

**ADOPTION**

By New Hampshire State Statute, the Northumberland Planning Board is responsible for producing a Master Plan (NHRSA 674:1).

The purpose of this document is to assist the citizens, town officials and Planning Board in deciding the future growth of Northumberland. The detailed resource data and maps contained herein should provide the critical information necessary to arrive at sound and sensible decisions.

It should be understood that the Goals and Objectives do not represent the definitive course of action to be taken. These are recommendations only, which should be reviewed on a regular basis and amended or revised as circumstances may dictate.

This plan has no regulatory power. It has no direct control over anybody or anything. It is a guideline, a reference, and a citizen majority will decide any action taken to implement any part of this plan.

The following Master Plan has been adopted under NHRSA 675:6 with the understanding that information shall be updated at least every five (5) years.

Northumberland Planning Board

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Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

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**2014**  
**MASTER PLAN**  
**for the**  
**TOWN OF NORTHUMBERLAND, N.H.**

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## INTRODUCTION

### What is a Master Plan?

A critical component to orderly community growth, whether it is a rural county, suburban town, urban city, metropolitan or regional area, is master planning.

The development of a master plan is a process whereby a community seeks to understand where it is today and where it is going tomorrow. It asks such questions as, “What are Northumberland’s assets?, what are its problems?, where is the town going from here? how will it fulfill future needs?.” The plan then develops a comprehensive program seeking solutions to these questions. Ultimately, it proposes strategies designed to provide for future needs through the utilization of all its resources, whether they are human, cultural or natural.

There are certain things that must be understood about a master plan for it to properly coordinate with the municipal planning scheme. To achieve this understanding, it is effective to realize what a master plan is **NOT**.

- A master plan is not a legally binding document, like a regulation (although it may suggest certain regulations be adopted as a means of carrying out the plan).
- A master plan is not a straightjacket that prescribes a rigid and specific formula for achieving municipal reforms,
- A master plan is not a zoning ordinance or a zoning map. Zoning is merely one of the methods by which certain aspects of the master plan may be implemented.
- A master plan, most of all, is not a panacea for all municipal problems. It is only a tool, designed for use by municipal officials in attacking problems. If the community does not understand the plan, or if the plan is not properly used, the plan is worthless.

Now that consideration has been given to what the master plan is not, it is important to understand what is **IS**.

- The master plan is a collection of maps, studies and reports that together, attempt to visualize the long-range growth of a community. It considers past trends and future potentials, major problems demanding solutions, and offers directives to be developed as guides to new growth.
- The master plan, therefore, is a guide for the community, as a whole, to use in directing its future course for a period of years. As such, it must be sufficiently general to address the ever-changing needs and characteristic of the community.
- To serve over an extended period of time, the master plan must be flexible. It must permit modifications and adjustment to each of its parts without invalidating its basic structure.

The master plan must be, as its name implies, far-reaching. It must deal with all aspects of the community’s growth. The guiding principle for the plan’s decisions should be “what is in the best interest of the community as a whole, not just one property owner or one interest group?”

The Northumberland Master Plan is divided into eight chapters. The principal focus of each section is to inventory resources, analyze trends and project the future. The information within this plan came from the Planning Board, as well as town employees and previous studies of the resources and issues. As a result, the plan is not simply an opinionated document. It is the culmination of a tremendous effort on the part of various town residents to examine and disseminate the prevailing issues and constraints at hand. The information that was generated directed the Northumberland Planning Board in the development of the plan's goals and objectives, which propose Northumberland's future. They are intended to assist Northumberland in sensibly planning for future growth and development, thereby minimizing future conflicts and problems.

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1. The terms master plan, comprehensive plan and town plan mean essentially the same thing and are often used interchangeably.

## **SETTING OF NORTHUMBERLAND**

The town of Northumberland lies in Coos County, New Hampshire's most northern county. It sets directly upon the shores of the Connecticut River, toward the southwestern corner of the county. Though the community was granted under the name of Northumberland, many commonly refer to the town as Groveton. To be clear, Groveton represents only a village within Northumberland's town limits. Groveton village is, however, the most densely populated, commercialized and industrialized section of town, and correspondingly the most frequented by resident and tourist. This predominance may explain the common error of referring to the town as Groveton.

## Chapter One

### HISTORY OF NORTHUMBERLAND

On October 20, 1761, the Honorable Governor Benning Wentworth granted to John Hogg and others a wilderness territory under the name Stonington. Not until mid-1767, however, did the area receive its first permanent settlers. For those early inhabitants, Stonington was later described as being "...free from the stone and gravel, and is easily cultivated. A large portion of the upland is food for pasturing and tillage. The Connecticut River washes the western border; the Upper Ammonoosuc River that passes through the town in a southwesterly direction waters the Connecticut River. Near the center of town is an abrupt and rugged elevation called Cape Horn. The scenery around the mountain is wild and picturesque." (The History of Coos County, p.539) Among the first settlers were the families of Thomas Burnside and Daniel Spaulding. Initially their settlements were located upon the plains of the Connecticut River. Early spring freshets covering their property and cabin floors encouraged them to move further upland.

Stonington was re-granted under the name Northumberland on January 25, 1771. The town was incorporated into the state in late 1779. In 1780, Northumberland held its first annual town meeting and elected the first selectmen to properly attend to town matters.

Throughout these first 30 years of Northumberland's growth, agriculture comprised the mainstay of the economy. The easily cultivated soils allowed several good farms to harvest corn, oats and barley. Progressively, manufacturing expanded in town. As described in The History of Coos County, "The vast supplies of pine and spruce have made the water privilege on the Ammonoosuc at Groveton profitable investment for the manufacture of lumber, and various firms from first to last have been engaged in this.", (page 558). Correspondingly, Northumberland Falls is described as having experienced manufacturing since its early days. "... (By) 1872 there were, at Northumberland Falls, starch, straw-board and shoe peg mills; at Groveton, there were manufactories producing leather, clapboards, shingles, timber, etc.", (page 540).

Traditionally, manufacturing has attained prominence in Northumberland's economy. Logging and timber industries grew to employ the greatest number of workers. Changes in the town's population reflected the strength of town industries. Economic growth in the nineteenth-century was directly dependent upon a firm's number of employees. In 1775, when agriculture dominated, Northumberland's population was 57. The establishment of firms in the early 1800's advanced the town's population to 281 in 1810. By 1880, with the industrial revolution in full swing, Northumberland's population totaled 1,063 people.

Northumberland's economy in the twentieth century was still manufacturing-intensive. As in many New England farming communities, agricultural interests have steadily declined due to changing economic, transportation and land value issues. The town enjoys a few commercial

enterprises, which serve the residents, but most amenities are found in the larger towns of Colebrook, Lancaster and Littleton and the City of Berlin. The declining population figures may be attributable to these changing land use patterns, as well as the decline of manufacturing facilities that reduces employment opportunities. In the twenty-first century, recreation and energy have emerged in the forefront of growth in the North Country.

## Chapter Two

### GOALS AND OBJECTIVES

#### **NORTHUMBERLAND COMMUNITY ATTITUDE SURVEY GENERAL SUMMARY**

In the fall of 2013, there were approximately 700 Community Attitude Surveys distributed throughout the Town of Northumberland. These surveys asked questions relating to the residency, age distribution, employment, municipal services and community resources. Of these 700 surveys, 103 responses were returned for tabulation. From the responses, an analysis was made and a general idea of prevailing attitudes is provided. Recognizing and understanding these attitudes is critical for the sensitive development of a town's master plan.

#### **Characteristic of Respondents**

The majority of respondents (89%) were full-time residents. Eighty-six percent (86%) have lived in Northumberland for over ten (10) years, with almost half of the respondents living in town all of their lives. Single-family homes were the prevalent form of residence in town. Forty-five percent (45%) of the respondents were also registered voters.

#### **Prevailing Local Issues**

Many community issues were addressed in the survey. Brief summaries of the different concerns are presented below. A comprehensive review of the survey's results is provided in the Appendix. Identifying the prevailing community attitudes toward these issues will underscore the recommendations set forth within the Master Plan.

##### Administration

The prevailing attitude among respondents was favorable toward the adequacy of existing municipal departments. Specifically noted as being adequate were the library, the recreation center, the fire department, and the highway department.

##### Development, Growth and Local Controls

There was consensus supporting the location of new development in already developed areas. Over half considered growth to be healthy. Simultaneously, there was significant support (75%) for protecting scenic and natural resources. The purchase of viable natural resources as a development-protective measure was supported, but not with tax dollars.

Local controls including a sign ordinance, solid waste ordinance, noise ordinance and a building permit and code enforcement procedure have been adopted by the town. Currently, the Fire Chief is the interim Building Inspector.

##### Fire Department

The majority of respondents (70%) considered the existing fire department as adequate or better.

### Highway Department

Survey results indicate majority support for the highway department's road maintenance, snow removal and department size. There was support for constructing sidewalks in the town's concentrated residential areas.

### Police Department

The majority of survey respondents indicated that the existing police department adequately serves the town.

### Recycling

A solid waste ordinance has been adopted and implemented. The majority of residents at the prior town meeting favor a door-to-door waste collection program.

## **Summary**

The Northumberland Community Attitude Survey respondents indicated general satisfaction with the existing municipal facilities. There is a common resistance to activities creating financial demands and affecting the tax base. Any recommendations prescribed within this plan should accommodate this prevailing attitude. Establishing a systematic agenda for capital outlays, program inceptions and department expansions should be a priority. Each of these survey recommendations is fundamental to the planning strategy developed for achieving the following goals and objectives.

## **GOALS AND OBJECTIVES**

Goals and objectives were generated from the town's cultural and natural resource inventory and community attitude survey. In this step of the planning process, the dreams and aspirations of the townspeople are tempered with the realities of a limited resource base and a reluctance to change.

Establishing goals is easy, but realizing those goals is dependent upon effective implementation of specific objectives. The Planning Board has proposed what they feel are sound, workable objectives. This section is the heart of the Master Plan, and deserves special attention.

## **Socio-economics**

### Goal

To promote Northumberland as an attractive commercial/industrial community and actively preserve community characteristics that attract and appeal to residents. To encourage development that will balance the economic needs of the town.

### Objectives

1. Encourage equitable housing opportunities for all income strata.
2. Evaluate residential developments for their projected impact on surrounding lands and community facilities.
3. Encourage quality commercial/industrial development in appropriate areas of town.
4. Enforce site plan review regulations to ensure development design that is appropriate to Northumberland's character.

5. Promote creative commercial/industrial development through zoning, site plan review, appropriate setbacks, landscaping and buffering.
6. Evaluate developments on their ability to accommodate long term needs of the town.
7. Strive to provide parking alternatives to on-street parking in the downtown area.

## **Housing**

### Goal

To promote equitable housing opportunities for Northumberland's diverse population.

