destination for biking tourism may include cooperating with neighboring towns to designate scenic roads and scenic routes which can be mapped and featured in tourist information. Scenic roads in other communities have been used as part of a bike and trail networks interconnecting inns and bed & breakfast establishments.

Tables XII-1 (Page 226) and XII-2 (Page 226) provide a listing of roads that have already been adopted as scenic, and those that could be considered for this designation.

**TABLE XII-1  
Existing Scenic Roads**

Existing Scenic Road Names	Date Adopted
Camp Sunapee Road	March, 1973
County Road (Knight Hill Road to Tracy Road)	March, 1977
Pingree Road	March, 1982
Soo Nipi Park Road	March, 1982
Davis Hill Road	March, 1983
Whitney Brook Road	March, 1999
Forty Acres Road	March, 1999

Source: Town of New London

**TABLE XII-2  
Potential Scenic Road Nominations**

Names of Potential Scenic Road Nominations
Morgan Hill Road
Old Main Street
Goose Hole Road
Lake Shore Road
Bunker Road
Burpee Hill Road
County Road (Tracy Road to Route 103A)
Columbus Avenue
Baker Road
Tracy Road

Source: Town of New London

*Driveway Access to Roads and Highways*

An important piece of state legislation pertinent to roads in New London is RSA 236:13. This statute gives Planning Boards of municipalities, with duly adopted subdivision regulations, the same powers as NHDOT to regulate construction and alteration of driveways accessing public roads. While driveway permits to state-maintained roads in New London are issued by the NHDOT, town-maintained roads are under the Town’s jurisdiction and subject to the Town’s own adopted standards. New London has adopted driveway regulations that address a number of parameters including the number of driveways allowed from one property. New London’s Driveway Regulations regulate the driveway from the fronting street to the building site or end of the driveway.

### Winter Road Maintenance Practices

The Town Public Works Department has minimized the use of salt for winter maintenance on town roads for years now. This has been an effort to be sensitive to maintaining good water quality for both surface and groundwater since excessive salt application for winter road maintenance ends up increasing conductivity in the receiving water resources.

The town officials should continue to work with all the water protective associations to convince the NHDOT to minimize the use of salt on more state roads. NHDOT has continued to research and explore alternatives, including new technologies, to using salt for winter road maintenance.

NHDOT has applied reduced amounts of salt on Little Sunapee Road for the winters of 2007-2008 and 2008-2009. Additionally, NHDOT covered their salt storage with a new salt storage building and built a garage in 2007-2008 at their District Maintenance Facility at the east end of Little Lake Sunapee off Old Dump Road. The recent lake water quality test results have reflected a drop in the conductivity levels in the lake indicative of lower salt levels.

Additionally beginning in the winter of 2009-2010, NHDOT will begin applying reduced amounts of salt for about a mile section of NH Route 103A through the Herrick Cove area on Lake Sunapee.

### Traffic and Safety on New London Roads

#### *Traffic Accidents*

The Police Department reports that the number of traffic accidents has dramatically increased from an average of 70 per year in 1995 and 1996 as documented in the 1998 Master Plan, to 164.5 per year, just ten years later.

There has been an increase in the number of vehicles that travel in and around New London, and the accidents have increased with the influx of traffic. Accident information for the six most accident prone locations is compared in Table VIII-3 between the 1995 and 1996 years with the 2006, 2007 and 2008 years. For example, in 1995 and 1996 Main Street had 4 accidents and 6 accidents each year respectively. In 2006, Main Street had 18 accidents and in 2007 there were 29 accidents on Main Street. During the years of 1995 and 1996, parking lots in New London had an average of 17.5 accidents a year, while in comparison the average number of accidents in the parking lots rose to 34.5 per year in 2006 and 2007. One more example of a large increase in accidents was reflected in the numbers on the Interstate, A total of 19 accidents were reported over the two year span of 1995 and 1996. During the 2006 and 2007 years, the Police Department responded to 35 accidents on I-89.

**TABLE XII-3  
Most Accident Prone Locations  
1995, 1996, 2006, 2007 & 2008**

Location	1995	1996	2006	2007	2008
Main Street	6	4	18	29	24
Newport Road	9	3	14	27	33
I-89	2	17	12	23	45
Parking Lots	13	22	46	23	32
Route 11	9	8	8	11	23
Seamans Road	3	2	12	10	10

Source: New London Police Department

### Traffic Counts

Table XII-4 (Page 228) shows the most recent state traffic counts for the 2000 - 2007 period on I-89, NH Route 11 and NH Route 114.

**TABLE XII-4  
NHDOT Average Annual Daily Traffic Counts: 2000 - 2007**

Location	2000	2001	2002	2003	2004	2005	2006	2007	Growth Rate
I-89 - South of NH 11 Junction	16,000	16,000	15,000	NA	17,000	NA	NA	18,000	1.7%
I-89 - At the Sunapee Town Line	16,000	16,000	14,000	NA	16,000	NA	NA	17,000	0.9%
I-89 - At the Sutton Town Line	16,000	16,000	16,000	NA	17,000	NA	NA	17,600	1.4%
NH 11 - West of NH 114	NA	4,500	NA	NA	NA	5,100	NA	5,000	1.8%
NH 11 - At the Sunapee Town Line	NA	6,800	NA	NA	NA	7,100	NA	NA	1.1%
NH 11 - At the Wilmot Town Line	NA	4,600	NA	4,900	5,400	NA	NA	5,200	2.1%
NH 114 - West of NH 11	NA	3,100	NA	NA	3,600	NA	NA	3,700	2.9%
NH 114 - At the Sutton Town Line	NA	1,300	NA	NA	1,400	NA	NA	1,300	0%

Source: New Hampshire Department of Transportation

Traffic counts along I-89 in New London have an average annual growth rate of 1.33% between 2000 and 2007. Traffic counts along NH Route 11 in New London have an average annual growth rate of 1.66% from 2000 through 2007. Based on using the annual growth rates in Table XII-4 above, the projected traffic counts for Interstate 89, Route 11 and Route 114 are shown in Table XII-5 (Page 229).

### Intersections

The intersection of Routes 11 and 114 at Crockett's Corner has proven to be a safety problem. A task force composed of state and local officials has begun to meet to identify and implement safety improvements for this intersection.

**TABLE XII-5**  
**Projected Average Daily Traffic Volumes: 1998 -2023**  
**Based on Annual Growth Rates 2000 - 2007**

Location	Annual Growth Rate	2008	2013	2018	2023
I-89 - South of NH 11 Junction	1..7%	19260	20608	22051	23594
I-89 - At the Sunapee Town Line	0.9%	17153	17307	17463	17620
I-89 - At the Sutton Town Line	1.4%	17846	18096	18350	18606
NH 11 - West of NH 114	1.8%	5090	5182	5275	5370
NH 11 - At the Sunapee Town Line	1.1%	7337	7418	7499	7582
NH 11 - At the Wilmot Town Line	2.1%	5309	5421	5535	5651
NH 114 - West of NH 11	2.9%	3807	3918	4031	4148
NH 114 - At the Sutton Town Line	0.0%	1300	1300	1300	1300

Source: KBM & Associates

The Main Street/Pleasant Street intersection is frequently congested for brief periods due to a combination of heavy foot and vehicular traffic. A contributing factor is the lack of designated turning lanes. The intersection was improved in the spring of 2008 with the introduction of curbing along the travel lane in the northwest corner and the addition of landscaping & seating on the corner.

During the summer and fall of 2004 the Upper Valley Lake Sunapee Regional Planning commission conducted a "Parking & Traffic Study dated March 2005" to assess traffic and parking conditions in the downtown commercial district, to identify problems, to evaluate alternative solutions and to make recommendations. Please note this study was done before the Kearsarge Middle School was moved out of the downtown to the new school in Sutton, but it is the most recent study of its kind for the downtown area in New London. The study found that the traffic volumes at that time at the Pleasant/Main Street intersection warranted mitigation either by a traffic signal, turning lanes, a roundabout or limiting turning traffic or rerouting traffic.

More conspicuous crosswalks now serve the Main Street/Pleasant Street intersection. A number of individuals, especially children, cross the street in unmarked locations. Public education and the assistance of formal crossing guards for the elementary school children could potentially improve the traffic flow in the intersection and, at the same time, enhance pedestrian safety.

#### Traffic Impacts of Regional Interest

The new owners of the Ragged Mountain Resort have indicated to New London that the route they are advertising to access the Resort is via I-89 to Exit 11 and then Route 11 to Route 4. This could add significant traffic to the section of Route 11 in New London. If it becomes an issue, the town should work with the Upper Valley Lake Sunapee Regional Planning Commission, the Central New Hampshire Regional Planning Commission, the Lakes Region Planning Commission, the NH Department of Transportation, the Town of Wilmot, the Town of Danbury, the Town of Andover and the Ragged Mountain Resort on addressing this issue.

To address the impact of traffic accessing Mt. Sunapee, the town should work with Newbury, the Upper Valley Lake Sunapee Regional Planning Commission, the NHDOT and the Mt.

Sunapee Ski Resort to find solutions to the peak weekend traffic accessing Mt. Sunapee to and from I-89 if it becomes an issue.

### Main Street Road Project

It is hoped that the NHDOT and the Town will reconstruct Main Street. With the new design and reconstruction of Main Street, the overhead utilities could be buried, bike lanes could be added, new landscaping could be added, and new paving will be laid.

### Newport Road Round-About

In 2008 the Town completed construction of the round-about at the intersection of Newport Road with County Road. The round-about has been successful in managing both the vehicular and pedestrian traffic at the intersection in a safe, efficient manner.

### Commuting

Please refer to the Economic Base Chapter for information on where New London residents commuted to work and the origin of workers who commuted to New London to work in 2000 based on the US Census information.

### Parking

During the summer and fall of 2004 the Upper Valley Lake Sunapee Regional Planning commission conducted a "Parking & Traffic Study dated March 2005" to assess traffic and parking conditions in the downtown commercial district, to identify problems, to evaluate alternative solutions and to make recommendations. Please note this study was done before the Kearsarge Middle School was moved out of the downtown to the new school in Sutton, but it is the most recent study of its kind for the downtown area in New London.

Key findings of the 2004 "Parking & Traffic Study" pertaining to parking in the downtown area included:

- There were an estimated 928 parking spaces within the study area while the estimated parking demand for the study area was estimated to be 613 spaces.
- Seventy percent of all downtown parking was private and thirty percent is public.
- Seventy-six percent of the spaces were in off-street parking lots and twenty-four percent were located on-street which is typical for downtown areas.
- The most notable change in fall parking compared with summer parking was the increase in on-street parking near the Colby-Sawyer College campus starting in September.
- The typical parking occupancy pattern was low parking usage in the early morning and a continued rise until it peaked sometime around the noon hour. It then slowly declined.
- Total (on and off-street) parking occupancy ranged from 25 to 52 percent within the study area.
- A total of 257,848 square feet of "livable" floor area was identified as generating parking demand within the downtown area. The average demand ratio for all land uses is 2.38 spaces per 1,000 "livable" square feet.
- The total demand equates to 66% occupancy of the existing parking supply. During the occupancy counts in September, overall occupancy was around 52%.

### Alternative Transportation Modes

#### *Public Transportation: Buses & Taxis*

New London lacks local public transportation. However, limited taxi service is available. Dartmouth Coach stops at the New London park & ride facility, traveling between Hanover and Logan Airport and South Station in Boston. New London needs regular bus service to the Manchester-Boston Regional Airport and other regional transportation hubs.

#### *Park & Ride Facility*

The park & ride facility close to I-89 Exit 12, off NH Route 103A serves the transportation needs of a number of New Londoners who rideshare on a regular basis. The facility was expanded in 2009 from the former 45 parking space capacity to provide 134 parking spaces. The expanded park & ride was designed to protect the perimeter tree buffer from Route 11 and adding trees and shrubs into the interior of the parking lot. The expanded park & ride helps to support ridesharing and mass transit.

#### *Ridesharing*

When gas prices rise it puts ridesharing back on the minds of commuters. New London is fortunate to have two rideshare programs available for town residents. The NHDOT NH Rideshare Program based in Concord provides ride sharing services to this area. The Upper Valley Rideshare Program also provides rideshare services to this area out of Hartford, VT. Private businesses and towns need to encourage ridesharing, and discourage single-occupant vehicles by providing incentives to help make ridesharing happen.

#### *Community Action Rural Transportation Program*

The Kearsarge Valley Community Action Program provides demand response door-to-door transportation services for seniors for shopping, medical appointments and congregate meals.

#### *Dial-A-Ride Program of the Kearsarge Area Council on Aging*

Transportation for seniors and the disabled is provided by the Kearsarge Area Council on Aging. The dial-a-ride program that is operated by this organization is based on a cadre of volunteers who utilize their own vehicles. In 2007, the Kearsarge Area Council on Aging had 155 volunteer drivers who logged 56,000 miles of transportation for seniors or disabled New Londoners. Most rides were to doctors' offices and shopping.

## **Non-Motorized Transportation**

### Livable, Walkable Community

New London strives to become what planners call a "livable, walkable community". Since the construction of the new sidewalk along Newport Road in 2003, the town has been busy planning and building additional sidewalks and pedestrian paths. A network of pedestrian paths in the villages is planned to connect with many trails in the rural trail system through the addition of inter-connected open spaces with public trails. In the rural areas, grass shoulders will be added as "rural sidewalks" on many roads. Additional crosswalks and more benches will be added along the pedestrian walks and paths in the villages.

### Sidewalks

The Town of New London has sidewalks on parts of Main Street, Newport Road, County Road, Seamans Road, North Pleasant Street and Elkins Road.

- Main Street: The sidewalk on the north side of Main Street begins at the Cleveland property and extends to the corner of Little Sunapee Road and Newport Road. Most of the south side has sidewalks, with a few short stretches of sidewalk on the south side.
- Newport Road: The sidewalk on Newport Road begins at the intersection of Main Street and Little Sunapee Road and runs along the south side of Newport Road to the County Road intersection. In 2008 a sidewalk was extended along the north side of Newport Road from County Road to Hilltop Place as a component of the round-about construction at the Newport/County Road intersection.
- County Road: The sidewalk on County Road begins at the intersection with Newport Road and runs north along the west side of County Road to the Hilltop place entrance. This sidewalk was constructed as a component of the round-about construction at the Newport/County Road intersection in 2008.
- Seamans Road: This sidewalk, which is in relatively poor condition, extends from Main Street to three houses beyond the corner of Gould Road. The surface and the curb need to be reconstructed.
- North Pleasant Street: This sidewalk begins at Main Street and extends to Gould Road on the south side.
- Elkins Road: The sidewalk on Elkins Road is composed of three sections, with the newest being added in 1985. The section on both sides of the junction with Wilmot Center Road was recently reconstructed. The section starting opposite Hillcrest Drive and ending at Sherman Street is of poured concrete with steel reinforcing and concrete curb. This section is in poor condition due to heaving and needs extensive repairs.

Plans are being made to extend the sidewalk along Pleasant Street to Job Seamans Acres.

### Bike Paths

Currently, there are no designated bike routes in the Town of London. Nonetheless, several roads are regularly used by cyclists, among them Newport Road, NH Route 11, NH Route 103A and NH Route 114. Both Newport Road and NH Route 11 have wide shoulders. As noted in the discussion of Scenic Roads, New London's reputation as a bicycle tourism destination could be enhanced through cooperation with neighboring towns to develop longer distance scenic bicycle routes to be featured in regional tourism promotion.

The New London Board of Selectmen appointed a seven-member committee who developed an overall sidewalk and bicycle plan for the community. School children and other residents in New London already walk and bicycle to a significant extent, especially in the village area. Improved pedestrian facilities and bike lanes have the potential of promoting additional walking and bicycling. The Sidewalk Committee is pursuing alternative funding mechanisms to implement the plan.

### Trails and Pathways

New London prides itself on an abundance of foot trails now used principally for recreation. Walking, hiking and biking trails, some used in winter for snowshoeing and cross-country skiing, are very important to New London's tourism economy. The Lake Sunapee Region Chamber of

Commerce reports that hiking trails are the highest ranked topic at area visitor information booths. The New London Conservation Commission lists 29 foot paths on its trail map. Some of these trails are short paths to special scenic locations, such as the boardwalk in Philbrick-Cricenti Bog. Others are longer, intended for both nature walks and winter recreation, such as the Low Plains Trails. Some trails, such as the Kidder-Cleveland-Clough Trail link neighborhoods to the center of town, permitting foot traffic as an alternative to driving. Yet other trails are part of or connect to the Sunapee-Ragged-Kearsarge Greenway, linking New London with nine other area towns and offering serious, longer distance four-season hiking and snowshoeing. To add substance to the concept of a “livable, walkable community”, the Conservation Commission has a goal of improving connections between trails and sidewalks on main roads. Planning and Zoning Board consideration of new subdivisions provides opportunities to link the Town’s existing and planned pedestrian and biking trails for non-motorized access to recreation and shopping.

## **Transportation Issues**

### Safety Issue

The intersection of Routes 11 and 114 at Crockett’s Corner has proven to be a safety problem. A task force composed of state and local officials has met to identify and to design safety improvements for this intersection.

### Capital Improvement Cost Issues

The Main Street/Pleasant Street intersection needs improvement. The vehicle and pedestrian movements at this intersection have changed since it was last studied with the Middle School moving out of town. It may change again following the reuse of the Middle School property.

Main Street, NH Route 114, needs to be reconstructed in a joint project between the State and Town. In the new design and reconstruction of Main Street, the following should be considered and evaluated:

- burying overhead utilities,
- adding bike lanes,
- adding new landscaping, and
- laying new pavement.

Due to the Highway Department’s reliance on heavy equipment with a relatively short life span, its capital needs are frequently changing. For the same reason, the Department is also more likely to be faced with emergency capital outlays than other Town departments. It is often also difficult to forecast road construction/repair needs into the distant future.

Bridge improvements are needed to the Elkins Road bridge, the Goose Hole bridge and the Wilmot Center Road bridge.

### State-Town Coordination and Cooperation Issues

1. Bus service is needed to the Manchester-Boston Regional Airport and other regional transportation hubs.
2. NHDOT needs to decrease their salt usage for winter road maintenance.

3. Traffic accessing the expanded Ragged Mountain Resort may increase on Route 11 through New London.

#### Multi-Town Sub-Regional Cooperation Issues

1. Public transportation may be needed to serve the greater New London regional area.
2. The environmental benefits of decreasing the number of single occupant vehicles and promoting ridesharing are numerous.
3. Rural transportation programs are needed to meet the rural transportation needs particularly for seniors and handicapped persons.

#### Town Planning and Zoning Issues

1. New London needs to continue growing as a “livable, walkable community” by continuing to improve and extend the Town’s sidewalks, trails and bicycle routes.
2. The planning philosophy of recent decades has promoted dispersed settlement patterns and zones of sharply segregated land uses. The resulting vast network of roads and increased automobile use are taxing our natural and cultural resources.
3. New residential growth can be a drain on a community’s resources. The cost of building new roads or bringing them up to town standards, and their subsequent maintenance, along with other town services, as a rule, may exceed the added tax revenue that the town receives from such development.
4. Some of the existing supply of parking in the downtown area needs to be used more efficiently before adding more parking supply.

### **Recommendations**

#### Recommendation for Safety Issue

1. Continue to study and continue to stay involved with the safety improvements for the intersection of Routes 11 and 114 at Crockett’s Corner recommended by the task force composed of state and local officials should be implemented.

#### Recommendations for Capital Improvement Cost Issues

1. The Main Street/Pleasant Street intersection should be studied and improved.
2. The Town should work with the NH DOT to reconstruct Main Street and to encourage the State to put this project into their ten year capital plan.
3. The town should continue to annually review and update the Town’s Capital Improvements Program for the needs of the Highway Division of the Public Works Department.

4. Include Town bridge improvements, as needed, in the Capital Improvements Program for improvements to the Elkins Road bridge over the brook from Pleasant Lake just before the Wilmot Town line, the Goose Hole bridge over the brook below Goose Hole Pond and the Elkins Road bridge just below Pleasant Lake Dam.

*Recommendations for State-Town Coordination and Cooperation Issues*

1. Bus service should be provided to the Manchester-Boston Regional Airport and other regional transportation hubs.
2. The town officials need to continue to work with all the water protective associations to convince the NHDOT to minimize the use of salt on more state roads for winter road maintenance. NHDOT has continued to research and explore alternatives, including new technologies, to using salt for winter road maintenance.
3. The town should work with the Upper Valley Lake Sunapee Regional Planning Commission, the Central New Hampshire Regional Planning Commission, the Lakes Region Planning Commission, the NH Department of Transportation, the Town of Wilmot, the Town of Danbury, the Town of Andover and the Ragged Mountain Resort on addressing the issue of traffic impacts from the Ragged Mountain Resort expansion plans.

*Recommendations for Multi-Town Sub-Regional Cooperation*

1. The Town should study the need for and feasibility of public transportation to serve the greater New London regional area.
2. The town should promote ridesharing.
3. The town should support rural transportation programs. The town should continue to support efforts to meet the transportation needs of disadvantaged, seniors and disabled people.

*Recommendations for Town Planning and Zoning Issues*

1. New London should continue growing as a “livable, walkable community” by continuing to improve and extend the Town’s sidewalks, trails and bicycle routes.
2. The town should develop land use policies that minimize all impacts of transportation on the Town’s natural and cultural resources, e.g. mixed land use zones.
3. The town should continue to require adequate road standards for new subdivisions and require developers to pay their fair share of off-site road improvements.
4. The Town should work with the property owners in the downtown area to make more efficient use of the existing supply of parking areas and to create interconnections between parking areas.

## **XIII. ENERGY**

### **Purpose**

The purpose of the Energy Chapter is to provide a framework for understanding energy issues and why New London should consider them as it plans for its growth and development. The recommendations of this chapter are designed to promote energy conservation, encourage energy efficiency, reduce energy costs, improve New London's energy infrastructure, increase the use of local and sustainable energy resources, enhance environmental quality and develop both a better framework and baseline of understanding for energy planning in the community. Additionally, this chapter is intended to highlight how other town policies, zoning ordinances, development patterns and other rules and regulations can affect energy consumption, so this chapter will also make recommendations for changes and/or consistency in other chapters to reflect the energy principles set forth in this chapter.

### **Historical Perspective**

Early in its history, New London and most of New Hampshire were built on a sustainable but subsistence economy where water power, wood, manual labor and vegetation-fed animals enabled residents to be nearly energy independent of the rest of the world. Wanting more from life, the descendants of these settlers and the people who joined them soon became part of a global economy, using still abundant natural resources to provide the world with wool, scythes, and then dairy products while importing foreign-made goods in exchange.

The discovery of cheap fossil fuels and the development of an electric grid stimulated a significant transformation of the economy. The flexibility of the energy sources, in addition to their low cost relative to the traditional sources of energy, helped to enable a more than 50-fold increase in worker productivity over the course of the 20<sup>th</sup> century. This increase in value created per worker afforded a significant increase in the quality of life for the people of New London. It also led to a significant transformation of New London's economy—an economy which is, now, almost entirely dependent on imported energy.

Currently, nearly all of New London's energy needs are imported from beyond the town's local economy. In fact, the energy fuel is mostly imported from beyond the state of New Hampshire. This means that almost all of the money spent on electricity and petroleum flows out of our local economy, and outside of the state. By reducing the amount of money spent on imported energy, New London can re-direct more money back into the growth and prosperity of its local economy and citizens. By encouraging energy conservation and cost-effective investments in energy-efficiency—in other words, by improving the productivity of its energy expenditures—New London can improve its prosperity.

Recently, the pollution associated with combusting today's primary energy fuels have been shown to cause harm to both our health and our environment. Unfortunately, the costs of this harm are not covered by those generating the pollution; although measures are being taken to significantly reduce the pollution emitted. New London can support the reduction of the harm caused by the combustion of these fuels by encouraging the installation and consumption of sustainable, non-polluting (or, at least, less-polluting) energy sources.

As New London has grown, its patterns of development—the way land has been used for various purposes—have created a geographic layout and building infrastructure with built-in

energy requirements. Whether it is the number of people able to live or work in a building, the distance the people must travel to commute to work or meet their personal needs, the types of transportation available, or the amount of energy required to operate the buildings they inhabit, the policies and regulations that guide New London's development have a significant impact on the amount of energy that will be consumed in New London. These same policies also help determine whether certain sustainable energy generation systems can be installed. New London has a responsibility to consider the energy implications of these decisions, and this Energy Chapter will begin to establish a framework for how to include energy consumption issues in the town's decision making.

As New London's citizens became more aware of the costs and potential harms associated with energy consumption, it adopted a warrant article in 2007 to establish the New London Energy Committee as a group of advisors on energy issues to support the town and the community in their efforts to conserve energy, pursue energy efficiency and consider sustainable energy generation. Even more recently, the decision by the Planning Board to include an Energy Chapter in its Master Plan, which will guide the development of the community over the next 5-10 years, is recognition that New London has grown more aware of and concerned about the consequences of its decisions that affect energy consumption. Until the habit of thinking about energy becomes instilled in New London's development decision making, the New London Energy Committee offers this Chapter to the Master Plan as a resource to help guide the town's decision making regarding the future development and prosperity of our town. We hope you find it useful, and that the energy we put into authoring it helps to make you more productive!

### **What Are Energy Conservation, Energy Efficiency and Sustainable Energy?**

Energy Conservation is used to describe the reduction of wasted energy. In other words, when someone is using energy but not gaining any benefit from it, that person is wasting energy. And for New London, it is like writing a check to someone out-of-state. Leaving the lights on in an unoccupied room is an example of wasted energy, and the corresponding energy conservation measure would be turning out the lights in unoccupied rooms. Energy Conservation solutions typically do not cost anything other than a change in behavior.

Energy Efficiency is creating the same benefit or output, but with less energy as an input. An example of an energy efficiency solution is a light bulb that produces the same amount of light (sometimes measured in 'lumens') while consuming less energy ('watts'). Every time we buy something that consumes energy to perform its function, it is an opportunity to consider a more energy efficient alternative that may lower the cost of owning it over its useful life. Sometimes the more energy efficient alternative costs more to purchase initially, but costs less to own over its useful life because its energy consumption costs are lower. Government programs and some utilities will often offer subsidies to people who buy more energy efficient alternatives, helping to lower any perceived initial cost premiums and encouraging the selection of more energy efficient items.

Sustainable Energy is used to describe energy generation systems that do not use non-renewable fuel sources (e.g., fossil fuels) and that "meet the needs of current generations without compromising the needs of future generations." Examples include solar hot-water and photovoltaic systems, wind energy systems, bio-mass heating and co-generation systems, and hydroelectric systems. When such systems are located near the point of consumption (e.g., in the yard of a residence), they are considered to be "distributed" energy generation systems vs. centrally operated systems. As distributed systems, they do not require an electric distribution utility to transmit the power from its centrally located power plant to the point of consumption

(e.g., at the resident's home). This not only reduces the costs of maintaining the distribution grid, but also reduces the consumption of fossil fuels required to generate the electricity at the power plant. Various government and utility programs provide subsidies to make energy produced by these systems more cost-competitive with traditional energy sources, and the costs for many of these systems are declining. Within 10 years, distributed wind and solar electric systems, when installed in advantageous locations, are expected to produce electricity over their useful lives at a cost that is equal to or less than the price of electricity from the electric distribution utility.

By encouraging and promoting energy conservation behaviors, the selection of energy efficient alternatives and the investment in cost-effective, sustainable energy systems, New London can mitigate the negative effects of power consumption, benefiting the local community. The easiest and least costly approach to reducing energy consumption is to conserve energy—that is, to stop wasting energy that is of no value. Energy efficiency measures generally provide the next best return on investment in terms of both time and money. Indeed, many replacement decisions can be financially attractive based on expected energy savings even before the item being replaced has exhausted its current useful life—the replacement measures literally pay for themselves through reduced energy expenses and other operating costs. Finally, New London can encourage and facilitate investments in local, sustainable energy generation systems, which are becoming more cost-competitive relative to traditional sources of energy, even today, thanks to various government and utility incentives.

### **New London's Primary Areas of Energy Consumption**

In order to better understand how to affect New London's energy consumption, it is helpful to examine its consumption through four primary areas of energy consumption in the community: buildings, transportation, electricity and commercial & industrial uses.

Buildings are responsible for about 40% of energy consumption in the United States, and more than 70% of electricity consumption. Nearly 30% of New Hampshire's total energy consumption is used for heating buildings. Approximately 75% of New London's households are heated by combusting fossil fuels.

Transportation accounts for 70% of U.S. oil consumption, and it accounts for nearly one-third of the state's net energy use. Most vehicles use gasoline; less than 15% burn diesel; a growing number of hybrids can be seen driving around town. The town was one of the first municipalities in the state to convert its diesel fleet to bio-diesel.

Electricity accounts for a growing percentage of New Hampshire's total energy use, currently estimated at about 40% of its net energy consumption. Almost none of this energy is generated in New London, although distributed, sustainable energy generation systems could change that.

Commercial & Industrial consumption of energy is used to measure how energy inputs are used to create the products and services that companies provide. New London does not have much industry that requires lots of energy to help transform raw materials into finished goods, but its commercial businesses often require energy beyond basic occupancy energy uses (e.g., for lighting, heating and electrically powered office equipment) in order to provide their services (e.g., power equipment such as refrigeration, air compressors and pumps).