### Objectives

1. Encourage residential development that complements town character.
2. Promote the creation of varied rental opportunities.
3. Encourage the preservation and rehabilitation of historically and architecturally significant structures.
4. Establish an occupancy permit system to monitor the suitability of housing opportunities.
5. Adopt an impact fee system ensuring that new developments pay their fair share of infrastructure improvements.
6. Recognize the value of preserving neighborhood character throughout areas of town.

## **Transportation**

### Goal

To provide an efficient transportation network to both Northumberland's residents and commerce.

### Objective

1. Encourage the re-emergence of freight/passenger rail service to Northumberland.
2. Periodically evaluate the efficiency of traffic circulation through the downtown area.
3. Evaluate the adequacy of parking opportunities in the downtown area.
4. Take necessary action to ensure that the state Department of Transportation assumes its responsibility for maintenance and reconstruction of Class 1, 2 and 3 highways while preparing for Northumberland's future growth.
5. Review, on a periodic basis, the present roadway standards and amend when necessary.
6. Require that roadways constructed by developers be built to approved town roadway standards.
7. Design a town road, bridge and sidewalk upgrade schedule outlining which roads will be improved in a given year, thereby planning for the development occurring on town roads (CIP).

## **Community Facilities**

### Goal

To provide the best possible services to the community, recognizing that such services contribute to the quality of life of today's resident and attract tomorrow's resident.

### Objective

1. Study the use of the current recreational facilities and assess the feasibility of improvements.
2. Develop town-owned land in the Village of Northumberland for recreational purposes, such as a park/playground.
3. Study potential uses for the town-owned land on Bag Hill.
4. Provide a public boat launch on the Connecticut River.
5. Develop a capital improvements program, whereby sound fiscal policy is established for timely replacement of capital items such as police cruisers, road maintenance equipment and fire protection vehicles.
6. Evaluate the adequacy of all existing municipal building space(s).
7. Evaluate the adequacy of police coverage.
8. Investigate the capacity of the water system and the sewer system routinely.
9. Assess rates regularly to ensure funding of operational costs.
10. Expand the sewer system Route 110, Brown Road and Route 3 North.
11. Expand the recycling program to reduce the costs of solid waste disposal.
12. Encourage use of the library to all sectors of the community and expand programs.

## **Natural Resources**

### Goal

To promote sound and sensitive land use management techniques town-wide, encouraging the man-made environment to complement and co-exist with the natural environment.

### Objectives

1. Actively support the town's Conservation Commission in its efforts to protect and preserve Northumberland's natural and cultural environment.
2. Designate and protect Northumberland's important conservation lands, including prime wetlands, floodplains and historical buildings and sites.
3. Promote development that is sensitive to the town's historical and ecological landscape.
4. Map the town's natural and cultural resources.
5. Encourage a sense of stewardship toward the town's finite resources.
6. Recognize the long-term health and diversity of the woodland environment.
7. Regulate clearcuts by requiring the services of a town-approved forester.
8. Amend the zoning ordinance to conserve prime agricultural land, recognizing the importance of Northumberland's farming community.

## Chapter Three

### SOCIO-ECONOMIC RESOURCES

A community's economic structure is determined by the way in which local residents, visitors, businesses and town government earn and expend their incomes. The economy's individual sectors are interdependent and interactive with one another. The success of one or a number of businesses affects the well being of all. The availability of good employment opportunities provides income to the local labor force and stimulates new growth by increasing housing demand, construction activity, and demand for goods and services.

The prosperity of a town depends upon the number, type and wages of jobs available to its residents and the quality of commercial enterprises that can survive there. An economically depressed area is characterized by a high unemployment rate, low wages, lack of opportunities for advancement, poor community facilities and services (low income residents cannot pay high taxes), scarcity of good commercial enterprises (which rely on a population with adequate disposable income) and a low standard of living. Conversely, a healthy economy is based on growth; it is comprised of businesses with a good future, offers jobs with good wages and opportunities for advancement and has a strong tax base.

#### COMMUNITY ATTITUDE SURVEY

The Community Attitude Survey addressed certain economic issues of Northumberland. The responses to these questions need to be considered together with the information presented in this section.

Of the respondents, many support increased development and at a greater rate than has been experienced in recent years. There is also widespread support for the payment of impact fees by developers. Many respondents (46%) favor the placement of industrial development into industrial parks. Respondents also support (75%) the protection of scenic and natural resources.

#### HISTORY OF GROWTH

Northumberland's population ([Table 3-1](#)) declined (12%) between 1980 and 2012 from 2,520 to 2,227 people. Coos County's population also declined (5.5%) during this period from 35,014 to 32,096. For the same period, the state's population grew by 44%. Northumberland's share of Coos County's population declined 0.5% between 1980 and 2012 and fell from 0.2% of the state share to 0.1%.

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**Table 3-1**  
**HISTORIC POPULATION GROWTH**  
**NORTHUMBERLAND, COOS COUNTY, NEW HAMPSHIRE**  
**1980-2012**

	<b>Northumberland</b>	<b>Coos County</b>	<b>State</b>
1980	2,520	35,014	920,475
1990	2,495	34,879	1,109,252
2000	2,440	33,156	1,235,786
2010	2,288	33,055	1,316,470
2012	2,227	32,096	1,321,617

Source: US Census of Population, 1980-2012

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From 1980 to 2010, the growth rates of Northumberland, Coos County and the state varied dramatically. Northumberland experienced its greatest decline in growth between 2000 and 2010. Coos County's highest decline rate occurred between 1990 and 2000. Yet New Hampshire experienced steady growth, with the highest rate of 20.5% occurring between 1980 and 1990.

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**Table 3-2**  
**HISTORIC POPULATION DENSITY**  
**NORTHUMBERLAND, COOS COUNTY, NEW HAMPSHIRE**  
**1970-2012**

	<b>Northumberland</b> <b>37 square mi.</b>	<b>Coos County</b> <b>1822 square mi.</b>	<b>State</b> <b>9017 square mi.</b>
1970	67	19	82
1980	68	19	102.8
1990	67.4	18.7	123.9
2000	67.4	18.7	138
2010	64.1	18	147
2012	63	18	147.8

Source: US Census of Population, 1970-2012

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Further analysis of these statistics, on a density basis, highlights an interesting occurrence ([Table 3-2](#)). Northumberland's population per square mile declined by 4 people between 1970 and 2012. Simultaneously, Coos County lost 1 person per square mile. The state, however, nearly doubled its average density, growing from 82 people per square mile in 1970 to 147.8 in 2012. Much of the state growth in population density occurred in Southern New Hampshire, creating urban sprawl which has dramatically changed the landscape in the past 50 years.

Despite Northumberland's population in steady decline, the age distribution over the past decade has remained relatively invariable. Presently, there is decline in the working-age sector of 20-54 year-olds. The age groups contributing the greatest percentages to the population in 2012 are the school-aged individuals from 5-19 year-olds and everyone 55+ year-olds. (Table 3-3).

**Table 3-3**  
**POPULATION DISTRIBUTION-AGE**  
**NORTHUMBERLAND**  
**2000 and 2010**

	<b>2000</b>	<b>Percentage of Total</b>	<b>2010</b>	<b>Percentage of Total</b>	<b>Percentage Change</b>
0-4	137	5.6%	147	6.4%	+0.8
5-19	530	21.8	499	21.8	0.0
20-34	426	17.5	345	15.1	-2.4
35-54	768	31.5	687	30.0	-1.5
55-64	236	9.6	270	11.8	+2.2
65+	343	14.0	340	14.9	+0.9
Total	2440		2288		

Source: US Census of Population 2000, 2010

In 2000, the 5-19 year-olds were the school-aged residents. By 2014, many of these will have entered the labor force. An important issue is whether these individuals remain in the Northumberland economy or migrate to another area. If they emigrate and are not balanced by an equal amount of immigrants, they may constrain the town economy by limiting the size of the labor force. Of the individuals that remain in Northumberland, the majority become active participants in the labor force and benefit the economy. Generally, they provide the labor force turnover necessary to replace retiring workers. The workforce age range, 20-34 years-old, also comprises the majority of first home buyers. For the older portion of this age group, this movement to home ownership is combined with a tendency to start one's family.

The 20-54 year-olds are very active participants in the labor force. They tend to be highly productive economically and generally spend a large percentage of their incomes stimulating all sectors of the economy. Typically, these people are homeowners and contribute significantly to the town's tax base. The problem with this assumption, however, is that the labor market in Northumberland and the surrounding areas collapsed when the mills closed and has not recovered. Consequently there are no local jobs available for this economically significant group of people.

The 55-64 year-olds of 2000 present different challenges to the economy. By 2014, this age range will have aged to 64+ (69-78 year-olds). These people have left, or will be leaving, the

labor force. The increased financial pressures and decreased mobility common to the older citizens in our population generally compel them to move into smaller dwellings and rental housing.

The character of Northumberland’s gender ratios has also remained roughly the same over 30 years, hovering around 50/50. The male population has increased while the female population has decreased to equilibrate at equal proportions. (Table 3-4).

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**Table 3-4**  
**POPULATION DISTRIBUTION-GENDER**  
**NORTHUMBERLAND**  
**2000 and 2010**

	<b>2000</b>	<b>Percentage of Total</b>	<b>2010</b>	<b>Percentage of Total</b>	<b>Percent Change</b>
Males	1210	49.6%	1146	50.1%	+0.5
Females	1230	50.4%	1142	49.9%	-0.5
Total	2440		2288		

Source: US Census of Population, 2000-2012.

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**POPULATION OF TODAY**

In analyzing population figures since the 2000 Census, projections are used rather than an actual counting of the people. As projections, they are partially dependent upon historical experiences. Consequently, the projections are qualified estimates. With this in mind, the following analysis stresses the projected trend of the population as opposed to actual numbers.

Using the New Hampshire Office of State Planning’s population estimates, Table 3-5 presents the population figures and density totals of Northumberland, Coos County and New Hampshire for 1990, 2000 and 2010.

**Table 3-5**  
**ESTIMATES OF POPULATION AND DENSITY**  
**NORTHUMBERLAND, COOS COUNTY, NEW HAMPSHIRE**  
**1990-2010**

	Northumberland		Coos County		State	
	Total	Density	Total	Density	Total	Density
1990	2495	67.4	34879	19.1	1,109,252	123
2000	2440	67.4	33111	18.7	1,235,786	137
2010	2288	64.1	33055	18.0	1,316,470	146

Source: NH Office of State Planning Population Projections 1990.

According to these estimates, Northumberland’s population declined by 207 people (-8.2%) between 1990 and 2010. The effect of such a decrease is to remove 3 people per square mile in the town over the twenty-year period. Simultaneously, Coos County is projected to have declined by 5.2% (1824 people) since 1990. The impact of this decline on the county’s density is nominal; it decreased from 19 to 18 people per square mile. The combined effect of Northumberland’s and Coos County’s decrease is to maintain Northumberland’s population percentage of the county at 7%. For this same period, 1990-2010, the State of New Hampshire has grown by 18.7%, or 207,218 people. This has expanded the average density from 123 people to 146 per square mile.