From a power sources or generation viewpoint, New Hampshire currently generates about 8-9% of its energy from domestic, renewable energy sources, mostly generated from hydro and wood,

split about evenly. The only material renewable energy generation in New London is the use of wood for heating. Wood burning appliances in New London represent an area of opportunity for the town: today's advanced combustion stoves and fireplaces burn up to 90% cleaner and one-third more efficiently than conventional appliances.

### **Does New London Care, And What Does It Value Most?**

The community survey conducted by the Planning Board to provide community input into the shaping of the Master Plan provided clear support for New London to amend its regulations to encourage sustainable practices within its own operations and to promote sustainability throughout the region (84% of participants supporting the issue; second only to their desire to conserve land areas significant to the character of New London). Support for alternative energy sources on residential and commercial property was close behind, with 81% and 73% supporting, respectively. There was not a question, explicitly, on their support for New London's encouraging energy conservation and efficiency. Given the high level of support for sustainability and alternative energy, however, the Local Energy Committee believes that it is highly correlated, and, thus, quite strong.

Survey participants also believe that village centers with New England charm are significantly important (93%). Fortunately, this view supports many Smart Growth community development principles, as does their support for scenic areas and open spaces (98%). More compact communities require less energy for transportation, and the "carbon sinks" of preserved open space and forests helps to offset some of the pollution caused by fossil fuel combustion. More directly, 65% of the survey participants indicated a preference for more concentrated residential development within or adjacent to village centers with outlying areas remaining low density.

Increasing the "productivity" of our built environment can also generate energy savings. More people living in the same residence, and more workers in the same office reduce energy costs per square foot and per capita. One means of achieving this higher utilization of existing space is by allowing accessory dwelling units ("in-law apartments"), which 72% of survey participants support. Additional measures that could improve building utilization were favored by a majority of survey participants: denser workforce housing (50%), more rental unit opportunities (56%), conversions of large single family houses into multiple units near the town center (53%), and housing units over businesses in the commercial district (55%).

Reducing energy consumed through transportation can also be achieved if people can accomplish more from their place of residence. Development of a regional fiber optic network has been proposed. The network would not only benefit residents with increased online and communication capabilities, but also the businesses in the area. In fact, it could help to attract the types of businesses survey participants would like to see expand, such as professional services (81%), medical offices (80%), Inns and B & B's (67%), and home-based businesses (60%). More than two-thirds of the survey participants support New London's investing in such a project, and while lower transportation costs were not highlighted as a potential benefit, it is one of the expected benefits, especially with a growing percentage of people working from their homes or telecommuting.

While a majority of survey participants (52%) supported development of public transportation within the region, a full two-thirds of survey participants were supportive of expanding public transportation to major regional transportation hubs. Additionally, there was strong support for additional sidewalks, bike lanes and multi-use paths along the major transportation corridors around New London, which would make it safer and easier to walk or ride a bike instead of

driving short distances around town. The announced Elkins renovation, which received a lot of community input during its design, will also improve the walkability and safety of the Elkins Village District. Clearly, New London's citizens want to make the option of not driving around town—or to regional transportation hubs—an easier and safer alternative to using their petroleum-fueled cars.

### **What is New London Doing About It?**

New London has continuously examined how to improve the productivity of its municipal operations, and how to reduce the operating costs of its buildings and equipment. Recently, as fuel and energy costs have escalated, after a period of relatively cheap energy, and as New London's understanding of the potential harm combustion can have on both our health and our environment, its attention toward its energy consumption has heightened. New London's citizens have also been active, often volunteering and organizing on their own to identify opportunities to conserve energy, invest in energy efficiency and educate fellow citizens of the benefits of reduced energy consumption and sustainable energy generation. As previously mentioned, a Local Energy Committee was formed in 2007. The following list of recent activity further demonstrates the towns growing interest and commitment to energy issues:

- Construction of energy efficient garage for Department of Public Works (2004)
- Lighting retrofit of Tracy Memorial Library (2005)
- Town diesel fleet converted to bio-diesel (2006)
- Reduction and retrofit of street lighting (2007)
- Heating system retrofit for Tracy Memorial Library (2007)
- Evaluation of micro-hydro power generation, Pleasant Lake (2007)
- Energy audit of Tracy Memorial Library (2008)
- Kill-a-Watt Energy Meters and Energy Reference Material Available at Library (2008, ongoing)
- Evaluation of wind turbine with Colby-Sawyer College (2008/9, ongoing)
- No Idling Policy established; signs erected around town (2008/9)
- "Lights Out" New London (evening without using electric lights, 2008/9)
- "Energy Matters" series of articles published by NLEC in local paper (2008/9, ongoing)
- Installation of Bicycle Racks around town (2008/9)
- Attic insulation improvement for Tracy Memorial Library (2009)
- Adoption of Small Wind Power Ordinance (2009)
- Expanded Park-and-Ride Lot at I-89 Exit 12 (2009)
- Constructed efficient roundabout to address traffic delays and safety concerns (2009)
- League of Women Voters Lecture Series (2009, 8 Speakers on EE and RE)
- Hosting the Inaugural "Button-Up New Hampshire" Work Shop (2009)
- Lighting audit of all municipal buildings (2009)
- Master Plan Energy Chapter (2009/10, currently being drafted)
- Participation in the NH Municipal Energy Assistance Program (2009/10)
- Measuring and Benchmarking Total Municipal Energy Consumption (2010)
- Auditing the Least Energy-Efficient Municipal Building for Remediation (2010)
- Building shell and window improvements for Tracy Memorial Library (Planned, 2010)
- Over the last several years, a number of town representatives have attended training and informational workshops to build local capability in the areas of EE and RE

## **What More Can New London Do? - Recommendations and Priorities**

Within each category, the recommendations are listed in priority order.

### *Municipal Facilities and Energy Use*

When the town considers the purchasing of new equipment, it should consider the energy costs of operating that equipment to determine the full life-cycle costs of various purchasing options before determining the best and most cost-effective solution for its needs.

Pursuant to the audit report created through the New Hampshire Municipal Energy Assistance Program (MEAP), New London should invest in the cost-effective retrofit recommendations provided by the building auditor for the least energy-efficient building in town. The New London Energy Committee (NLEC) should use the retrofit project as an opportunity to educate the community on how to identify, evaluate and implement energy efficiency initiatives.

New London should maintain its Energy Star Portfolio Manager models of its facilities, developed through its participation in the MEAP program, entering its energy consumption on a monthly basis or as fuel is delivered, as appropriate, so that it can better measure and manage its energy consumption. At least annually, New London should use Portfolio Manager to generate reports that benchmark its facilities against similar buildings to identify high-potential areas for cost-effective energy retrofits.

### *Funding, Financing and Incentives*

The New London Energy Committee and town administrators should identify funding sources for both the town and the community targeted toward investments in energy efficiency and sustainable energy systems, and communicate the availability of those funding sources to the eligible constituencies.

The New London Energy Committee and town administrators should monitor and apply for grant opportunities to support continued investment in cost-effective energy efficiency retrofits for municipal facilities and equipment, cost-effective sustainable energy systems, as well as community outreach initiatives designed to educate the community regarding the benefits and best practices concerning these areas.

The New London Energy Committee should identify and provide summaries of and/or links to descriptions of the various energy efficiency and sustainable energy incentives available to the community.

The Town should consider submitting a warrant article for Town Meeting vote to decide if Renewable Energy Property Tax Exemptions should be made for eligible systems pursuant to NH RSA 72:61-72.

### *Land Use*

New London should revise and/or develop zoning ordinances and regulations, including the appropriate chapters of this Master Plan, to guide and allow for sustainable energy generation, including but not limited to the installation of wind, solar, micro-hydro, bio-mass and geothermal systems.

### Building Construction and Retrofits

New London should both adopt and enforce a building code that meets or exceeds the International Energy Conservation Code 2009, which becomes effective across the State of New Hampshire on April 1, 2010.

New London should deliberate whether additional green building guidelines should be adopted regarding such issues as site placement, the requirement of an energy rating for all buildings before they are sold, and other green building principles.

New London and the NLEC should advocate for the upgrading of wood stoves, fireplaces and boilers to EPA-certified appliances, and consider sponsoring a Burn Wise Wood Stove Change out program for New London residents.

### Transportation

New London should pursue the development of additional sidewalks, bike lanes and multi-use paths to enable and ensure the safety of alternative forms of transportation around town

New London should study the options and feasibility of expanded public transportation options to major regional transportation hubs and around the community region.

### Community Outreach and Collaboration

The New London Energy Committee, in cooperation with other local community groups and advocacy organizations, should continue to host educational and awareness events regarding energy conservation, energy efficiency and sustainable energy systems. Beyond basic education, the NLEC should make available tips and best practice strategies regarding how to pursue various efficiency and sustainable energy initiatives, making it easier for New London's citizens and businesses to pursue these initiatives. The town of New London should consider additional support for the NLEC to help promote and sponsor these outreach initiatives. The NLEC web site, the town offices and town web site, as well as Tracy Memorial Library and its web site should all provide references to the educational materials and resources that are available to New London's citizens and businesses.

New London should encourage and help support the incorporation of energy and energy issues into the curriculum of the Kearsarge Regional School District.

New London, through the NLEC, should continue to foster a collaborative effort with Colby-Sawyer College to support the outreach of students into the community regarding energy initiatives, and to collaborate with the college on high-profile speaker visits and potential sustainable energy partnership opportunities.

### Additional Resources

For additional information about New London's energy initiatives, please visit the New London Energy Committee's web site: [www.nl-nh.com/energy](http://www.nl-nh.com/energy).

For information about New Hampshire's energy consumption, you can browse the New Hampshire Office of Energy & Planning's Energy Facts: [www.nh.gov/oep/programs/energy/nhenergyfacts/](http://www.nh.gov/oep/programs/energy/nhenergyfacts/)

For information about United States energy consumption, you can browse the Department of Energy's Energy Information Administration: [www.eia.doe.gov/](http://www.eia.doe.gov/)

For suggestions on how to reduce energy consumption, you can browse the Department of Energy's Energy Star web site: [www.energystar.gov/](http://www.energystar.gov/) and its Energy Efficiency and Renewable Energy Web Site: [www.energysavers.gov/](http://www.energysavers.gov/)

To learn more about renewable energy, you can browse the Department of Energy's web site for the National Renewable Energy Lab: [www.nrel.gov/learning/](http://www.nrel.gov/learning/)

To learn more about the Environmental Protection Agencies Wood Stove Change out program and its Burn Wise campaign, you can visit its web site: [www.epa.gov/burnwise/](http://www.epa.gov/burnwise/)

For a summary of the various incentives available to encourage the energy efficiency and renewable energy investments, you can find a good summary at the web site for the Database of State Incentives for Renewables & Efficiency (DSIRE): [www.dsireusa.org/](http://www.dsireusa.org/)

## XIV. REGIONAL CONTEXT

### Introduction

Each town in the Lake Sunapee region has a stake in keeping the area a desirable place to live and work. New London and its neighbors cannot afford to look only as far as their town lines and must continue to put planning and growth issues in a regional context. Towns should consider the potential impacts of development on their neighbors as well as within their own borders. This regional conscience has been institutionalized by RSA 36:54 which encourages planning boards to consider the interests of other affected municipalities when considering proposals for new development.

The state statutes (RSA 674:2) provide for a “Regional Concern” section of a Master Plan. The intent of this section is to promote regional awareness in managing growth while fulfilling the vision statements of the Master Plan. This section describes the specific areas in the municipality of significant regional interest. These areas may include resources wholly contained within the municipality or bordering, or shared, or both, with neighboring municipalities. Items to be considered may include but are not limited to public facilities, natural resources, economic and housing potential, transportation, agriculture and recreational open space.

Individual communities each play a distinctive role in the growth of this region. As the town looks ahead to the future, it is important to understand New London’s identity and role in this broader regional context.

This chapter will begin by discussing New London’s regional setting. Then areas of significant regional interest in New London will be briefly outlined followed by a synopsis of the points of regional cooperation and coordination.

### Regional Setting

#### Physical Setting:

The town of New London is located about half-way between Concord and Lebanon north of I-89. It is located in the west-central part of New Hampshire in Merrimack County as reflected on the map to follow. Neighboring communities include Sutton, Newbury, Sunapee, Wilmot and Springfield. The Town’s area covers 25.4 square miles, being on average roughly five miles north to south and eight and one-half miles east to west.

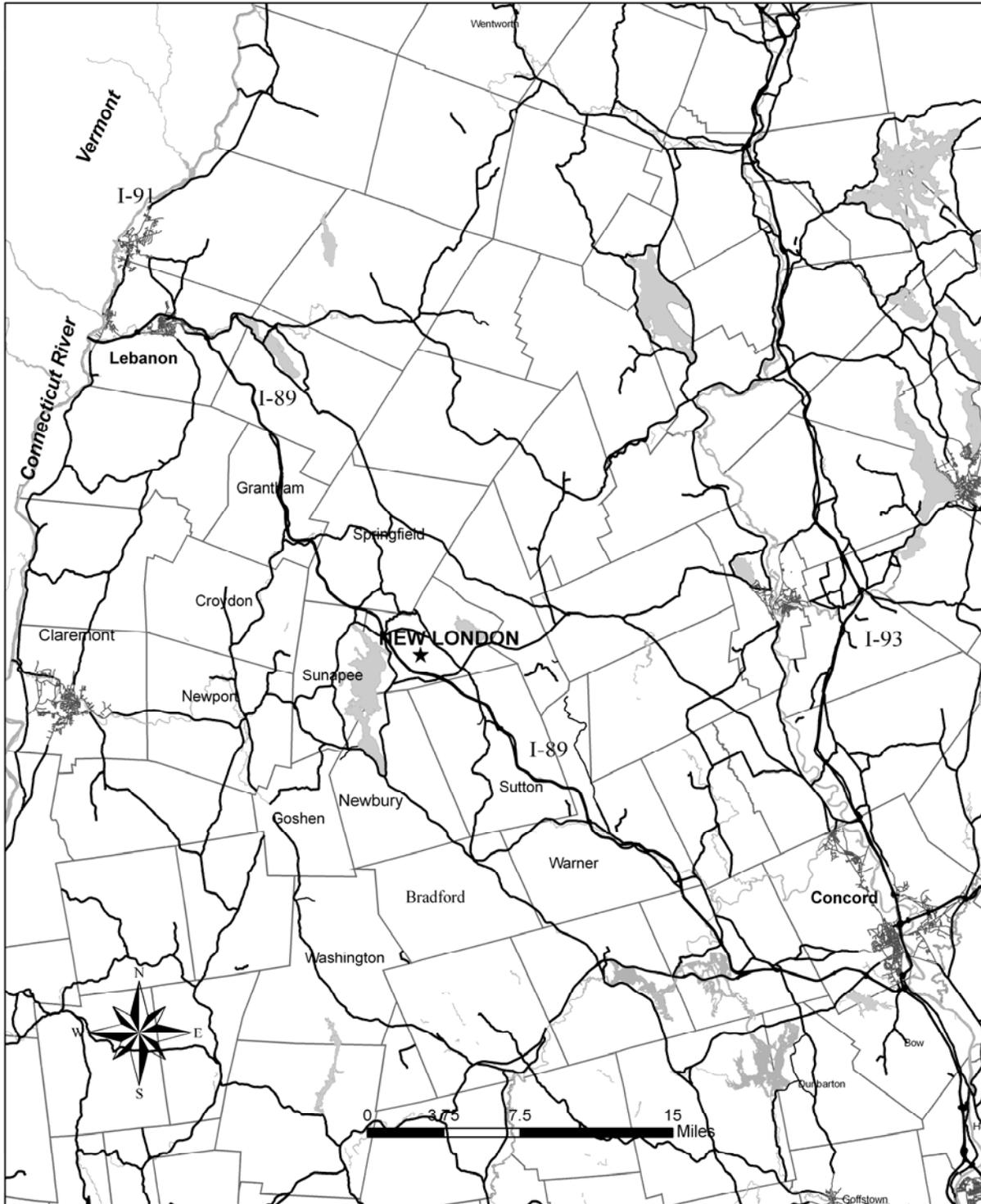
#### New London’s Growth in Regional Perspective:

With its attractive natural and recreational resources, New London has experienced considerable population growth over the past thirty-five years. From a population of 2,236 in 1970 the Town’s year-round population increased by 99 % to 4,440 in 2005. Between 1990 and 2005, the year-round population increased by 40%. A few of the highlights comparing New London’s growth with trends in the County and state include:

- New London’s annual population growth rate between 1970 and 2005 (2.0%) was higher than the growth rate of Merrimack County (1.7%) and the State (1.7%);
- New London’s annual population growth rate between 1990 and 2005 (2.3%) was about double the growth rate of Merrimack County (1.3%) and the State (1.1%); and

- New London was the 3rd fastest growing community in the UVLSRPC Region between 1990 and 2000 as measured by percentage of population increase.