**PROJECTED POPULATION**

Table 3-6 presents three different population projections. They offer a general idea of what the future population may be and are critical for anticipating issues on future land use, economic vitality and levels of municipal requirements. The methodologies are explained below.

**Straight Line Projection Method:** This method projects the growth rates of 2000 to 2010 into the future. The average rate was -0.15% annually. It projects Northumberland’s population to be 1,838 in the year 2040.

**Step-Down Projection Method:** This method assumes that Northumberland’s future population will continue to be the same percentage of the State’s population as it was in 2000, which was 7.3%. The projected 2040 population is therefore 1,773. Because Northumberland’s percentage of the state’s total has been declining since the 1930’s, assuming that Northumberland’s population will be the same percentage in 2040 as in 2000 may be unreasonable.

**US Census Bureau and NH Office of State Planning Projection Method:** The 2000 population figure is from the US Census Bureau. The accompanying figures are projections from NH’s Office of State Planning. They are determined from a demographic/economic projection model. It projects the 2040 population to be 1,828.

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**Table 3-6  
FUTURE POPULATION PROJECTIONS  
NORTHUMBERLAND  
2000-2013**

<b>Year</b>	<b>US Census Bureau</b>	<b>Straight Line</b>	<b>Step-Down</b>	<b>NH OSP</b>
2000	2,438	2,438		
2010	2,288	2,288	2,260	
2011		2,273	2,121	2,280
2013		2,243	2,107	2,272
2015		2,213	2,079	2,167
2020		2,138	2,051	2,060
2025		2,063	1,982	2,024
2030		1,988	1,912	1,973
2035		1,913	1,842	1,909
2040		1,838	1,773	1,828

Source: US Census Bureau 2000 and 2010, NH Office of Energy and Planning (nh.gov).

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Future population projections, particularly for smaller communities, are a matter of good judgment. Predicting national slowdowns, or growth booms from a new industry, is impossible.

### **INCOME**

Two methods of measuring an area's income level are presented in this section: (1) per capita income, total income earned divided by all residents 16 years and older and (2) family income, the recorded income of all families.

#### **Per Capita**

The latest published figures for per capita income from the Census Bureau-Department of Commerce are for the year 2010. These figures are compared to 1999 data to determine a rate of change.

**Table 3-7**  
**PER CAPITA INCOME ESTIMATES**  
**NORTHUMBERLAND, NEIGHBORING TOWNS, COOS COUNTY, STATE**  
**1999 and 2010**

	<b>1999</b>	<b>2010</b>	<b>Percentage Change</b>
Northumberland	15,101	18,174	20.3
Colebrook	18,380	23,823	29.6
Jefferson	19,556	32,213	64.7
Lancaster	18,484	28,245	52.8
Stark	17,165	22,734	32.4
Stratford	17,297	15,785	-8.7
Coos County Average	17,218	23,580	36.9
State Average	23,844	32,357	35.7

Source: US Census Bureau Per Capita Income Estimates 1999, 2010.

[Table 3-7](#) estimates that the average per capita income in each of the towns, the county and the state has improved in real terms. Northumberland’s income growth was nearly half of both the county average and the state average growth. This signifies that though Northumberland’s average per capita income has improved, it has not improved by the same magnitude as the county and state. This can be attributed to faster growth within such neighboring towns as Lancaster (52.8%) and Jefferson (64.7%) as well as the quickly developing towns in the southern tier of New Hampshire.

According to actual dollar figures, Northumberland’s per capita income falls below both the county and the state figures. The varying growth rates of the county and state, however, have reduced Northumberland’s ratio to Coos County and New Hampshire incomes. Northumberland’s per capita income fell from 87.7% of the county average to 77% and from 63.3% of the state average to 56.2% between 1999 and 2010. A continuation of this trend may pose pressures on Northumberland’s economy, as the comparative standard of living for the population will be dropping.

### **Family Income**

To provide some insight into Northumberland’s family income levels, results from the 2000 US Census Bureau and the 2008-2012 American Community Survey reports on family income are considered. Figures are published in inflation-adjusted dollars. [Table 3-8](#) provides a breakdown of income ranges in inflation-adjusted dollars and the number percent of families falling into the respective ranges. The purpose of this analysis is to identify the income levels of families from 2000 to 2012.

**Table 3-8**  
**DISTRIBUTION OF FAMILY INCOME**  
**NORTHUMBERLAND**  
**2000 and 2012**

<b>Inflation-adjusted Dollar Value</b>	<b>Families</b>			
	<b>2000</b>		<b>2012</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<\$10,000	40	6.0%	55	7.5%
10,000-14,999	65	9.6%	52	7.2%
15,000-24,999	114	16.8%	92	12.7%
25,000-34,999	126	18.5%	127	17.6%
35,000-49,999	142	20.9%	115	15.9%
50,000-74,999	145	21.3%	192	26.5%
75,000-99,999	34	5.0%	53	7.3%
100,000>	13	1.9%	38	5.2%
<b>Total</b>	<b>680</b>		<b>722</b>	

Source: US Census of Population 2000, 2008-2012 American Community Survey 5-Year Estimates.

In 2000, the median family income was \$34,444 with 9.4% or 64 families below poverty level; median per capita income was \$15,101. In 2012, the median family income was \$38,947 with 22.3% or 161 families below poverty level; the median per capita income was \$17,949. Between 2000 and 2012, an average of 7% of Northumberland’s surveyed population earned less than \$10,000. During the same period, an average of 23% of the surveyed population earned between \$10,000 and \$25,000. While 39% of the surveyed population in 2000 earned between \$25,000 and \$50,000, only 20% of the surveyed population earned this income range in 2012. The remaining families surveyed earned incomes in excess of \$50,000.

The implications of these income analyses are important. Given that middle class is defined as those earning between \$25,000 and \$100,000 (Drum Major Institute for Public Policy), approximately two-thirds (67.5%) of Northumberland’s families fall into the middle class category in 2012. The remaining third of families are split with 28% families falling below middle class and 5% above.

If the trend demonstrated by the per capita income change (19% increase over 12 years) versus family income change (13% increase over 12 years) continues, the percentage of Northumberland’s families falling below the middle class income level may grow. This may increase demand for town services, while reducing the amount of revenue that town residents can provide. This pressures both the town and residents. To combat this possible threat, it is

important for the town to support diverse commercial interests, thereby prompting the health of its economy.

### **POVERTY LEVEL**

The 2012 US Census of Population evaluated poverty on an age basis. The results indicated that 2.9% of all people (10) over 65 years of age had incomes below poverty level. In contrast, 15.8% of those over 18 years old were below poverty in their income levels ([Table 3-9](#)).

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**Table 3-9**  
**DISTRIBUTION OF POVERTY BY AGE**  
**NORTHUMBERLAND**  
**2012**

	<b>Actual Number Below Poverty that are:</b>	<b>Percentage of Total Population that is:</b>
Under 18 yrs.	162	17.6%
18-64 yrs.	222	15.8
65+ yrs.	10	2.9

Source: US Census of Population, 2012.

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### **EMPLOYMENT**

A community's income level is dependent upon the jobs available and the prevailing sectors of the economy in which people are employed. As stated above, it is important for Northumberland to promote its commercial/industrial base, thereby encouraging its competitive income levels. In the analysis of regional per capita income it was shown that Northumberland's income levels were decreasing relative to neighboring towns, the county and the state. To understand why this is occurring, a variety of employment statistics will be examined. Although these statistics are based upon Coos County averages, they are indicative of Northumberland's labor force character.

It is important to analyze labor force data by sector: manufacturing, education services and public administration/local government. These categories facilitate employment analysis because they group occupations with similar characteristics (skills, wage level, etc.).

A breakdown of the employment mix by sector for Coos County from 2005 to 2014 is provided in [Table 3-10](#). Coos County has a diversified economy that has shifted away from manufacturing over the past decade. Generally, an employment percentage of 30-35% in manufacturing provides stability and higher wages to the economy and requires a fairly skilled labor force; employment percentage in manufacturing of 6% in 2013 indicates a near-eradication of manufacturing sectors in Coos County. A non-manufacturing employment mix supplies the local economy with an adequate level of services to support the population. Non-manufacturing

enterprises are not traditionally as stable as manufacturing. While most non-manufacturing sectors experienced a decrease in labor force as did Coos County, those employed in education services remained relatively stable while total employment in Coos County declined resulting in a shift of 9% to 11%. Local public government declined as did total employment, but remained within the 5-10% range for appropriate level of public service to the local economy (7%).

**Table 3-10**  
**EMPLOYMENT MIX BY SECTOR**  
**COOS COUNTY**  
**2004 through 2013**

**Number and Percentage of Labor Force in:**

	<b>Total Employment Coos County</b>	<b>Manufacturing Coos County</b>	<b>Public Administration Coos County</b>	<b>Education Coos County</b>	<b>Total Employment State</b>
2004	13,612	1,944	1,052	1,269	589,047
2005	13,511	1,772	1,091	1,304	599,133
2006	13,444	1,743	1,110	1,241	607,720
2007	13,162	1,387	1,157	1,296	610,356
2008	13,357	1,446	1,171	1,257	615,487
2009	12,318	1,110	845	1,287	599,948
2010	12,108	1,022	832	1,296	579,367
2011	11,933	819	838	1,267	585,319
2012	11,748	805	867	1,209	591,272
2013	11,638	652	822	1,225	596,306

Source: US Census Bureau (QWIs), 2004-2014

The employment mix in Coos County changed between 2004 to the 2013. The size of the total labor force in Coos County diminished by 1,974 people within the decade. This results in a change in Coos County's percent of the state labor force from 2.3% in 2004 to 1.9% in 2013. The largest labor force total was 13,612 individuals in 2004. As this force declined, manufacturing employment declined by 1,292 workers from 2004 to 2013. In 2004, the manufacturing sector employed its highest level of 1,944 people. There was no labor sector in Coos County that exhibited growth in this period. Public administration followed the same trend of decline with a sharp drop between 2008 and 2009 and a total loss of 230 workers by 2013. Educational services, like most sectors in Coos County remained somewhat stable. The State total employment reached its highest level in 2008, declined to its lowest in 2010 with a net loss of 36,120 jobs, steadily rising to a level in 2013 recouping 16,939 of those jobs.

Many residents believe that Northumberland's employment mix did experience a larger change in sector employment from 2004 to 2013 as did the county. The town's manufacturing employment numbers have plummeted to zero since 2008. Correspondingly, the non-manufacturing sector has not received the same increases in total numbers and percentage of total from 2004 to 2013 as did the county. Northumberland's level of commercial and service-

oriented enterprises may not be adequately serving the local economy. It is common for Northumberland residents to travel to neighboring towns or farther to satisfy their service needs. An expansion in this sector would benefit Northumberland's economy. The town's local government employment levels do not represent as high a percentage for Northumberland as they do for the county. Presently, the levels do appear to satisfy the town's needs.

**LABOR FORCE**

Table 3-11 provides a breakdown on a monthly basis of Northumberland's unemployment rates for 2004, 2008 and 2013. By examining two years or more, it is possible to determine cyclical trends in employment. For Northumberland, the highest unemployment rate occurs in February/March and the lowest rates occur in October. These variations indicate an economy that is not dependent on any particular occupation driven by season. Fluctuations in Northumberland's unemployment rate occur within the year as well as over years. In contrast, the State unemployment rates are relatively stable for each year and average to a consistent rate over the three years. Northumberland's average unemployment rate has remained higher than the State's unemployment rate indicating a community with limited employment opportunities.

**Table 3-11  
UNEMPLOYMENT RATE (UER)  
Northumberland and New Hampshire  
2004, 2008 and 2013**

	Northumberland UER(%)				State of New Hampshire UER(%)				
	2004	2008	2013	AVG		2004	2008	2013	AVG
January	4.3	5.6	7.2	5.7	January	4.2	3.5	5.5	4.4
February	4.9	7.4	9.1	7.1	February	4.1	3.5	5.4	4.3
March	4.9	7.6	9.0	7.2	March	4.1	3.6	5.3	4.3
April	4.7	7.4	7.5	6.5	April	4.0	3.6	5.3	4.3
May	3.8	9.8	6.3	6.6	May	4.0	3.7	5.2	4.3
June	4.3	9.1	5.1	6.2	June	3.9	3.8	5.2	4.3
July	3.7	7.2	6.3	5.7	July	3.9	3.9	5.2	4.3
August	3.2	8.6	4.8	5.5	August	3.8	4.0	5.3	4.4
September	2.2	8.4	4.8	5.1	September	3.7	4.1	5.2	4.3
October	2.3	7.2	4.7	4.7	October	3.6	4.3	5.2	4.4
November	2.6	8.6	5.9	5.7	November	3.6	4.5	5.2	4.4
December	2.6	9.5	6.0	6.0	December	3.6	4.8	5.2	4.5
Average	3.6	8.0	6.4		Average	3.9	3.9	5.3	

Source: NH Department of Employment Security Local Area Unemployment Statistics 2004, 2008 and 2013, Statewide Benchmarked Unemployment Estimates 2004, 2008 and 2013.

Table 3-12 compares the average annual unemployment rates of Coos County to the state from 2004 to 2014. These rates indicate two important aspects: (1) the difference between the county and state rates represents the lag of one economy behind the other and (2) varying rates for either entity from year-to-year identifies healthy and depressed years in the economy.

Coos County is not as developed economically as the state. The difference between the two economies, however, has begun to narrow. In 2004, there was only 0.2 percentage points between the county and the state unemployment rates, whereas in 2011 there were 3.2 percentage points (Table 3-12).

Healthy and depressed years strike both the county and state economies similarly (Table 3-12). Both suffered from the national recession beginning in 2008 with escalating unemployment rates. Correspondingly, the county and state are experiencing lower unemployment rates as the recession dwindles.

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**Table 3-12**  
**YEARLY UNEMPLOYMENT RATE AVERAGES**  
**2004-2014**

	<b>Coos County</b>	<b>NH</b>	<b>+/-Change</b>
2004	4.1	3.9	+0.2
2005	4.3	4.0	+0.3
2006	4.2	4.7	-0.5
2007	5.9	3.9	+2.0
2008	5.0	3.9	+1.1
2009	7.4	6.2	+1.2
2010	9.3	6.9	+2.4
2011	8.9	5.7	+3.2
2012	8.6	5.7	+2.9
2013	8.6	5.6	+3.0
2014	6.8	4.9	+1.9

Source: NH Department of Employment Security Reports on Labor Force, Employment and Unemployment Levels 2004-2014.

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## **COMMUTING**

Commuting to one's job is common throughout the North Country.

## **WAGES**

Table 3-13 depicts the average weekly wage for Northumberland and Coos County. Wages are tabulated on a sector basis from 200 and 2012. Just as in the analysis of incomes, wage growth is broken down in real rates.

Northumberland’s sector wages changed in real terms by the following percentages: manufacturing, -32.5%, local government, 84.5% and retail/service, 1.7%.

**Table 3-13  
AVERAGE WEEKLY WAGES BY SECTOR  
COOS COUNTY**

		<b>2002</b>			
		All Industries	Manufacturing	Public Administration	Retail/Service
Northumberland	(\$)	N/A	876	427	356
Coos County		620	651	491	440
		<b>2012</b>			
		All Industries	Manufacturing	Public Administration	Retail/Service
Northumberland	(\$)	610/wk	591	636	362
Coos County		641	844	703	484

Source: Employment and Wages by County in New Hampshire, 2002 and 2012, NH Department of Employment Security.

Between 2000 and 2012 the manufacturing wages in Northumberland declined precipitously, in part due to the closing of the mills in 2008. For the county, however, manufacturing wages in 2002 were 105% of the average increasing in 2012 to 132%. Simultaneously, the ratio of non-manufacturing to the average for all industries showed a substantial gain only in public administration. Though it fluctuated considerably within the given timeframe, the non-manufacturing wage increased from 75% of the average in 2002 and 92% in 2012. The wage of local government employees experienced a substantial gain as opposed to that of non-manufacturing. Its ratio to the average wage for all industries grew 30% between 2002 and 2012, amounting to 109% of the average in 2012.

It is possible to assess the relative stability of each sectors’ wages by analyzing fluctuations of the average weekly wage rate ratios. The 2000’s are a good time frame to assess this because there were recessionary years only. The manufacturing sector in Northumberland was the least stable of the sectors during the 2000’s. As a percentage of the average for all industries, this sector posted steady wage growth in the county yet steady wage decline in Northumberland. Non-manufacturing, however, was more stable because the wage rate ratio remained constant across all sectors with a marked increase in wage rates for public administration.

A final analysis of wage rates is performed in comparison with the average sector rates for the state. [Table 3-14](#) depicts county and state sector wage rates for 2007, 2010 and 2012 and the corresponding county to state ratios. The results support the trend in unemployment rate comparisons: Coos County lags behind the state. Unlike the trend of unemployment rates toward

less severe lags behind state averages, the county wage rates fell further behind the state rates in 2010 than in 2007, as the county to state ratio of the average weekly wage in all industries fell from 68% in 2007 to 55% in 2010. The ratio of Coos County’s local government average weekly wage rate to the state rate fell the greatest percentage, from 80% in 2007 to 61% in 2010. By 2012, however, the local government average weekly wage rate ratio climbed back to approximately the same ratio as in 2007, still lagging behind the state.

**Table 3-14**  
**COMPARISON OF AVERAGE WEEKLY WAGE RATES**  
**COOS COUNTY, NEW HAMPSHIRE**  
**2007, 2010 and 1987**

		<b>Coos County</b>	<b>State</b>	<b>County:State Ratio</b>
All industries	2007	\$572	843	68%
	2010	484	884	55
	2012	623	928	67
Manufacturing	2007	798	1,109	72
	2010	741	1,190	62
	2012	848	1,221	69
Non-manufacturing	2007	572	890	64
	2010	484	852	57
	2012	623	938	66
Local Government	2007	628	787	80
	2010	517	847	61
	2012	703	868	81

Source: Quarterly Census of Employment and Wages 2007, 2010 and 2012, NH Department of Employment Security.

In summary, Northumberland had an economy heavily based on manufacturing. The benefit of which is that the town’s labor force tended to be more skilled than the county labor force, the average wages earned were higher and the employment base was fairly stable. There were disadvantages that, due to the collapse of the town’s manufacturing base in 2008, can only be alleviated through increased economic diversity. Currently, there are few enterprises providing goods and services and a low variety of jobs to employ unskilled labor. To achieve greater diversity, efforts should be made to attract both non-manufacturing and manufacturing businesses. Despite the tendency for non-manufacturing businesses to pay lower wages, the resultant employment distribution across a variety of employment opportunities may effectively employ more individuals, bolstering labor force stability. Diverse economies typically attract and retain larger labor forces, which will ultimately benefit the community.

## Chapter Four

### HOUSING

According to Webster's Dictionary, housing is a dwelling or shelter provided for people. In our society, however, housing acquires greater significance. As a shelter, it protects our basic social unit, the family. As a commodity, it is often the single largest financial commitment that one makes in a lifetime. Approximately 25-30% of the average American income is dedicated to housing. A frequent implication of this commitment is housing role as a status symbol indicating financial condition.

Housing also has a significant effect on quality of life. Living in a spacious dwelling with decent plumbing and heating facilities contributes positively to health and well-being. In contrast, living in a small unit without water, heat or windows contributes to low morale and poor health. The overall effect of having a contented or discontented populous is reflected in a community's character.

By documenting types of housing, number of units, facilities and affordability data, a town is able to identify problems in the housing sector. This will assist the town in developing specific programs to address these housing issues.

In developing this chapter, housing is broken down into different categories, depending upon its use or design. For the purpose of this plan, these categories are defined as:

**Single family:** a building containing one dwelling unit.

**Multi-family:** a structure designed for living purposes containing two or more dwelling units, such as duplex, triplex, or apartment house.

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

**Permanent Residence/Domicile:** a dwelling unit inhabited on a constant basis.

**Seasonal Unit/Second Home:** a dwelling unit used on a part-time basis, such as during weekends or vacations; it is not the inhabitant's permanent or primary residence.

**NOTE:** One may have a number of residences, but the permanent or primary home is called the domicile.

**Cluster:** a residential area developed as a single entity according to a plan and containing residential housing units which have common or public open space area as an appurtenance.

**Bonus Density:** the granting of additional dwelling unit density to a proposed development if the added units are made available to low-to-moderate income families.

Data was taken primarily from various years of the US Census of the Population. Where available, this data was updated using statistics from the Office of State Planning, the New Hampshire Housing Finance Authority and The Registry Review.

## HOUSING STOCK

Northumberland’s total housing stock expanded by 1%, or 13 units, between 2000 and 2010. Year-round units decreased by 2% over the 10-year period, or at a rate of almost 2 homes per year. In contrast, the number of seasonal housing units increased 16% by 32 units from 197 to 229 units over the 10-year period ([Table 4-1](#)).

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**Table 4-1**  
**TOTAL HOUSING STOCK IN NORTHUMBERLAND**  
**2000 and 2010**

	<b>2000</b>	<b>2010</b>	<b>Percentage Change</b>
Year-round Units	1229	1210	-2%
Seasonal/Recreational Units	197	229	+16%
Total Units	1426	1439	+1%

Source: US Census of the Population 2000 and 2010, Northumberland Assessing Records 2014.