**Map XIV-1  
Regional Setting**



### Natural Resources:

Clearly the lakes, including Lake Sunapee, Little Lake Sunapee, and Pleasant Lake among others and Mt. Sunapee and Mt. Kearsarge are the most dominant physical natural resource features in the area. They offer an abundance of recreational opportunities acting as a major draw to the area. For decades, the lakes and mountains have been magnets for growth in the area towns and they will continue to attract growth in the future.

Beyond these natural resource jewels, New London is blessed with a diverse and attractive natural environment throughout town that is of regional importance. Included are numerous hills, hillsides, skylines, watersheds, lakes, ponds, streams, wetlands, flood plain areas, wildlife habitats, areas with fragile soils, open fields and farmland, and areas with fragile & unique natural plant communities. These natural areas in town provide extensive hiking opportunities and trails for other recreational pursuits.

### Transportation:

I-89 provides the interstate connection south to Concord, NH (½ hour) and the Massachusetts border (1 hour) via I-93. I-89 north connects with I-91 just across the border in Vermont (1/2 hour) providing interstate connections to points north, south and west.

Airports serving New London include the Manchester-Boston Regional Airport in Manchester, New Hampshire about 1 hour south, Logan Airport in Boston Massachusetts about 2 hours south, the Burlington International Vermont Airport about 2 1/4 hours northwest, and Lebanon Municipal Airport about ½ hour northwest.

The development of the interstate transportation system (I-93 & I-89) in the late 1960s had a major impact on growth in the Lake Sunapee area by greatly reducing the travel time to and from the urban populations accessible by I-93 in southern New Hampshire, Massachusetts, and Rhode Island and by I-91 in Massachusetts, Connecticut, and New York.

The proposed project to widen I-93 would fuel growth in the region. In the short-term, it would reduce travel time to these major population centers to the south and would provide more roadway capacity. In the near term, this means more people could reach New London in the shorter travel times. In the long-term, the upgrade of I-93 would provide the capacity for more people to reach the Lake Sunapee area even though at reduced travel times due to increased congestion from continued population growth.

In addition, I-91 has the capacity to provide access for more people coming from western Massachusetts, Connecticut, eastern New York and points south.

New London is supporting the proposal by the New Hampshire Department of Transportation to increase the size of the park and ride lot located adjacent to Exit 12 of I-89.

With increasing cost of fuel, public transportation is needed to serve the greater New London regional area.

### **Areas of Significant Regional Interest**

Summarized below are some of the areas of significant regional interest in New London:

### Lake Sunapee Watershed:

Through time, Lake Sunapee has been and will continue to be the critical natural resource that is the focus of this region. Continuing to protect the water quality of this mountain lake is critical to New London and the surrounding area.

Lake Sunapee is important to New London and the other watershed communities in many ways. It is one of the major natural and recreational assets that attract visitors as well as people who want to move to the area. The seasonal high-valued homes bordering the lake provide a significant portion of the tax base for the three communities with frontage on Lake Sunapee: Sunapee, Newbury and New London.

New London should continue to participate with the other communities in the Lake Sunapee Watershed and the Lake Sunapee Protective Association (LSPA) in the Sunapee Area Watershed Coalition's (SAWC) efforts to develop and implement a watershed plan to ensure the long-term protection of Lake Sunapee. Other Lake Sunapee Watershed communities include: Sunapee, Springfield, Newbury, Sutton and Goshen.

In crafting land use regulations which could impact the Lake Sunapee watershed, those proposals should be shared and discussed with the other watershed communities to request their input and possible participation.

### Growth & Expansion of Local Ski Resorts

In 2003, the Mt. Sunapee Resort proposed an expansion of the ski area in their Master Plan submitted for approval. This proposal has not moved forward since Governor Lynch refused to approve the Master Plan in 2004. However, presuming that it might be raised again sometime in the future, the proposed expansion plans for Mt. Sunapee have raised concerns for potential impacts in New London and area communities including: traffic congestion, increased demand and cost for emergency services, and the impacts from spin-off residential and commercial growth. Peak weekend traffic accessing Mt. Sunapee from I-89 impacts neighboring towns including Bradford and Warner along Route 103, Sunapee along Routes 11 and 103B and New London along King Hill Road and Route 103A. The proposed ski area expansion plans affect Goshen and Newbury directly and indirectly impacts residential and commercial growth in other area towns.

Ragged Mountain Resort was purchased by Pacific Group in May of 2007 and they are developing plans over the following ten years for a fully planned community for the entire family. The new owners have plans to add 60 areas of skiable terrain by expanding the ski area to a third peak, to add more ski lifts, to add more ski trails, to add hiking and nature trails, to renovate the golf course, to add an indoor water park, to add a fitness center, to add a new day lodge, to add a 200-room hotel, and to add as many as 850 seasonal homes and condos. The redesigned golf course, including a future clubhouse with pro shop, dining and locker facilities, is planned to be the only course in New Hampshire to be qualified as a member of the Audubon International Signature program. The planned improvements would change the resort from a day trip destination to a family getaway. Only 15% of Ragged Mountain's 2,000 acres would be developed leaving 1,700 acres of natural open space. When the project is complete, the resort could see as many as 120,000 visits a year which is a three-fold increase compared with the estimated 40,000 visits in 2006. The new owners have indicated to New London the route they are advertising to access the resort is I-89 to Exit 11 and then Route 11 to Route 4 that would add significant traffic to the section of Route 11 in New London. The owners are also proposing

to acquire and redevelop The Point Cottages on Pleasant Lake which could create significant impacts on Pleasant Lake.

### Population Growth & the Housing Demand in the Lake Sunapee Area

Regardless of whether the Mt. Sunapee and Ragged Mountain expansion plans move forward, the area's abundant natural and recreational assets, its quality school system, and its rural, small-town character provide the quality of life features to spur the potential for continued strong growth in the housing market for retirees, second home buyers, and families. This growth has and will continue to increase pressure on town and school services and facilities.

### Significant Protected Open Spaces

#### *Mt. Sunapee State Park Area:*

This area constitutes the largest area of contiguous protected open space in the New London area. The Mt. Sunapee State Park includes Mt. Sunapee Resort Ski Area and the Mt. Sunapee State Park Beach. In addition, this area includes large parcels of contiguous protected open space on the southern flank of Mt. Sunapee where the Sunapee-Ragged-Kearsarge Greenway (SRKG) and the Monadnock-Sunapee Greenway (MSG) connect with Mt. Monadnock to the south.

In the summertime, the Mt. Sunapee State Park Beach is one of the most popular public beaches in the region and primarily offers swimming opportunities. There are numerous boat launch opportunities on the lake. The Mt. Sunapee Resort offers some summertime activities, such as hiking and mountain biking, and sponsors some events, such as the League of New Hampshire Craftsmen's Fair, that draw some large crowds of people to the facility. However, it is wintertime when the place really comes alive. Since the area has been privately leased, Mt. Sunapee Resort has made major improvements to the ski area, which have led to a dramatic growth in skier visit days.

#### *The Fells:*

Another large area of protected open space in the New London area is the Fells bordering Lake Sunapee. It is the former lakeside summer home of American writer and diplomat John M. Hay (1838-1905). The original house, a 22-room Colonial Revival mansion built in 1891, is listed on the National Register of Historic Places. In 1960 the Hays donated 675 acres to the Society for Protection of NH Forests. Upon the death of Alice Hay in 1987, the remaining 164 acre-estate was given to the U.S. Fish and Wildlife Service (USFWS) as part of their wildlife refuge system. In 2008 84 acres including the historic buildings and grounds were divested from USFWS and the Fells, an independent not for profit 501c (3) organization which has cared for the property since 1995, became owners. The remaining 80 acres continues to be owned and managed by USFWS. The Hay Estate is a significant cultural facility that attracts many visitors each year to view the historic buildings and the flower gardens, to enjoy the view along the shore of Lake Sunapee, or to hike in the neighboring wildlife preserve.

#### *North Side of Pleasant Lake & Contiguous Protected Open Space:*

The area on the north side of Pleasant Lake, a contiguous area in Wilmot on Tabor Hill and an adjacent area in Springfield combine to make another significant block of protected open space. Included within this area are the Webb Forest in New London, the Gile State Forest in Springfield and the Langaneau Forest in Wilmot in addition to two conservation easements in

New London held by the Ausbon Sargent Land Preservation Trust. There are a number of trails throughout this area including the SRK GREENWAY. This area also provides the major skyline view over Pleasant Lake from the south which is located approximately on the New London-Wilmot town line.

*Mt. Kearsarge:*

Mt. Kearsarge, 2,937 foot in height, lies just to the east of New London in the town of Wilmot. From the top it provides 360 degree views of nearby Sunapee, Ragged and Cardigan mountains and more distant Mt. Monadnock and Ascutney. On very clear days views extend to the White Mountains, the Green Mountains of Vermont, the Atlantic Ocean and Boston. Hiking trails to the top of Mt. Kearsarge, including the SRK Greenway and the Lincoln Trail, run through Winslow State Park on the west side and Rollins State Park on the east flank of the mountain.

*Visual Impact of Development:*

The visual impact of how development is occurring on the hillsides and skylines is an area of significant regional interest in New London. This concern for the visual impact of development applies to all the viewsheds throughout the community including Lake Sunapee, Little Lake Sunapee, Pleasant Lake and Messer/Clark Ponds. Many new residential homes being constructed on hillsides and skylines have clear-cut trees and exposed the house sites more than necessary for “window views” in their effort to maximize unobstructed views. The result is a patchwork of clear-cut house sites with exposed buildings on hillsides and skylines that visually detract from the landscape. The visual impact of hillside and skyline development in New London needs to be minimized.

New London is also affected by the development on prominent visual features outside of New London such as Mt. Kearsarge and Mt. Sunapee. These are mountains and hillsides that can be viewed from New London, but are not under the direct control of the town to manage development. In these instances the town must rely on Planning Boards in neighboring towns using RSA 36:54 to provide New London with a voice in these matters of regional concern.

Another important element in achieving a positive visual appearance in New London has been maintaining unobstructed views along I-89 and at the interchanges in particular. The town has had a long-standing policy of keeping development away from the interchanges on I-89 in order to preserve the unspoiled viewscape on this principal travel corridor through the community.

Maintaining an attractive visual landscape is very important to maintaining property values and the tax base, continuing to support the outdoor and recreation related businesses, and continuing to attract future residents and visitors to New London.

## **Areas of Regional Cooperation and Coordination**

Summarized below are some of the areas of regional cooperation or coordination between New London and neighboring communities.

### *Public, Institutional & Cultural Facilities*

There are numerous examples under the category of public, institutional and cultural facilities of how New London cooperates with other communities.

- New London shares elementary, junior and senior high schools with the other communities in the Kearsarge Regional School District including Springfield, Newbury, Wilmot, Warner, Bradford and Sutton.
- New London is part of the Kearsarge Mutual Aid Group that provides emergency response services to thirteen area towns: Andover, Bradford, Newbury, Newport, Sutton, Sunapee, Springfield, Henniker, Hillsborough, Warner, Weare, and Wilmot.
- Using the statutory provision of RSA 53-A, in 2005 the three Towns bordering Lake Sunapee (New London, Sunapee and Newbury) entered into an intergovernmental agreement to hire a full-time professional appraiser who provides the entire complement of assessing services to all three communities.
- New London coordinates with area towns on solid waste disposal including efforts to recycle and participate in household hazardous waste collection days.
- New London coordinates with area towns on providing communication dispatch services for the police, fire and EMS services. New London provides communication services for police, fire and EMS for Croydon, Newbury, Sunapee, Sutton, and Wilmot. Additionally, New London provides communication services for EMS in Grantham and police in Goshen. New London provides its own communication services for police, fire, New London Ambulance, highway, sewer and water services.
- New London coordinates with the New London/Springfield Water Precinct on providing an adequate water supply for domestic and firefighting purposes to much of the community.
- The town coordinates with the Outing Club, Colby-Sawyer College and the Kearsarge Regional School District in providing recreational services to the community.
- New London supports the efforts of the Lake Sunapee Region Chamber of Commerce in coordination with the other participating communities.
- New London as well as surrounding communities is served by the New London Hospital and the Lake Sunapee Region Visiting Nurse Association.
- Colby-Sawyer College provides four-year degree programs for some New London residents as well as students from neighboring towns.
- New London and Sunapee share the operational and capital expenses for the wastewater treatment plant located in Sunapee.

### Natural and Open Space Resources

Natural and open space resources in New London of regional interest include the following:

- The New London Conservation commission maintains an extensive trail network throughout town. Hiking opportunities are available on Mt. Sunapee and Mt. Kearsarge with connecting trail systems including the SRK Greenway and the MS Greenway.
- Groundwater resources (aquifers) are shared with Sutton and Wilmot.
- Wildlife does not recognize town boundaries and is a resource interconnected with all the neighboring communities. For wildlife, the critical areas to protect include: deer wintering areas; wildlife corridors, such as along streams; and feeding areas, such as around wetlands and field/forest edges.
- The lakes and ponds in New London, including in particular Lake Sunapee, Little Lake Sunapee and Pleasant Lake, encompass a total of 2,031 acres and provide regional recreational opportunities.
- Outdoor winter activities such as cross-country skiing and snowshoeing are popular recreational opportunities that serve people locally and regionally.