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This gain in seasonal units may, however, be inaccurate. Because the US Census Bureau uses a different definition of seasonal structures than the more conventional definition presented in this plan, Census figures on seasonal units may be skewed. The Census Bureau calculates figures on structures according to the design and services of the housing unit, rather than actual use. Many of today’s seasonal homes are constructed with foundations and full plumbing and heating, causing the units to be classified as year-round. Consequently, widespread “winterization” of seasonal use homes distorts both year-round and seasonal housing numbers.

There have been no published figures on Northumberland’s current housing stock. The 1988 Windshield Survey conducted by the North Country Council for this plan revealed a total of 819 housing structures. The survey only tabulated the number of buildings and did not count number of units per structure, as does the Census Bureau. This difference in methodology disallows any comparison of the windshield survey figures with Census figures.

Another method of estimating current housing stock is to examine building permits issued since 2007. Building permit information classifies housing units as single, family, multi-family and manufactured. The information does not differentiate between year-round and seasonal units so a small percentage of seasonal units may be included in this data.

**Table 4-2**  
**BUILDING PERMITS ISSUED BY TYPE**  
**NORTHUMBERLAND**  
**2007-2013**

	<b>2007</b>	<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>Total Change</b>
Single	6	3	0	3	3	3	-1	17
Multi	0	0	0	0	0	1	0	1
Manufactured	0	1	0	-2	-3	-2	-2	-8

Source: Northumberland Assessing Records 2007-2013..

Northumberland has experienced a small increase in residential development from 2007 to 2013. (Table 4-2). There were twenty-three (23) new single-family structures built and six (6) demolished or converted to another use. One (1) multi-use building was constructed. Twenty-four (24) manufactured housing units were added and fourteen (14) were demolished or converted to another use. The addition of these structures to the 2010 Census figure places Northumberland’s 2010 housing stock at over 1,000 units.

### **SEASONAL HOUSING**

The 1988 Windshield Survey identified six seasonal structures in Northumberland. Because this figure was determined from an exterior visual assessment of structures, it is a conservative estimate. Residents believe that there has been little development in this area and that the existing totals are comparable to the 1980 Census Bureau figure.

Second-home developments are increasingly pressuring the northern region of the state. Carroll, Littleton and Bethlehem are experiencing large scale developments. This potential pressure should be monitored so that the town may effectively plan for it. These developments typically affect the town fiscally and environmentally. The developments require costly road upgrading and increased police and fire protection that frequently offsets their contribution to the tax base.

### **HOME OWNERSHIP**

Of Northumberland’s occupied year-round housing stock in 2000, 62% were owner-occupied 18% were renter-occupied and 20% were unoccupied. The percentages changed to 58%, 19% and 23%, respectively, by 2010. Statistics are presented in Table 4-3. This degree of home ownership is lower than the average for the state and Coos County (both 72%).

**Table 4-3**  
**COUNT OF OCCUPIED YEAR-ROUND HOUSING**  
**NORTHUMBERLAND**  
**2000 and 2010**

	<b>2000</b>	<b>Percentage of Total</b>	<b>2010</b>	<b>Percentage of Total</b>
Owner-occupied	882	62%	837	58%
Renter-occupied	252	18%	277	19%
Unoccupied	292	20%	325	23%
Total	1426	100%	1439	100%

Source: US Census of Population 2010.

A high degree of home ownership is generally considered a favorable indicator for two reasons: (1) owning one's home is a common goal for many and doing so may increase "quality of life," and (2) a high level of ownership frequently reflects upon a community as a desirable place to live. A reduction in home ownership over the past ten years can be the result of many factors, however, it is likely due to relocation of homeowners due to the closing of the paper mill, the primary and most significant employer in this region. This loss of sustainability is also reflected by the rise in vacant homes.

#### HOUSEHOLD SIZE

In 2000 the average size of a Northumberland household was 2.47 while the average household size in 2010 was 2.32 people. In 2000, the average family size in Northumberland was 2.91 while the average family size in 2010 was 2.78. This decreasing trend in the ratios indicates that Northumberland is experiencing the nationwide trend toward smaller households.

#### HOUSING COSTS

**Table 4-4**  
**COUNT OF SPECIFIED OWNER-OCCUPIED HOUSING UNITS COSTS**  
**NORTHUMBERLAND**  
**1980 and 2014**

	<b>1980</b>	<b>2014</b>
Less than \$10,000	35	73
\$10,000-\$14,000	29	50
\$15,000-\$19,999	43	49
\$20,000-\$24,999	70	47
\$25,000-\$34,999	154	106
\$35,000-\$49,999	111	203
Greater than \$50,000	35	391

Source: Analysis of Northumberland assessment data.

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There are few published reports on recent housing costs in Northumberland. Those available indicate a trend of rapidly escalating housing costs while housing values have declined. Contract rents in Northumberland have also escalated. This substantial escalation has effectively priced housing out the market for many. A ramification of this is that area employers are suffering staffing problems because interested job applicants cannot locate decent, affordable housing.

#### SPECIAL INTEREST HOUSING

Special interest housing is dwelling units provided specifically for population sectors such as the elderly, handicapped or low-to-moderate income families. Northumberland provides housing for each of these special interests. Many have been subsidized by federal programs of the US Department of Housing and Urban Development (HUD) Section 8 and Community Development Block Grants housing rehabilitation.

In 2012 there were two (2) multi-unit housing programs subsidized by the Department of Housing and Urban Development. One was Melcher Court, a twenty-four (24) unit facility for low-to-moderate income families; the development also provided two (2) handicapped designed units. The second program was the Groveton Housing Corporation, providing ten (10) elderly units, one of which was handicapped designed. In early 2014 this program was at capacity, with a waiting list. The Northumberland Housing Authority administers a Department of Housing and Urban Development Section 8 program in town.

A slightly different program that has benefited the low-to-moderate housing stock in Northumberland was implemented in the 1980's through the Small Cities Community Development Block Grant Housing Rehabilitation Program. Between these two programs administered in town, rehabilitation financing totaled \$70,000. There were sixty-three (63) units rehabilitated, one trailer replacement and two demolitions of dilapidated structures. Owners of the demolished structures were compensated and relocated to better housing.

Although these programs have significantly promoted the housing opportunities throughout Northumberland, survey respondents indicated that more should be done, particularly in the area of elderly housing. Northumberland should consistently monitor its special interest opportunities to ensure their adequacy for meeting the community's demands.

## Chapter Five

### TRANSPORTATION

The diversity and efficiency of a town's transportation system can ultimately affect the quality of life in that town. The general mobility of the residents and those who visit is a function of a town's roads and transportation services. There is also an interdependency between a town's economy and its transportation system. The development of one will influence the direction in which the other takes. Therefore, it is necessary to conduct transportation planning based upon the economic environment that is projected to occur and that which is desired.

#### **STREETS AND HIGHWAYS**

The task of providing a road network is a prime governmental function and responsibility. Distribution of capital expenditures for highway construction can have a vital influence on the economic well-being and prospects of a municipality. It is, therefore, important for the town to carefully assess its needs and establish an orderly and realistic range of expenditures and priorities.

#### **Functional Classification of Streets and Highways**

A circulation system generally contains elements of different capacity, each of which performs a specific role. Since there are different types of movement, a highway system should be composed of roads that serve varying types of traffic and volume.

Although there are many variations in types of streets and highways, they may be subdivided into four basic categories; limited access, arterial, secondary and local. The characteristics of each type are:

Limited Access: designed for rapid movement of heavy volumes of traffic; direct access to adjacent property; parking in the right-of-way is prohibited.

Arterial/Primary Highways: designed for movement of through traffic and heavy local traffic; crossings at grade; construction for speed and volume; access to adjacent property generally regulated.

Secondary/Collector Streets: designed to link local streets to arterials; collect traffic from several local streets; bypass traffic around residential neighborhoods.

Local Streets: serve traffic at generation point; provide access to adjacent property; through traffic not desirable; parking and loading allowed in right-of-way.

Without a planned street and highway system, certain streets will be pressed into uses for which they were not intended or designed. An arterial street, built to facilitate through movement, can easily become a local street once strip development with unlimited and uncontrolled points of access has occurred along the right-of-way. A local street may also be overburdened with heavy through-traffic because no convenient alternate route is available. Parking and loading needs can

also impose restrictions upon the smooth flow of traffic, harming not only the function of the road but also businesses adjacent to it.

### **Administrative Classification of Highways**

Highways are placed into seven administrative classes in New Hampshire, depending upon which governmental agency is responsible for the highway.

Class I: Known as the Trunk Line Highways, consists of those on the State primary system except those segments lying within compact sections of cities or towns with 7,500 or more population. The New Hampshire Department of Transportation has full control and pays the costs of construction, reconstruction and maintenance.

Class II: Known as State Aid Highways, consists of those on the State secondary system and are characterized the same as Class I highways.

Class III: Known as Recreational Roads, consists of roads leading to and within State reservations designated by the Legislature. The New Hampshire Department of Transportation holds responsibility.

Class IV: Known as Compact Section Highways, consists of those segments of highway within the compact sections of cities and towns with over 7,500 year-round residents. Compact sections are defined as the territory of any city or town where the frontage of any highway is mainly occupied by dwellings or year-round businesses. Construction, reconstruction and maintenance is the responsibility of the city or town.

Class V: Known as Town Roads, consists of all other traveled highways for which the towns have responsibility.

Class VI: Consists of all other public ways, includes highways discontinued as open highways and made subject to gates and bars, and all highways which have not been maintained and repaired by the town for five or more successive years.

Class VII: All other highways not previously mentioned, consists of federal forest service roads such as those leading to fire towers, fish hatcheries, etc.

With relative proximity to two major interstate highways of New England, ground transportation tends to be the predominant form of travel in the North Country. Interstate 93 (accessing the Boston Metropolitan area) and Interstate 91 (accessing the Montreal, Springfield and Hartford Metropolitan areas) connect the area to major growth centers. For Northumberland, US Route 3 serves as the main connector for the town to these major interstate highways.

Northumberland's roadway network covers approximately 42 miles comprised of Class 1, 2, 5 and 6 roads, as identified in [Table 5-1](#). State-maintained roads in Northumberland are Routes 3 and 110 and Lost Nation Road, covering 24 miles. The balance of the miles is town-maintained.

**Table 5-1**  
**HIGHWAY MILEAGE BY FUNCTIONAL CLASSIFICATION**  
**NORTHUMBERLAND**

<b>Class</b>	<b>Description</b>	<b>Mileage</b>
1	State primary highway system	12.76
2	State secondary highway system	10.98
5	Town maintained highway system	14.59
6	Town discontinued, subject to gates/bars	3.48
Total		41.81

Source: Highway Mileage by Classification, NH Department of Transportation, January 1988.

Annual average daily traffic counts along the state maintained highways have increased in recent years. A continuous traffic count determines the number of vehicles (car, bus, truck, etc.,) that pass by a given point in a year. From this, average daily counts are computed. This count does not designate the direction of movement. Traffic counts for Northumberland are reported in [Table 5-2](#). The recorder station experiencing the largest traffic growth is US3 at the Lancaster town line, up 1100 vehicles per day since 1983; this recorder stationed measured a peak of 5700 vehicles per day in 2006. US 3 at the Lancaster town experienced in 2012 the highest traffic flow among the three corridors connecting to Northumberland. Yet, despite exhibiting the highest traffic flow, the average number of vehicles per day on US3 have consistently declined annually from 2006 resulting in a net decrease of 618 vehicles per day ([Table 5-3](#)).

An area of concern in the growing traffic flows of Northumberland is the prevalence of trucking. Trucking is very important to the North Country and many industries depend upon it as their means of shipping and receiving. US Route 3, a major trucking corridor for the North Country, runs through downtown Northumberland. Although this provides a high level of access to town's businesses, it simultaneously escalates traffic flows.

**Table 5-2**  
**NORTHUMBERLAND TRAFFIC COUNTS**  
**AVERAGE DAILY FIGURES**

<b>Location</b>	<b>Vehicles per day</b>				
	<b>1983</b>	<b>1987</b>	<b>2006</b>	<b>2009</b>	<b>2012</b>
US3: Stratford town line	2285	2905	3377	3015	2768
US3: Lancaster town line	3800	3800	5700	5600	4900
NH 110: Stark town line	1300	2200	2400	1500	1900

Source: Automatic Traffic Recorder Report, NH Department of Transportation, 2013.

A second factor affecting Northumberland's traffic counts is tourism. The North Country is a large tourism area and many visitors pass through town. An analysis of monthly traffic reports on US Route 3 in town indicates that the peak flow month is July and the low traffic months are November to January ([Table 5-3](#)).

**Table 5-3  
SPECIFIED AVERAGE DAILY TRAFFIC FLOW FIGURES  
NORTHUMBERLAND  
2007 and 2008**

	<b>Average</b>							
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
US3 (Stratford Road)	3377	3320	3036	3015	2979	2790	2768	2759
	<b>Average</b>		<b>Peak</b>		<b>Low</b>			
	<b>2009</b>	<b>2013</b>	<b>2009</b>	<b>2013</b>	<b>2009</b>	<b>2013</b>		
Northumberland	3015	2759	3389	3165	2543	2406		
Months			July	July	Nov.	Jan.		

Source: Automatic Traffic Recorder Report, NH Department of Transportation, 3/6/2014.

Northumberland maintains a total of 18 road miles. These miles are incorporated into the roads shown on the Transportation Map (Map #1) and listed in [Table 5-4](#). This table also indicates the highway classification for each road. All roads in Northumberland are given similar priority for maintenance. This means that no one road is more important to plow, sand or grade. Some roads do receive a lower level of care, however, due to remoteness from the highway garage and distance from other town-maintained roads. Herman Savage Road, Page Hill Road and Old Route 110 tend to receive less attention than the average town-maintained road.

**Table 5-4  
TOWN MAINTAINED ROADS IN NORTHUMBERLAND**

<b><u>Class V</u></b>	<b><u>Class V cont'd</u></b>	<b><u>Class V cont'd</u></b>
Arlington Street	Herman Savage Road	Prospect Street
Bearse Street	High Street	Rich Street
Brook Road	Highland Street	Riverside Drive
Brooklyn Street	Hillside Avenue	Road Inv. #30

Brookside Avenue	John Silver Road	Road Inv. #33
Central Street	Main Street	School Street
Church Street	Maple Street	Second Street
Cottage Street	Mechanic Street	Spring Street
Covill Street	Melcher Street	Summer Street
Cumberland Street	Morse Street	Thompson Road
Davenport and Hill	Mountain View Street	Wemyss Drive
Dean Brook Road	North Avenue	West Place
Eames Street	N'land Village Road	West Street
First Street	Old Trunk Line	
Fiske Street	Odell Park	<b><u>Class VI</u></b>
George Craggy Street	Odell Street	Bag Hill Road
Gould Road	Page Hill Road	Jordan Hill Road
Goulet Street	Park Street	
Graham Road	Pinette Street	
Grand View Drive	Pleasant Street	
Hall Road	Preble Street	

Source: NH Department of Transportation Highway Inventory, 1989 and Northumberland Road Agent, 2014.

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In the event of subdivisions and developments, there are specifications for road construction and upgrade. These are detailed within the town's current subdivision regulations. These specifications are based on the State's "Suggested Design Standards for Rural Subdivision Streets" and provide minimum standards for road construction. These specifications should be periodically reviewed and recommendations made for amendment. Furthermore, the town should discourage subdivisions and developments in remote areas or where roads are inadequate. This would avoid negative effects on Northumberland's fiscal condition and its ability to provide emergency services. The provision of Premature and Scattered Development within New Hampshire's Revised Statutes Annotated 674:36(II)(a) addresses this issue and allows denial. Identification of remote areas and inadequate roads is necessary.

### **SIDEWALKS**

The Town of Northumberland maintains a total of approximately 10,000 linear feet of sidewalks located primarily within the Village of Groveton. These sidewalks and curbs are comprised of various materials including concrete, granite and asphalt. The current condition of sidewalks varies from newly replaced sections in good condition to those in disrepair that are crumbled, cracked and lack curbing for accessibility by the disabled. As with the roads, all sidewalks are given similar priority for maintenance supported through annual appropriations with a schedule that should be integrated into a capital improvement plan. The goal is to upgrade all sidewalks to concrete walks with granite curbing that are ADA-compliant.

### **AIR**

Public airports closest to Northumberland are the Berlin Municipal Airport in Milan, the Twin Mountain Municipal Airport in Carroll and the Mount Washington Regional Airport in

Whitefield. The Berlin and Whitefield facilities are the closest, each approximately 25 miles away.

The Berlin Municipal Airport is owned and operated by the City of Berlin. It maintains a 5,000-foot asphalt runway and provides runway lights. The Mount Washington Regional Airport, also town-owned and operated, maintains a lighted 3,500-foot asphalt runway. All three facilities offer a variety of General Aviation services to the public and corporate sectors of the area. Considering the extensive growth associated with New Hampshire's economy, they play an important role for North Country business and industry.

Although scheduled passenger service is not available at these airports, service is available at the Laconia Municipal Airport and the Lebanon Municipal Airport. Both are approximately 100 miles to the south of Northumberland. These airports have connections to Boston and New York City.

### **RAIL**

The Groveton Branch is owned by the State of New Hampshire and operated by the New Hampshire Central Railroad except for one mile of the line in Groveton owned and operated by Atlantic and St. Lawrence Railroad. NHCR and ASLR interchange in Groveton. The FRA Class 1 line stretches 19 miles between Jefferson and Groveton. Along the 18-mile NHCR portion, there are 22 at-grade crossings and six bridges. There is presently one customer along that line that receives plastic pellets. There is a new track that serves a trans-load facility located in Hazens (Whitefield). There are no passenger service trains available at this time.

Source: NH State Rail Plan, 2012.

### **MOTOR CARRIER SERVICE**

There are many inter- and intrastate trucking firms serving Northumberland. Many have daily schedules that afford immediate service. Federal Express also services Northumberland, with the nearest dispatch office in St. Johnsbury, VT. This service offers next day package delivery.

### **BUS**

There is no commercial bus service available in Northumberland at this time. There is a non-profit bus service operated by Tri-County CAP that services Coos, Grafton and Carroll Counties.

### **TAXI**

There are no taxi services available for Northumberland at this time.

## Chapter Six

### COMMUNITY FACILITIES

The provision of public services is an important element in protecting the health, safety and welfare of the community. Northumberland's community facilities are physical manifestations of services for local residents. The need for community facilities is determined largely by existing and future population growth, land use patterns and the need for replacing outdated facilities.

This chapter is divided into sections, each addressing a specific facility or service. Each section contains an inventory, a brief analysis and recommendations concerning each particular facility or service.

Ambulance	Recreation Department
Cemeteries	Sanitation Department
Fire Department	School System
Highway Department	Solid Waste Removal
Medical Services	Town Offices
Police Department	Water Department

#### **AMBULANCE**

The town of Northumberland maintains an on-call ambulance corps. A total of twenty-five members participate on the corps; each is paid only for the time spent on calls. The town also appropriates funding for advanced training of corps members.

Three ambulances are maintained for the ambulance corps. One ambulance is a 2011 Chevrolet Express van-type vehicle. The second ambulance is a 2006 Ford van and the third ambulance is a 2002 Ford van-type vehicle. Though it is in good mechanical condition, the 2002 vehicle should only be used as a back-up. Each receives maintenance by the town mechanic, the corps director and a local garage, depending upon the nature of the service. Two ambulances are housed at the Groveton Fire Station and the other at the Stark Fire Department. It may be appropriate to locate an alternate site for housing two of the vehicles due to growth of both the Groveton Fire Department and the ambulance corps.

Source: James Gibson, Director of Ambulance Corps. 2014

#### **CEMETERIES**

Northumberland has one public cemetery located off Route 3 south of Groveton Village. Established circa 1800, there are approximately 9,000 burial sites, 3,000 of which are vacant. A new section of the cemetery has been opened which provides substantial room for future use. The town's public works department assists the Trustees in maintaining the cemetery, along with a private contractor for mowing the lawn.

Source: Terri Charron, Cemetery Trustee 2014

## **FIRE DEPARTMENT**

The Groveton Village Precinct Fire Department is located in the center of town on Church Street. The one-story fire station contains three bays covering 2,500 square feet. Stationed at this facility are:

1983	GMC Tanker	2004 Kenworth Heavy Rescue Unit
1958	International Pumper	2004 Rescue Trailer
1999	International Tanker	2004 Polaris 6x6 Wheelie
2002	Eone Pumper	2004 Yamaha Snow Machine

The town's two ambulances occupy a 540 square foot area within the station, as well. The location of all vehicles at the fire station presents spatial problems. The town fire department has also indicated need for a new pumper and a ladder truck to adequately satisfy present and future demands. At the beginning of 2014, the department's capital reserve account totaled \$5,500. This funding would cover only a small portion of the total expense of these new vehicles.

The fire department is a call force with firefighters receiving compensation for the time that is spent on duty. In 2014, there were 22 members on the force. Of these twenty-two members, it is important to maintain a high percentage of those immediately available to attend to calls. Because most firefighters are employed full-time, their location of employment and ability to quickly leave for emergencies is critical. In addition, "burn-out" of department members threatens efficiency. Low compensation and erratic schedules contribute to this. Strong and active community support of the fire department can minimize the burn-out rate.