### Transportation

There are several transportation related issues that affect a broader region beyond New London's borders. These include the following:

- Peak weekend traffic accessing Mt. Sunapee to and from I-89 impacts King Hill Road and Route 103A in New London.
- There are no bike lanes or paths along State Routes 11, 103A and 114 in New London.
- The Kearsarge Area Council on Aging's Rural Transportation Program provides transportation services to area seniors.
- The State's park and ride located adjacent to Exit 12 off I-89 serves New London and area communities.
- The intersection of Routes 11 and 114 has proven to be a safety problem. A task force composed of state and local officials has begun to meet to identify and implement safety improvements for this intersection.
- The increased traffic on Route 11 in New London resulting from the expansion of the Ragged Mountain Resort since Route 11 is the designated access route by the new resort owners.

## **Goals and Recommendations**

### Goals

1. The town should promote regional awareness in managing growth while fulfilling the vision statements of the Master Plan
2. The town should consider the interests of other affected municipalities when considering proposals for new development.

### Recommendations: Regional Context

#### *Lake Sunapee Watershed:*

1. New London should continue to participate with the other communities in the Lake Sunapee Watershed and the LSPA in the SAWC's efforts to develop and implement a watershed plan to ensure the long-term protection of Lake Sunapee. Other Lake Sunapee Watershed communities include: Sunapee, Springfield, Newbury, Sutton and Goshen.
2. In crafting land use regulations which could impact the Lake Sunapee watershed, those proposals should be shared and discussed with the other watershed communities to request their input and possible participation.

#### *Growth & Expansion of Local Ski Areas*

1. The town should closely monitor the impact of growth of the Mt. Sunapee Resort and the Ragged Mountain Resort on the development of the community and the region.

#### *Population Growth & the Housing Demand in the Lake Sunapee Area*

1. The town should continue to plan for the growth in population and the resultant demand for housing through updating the Master Plan and Capital Improvement Program as well

as updating local land use regulations. The town should also anticipate and plan for the type and location of housing needed to meet the demands of all segments of the community.

### *Significant Protected Open Spaces*

1. Mt. Sunapee State Park Area: The public interest in the Mt. Sunapee State Park should be given priority over private interests of the Mt. Sunapee Ski Resort in the State Park. The multiple uses for Mt. Sunapee State Park should be supported, encouraged and preserved and should not be precluded by the Mt. Sunapee Ski Resort.
2. The Fells: Continue to support and protect the Fells.
3. North Side of Pleasant Lake & Contiguous Protected Open Space: Continue to support protection of and add to the conserved area on the north side of Pleasant Lake that is contiguous to a conserved area in Wilmot on Tabor Hill and adjacent to a conserved area in Springfield.
4. Mt. Kearsarge: Continue to support protection of the Mt. Kearsarge watershed lying just to the east of New London in Wilmot.
5. Visual Impact of Development: New London should explore ways to minimize visual impacts from future development in New London and in neighboring communities.

### *Areas of Regional Cooperation and Coordination: Public, Institutional & Cultural Facilities*

Examples of how New London has historically cooperated with area towns and, assuming on-going economic feasibility, should continue to cooperate with area towns, include the following:

- New London should continue to coordinate with other communities in the Kearsarge Regional School District in planning and providing for the necessary educational facilities and services to meet the needs of the school district into the future.
- New London should continue to coordinate mutual aid emergency response services with neighboring communities.
- New London should continue to participate and coordinate closely with the other two communities on the hiring of a full-time appraiser to update property assessments on an on-going basis in the three Towns and make this new regional approach successful.
- New London should continue to coordinate with area towns on solid waste disposal, including efforts to recycle and dispose of electronic waste, and participate in an increasing number of household hazardous waste collection days.
- New London should continue to provide area towns with dispatch services.
- New London should continue to coordinate with the New London/Springfield Water Precinct on providing an adequate water supply for domestic and firefighting purposes to much of the community.
- The town should continue to coordinate with the Outing Club, Colby-sawyer College and the Kearsarge Regional School District in providing recreational services to the community.
- New London should continue to support the efforts of the Lake Sunapee Region Chamber of Commerce in coordination with the other participating communities.
- New London should continue to support the New London Hospital and the Lake Sunapee Region Visiting Nurse Association in providing medical services to area communities.

- New London should continue to closely coordinate with and support Colby-Sawyer College's efforts to provide a college education for New London students as well as students from surrounding towns.
- New London should continue to closely coordinate with the Town of Sunapee in managing and operating the Sunapee wastewater treatment plant that serves both communities

*Areas of Regional Cooperation and Coordination: Natural and Open Space Resources*

Recommendations related to natural and open space resources in New London of regional interest include the following:

- New London should encourage and support efforts to maintain and improve on the trail systems available in town and particularly with efforts to interconnect with trail systems in neighboring communities.
- New London should coordinate with Wilmot and Sutton on protecting shared groundwater resources (aquifers).
- New London should coordinate efforts with neighboring Towns on ways to plan together to preserve critical wildlife habitats and wildlife corridors interconnected between the towns.
- The communities around Lake Sunapee in the Sugar River Watershed should cooperatively work together to explore ways to minimize all types of impacts from future development around the watershed.
- New London should encourage and support efforts to initiate development of a watershed study for the Warner River Watershed and the Blackwater River Watershed with the other watershed communities.
- New London should continue to plan for and acquire additional conservation lands in New London through fee simple ownership and conservation easements.

*Transportation*

There are several transportation related recommendations that affect a broader region beyond New London's borders. These include the following:

- The town should work with Newbury, the Upper Valley Lake Sunapee Regional Planning Commission, the New Hampshire Department of Transportation and the Mt. Sunapee Ski Resort to find solutions to the peak weekend traffic accessing Mt. Sunapee to and from I-89.
- The town should work with the Upper Valley Lake Sunapee Regional Planning Commission, the Central New Hampshire Regional Planning Commission, the Lakes Region Planning Commission, the NH Department of Transportation, the Town of Wilmot, the Town of Danbury, the Town of Andover and the Ragged Mountain Resort on issues related to access to the expanded Ragged Mountain Resort.
- Work with the NH Department of Transportation so that they provide bike lanes or paths along State Routes 11, 103A and 114 and coordinate with other communities.
- The town should support continuation of the Kearsarge Area Council on Aging's Rural Transportation Program to provide transportation services to area seniors.
- New London should encourage public transportation to serve the greater New London regional area.

## XV. IMPLEMENTATION PLAN

The Master Plan is a guidance document for New London's leaders to address present and future issues related to municipal services and land use planning. This Implementation Chapter focuses on the highest priority recommendations the Planning Board could implement with a distinct and measurable outcome to promote the Vision of this Master Plan. Successful implementation of these recommendations will require close collaboration by the Planning Board with Town Departments and Staff, other municipal boards and commissions, as well as community organizations and stakeholders. The Planning Board shall follow New London's standard protocols for modifying or introducing new policies and regulations as part of any implementation process.

### Prioritization of Recommendations

It is important to note all recommendations in this Master Plan are valuable for promoting the Town's Vision of its future. The following priority recommendations fall within the Planning Board's scope of responsibilities related to land use planning and, when implemented, represent a clear and tangible benefit to the community. The Town leaders and community members are encouraged to review all recommendations in this Master Plan and implement them as opportunities arise.

<b>Chapter</b>	<b>Total Recommendations</b>	<b>Priority Recommendations</b>
I: Introduction	n/a	n/a
II: A Vision for the Future	n/a	n/a
III: A Vision for Land Use	9	9
IV: Conservation & Open Space Lands	11	2
V: Watersheds & Water Resources	28	2
VI: Historic Resources	13	1
VII: Community Facilities & Services	25	1
VIII: Population	n/a	n/a
IX: Housing	10	1
X: Economic Base	22	3
XI: Utilities	5	0
XII: Transportation	15	1
XIII: Energy	16	1
XIV: Regional Context	22	0
<b>Total Overall Recommendations</b>	<b>176</b>	<b>21</b>

#	Chapter	Recommendation
1	III: A Vision for Land Use	Examine rezoning those areas deemed viable for expanding the number of village size residential lots, particularly where they can be served by Town sewer and Precinct water.
2	III: A Vision for Land Use	Consider accommodating housing needs in the village: a. Rental units; b. Housing over businesses in the Commercial District; and c. Conversion of large single family homes into multiple units.
3	III: A Vision for Land Use	Consider changes to the existing Commercial District boundaries and permitted commercial uses to meet New London’s future needs.
4	III: A Vision for Land Use	Consider opportunities to provide for clean, non-polluting light industry or high-tech industry by Special Exception in areas served by Town sewer and Precinct water.
5	III: A Vision for Land Use	Consider site and building design guidelines for aesthetics.
6	III: A Vision for Land Use	Consider a gateway protection ordinance aimed at preserving the Town’s scenic quality and rural character along roads leading into New London and around Interstate interchanges.
7	III: A Vision for Land Use	Consider developing an Aquifer Protection Overlay District to minimize potential pollution of aquifers.
8	III: A Vision for Land Use	Explore innovative land use practices to preserve New London’s rural character, natural and historic resources.
9	III: A Vision for Land Use	Conduct a feasibility study to identify future Water and Sewer Service Areas and defining sewer line extension policies.

#	Chapter	Recommendation
10	IV: Conservation & Open Space Lands	<p>The Conservation Commission and Planning Board should continue to develop and improve planning techniques designed to protect streams and wetland complexes in a manner that preserves the essential functions and values of these important resources:</p> <ul style="list-style-type: none"> <li>a. The existing stream and wetland map, adopted March 13, 2001, should be revised because it does not include certain significant streams and wetlands, and includes some that are questionable.</li> <li>b. In addition, the buffering methodology in the Town’s existing wetlands overlay regulation scheme has encountered problems, in certain circumstances, that should be resolved.</li> <li>c. To accomplish these goals, the Wetland Subcommittee should study stream and wetland protection and make recommendations to the full Planning Board on the best approach to pursue.</li> <li>d. The Wetland Subcommittee should study the streams and wetlands in Town to define their functions and values and to develop a regulatory system based on that scientific analysis.</li> <li>e. This should continue to include periodic consultation with wetland science professionals and a review of current statutes to ensure a scientifically practical and legally viable regulatory approach.</li> </ul>
11	VI: Historic Resources	<p>A historic survey for New London should be completed with information updated periodically to indicate changes to buildings, including remodeling, damage by fire, demolition or changes to surroundings. The location of early mill sites, rock quarries, graveyards, cellar holes, and other valuable historic sites should be mapped as part of the historic survey.</p>
12	VII: Community Facilities & Services	<p>Fire Protection Water Supply: The Fire Department should identify and prioritize areas of greatest need for water resources necessary for firefighting and develop improvement plans to address the specific concerns. These prioritized improvements should then be incorporated into the Capital Improvement Program.</p>

#	Chapter	Recommendation
13	IX: Housing	<p>Reinforce the traditional, small town New England settlement pattern of smaller lots and higher density housing in and around the village centers with predominantly open space in the outlying areas through:</p> <ul style="list-style-type: none"> <li>a. Enactment of transfer of development rights provisions whereby the density allowed on a property located in an outlying area can be transferred to a property located in a village area.</li> <li>b. Consideration of amendments which would provide for lower densities of development in the outlying areas and higher densities in and around the village centers where water and sewer service is available.</li> <li>c. Enactment of innovative land use techniques outlined in RSA 674:21.</li> </ul>
14	X: Economic Base	<p>Develop and Adopt Site and Building Appearance Guidelines for Non-Residential Development: These Site and Building Appearance Guidelines should be integrated with or linked to the Site Plan Review process which addresses site development for new non-residential uses, a change in use for non-residential development or conversion of residential uses to non-residential uses.</p>
15	X: Economic Base	<p>Require Water and Sewer Services: Multi-Family Residential, Commercial and Light Industrial Developments within the water/sewer precincts should be required to tie into the water precinct system in order to provide an adequate water supply for domestic and firefighting purposes. Sewer service should be required for these uses to protect both surface and groundwater resources.</p>
16	X: Economic Base	<p>Support Local Agriculture: Utilize innovative land use techniques to support and promote continuation and further development of working farms, farm families and agricultural enterprises.</p>
17	XII: Transportation	<p>Include Town bridge improvements, as needed, in the Capital Improvements Program for improvements to the Elkins Road bridge over the brook from Pleasant Lake just before the Wilmot Town line, the Goose Hole bridge over the brook below Goose Hole Pond and the Elkins Road bridge just below Pleasant Lake Dam.</p>

#	Chapter	Recommendation
18	XII: Transportation	Implement sustainable land use policies that encourage safe and convenient transportation regardless of transportation mode (e.g.: private vehicle, transit, bike, and foot traffic). Opportunities to mitigate the impact of new development on the transportation network may include encouraging mixed land uses in appropriate locations, developing and maintaining a trail network that links residential and commercial areas, and retrofitting existing roads to support safe pedestrian and bicycle use.
19	IV: Conservation & Open Space Lands	The Town should document the decline in agricultural lands in Town since the 1940s through a series of maps. The Town should recognize and assist the efforts of citizens currently engaged in food production and agricultural activities. The Planning Board should consider crafting an agricultural overlay district aimed at preserving the Town's remaining agricultural resources and producing more locally grown food. The Town should consider appointing an Agricultural Commission to assist in these endeavors.
20	V: Watersheds & Water Resources	The recently completed <i>Sunapee Watershed Infrastructure Project</i> reports the likelihood of increasing frequency and severity of storm events, which may cause impacts to the existing infrastructure and increased impacts to surface and subsurface water quality. The Town should promote stormwater Best Management Practices for existing and new development and investigate the feasibility of creating a stormwater utility to manage stormwater techniques.
21	XIII: Energy	Encourage energy efficiency and sustainable energy development practices through development guidelines, regulations, and municipal policies. Including, but not limited to, allowances for on-site energy generation, guidelines and incentives for developers to implement energy efficient site and building design practices.

## **APPENDIX A – VISION STATEMENT SUPPORTING INFORMATION**

## APPENDIX A – Vision Statement

This appendix supplements the Vision Statement summaries. Some communities only propose broad visions, such as “maintain the town’s rural character,” but New London Workshop participants had many specific suggestions. Rather than lose these worthwhile ideas, this Appendix preserves them, organizing them subject area. These ideas virtually constitute a complete work program for the community for the next fifteen years. Again, it is presented as a report from the future.