Groveton Precinct cooperates in a mutual aid program with a number of surrounding towns. The purpose of this program is to provide assistance to, and receive assistance from, neighboring departments. Because of the fluctuating availability of firefighters, this program is becoming more critical. The respective towns have developed a unique system of compensation for assistance received. Previously they paid one another on an hourly basis for their aid, but they now pay yearly dues of \$450. This system works quite well and has decreased much paperwork and time consumed in determining appropriate compensation. The towns involved in the mutual aid program are Gorham, Dalton, Jefferson, Lancaster, Milan, Stark, Stratford, West Milan, Whitefield, Lunenburg, Errol, Colebrook, Pittsburg, Beecher Falls, Littleton and Twin Mountain. During the past five years, Groveton Precinct has responded to approximately forty mutual aid calls in other towns.

In 2014, the payroll for the fire department is \$16,400.

Source: Terrence Bedell, Fire Chief 2014

## **HIGHWAY DEPARTMENT**

Northumberland has a full-time highway department to maintain and upgrade town roads. The department's 4,800 square foot garage is located at 7 Town Garage Road off Brown Road and was constructed in 1972. There is also a storage shed of approximately 800 square feet.

The department crew consists of three full-time employees and one part-time seasonal employees. The part-time employee are hired for maintaining the public lawns and water/sewer fields/lawns.

The equipment of the department ranges from average to good condition. Specifically, the equipment is:

2006	Pick-up	1997	Mower
2010	Mower	2012	Skid steer
2006	Steam thawing machine	2014	Dump truck with plow
1997	Loader	2012	Welder
2012	1-ton Dump truck with plow	2006	Dump truck with plow
2007	Dump truck		

Source: Glenn Cassady, Northumberland Road Agent 2014

**LIBRARY**

Northumberland’s public library is located on State Street and was built in 1965. The facility has two floors and holds approximately 26,478 volumes. The library’s circulation includes fiction, non-fiction, magazines and videos for adults and juveniles. There is one part-time librarian, one part-time assistant librarian and two part-time assistants. The library is open 32 hours per week.

The library is supported through municipal funding, as well as two trust funds. The D. Chandler Matthews Fund finances reference materials only. The Irving Dice Fund is for the purchase of books. Municipal funding is necessary for staffing, maintenance and utilities. The library currently has three (3) 3-year term Trustees that manage the operating budget. A sharp decline in budget from 2006 to 2007 reflects a change from full-time employee(s) to part-time. Following a period of adjustment, the budget has remained relatively stable for nearly five years ([Table 6-1](#)).

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**TABLE 6-1  
LIBRARY BUDGET  
2003 through 2013**

2003	\$66,231	2009	52,391
2004	\$65,899	2010	\$50,315
2005	\$75,131	2011	\$48,813
2006	\$92,601	2012	\$48,618
2007	\$59,148	2013	\$48,554
2008	\$52,391		

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Source: Northumberland Town Reports, 2003 through 2013; Gail Rossetto, Groveton Public Library Librarian 2014

## **MEDICAL SERVICES**

There is a satellite clinic of the Lancaster-based Regional Medical Professional Association in Northumberland located on Church Street. The clinic is open five days per week. There is also access to the Weeks Memorial Hospital in Lancaster complementing the services of the clinic. Services are considered to adequately meet present needs.

Northumberland benefits from a satellite clinic of the Upper Connecticut Valley Mental Health Service, Inc. These offices are located on Brooklyn Street and another satellite office on the corner of Melcher Court and First Street, both in Groveton. The services provided are adequate, considering the constraints inherent to limited state funding.

Weeks Home Health of Lancaster provides visiting nurse services to Northumberland residents. The services are adequately meeting present needs.

## **POLICE DEPARTMENT**

Northumberland has a full-time police force to serve and protect its residents. Located on the corner of State Street and Morse Street, the police department rents office space in the former Groveton Pharmacy building. There are a total of five rooms consisting of the police chief's office, the officer's area with four desks, the evidence room, a multi-purpose area where interviews and arrests are processed and a rest room. Rent for the building is currently \$500/month.

The police force consists of four full-time officers, including the chief of police. These officers provide 128 hours of coverage per week, decreased from 168 hours, or 24-hour coverage seven days a week, due to recent budget constraints. Ten part-time officers supplement this force, covering holidays, sick days, vacations, emergencies and special functions. The department currently has no clerical staff.

The department presently has two police cruisers; one is a 2009 Ford Crown Victoria equipped with emergency lighting, radio, radar and a computer. The computer is slated to be upgraded to a tablet. The second cruiser is a 2013 Ford Explorer SUV equipped with radio, emergency lighting, radar and a tablet. Both vehicles have radios that are outdated and are no longer supported by Motorola. The 2009 Crown Victoria is to be replaced in 2015. The plan is to include a new radio when acquiring the new cruiser. Currently the cruisers are replaced every three years, so each vehicle is in service for six years. Prior to this practice, the department was replacing a cruiser every other year, with each vehicle being in service for four years. The extension was adopted due to budget constraints.

The Northumberland Police Department cooperates with the neighboring towns of Stark, Lancaster and Stratford. The greatest demand comes from Stratford and Stark because these towns have only part-time police departments. Responses are only as necessary, and Memoranda of Understanding (MOU) are being drafted to formalize the arrangements.

The department budget covers expenses for wages, equipment, vehicle maintenance, supplies, rent, uniforms, utilities and computer-related expenses. All items integral to an officer are covered by the budget.

Source: Marcel Platt, Chief of Police 2014

## **RECREATION**

Northumberland maintains a publicly funded recreation department that consists of the Municipal Pool and Recreation Building, both located on State Street.

The recreation building was built in 1975; the pool was originally built in 1962 and re-built in 2004, opening in 2005. Complementing these facilities are three ballfields, a tennis court, a playground and full-size basketball court.

Swimming lessons are offered as part of the ten week summer program. The pool is staffed by full and part time Red Cross trained lifeguards. There is a free six-week swimming lesson program for 5 to 12 year-olds during the weekdays from 9-12 am. There is also an Infant Parent Aquatic Program (IPAP). Public swimming is from 1-4:30 pm and night swimming is from 6-8 pm. The pool is open on Saturdays from 11am-5pm for public swimming; the pool is closed on Sunday. The pool closes for the season during the last week of August.

Five staff members oversee the recreation program that offers various programs including arts and crafts, indoor and outdoor games and field trips. Hours are weekdays from 9-noon and again from 1-4:30 pm. Basketball skills classes are offered in the afternoons during July; soccer skills classes are offered in August. Field trip destinations include the following local attractions: Whale's Tale, Santa's Village, Rialto Theater and The Flume, among others. The combined pool and recreation staff celebrates the Fourth of July with a pool party, cookout and fireworks for the public. In August, the department puts on a summer carnival that includes bounce houses, dunk tanks, snow cones and popcorn along with a cookout and pool party for the whole day. The recreation building opens on Halloween to sponsor a costume contest with prizes for the younger children and a dance for the teenagers.

During the 2014 program, 100 area youth participated in swimming lessons and an average of 75 youths made crafts on a daily basis.

The recreation department's funding is administered by the publicly-elected Recreation Committee. The five (5) committee members serve three-year terms. The Recreation Department budget has remained relatively stable from 2005 through 2014; the fluctuations are typically due to the level of maintenance/repairs required ([Table 6-2](#)).

The Northumberland recreation program can be followed on Facebook on the Groveton Rec Center site.

Source: Kerry Pelletier, Pool Director 2014

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**Table 6-2**  
**RECREATION DEPARTMENT BUDGET**  
**2005 through 2014**

2005	\$64,575	2010	\$74,920
2006	\$71,293	2011	\$72,575
2007	\$74,196	2012	\$65,762
2008	\$64,847	2013	\$65,802
2009	\$70,944	2014	\$70,805

Source: Northumberland Annual Reports, 2004-2014.

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### **SANITATION DEPARTMENT**

Northumberland has provided sewage disposal since the early 1900's. The initial system, which operated throughout town, was a network of sewer lines transporting waste from businesses and households to the river. In 1970, a treatment plant was constructed in Groveton and Northumberland Village received a treatment facility in 1985. Both systems are servicing approximately 600 residential and commercial structures. Refer to the Water and Sewer Map (Map#2) in the Appendix.

The Groveton facility employs primary wastewater treatment, consisting of a lagoon system and chlorinator. The Northumberland Village treatment facility is also a primary system. It operates with overland flow and chlorination. The Groveton facilities adequately serve the area demands, but the Northumberland Village facilities may need to be upgraded to allow for additional connections in the future.

Three full-time operators are employed to maintain the sewer and water systems. Part-time staff is also employed on an "as-needed" basis. Sewer fees, miscellaneous receipts and checking account balances forwarded from the previous year annually fund the sanitation department budget. [Table 6-3](#) provides a list of the department fees received versus the annual budget from 2007 to 2013. A trough in revenues occurred in 2009 when the method of calculating the sewer charges was changed; this drop in revenue should be reviewed to determine whether the base charges or usage fees must be changed in order to support the operating budget.

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**Table 6-3**  
**TOTAL SEWER FEES RECEIVED VS BUDGET**  
**2007 through 2013**

	<b>FEES RCVD</b>	<b>TOTAL BUDGET</b>
2007	\$333,421	\$381,810
2008	\$337,067	\$318,143
2009	\$226,092	\$289,582
2010	\$183,955	\$305,713
2011	\$200,550	\$308,670
2012	\$205,015	\$334,281
2013	\$200,037	\$383,667

Source: Northumberland Commitment Warrants, 2007 through 2013; Reginald Charron, Wastewater Operator 2014

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**SCHOOLS**

The Northumberland School District is one of three districts within the Supervisory Union #58. The district encompasses the elementary and high schools, covering grades Kindergarten through twelve. In addition to youth from Northumberland, students from Guildhall, Bloomfield, Brunswick and Maidstone, Vermont pay tuition into the two schools. Stark and Stratford also send students to the high school. Both school facilities are located within downtown Groveton. The elementary school is situated on approximately one acre of land at the corner of Main Street and State Street. The high school is located further down State Street.

The elementary school was built in 1907, with an addition constructed in 1959. There have been numerous renovations to the facility during the past decade. The brick facility has fourteen rooms in three stories. There are approximately 11,000 square feet of floor space at the school. The rooms are utilized for grades Kindergarten through five, special education and administration.

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**Table 6-4**  
**ELEMENTARY SCHOOL ENROLLMENTS**  
**2005 through 2014**

2005	215	2010	143
2006	204	2011	130
2007	197	2012	133
2008	194	2013	133
2009	188	2014	121

Source: Northumberland Annual Reports, 2005 through 2014.

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All programs and classrooms are located at the existing elementary school. This directly corresponds with a recent decline in the school’s enrollments (Table 6-4). Whereas enrollments were at a high of 215 students in 2005, there were 121 in 2014. Total students per grade range from a low of 12 to a high of 40 pupils.

The school employed thirteen (13) full-time teachers to educate the students in 2014. This provided a 9:1 ratio of students to teachers. Complementing this ratio were seven (7) para-educators.