### Community Facilities & Services

1. In 2009, New London Hospital and the town worked cooperatively on completion of the hospital expansion project, and continued to cooperate in planning and developing a new “Continuing Care Retirement Community” on the hospital property. This “Continuing Care Retirement Community” offers living arrangements for seniors seeking a secure future.
2. Colby-Sawyer College continues to grow and prosper in a challenging time of declining college enrollments nationally. More bedrooms have been added and the college now has an enrollment of about 1,100 students.
3. Tracy Library embarked on an aggressive building improvement program in 2008 to renovate and modernize the existing building. Tracy Library has again expanded to meet the needs of a growing population and changing technologies. The library expansion now houses a “state-of-the-art” technologies center equipped with the best in computers, software and related equipment and accessories. It has become “the place to hang out” for students and young adults and a tremendous educational tool for young and old alike.
4. The Cemetery Commission is acquiring additional land to provide for cemetery expansion.
5. Many changes have taken place at the Transfer Station/Recycling Center over the past 15 years. In 2008, the town increased the hours of operation to accommodate working people. The town is considering a “pay as you throw trash” program along with other options for the trash disposal issue. The town continues to provide a free recycling program and composting. The trash related equipment at the Transfer Station has all been upgraded. To accommodate growth in the volume and type in recycled materials, the town planned and developed expanded facilities and equipment for recycling. The town is participating in more frequent household hazardous and electronic waste collection days each year with other neighboring towns.

Over the past fifteen years, community services, including schools and recreation activities, have been expanded to meet the growing needs of all age groups including young families and seniors.

Diversity in education is provided in the community from children in pre-school up to and including adults. Colby-Sawyer College has expanded the number of continuing education classes it offers for adults.

The town continues to strive to maximize the educational experience of New London’s students.

9. The town government remains small, responsive, and approachable. The Town Offices extended their hours of operation to be more accessible to working people and increased

population. The town continues to provide a high quality of municipal services, and has excellent staff in all areas, including the municipal office staff, fire, police, public works, transfer station and recycling, recreation, and library. The town continues to support and has retained the town meeting form of government.

The town and Colby-Sawyer College continue to strengthen their ties and communications to forge a solid relationship in working together to solve mutual issues and problems. The two groups continue to communicate and plan for ways to address off-campus housing, parking needs and issues related to the entire college campus.

The town continues to work cooperatively with the New London/Springfield Water Precinct.

The town continues to rely heavily on volunteers to serve on town boards.

The town works cooperatively with the Sunapee Area Watershed Coalition and other watershed organizations that have since been organized.

Inter-town communications have improved greatly over the past 15 years. Area towns meet annually to discuss issues and topics of mutual concern and to share ideas on approaches to addressing those issues.

New London continues to support the services provided by the Lake Sunapee Region Visiting Nurse Association and the Kearsarge Area Council on Aging.

The public health services are now provided on a regional basis and have been expanded to meet the needs of the community including improved mental health services.

#### Recreation

1. The former 1941 school building is renovated into a facility used by a number of groups in town.
2. New London is a friendly hiking and biking community.
3. The town continues to make improvements to Bucklin Beach and to Elkins Beach. By working with community activists, New London now owns "The Point" thereby insuring additional green space, beach and parking for the Elkins Beach.

The Recreation Department, The Outing Club and the Kearsarge Area Council on Aging, among others, offer and work toward developing innovative recreation opportunities for the community.

#### Utilities

1. The stormwater management system for Main Street area is upgraded as part of the Main Street redevelopment project. The overhead utilities running along Main Street were buried as part of the Main Street redevelopment project.
2. New London continues to coordinate with the Town of Sunapee on upgrading the wastewater collection and treatment system to meet the demands generated by the hospital, the college, the development of the hospital retirement center, business expansion, and increased

housing. Additionally, the town continues to discuss the expansion capacity to provide sewer capacity to more of the town.

3. New London continues to cooperate with the New London/Springfield Water System Precinct to make improvements to increase the available capacity of the water system and to improve the quality of the water from the water distribution system the over the past 15 years.

The town continues to update its emergency communications system serving New London and participating area communities.

High speed internet service through the development of a regional fiber optic system covers the entire town and provides tremendous opportunities for town institutions, businesses, and the public.

#### Transportation

1. The town continues to work with the NHDOT on reconstructing Main Street and upgrading other state roads in town. Among the goals for Main Street are to bury the overhead utilities, add bike lanes, add wider sidewalks, add landscaping add curbing, replace on-street parking and new paving.

2. Roundabouts are successful in managing traffic at key intersections.

3. An expanded on-demand ride program for all types of transportation needs for seniors is now available.

4. In response to rising demand, bus service is now provided to regional transportation hubs, such as the Manchester and Boston airports.

NHDOT continues to cooperate with the town on expansion of the park and ride opportunities in response to demand.

6. New London is a “livable, walkable community”. The town is busy planning and building additional sidewalks and pedestrian paths. The network of pedestrian paths in the villages now connects with many trails in the rural trail system through the addition of inter-connected open spaces with public trails. In the rural areas, grass shoulders are added as “rural sidewalks” on many roads. Additional crosswalks and more benches are added along the pedestrian walks and paths in the villages.

7. The town Highway Department minimizes the use of salt for winter maintenance on town roads. The town officials continue to work with NHDOT to minimize the use of salt on state roads. This is an effort to be sensitive to maintaining good water quality since excessive salt application for winter road maintenance ends up increasing conductivity in the receiving water resources.

8. Regional population and housing growth generates a considerable increase in traffic on New London’s road system. The impact of the traffic increases are minimized in places through the implementation of “traffic calming techniques”.

Links on town Website were added for area carpooling/ridesharing services. As gasoline prices have continued to climb over the past 15 years, the carpooling/ridesharing services are used frequently.

### Housing

1. Affordable housing is provided for young families, people in the work force and seniors in and around the village through increased density, decreased lot sizes, second floor apartments in the commercial district, and increased opportunities for multi-family residential housing.
2. A mix of housing types, sizes and values is provided for all age groups from young families to seniors in a variety of neighborhoods close to work and services.
3. New residential growth is focused where infrastructure for public water and gravity wastewater collection and treatment already exists.
4. A "Continuing Care Retirement Community" project is developed on the hospital campus.
5. The Zoning Ordinance is amended to permit more housing options such as allowing two-family and multi-family residential development by special exception.

### Economic Development

1. New London remains a regional hub providing goods and services for neighboring communities. New London has innovatively created opportunities for economic growth, viability and diversity in order to create a sustainable long-term economy by continually working with the New London-Lake Sunapee Region Chamber of Commerce, local businesses and citizens.
2. New London continues to support new and redevelopment opportunities for economic development consistent with the scale and architectural style of a historical New England community.

A new low visual impact research and development park is being considered that provides local well-paying jobs.

New London continues to be the economic engine in the Kearsarge area and continues to cooperatively work with area towns on economic development issues.

Parking for commercial uses is improved.

### Historic Preservation

New London is currently considering a proposal to create historic districts in a variety of places around town.

The town and New London Historical Society continue efforts to identify and preserve historical sites, buildings and features such as stone walls throughout town including areas such as, for example, Hominy Pot, Old Main Street and Elkins. Public access is available to many historic sites.

## Cultural & Social Environment

1. New Londoners continue to be friendly, caring people with common interests who like a sense of belonging, safety and security. Residents undertake efforts to ensure that the needs of all of its residents are being met.

2. New London residents enjoy the rural and small town atmosphere and the diversity of people in the community. The town has maintained traditional annual community-based events and celebrations and has continued to support cultural activities, plays and concerts. The numerous and varied activities of the Recreation Department have contributed significantly to the social interaction in the community.

New London is successful in attaining a diverse population including a broad mix of age groups which provide sustainability for the community in the future.

The town successfully finds ways to increase the involvement of both teenagers and college students in the community and the town government through class projects and internships.

The long-standing tradition of community volunteers remains strong with new residents being encouraged to participate in town activities.

Churches, sectarian and non-sectarian, continue to make significant contributions to community social environment.

The Kearsarge Area Council on Aging continues to provide programs and activities which enhance the quality of life for New London seniors.

## Conservation & Open Space Lands

1. Open space is preserved and the community still has a natural, undeveloped feel to it. This preservation is occurring through acquisition of conservation easements, the purchase of certain specific parcels, and, more generally, through the use of a Conservation Subdivision Design approach to development.

2. The town Conservation Commission and the Ausbon Sargent Land Preservation Trust have successfully cooperated to protect the top ten properties on the list of "Lands Worthy of Protection" in the 2009 Master Plan.

The Conservation Commission commissioned a study of the remaining wildlife habitat and corridors in town that are important to protect. This study provides the basis for a wildlife habitat and corridor overlay district supported by the Planning Board and approved by the voters.

The town adopted the Conservation Subdivision Design as the required approach to residential development.

The Planning Board is working with the Planning Boards of the other towns bordering Lake Sunapee to cooperatively craft and adopt a hillside and skyline development ordinance.

Strong public support is leading to preserving much of the undeveloped prime farmlands that remained in 2009.

Private landowners continue to allow public access and use of their properties for hunting, hiking, etc. Many of the property owners receiving the benefits of current use taxation accommodate public trails on their properties.

The town reserves existing trees and planted new trees along street rights-of-way.

#### Water Resources

1. The protection of water resources within each watershed continues to be a major concern for New London and area communities. The Sunapee Area Watershed Committee (SAWC) completed its Watershed Study of Lake Sunapee in early 2008. New London and other area towns have implemented many of the recommendations in the study aimed at maintaining good water quality in both surface and groundwater resources including limiting the density of development to manage stormwater runoff and on-site wastewater treatment capacity. Through implementation of a watershed management plan and continuation of a vigilant water quality monitoring program, the water quality and clarity of Lake Sunapee continues to be among the best in the state.
2. Following the lead of the SAWC Watershed Study of Lake Sunapee, watershed studies are now completed for New London's other two watersheds: the Blackwater River Watershed with Pleasant Lake is being developed by New London, Springfield and Wilmot working together, and the Warner River Watershed with Messer Pond and Clark Pond is being cooperatively prepared by New London and Sutton.
3. The revised Subdivision Regulations and new Site Plan Review Regulations adopted by the Planning Board in 2007 incorporated LID techniques as the preferred approach to stormwater management. They are proving to be very effective in reducing the impacts of stormwater runoff.
4. The town adopted a Stormwater Management Ordinance as an amendment to the Zoning Ordinance that is applicable to the development of individual lots for single or two family residences which are not covered by the subdivision or the Site Plan Review Regulations. It requires a stormwater management plan and construction of a storm drainage system using LID techniques.
5. The Planning Board proposed and the town subsequently approved amendments to the Zoning Ordinance establishing standards for impervious surface lot coverage.
6. The increased use of LID techniques is increasing the amount of stormwater being infiltrated back into the groundwater system. Fewer problems seem to occur with individual wells going dry in drought years.
7. The New London/Springfield Water Precinct is monitoring the water quality in the aquifer serving the precinct's water supply. The Precinct is studying the alternatives for providing additional water supply for future growth, and is making recommendations on methods to protect that future water supply.

The water quality of individual wells used for domestic water supplies is a concern for many New London rural residents. The New Hampshire Department of Environmental Services is implementing a voluntary program of testing and monitoring private wells. Under this program,

the state provides funding to assist individual landowners with treating or replacing private, domestic wells that have become contaminated.

New London is cooperating with neighboring communities and the Upper Valley Lake Sunapee Regional Planning Commission in protecting aquifers overlapping town boundaries.

New London is vigilant in protecting its groundwater resources from large groundwater withdrawals by coordinating and communicating with the New Hampshire Department of Environmental Services who has authority for such applications.

#### Alternative Energy Sources and Energy Conservation

The community is making great strides in minimizing and conserving energy usage over the past decade and a half. New developments and all town residents are encouraged to minimize the “Carbon Footprint” and reduce energy consumption.

Alternative energy sources and technologies are being developed and used in New London much more in the past fifteen years with the increasing cost of petroleum. Several landowners now have windmills generating electricity for their domestic needs and selling energy back to the electric grid. Solar energy is used in many homes to heat hot water.

The town is evaluating its fleet of vehicles and, where feasible, it is now using alternative fuel sources.

The town is completing energy audits on all of the town buildings and is making improvements to improve the energy efficiency of those buildings where needed.

The community supports “Green Building Practices”.

#### Land Use

1. New London today is a vibrant village center with small-scale developments that include a mix of uses developed consistent with traditional New England architecture and character. New London is a “livable, walkable community” with all the added and improved pedestrian facilities and bike lanes. Many new housing units have been added to the village over the past 15 years either as infill projects, redevelopment projects or new projects on the fringe of the village as it existed 15 years ago. A mix of housing types, sizes and values have been added to meet the needs of all segments of the population including seniors, young families and singles. With all of these changes, New London has been able to preserve the village character that has always been so important to the community.

2. Elkins Village is essentially maintained as it was fifteen years ago by encouraging and supporting small-scale commercial retail and mixed uses that do not detract from the traditional social and physical character of the existing village and do not pose threats to the underlying aquifer. Safety improvements are being made in Elkins Village for both pedestrians and vehicles. Elkins Beach is improved and a new self-guided Historic Trail, highlighting the Village’s industrial history, is developed.

3. Over the years, several of the properties along Newport Road have been redeveloped with small size and small-scale buildings consistent with traditional New England architecture.

These changes are improving the appearance of the buildings and properties and the area now mirrors the character of the Main Street commercial area.

In conjunction with the Stormwater Management Ordinance requirement for stormwater management plans for individual lot development for single or two-family residential homes, the Planning Board included a requirement for submitting a building envelope showing that the area to be developed does not include any protected resources such as wetlands, steep slopes, 100 year floodplains, etc.

The impervious surface lot coverage standards adopted by town maintain a low density of development along the lakeshores, preserving and improving water quality.

The town continues to monitor its need for commercially zoned land working closely with the New London-Lake Sunapee Region Chamber of Commerce and local businesses.

Proximity to I-89 continues to provide convenient connection to areas outside New London. The completion of the I-93 widening project has been one of the factors that have generated growth in New London and the region by improving access to the larger populations in southern New Hampshire and Massachusetts. This growth in the traffic on I-89 continues to place pressure on developing the interstate interchanges for commercial retail and service uses. The community continues to have a policy to maintain the scenic gateways to the community and commercial retail and service uses have not been permitted to develop around New London's interchanges on I-89.

New developments using the Conservation Subdivision Design approach result in shorter streets that follow the topography across the terrain and result in curvilinear streets.

The new Site Plan Review Regulations adopted in 2007 included outdoor lighting standards. Implementation and enforcement of those new standards is helping New London to minimize impacts from outdoor lighting and to maintain "Dark Skies,"

New London continues to lead other towns in crafting creative land use ordinance solutions to growth issues. It diligently investigates and promotes innovative methods to manage growth, development and redevelopment consistent with the needs and desires of the townspeople, while protecting the environment.

## **APPENDIX B – COMMUNITY ATTITUDE SURVEY**

## **APPENDIX C – IMPORTANT OPEN SPACE LANDS AND NATURAL FEATURES**

*Important open Space Lands and Natural Features**1. Clark Lookout 5.97 acres; 2006; Davis Hill Road*

Clark Lookout emerges as a stunning surprise at the end of a grassy woods road lined by stonewalls and large, older hardwoods and giant white pines. Located on Davis Hill near the north end of Lake Sunapee, Clark Lookout is in a clearing that affords a magnificent view of the lake from Herrick Cove near the north end to Great Island near the south end, with Mt. Sunapee in the background. From Clark Lookout (altitude about 1,300 feet) the slope descends steeply to the lake shore that lies about 240 feet below. Bedrock forms the top of Davis Hill and the cliff facing the lake. The rock is a medium to fine grained, white to gray biotite muscovite granite, called the "Concord granite". The slopes are forested and are covered largely by glacial drift and boulders.

Clark Lookout is comprised of a 4.47 acre parcel of land that was gifted to the Town of New London in February of 2006 by Sydney Crook, a long time New London resident, and is accessed by an existing woods road that intersects Davis Hill Road. Syd has named the viewpoint for his grandfather, James E. Clark, who discovered this special place when clearing and creating over 4.5 miles of carriage roads on his 110-acre estate between Herrick Cove, Route 11 and Route 103A as a hobby. The access is a gated entrance on the south side of Davis Hill Road, about 100 yards up from the intersection with Route 103A. Syd also donated an easement on an additional 1.5 acre right-of-way to protect the footpath trail access via Clark Drive & Lookout Drive to Clark Lookout. Access is by foot; however, arrangements can be made with the Town Office for handicapped individuals to drive to the Lookout. The ASLPT holds the easement on the total 5.97 acres and the Town of New London owns the 4.47 acres of Clark Lookout.

*2. The Esther Currier Wildlife Management Area at Low Plain 176 acres; Southeast part of New London near the Wilmot and Sutton town lines*

The Low Plain is situated in the southeast part of New London near the Wilmot and Sutton town lines. This area takes its name from long-time Conservation Commission member Esther Currier. The area is approximately a mile long extending from Andover Road on the north to Mountain Road on the south, and averages about 1/4 mile wide east to west. Chandler Brook runs through the area and flows into Pleasant Lake to the north. Great deposits of gravel formed during the glacial period dominated sections of this area (considerable amounts were excavated during the construction of both Route 11 and I-89). There remains a fine example of an esker ridge, a gravelly deposit thought to have been formed by the flow of water under glacial ice. A large beaver pond, marsh and swamp run the full length of the central and western portions. A quaking bog, several ponds and pools are of interest.

Although primarily a wetland, there are woodland areas of pine, hemlock and mixed northern hardwoods. A rich and varied assortment of wildlife, including beaver, ducks, heron, sandpipers, turtle, otter, raccoon, fox and a myriad of songbirds can be found throughout this wonderful natural area.

Through a series of acquisition efforts, the Town of New London now owns all of the main marsh and the land surrounding it, with access on Andover Road, Mountain Road and Wilder Lane. The State of New Hampshire Fish and Game Department holds a conservation easement on 98.8 acres (the northerly most area fronting on Andover Road). A self-guiding trail system along the old road bed provides access to observation blinds at the edge of the marsh and is maintained by the New London Conservation Commission. Several other privately held,

undeveloped properties abut the Low Plain and if these lands become available, they would provide additional wetland complexes and woodland buffers that would enhance the scale and quality of the wildlife habitat provided by the area.

This important wetland is one of three wetlands in New London which have been nominated by the Conservation Commission as a Prime Wetland and so designated by the New Hampshire Wetlands Board (now known as the NH Department of Environmental Services). This affords the area the most protection by the New Hampshire Wetlands Bureau in considering any applications which might have an impact on the wetland.

The ASLPT presented the deed to the 98.8 acre Low Plain Natural Area to the Town of New London on January 9, 1995. The land abuts existing Town-owned property. The combined 176 acre parcel was dedicated on May 6, 1995 as the “Esther Currier Wildlife Management Area at Low Plain”. Acting as transition titleholder, the ASLPT borrowed monies to purchase the Low Plain on August 3, 1993. The \$310,000 fundraising campaign was a cooperative effort of the ASLPT, the New London Conservation Commission, the Elkins Fish & Game Club, the State of New Hampshire Fish and Game Department and the National Fish & Wildlife Foundation.

### 3. *Glacial Pot Hole or Indian Well Hillside on north side of Pleasant Lake*

The Pot Hole, located in a steep granite ledge on the Wilmot side of Pleasant Lake, is approximately 2 feet in diameter and 3 feet deep. It is located on the northwesterly side of the privately owned Old Camp Tabor Road past the power lines. It was formed by a stream of melt water that plunged through a fissure in thick glacial ice onto the rock below. The grinding action of the rocks in the swirling water carved out the hole. The hole is on a bare expanse of rock which is surrounded by dense woods including maple, birch, spruce and balsam.

### 4. *Knight’s Hill Nature Park and C.O.R.E. (Conservation – Open space – Recreation – Environment) 155 acres; 1976 & 1991; South of Parkside Road and between County and Pleasant Streets*

The Knight’s Hill Nature Park is a nature preserve located in the middle of Town south of Parkside Road and between County and Pleasant Streets. Opened in 1976, its original 69 acres are owned and managed through its own endowment by the New London Outing Club. It is dedicated to the aesthetic enjoyment and scientific study of nature. It is open every day of the year from 10 a.m. to 5 p.m. with no admission charge. In 1991, 56 adjoining acres (C.O.R.E.) were added to the Park as a result of a partnership effort whereby the ASLPT provided organizational and fundraising leadership. The Town of New London holds a conservation easement on the C.O.R.E. land, as well as the Nature Park, which allows Knight’s Hill Nature Park to manage an additional 30+ acres.

The park encompasses many different ecosystems. There are fields, forests, thickets, a pond and a stream. A series of well-maintained trails allow one to view all of these different ecosystems within an hour’s walk. There is a small field house which is staffed during the summer months with a naturalist who answers questions and coordinates many activities and workshops.

An interesting section of the park is the Geology Garden. Here, there are examples of the four major rock formations underlying the Town. There is also a collection of wildflowers that are found throughout the park. The park also boasts a fern garden with species native to New Hampshire.

#### 5. *Morgan Pastures Northwestern corner of New London*

Morgan Pastures is located in the northern corner of New London. Broadly, it encompasses the area from the end of Pleasant Lake to the Wilmot and Springfield town lines. Much of this area is covered by a conservation easement dedicated by Richard Webb in 1967. Although in New London's early years there has been considerable "commercial" activity in this area including saw mills, stores and a school, it is now forested with pine, hemlock, beach and birch plus some maple and oak. Today there is little remaining open land. This area supports a variety of wildlife including moose, deer, bear, fisher, fox, porcupine, rabbits, assorted ground animals, woodpeckers, wild turkey, and other birds. In addition to the wildlife, two brooks, Dura Crockett and Great Brook, make the area ideal for hikers.

Hiking trails are maintained by the Conservation Commission and the Sunapee- Ragged-Kearsarge Greenway Coalition. A major trail (Upper and Lower Cascades) starts at the top of the hill at a beaver pond in Springfield and follows Great Brook to Pleasant Lake. The trail drops 800 hundred feet in two miles. Another major trail (Morgan Hill Trail) connects Morgan Hill Road to the trails along Great Brook. Plant life along the trails includes low bush blueberry, Clintonia, partridgeberry, lady's slipper, Solomon's seal and mosses along the way. There is evidence of one old saw mill on the Upper Cascades. The Dura Crockett Trail offers a route along the brook of the same name. Off the Morgan Hill Trail, there is an overlook with views across Pleasant Lake and of the Town of New London and beyond.

Only two roads abut Morgan Pastures. Morgan Hill Road approaches from the south and Pingree Place enters from the southeast from Pleasant Street. At one time, Putney Road joined these two, but now it is a "gates and bars" road which the Town does not maintain. It provides a public right-of-way for recreational use, but not for vehicular use. Another point of interest is the potholes in Little Brook, which is located to the west and parallel to Putney Road. There are trout and smelt in the brooks.

#### 6. *Otterville, Goose Hole & Phillips Memorial Preserve Otterville, Goose Hole Pond Area*

Otterville, a small settlement of about ten homes, most built in the 1820s and 1830s, is clustered around an old mill dam. A small chapel is now a private home. The mill was originally a saw and grist mill and operated as a saw mill until the 1940s. The dam is at the southwest end of Goose Hole, a small pond about a half-mile long with a cattail marsh at the northern end. Goose Hole is encircled by steep-sided wooded hills to the north, west and south that rise between 130 and 200 feet above Goose Hole. The slopes are matted by glacial drift and boulders.

The cattail marsh contains sundew and pitcher plants. Signs of moose, deer, beaver, otter, mink, and muskrat have been seen. The water birds include bittern, wood duck, mallard, great blue heron, osprey, spotted sandpiper, and pied-billed grebe.

The Goose Hole Marsh is one of three wetlands in New London which have been nominated by the Conservation Commission as a Prime Wetland and so designated by the New Hampshire Department of Environmental Services. This affords the area the most protection by the New Hampshire Department of Environmental in considering any applications which might have an impact on the wetland.

The Phillips Memorial Preserve, gifted by Bessie Phillips and now owned by the town, extends westward from the side of Goose Hole to the top of the adjacent hill and then southwest to the shore of Otter Pond. During the 1890s, this area was pasture land for a large nearby farm. By the early 1920s, much of this land was replaced by a successional forest of white pine. Based

on a growth ring study in 1985, the average age of these pines is now 88 years. Lady slipper and rattlesnake plantain orchids grow in the woods.

An area at the top of the hill when re-cleared can give a splendid view of Lake Sunapee with Mt. Sunapee beyond. Ledges appear on the hill in places, and there is a small quarry, now long ago abandoned. The bedrock, with crystals of feldspar up to two inches long, is called the "Bethlehem gneiss".

7. *The Philbrick-Cricenti Bog South side of Newport Road*

The Philbrick-Cricenti Bog is one of the few quaking bogs in New England outside northern Maine. It is located on the south side of Newport Road west of the Fenwood development and most of the bog is now owned by the Town. Originally, a pond about 25 acres in size formed during the retreat of the glacier about 10,000 years ago. A bog was created when the organic matter produced by the growth and partial decay of plants accumulated to such a thickness that the open water is replaced by an organic mat known as peat. Sedges and rushes vegetate the edges. Shrubs, trees and finally forest took over the old pond site. The Philbrick-Cricenti Bog, approximately 1/3 mile in diameter, offers the opportunity to observe many stages of lake-to-forest succession, by a self-guiding trail maintained by the Conservation Commission.

8. *Clark Pond Conservation Area 91 acres; 1990s, 2000 and 2008; Area between Old Main Street, the Interstate, and Bog Road*

In the late 1990s, the Conservation Commission was offered a gift of land located along the Interstate near Clark Pond. This gift was to be the beginning of an effort to acquire a significant portion of land comprising both frontage on Clark Pond itself, and most of the wetland complex feeding into it. In 1997 the Clark Pond properties were listed as one of the 9 most important properties worthy of protection in New London. Land purchases by the town in 2000 and 2008 now give access to Clark Pond over 91 acres of Town-owned land.

Clark Pond is a 35 acre body of water nestled into the area between Old Main Street, the Interstate, and Bog Road. It had no public access prior to the Town acquiring the various parcels that now comprise the Clark Pond Natural Area and, as of 2008, it is the only undeveloped water body in New London, and one of very few in the State of New Hampshire. In fact, it cannot be seen from any vantage point other than private, abutting land. Because of its remote location and unique physical attributes, the area offers a wide variety of wildlife habitat and wonderful opportunities for trails and access to the pond itself. The wetland complex leading into the pond is an interesting combination of bog environment with leatherleaf, bog rosemary, wild cranberry and cotton grass, while other areas contain the vegetation more typical of swamps and lake edges. The upland areas adjacent to the marsh offer lovely keyhole views of the pond and the hills beyond and are comprised of mixed northern hardwood and pine forest.

An initial trail leading to the pond has been cleared. Further development will permit access to the waterfront allowing for portaging a canoe or kayak, with some portion of the trail ADA accessible. The area may also serve as a wetland classroom, much the same as Philbrick/Cricenti Bog.

9. *Cook 69 acres; 2007; Whitney Brook Road*

With 580 feet of frontage on Whitney Brook Road, this 69 acre easement shares 725 feet of boundary with the 125 acres of the Deming easement (ASLPT's #22) to the northwest. Situated

on the southerly (Elkins) end of the small ridge along the eastern side of Pleasant Lake, the land, once used for farming and logging, is almost entirely wooded, including several trees (ash, yellow birch, hemlock, sugar maple, white pine) of considerable size. To preserve these and the forest growing up around them, the easement language states a goal of encouraging and preserving "a healthy natural forest in which groves of big trees will thrive for 100, 200 and even 300 years, to be observed and enjoyed throughout their lifetimes by the general public." No development is permitted. In August 2002, the Cook Interpretive Trail (1.25 miles long, maximum ascent/descent of 240 feet, rated Easy-Moderate) was opened to the public. The trail starts on Whitney Brook Road at the ASLPT stake sign, where a trail guide/map is available (parking on the road). Among the 35 trail features are a panoramic overlook of Ragged, Kearsarge and Sunapee mountains, a 900-foot area of junipers, and a shady walk along Whitney Brook with views of small waterfalls. The trail is for foot traffic only and is suitable for snowshoeing in the winter. In 2007, David and Celeste Cook gifted this 69-acre conservation easement property to the Town of New London Conservation Commission.

10. *The Spofford Easement 21 acres; 2001; Northwest of Pleasant Lake*

Ralph and Mary Lou "Mickey" Spofford of New London granted the ASLPT a conservation easement on their property northwest of Pleasant Lake. Comprised of approximately 21 acres, including forest, apple trees, and a beautiful, five-acre meadow, the land is a key link in the regional network of hiking trails including the Wolf Tree Trail, the Bunker Loop Trail, the Sunapee-Ragged-Kearsarge Greenway, and the Webb Forest Interpretive Trail. The property is of great historical significance, as it includes the foundations of homes built by Benjamin Bunker and his son, Nathaniel. During World War II, a civil defense spotter's platform was manned on the foundation of the elder Bunker's home. The property also provides substantial habitat for wildlife, including bear, moose, and other species, and is part of a much larger ecosystem covering several thousand acres.

11. *Cordingley Preserve (Stevens/ASLPT) 13 acres; 2006; Soo-Nipi Park*

About 100 years ago William R. Cordingley and his family began a love affair with the area of Soo-Nipi Park, so much so that in 1913 they bought the nearby Currier Farm renaming it the "Meadowlands." In 2006, in honor of his grandfather and to protect this critical watershed, King Hill Brook being the second largest tributary to Lake Sunapee, Robert Stevens and his family made a gift of this land to the Ausbon Sargent Land Preservation Trust to protect it from development, assure continuance of this natural area, and invite the public to experience the beauty and history that brought, in Robert Stevens own words, "so much summer joy and pleasure to subsequent generations of the Cordingley family." The ASLPT constructed a nature path to King Hill Brook named the "Molly Charles Trail" in honor of Mr. Stevens' mother. The property may at one time have been pastureland, but the forest has reached "climax" stage where trees tolerant of shade predominate, consequently there is an abundance of large hemlocks, red maples, and white pines. There is also a wildlife corridor along the brook, which will remain undisturbed and as the older trees decay will provide nesting and feeding habitat for a variety of insects, birds, and mammals. The ASLPT granted a conservation easement to the New London Conservation Commission.

Open Fields in New London in 2008

Note #1: Open Space can be any undeveloped land. Open Fields are agricultural land that is either cut annually or used to pasture livestock in a manner or to a degree that maintains their functional status.

Note # 2: C.E. indicates that there is a Conservation Easement on the property.

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
10	2	Bucklin, S.	12.5	6	Morgan Hill Rd.	Fallow field	
11	2	Bossi, R	12.5	6	Morgan Hill Rd	Fallow field	
33	27	Harris, M.	49.7	7	Morgan Hill Rd..	Fallow field	
36	7	Clough	20.1	9	Pleasant St.	Corn/ Straw.	C.E.
36	16	Clough	14	3	Pleasant St.	Pasture	
38	1	Deming	125	15	Forty Ac. Rd.	Fallow field	C.E.
46	4	Messer	67.0	8	L. Sun. Rd.	Hay	
46	21	Harris, M.	22	10	L. Sun. Rd.	Pasture	
47	1	Bucklin, J.	109.5	15	Morgan Hill Rd..	Hay	
48	3	Kelly	12.6	3	Pleasant St.	Fallow field	
48	3.1	Mitchell	48.7	2	Pleasant St.	Fallow field	
48	9	Hunter, B.	8.1	5	Pleasant St.	Field/ Corn	
55	5	Denny	4.5	3.5	Davis Hill	Fallow Field	
56	6	Stanley	9	4	Burpee Hill	Fallow field	C.E.
56	7	Crozer	25.2	7	Burpee Hill	Fallow field	C.E.

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
59	7.1	Carey	36.2	1	Burpee Hill Rd.	Fallow Field	C.E.
59	4	Stanley	64.5	15	Burpee Hill	Field/ Hay	C.E.
59	9	Phillips, J.	34.1	12	Burpee Hill Rd.	Pasture	C.E.
59	5	Cricenti	85.6	12	Co. Rd.	Hay Corn	
59	21	Hist. Soc.	1.0	1	Co. Rd.	Hay	
59	25.1	Hist. Soc.	1.0	1	Co. Rd.	Hay	
59	25.2	Hist. Soc.	1.0	1	Co. Rd.	Hay	
59	25	dePaola	13.3	8	Co. Rd.	Hay/ Corn	
59	34	LDS Church	6.3	6.3	L.Sun. Rd.	Hay	
60	5	Messer, M.	90	30	L.Sun. Rd.	Hay	
61	7	Granger	3	1.5	Pleasant St.	Fallow Field	
61	14	Granger	6.7	5	Pleasant St.	Fallow Field	
61	14.1	Oristano	3.14	1.5	Bunker Rd.	Fallow Field	
68	10	Howard	39.8	3	Davis Hill Rd	Fallow Fields	
70	4	Hitchcock	8	3	Burpee Hill	Hay	
70	5	Hitchcock	4.9	2	Burpee Hill	Hay	
70	6	Jones	6.1	3.5	Burpee Hill	Pasture	
70	8	Tatum	26	4	Burpee Hill	Pasture	C.E.
70	7	Napier	2.8	2	Burpee Hill	Hay	
70	9	Green	4.9	4	Burpee Hill	Hay	
70	10	Carroll	18.8	4	Burpee Hill	Pasture	C.E.

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
70	11	Keating	29.2	20	Burpee Hill	Pasture	C.E.
70	14	Harris	2.5	2.5	Burpee Hill	Fallow Field	
70	15	Bohannon Estate	6.5	4.5	Burpee Hill	Fallow Field	C.E.
70	17	Harris	2.23	2	Burpee Hill	Hay	
70	26	Jacobson	4.6	4	Burpee Hill	Fallow Field	
70	37	Jacobson	1.6	1.6	Gay Farm Rd.	Fallow Field	
70	38	Curtis	3.25	2	Burpee Hill	Fallow Field	
71	25	Sanborn	3	1.5	Burpee Hill	Fallow Field	
73	53	Calerin LLC	44.4	15	Main St.	Various Crops	C.E.
74	11	Littlefield	51.7	5	Pleasant St	Hay	
78	9	King	41.8	10	Wilmot Ctr. Rd.	Pasture	
82	23	Green	17.1	3	Burpee Hill	Pasture	
82	25	Graham	28.7	2.5	Burpee Hill	Fallow Field	
83	8	NLOC	69.2	10	County Road	Fallow Field	C.E.
83	5	Kidder	10.3	8	Knights Hill	Corn	
84	38	Little	15.8	3	Everett Pk	Fallow	
85	24	Reynolds	10.5	6	Seamans Rd	Fallow Field	
85	27	Brown	7	5	Seamans Rd	Fallow Field	

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
86	23	Cleveland	21.1	8	Seamans Rd	Fallow Field	
87	3	Ballin	52	3	Andover Rd	Hay	
87	3.1	Ballin	12.6	7	Blueberry Ln.	Hay/ Pasture	
87	3.1	Carpenter	12.6	3	Blueberry Ln.	Hay	
93	16	Stowell	23	8	County Rd.	Pasture	
95	13.1	Watson	2	2	Barrett Rd	Fallow Field	
95	21	Newkirk	9	2	S. Pleasant	Pasture	
95	36	Ormsbee	2.2	1.5	Old Main	Fallow Field	
96	15.4	Ewing	79.6	1	Main St	Fallow Field	
96	3	CSC	17.5	15	Main St.	Fallow Field	
96	6	Cleveland	11.2	10	Main St	Hay	
96	10	Ewing	4	4	Main St.	Fallow Field	
97	1	Cleveland	146.3	30	Main St	Hay	
98	3	Bolger	15.3	12	Blueberry Ln.	Hay	
98	9	Rowett	14.1	14	Seamans Road	Hay	C.E.
98	14	Darraha	30.4	2	Seamans Road	Fallow Field	
98	19	Dalton	10.6	5	Andover Rd	Hay	
104	18	Webster	22.7	3	County Rd.	Pasture	
107	7	Pelzel	4.6	2	Old Main	Fallow Field	

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
107	8&9	McClintock	4.8	4	Old Main	Fallow Field	
109	5	Rogers	2	2	Main St	Fallow Field	
109	7	Cleveland	17.7	17	Main St	Hay/ Fallow	
109	11	Abbott	5	4	Andover Rd.	Fallow Field	
109	17	Cross	5.6	5.6	Main St.	Hay	C.E.
109	18	Cross	27.2	6	Main St.	Hay	C.E.
110	5	White	19.7	5	Andover Rd	Pasture	
110	6	Luttazi	2.4	1	Andover Rd.	Pasture	
110	7	LSCC	25	25	Route 11	Pasture/ Golf	
110	8	Scheuch	8.3	4	Route 11	Field	
110	10	Mitchell	4.3	3	Andover Rd	Fallow Field	
110	13	Smith	4.1	3	Overlook Terrace	Fallow Field	
111	18	Trayner	2.9	1.5	Shaker St.	Fallow Field	
111	19	Trayner	2.9	1.5	Shaker St.	Fallow Field	
117	13	Brewster	88.8	20	Tracy Rd.	Hay	
117	28	Cave	3.5	2.5	Page/ Co.Rd.	Pasture	
117	29	Hansen	17.4	5	Co. Rd.	Hay	
123	5	Ray	34.0	4	Route 114	Hay	
123	9	Parker	9	6	Route 114	Fallow Field	
123	11	Hiley	12.2	6	Old Coach	Fallow Field	

Tax Map #	Tax Lot #	Owner	Ttl. Ac.	Open Field Ac.	Location	Use	Protection
123	25	Parker	9	7	Little Britton Rd.	Fallow Field	
123	28	Messer, A.	4.3	3	Route 114	Fallow Field	
123	29	Rowse	10.9	7	Route 114	Pasture	
128	20	Howe	2.5	2.5	Hayfield Lane	Fallow Field	
128	21	Norman	3.5	2	Hayfield Lane	Fallow Field	
129	1	Snow	8.9	5	King Hill Rd.	Fallow Field	C.E.
129	3	Homan	28.7	10	King Hill Rd.	Pasture	
129	6	Smith	9.9	7	King Hill Rd	Pasture	
130	11	Traver	5.6	3	King Hill Rd	Fallow Field	
130	13	Brooks	3.2	2.5	King Hill Road	Fallow Field	
130	15	Burton	65.5	15	King Hill Rd.	Hay	C.E.
130	17	Burton	2.5	2	King Hill Rd.	Pasture	
130	18	Todd Farm Assoc.	2.1	2.1	King Hill Rd.	Pasture	
130	20	Todd Farm Assoc.	10.8	8	Todd Farm Ln.	Fallow Field	
131	6	Messer, P	33.5	5	King Hill Rd.	Field	
131	7	Messer, P	5.4	5	King Hill Road	Pasture	
Total				675.6			

Source: New London Conservation Commission

Town-Owned Lands in 2008

Legend for Conservation Status or Restrictions (Last Column):

Conservation Land with Conservation Easement (C.E.): Permanently protected from development

Conservation Land no Conservation Easement: Currently protected but not permanently protected from development

Deed Restrictions: Protected land

Unrestricted: Land is unprotected from development

Tax Map & Lot #	Acres	Description	Location	Conservation Status or Restrictions
12-01	25 ac.	Colby Sanctuary	Pingree Road	Conservation Land No C.E.
29-01	79.6 ac.	Phillips Memorial Preserve	Goose Hole Road	Conservation Land No C.E. - Deed Res. on 70 ac.
29-04	0.62 ac.	Goose Hole Prime Wetland	Abuts I-89 across from Adie	Conservation Land No C.E.
33-9	2.6 ac.	Bucklin Beach	Little Sunapee Road	Unrestricted
33-23	6.4 ac.	Stump Dump	Dump Road	Unrestricted
42-21	0.3 ac.	Goose Hole Shoreline	Otterville Road	Unrestricted ROW
50-20	0.5 ac.	Island- Pleasant Lake	Lakeshore Road	Unrestricted
52-8	69	Cook Gifted Property	Whitney Brook Road	Conservation Land ASLPT C.E.
56-08	4.8 ac.	Transfer Station	Newport & Burpee Hill Roads	Unrestricted
58-24	36.16 ac.	Philbrick-Cricenti Bog	Newport Road	Conservation Land No C.E.
68-11	4.47 ac.	Clark Lookout	Davis Hill Road	Conservation Land ASLPT C.E.
69-2	9	Phillips Gifted Land	Route 103A	Conservation Land ASLPT C.E.
72-4	0.1	Land next to Outing Club	Parkside Road	Unrestricted
74-48	0.6 ac.	Cleveland Gift 1963	Pleasant Street across from K-C	Conservation Land No C.E.

Tax Map & Lot #	Acres	Description	Location	Conservation Status or Restrictions
77-12	1.5 ac.	Elkins Beach & Post Office	Elkins Road	Unrestricted
77-14	0.05 ac.	Pleasant Lake Access	Elkins Road	Unrestricted
77-16	1.0	Pleasant Lake Dam/Boat Launch	Elkins Road	Unrestricted
77-30	0.42 ac.	Tanner Pond	Elkins Road	Unrestricted
78-28	0.05 ac.	Scytheville Park Dam	Elkins Road	Unrestricted
78-29	1 ac.	Scytheville Park	Elkins Road	Unrestricted
78-30	0.09 ac.	Scytheville Park (Grindstone)	Elkins Road	Unrestricted
78-31	0.95	Scythe Shop Pond	Elkins Road	Unrestricted
83-09	14.7 ac.	Conservation land off Parkside	Abuts N.L. Outing Club	Conservation Land Gift, No C.E.
84-9	1 ac.	Little Common	Pleasant St. & Main St.	Unrestricted
84-54	1 ac.	Library Land	Pleasant St. & Main St.	Unrestricted
84-66	0.94 ac.	Fire Dept. Land	Main Street	Unrestricted
84-90	1.29	Old Academy Bldg/Inn Land	Main Street	Unrestricted
85-1	3.8 ac.	Sargent Common	Main Street	Deed Restrictions
85-2	0.68 ac..	Town Hall Land	Main Street & Seamans Road	Unrestricted
87-7	0.03 ac.	The Cemetery Well	Hall Farm Road	Unrestricted
88-7	177.68	ECWMA at Low Plain	Route 11	Conservation Land 99 ac. NHF&G C.E. - 78 ac. No C.E.
88-2	6 ac.	Elkins Cemetery	Elkins Road	Unrestricted
89-12	30.97 ac.	Land Adjacent to ECWMA	Laurel Lane	Conservation Land No C.E.

Tax Map & Lot #	Acres	Description	Location	Conservation Status or Restrictions
91-32	4.5	Herrick Cove Impoundment Area	Columbus Ave.	Conservation Land ASLPT C.E.
93-13	46.95 ac.	Messer Pond Conservation Area	County Road	Conservation Land Gift – No C.E.
95-39	3.7 ac.	Cemetery Land	Bog Road	Unrestricted
95-52	4.13	Lyon Brook Conservation Land	South Street Pleasant	Conservation Land No C.E.
95-53	4.01 ac.	Public Works Land	Street Pleasant Street	Unrestricted
95-15	11.6 ac.	Sewer Plant Land	South Street Pleasant	Unrestricted
96-40	37 ac.	Old Sewer Lagoons	Frothingham Road	Conservation Land Approved for C.E.
101-3	30.8	Landfill Closure Land	Mountain Road	Unrestricted
101-7	2.3 ac.	Former Elkins Fish & Game Club Land	Backland off of Mountain Road	Unrestricted
101-8	14.07 ac.	Closed Landfill	Mountain road	Unrestricted
105-1	0.07	Messer Pond Island		Unrestricted
107-19	4.2 ac.	Cemetery	Old Main Street	Unrestricted
112-6	53.3 ac.	Shepard Spring & Pit	Mountain Road to Sutton line	Part Conservation Part Highway – No C.E.
117-19	1.7 ac.	West Part Cemetery	County Road	Unrestricted
119-2	91 ac.	Clark Pond Conservation Area	Bog Road	Conservation Land ASLPT C.E. (2009)
126-2	.07 ac.	ROW in Soo Nipi Park	Soo Nipi Park	Unrestricted
132-11	2.4 ac.	Backland along I-89	King Hill Road	Unrestricted
	0.37 ac.	Georges Mills Sewer Pump Station	5 Holmes Lane, Sunapee	Sunapee
		Town Line Metering Station	Route 11	Sunapee

Source: New London Conservation Commission