The high school was built in 1924 and enlarged in 1961 and 1985. Constructed of brick and block, there are three stories covering over 25,000 square feet. A total of 29 rooms are used for grades six through twelve, special education and administration. This structure is supplemented with a shop, resource room and a gymnasium/auditorium to seat 600 students. These total approximately 21,000 square feet. This facility adequately meets the present student population and is expected to be adequate to meet future needs.

High school enrollments experienced the same trend in 2005-2014 as did the elementary school enrollments (Tables 6-5). After a high of 270 students in 2005, the numbers declined to 254 in 2014. Employed to educate these students in 2014 were twenty-three (23) full-time teachers and eight (8) para-educators. This provided a student:teacher ratio of 11:1.

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**Table 6-5  
HIGH SCHOOL ENROLLMENTS  
2005 through 2014**

2005	270		2010	260
2006	268		2011	239
2007	269		2012	254
2008	264		2013	253
2009	239		2014	254

Source: Northumberland Annual Reports, 2005 through 2014.

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### **SOLID WASTE REMOVAL**

Northumberland maintains its own transfer station on a three acre parcel on Brown Road. Garbage is delivered to the transfer station on Tuesdays and Wednesdays by a private hauler contracted through the town. There is one full-time and one part-time employee working at the transfer station. The transfer station’s hours of operation open to the public are Tuesday, Wednesday and Saturdays from 8am-4pm.

Through its membership in the Androscoggin Valley Solid Waste District that has been formalized under RSA 53-B, the town is addressing its solid waste disposal problems on a regional basis, including the continued development of the landfill in Success.

## **TOWN OFFICE BUILDING**

Northumberland's town offices are located in the former Moose Club at 10 Station Square. Remodeling of the former Groveton Paperboard Office Building located at 19 Main Street is underway; the town offices shall be moved to that location by the end of 2014. All town office functions including the tax collector, town clerk, assessing office, supervisors of the checklist, welfare administrator and the selectmen's office will be housed in the new facility. The new facility will meet current and future office requirements, however, lacks a large meeting room with capacity for elections, town meetings etc.

## **WATER DEPARTMENT**

The town of Northumberland has provided residents with a municipal water supply since the early 1900's. The Groveton area receives its water from wells off Mayhew Lane on the Brown Road. The water storage tank for this system is located off Winter Street. The area of Northumberland Village receives its water from the Groveton Water System; the water storage tank for this area is located off Route 3. Town water lines service the areas of Groveton, Brown Road and Route 3 south through Northumberland Village to the vicinity of the Pine Tree Motel. Approximately 800 buildings (residential and commercial) access municipal water.

One full-time superintendent is employed to maintain the water system (as well as the sewer system). In addition to the Water/Sewer Superintendent, there is one other full-time operator. Part-time staff is employed on an "as-needed" basis. The department budget is annually funded through water fees and interest earned on savings and investments. [Table 6-6](#) provides a list of total water fees received compared to annual budget since 2007.

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**Table 6-6**  
**TOTAL WATER FEES RECEIVED VS BUDGET**  
**2008 through 2014**

	<b>FEES RCVD</b>	<b>BUDGET</b>
2007	\$285,941	\$331,276
2008	\$255,715	\$324,613
2009	\$301,523	\$416,970
2010	\$319,509	\$451,497
2011	\$315,963	\$444,744
2012	\$299,295	\$459,341
2013	\$298,126	\$429,231

Source: Northumberland Commitment Warrants, 2007 through 2013.

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The fluctuating totals for fees received are directly related to necessary upgrading and/or maintenance of the water system. The water revenues currently do not support the water department operating budget. Because the fees per structure, set by the town, increases (or decreases) according to the amount of maintenance required by the system, the rate structure of the fees needs to be addressed.

Source: Reginald Charron, Water System Operator 2014.

## Chapter Seven

### NATURAL RESOURCES

Northumberland's abundant natural resources have been a source of livelihood and beauty to the town's residents over the last two centuries.

The development and management of these natural resources is of major concern in planning for the town's future. An understanding of the geology, soils, climate, water resources, vegetation and wildlife can assist the town in protecting critical natural resources and in directing development to appropriate areas.

#### **CLIMATE**

The weather pattern of the Upper Connecticut River Basin, including Northumberland, is dominated by cyclonic storm systems brought to the region by prevailing westerly winds. These weather systems contribute to short growing seasons, heavy precipitation, cold winters and high run-off levels. The temperatures tend to be wide-ranging from a high of 93F to a low of -36F.

According to the Connecticut River Waste Allocation Study prepared by the New Hampshire Water Supply and Pollution Control Commission in 1980, the annual precipitation within the area averages 36 inches. The month of greatest precipitation, in the form of rain, is June. February contributes, on average, the least precipitation.

Average annual run-off totals 26 inches, or approximately two-thirds of the annual precipitation. About one half of the run-off occurs during the springtime months of March, April, and May. This is primarily due to rapid snowmelts over steep slopes of shallow, tight soils.

#### **GEOLOGY**

Northumberland's mountains, hills and valleys have been shaped by geologic processes occurring over hundreds of millions of years. Studies have been performed throughout the state on geological formations; studies in Northumberland were primarily conducted on random bedrock outcroppings. Bedrock in Northumberland belongs to three major series. Roughly, the northern half of town is Albee Formation; the central-eastern section is White Mountain Plutonic-Volcanic and the southwestern section is Highlandcroft Plutonic series.

The Albee Formation of the northern part of Northumberland is the south end of a band stretching northeasterly to the Maine border. This band is approximately 40 miles long and 18 miles at its maximum width. This bedrock formation consists of slate, phyllite, quartzite and quartzite mica schist and dates back to the Ordovician period of 385 million years ago.

Within the White Mountain Plutonic-Volcanic formation of Northumberland are three bedrock forms. The Conway Granite series occurs in the west side of town and contributes to the most extensive single unit of bedrock in the White Mountain series in the state. This granite, typically pink biotite granite, occurs throughout the White Mountain region. A second series is Riebeckite Granite and it occurs in Lost Nation. The third series is Syenite and its occurrence in Northumberland is but one of only ten locations known in the state. It prevails in the area of the

Pilot Range. The White Mountain Plutonic-Volcanic series is younger than the Albee Formation, probably originating during the Mississippian period.

The third bedrock formation known to occur in Northumberland is the Highlandcroft Plutonic Series. It is part of the largest area in New Hampshire, a band running through Lancaster that is 12 miles long and 8 miles wide at its maximum point. The bedrock consists mainly of quartz diorite and lesser amounts of diorite. Radioactive age determinations conducted by J.B. Lyons indicate that the Highlandcroft Plutonic series dates back to the Ordovician period of 385 million years ago.

The uplifting and folding processes characterizing geological formations alter the shape and composition of rocks. The advance of the most recent continental glaciers, about 14,000 years ago, scoured the region and deposited glacial till and stratified drift of varying thickness. Glacial till was so extensively deposited in New Hampshire that it has not been mapped as it is assumed to exist over the entire state. The areas of stratified drift, often called outwash deposits, often correspond with high yield aquifers.

## **SOILS**

Soil is the layer of the earth's surface in which plants grow. It is composed of organic material and minerals. Bedrock and surface rocks are the parent materials from which many soil types develop. The formation of the soil and its composition are the result of many factors including climate, parent material, plants and animals, topography and time. Probably the single most important factor in determining soil types in Northumberland were the sediments deposited by glacial meltwater or glacial ice during the last period of glaciation. More recent hydrologic processes, such as seasonal flooding along the Connecticut River, have also affected soil type and fertility.

The U.S. Department of Agriculture's Soil Conservation Service classifies soils according to texture, structure, drainage, erodibility, permeability, etc. The capabilities and limitations of each soil type determine whether or not a specific soil is suitable for different uses. These uses may not always coincide. For example, a soil type that is excellent for agricultural purposes due to its drainage class and texture may not be suitable for an on-site waste disposal system because the effluent may percolate too rapidly through the soil profile and contaminate the groundwater.

The Soil Conservation Service collects soils information and publishes reports called "Soils and Their Interpretations for Various Land Uses." The Coos County office of the Soil Conservation Service has performed these activities for numerous towns throughout the county and portions of Northumberland have been done. It will be beneficial when the soil survey is completed for the entire town. Interpretation sheets for each soil in the soil survey list that soil's suitability for septic tank absorption fields, roads and streets, dwellings, landfills, recreational development, crop cultivation, wildlife habitat, woodlands, etc. This information, combined with a soil map for the town, is valuable in assisting town boards with land use planning.

More detailed, site-specific information can and should be collected for such planning activities as subdivisions. These high intensity soil surveys encourage to a greater degree the appropriate placement of various land uses upon those soils best able to accept development.

## **CONSTRUCTION AGGREGATE**

The demands of New Hampshire's growth and development have placed substantial pressures of the state's sources of construction aggregate. To address and accommodate these pressures, towns are inventorying all existing excavations and known sources of construction materials. Northumberland intends to perform the same inventory, but is stymied by the lack of good soil information for the town. As the Soil Conservation Service conducts and compiles soil information for Northumberland, the town plans to analyze the information for probable sources of construction material. It is believed by some in town that Northumberland has few good sources of construction aggregate as the bedrock and soils do not lend themselves to this. The scarcity of productive, operating excavations in town may be proof to this prediction.

## **TOPOGRAPHY**

Elevations in Northumberland range from a high of 2,305 feet at the southern corner of the boundary of Lost Nation and Stark, to a low of 840 feet along the Connecticut River due west of Groveton. The highest elevations in town belong predominantly to the Pilot Range. Lowest elevations fall in the floodplains of the Connecticut River. All the lands in Northumberland drain into the Connecticut River and its tributaries. Refer to the Topography Map ([Map #3](#)) in the Appendix. Elevations of some of the town's more important natural features include:

Cape Horn	2008 feet
Morse Mountain	1925 feet
Moore Mountain	1500 feet
Beech Hill	1300 feet
Jonathon Pond	1250 feet
Spaulding Hill	1200 feet

## **WATER RESOURCES**

Northumberland's water resources are a large interconnected hydrologic system of aquifers, streams, rivers and wetlands. The quantity and quality of water is affected by natural factors such as precipitation, run-off, soils, geology and vegetation. Development in watersheds may disturb the natural balance between ground and surface water resources and result in flooding, erosion and sedimentation. Loss of aquatic habitat, decreased aquifer recharge, irregular streamflows and water pollution are all possible impacts of watershed development. The water resources in Northumberland are important for water supply, drainage, recreation and scenic beauty. They require special consideration in land use planning. The Water Resources Map ([Map #4](#)) in the Appendix shows the location of Northumberland's rivers, streams, wetlands and aquifers.

### **Connecticut River and Tributaries**

The Connecticut River is New England's longest river with a length of four hundred miles. The river flows along the western border of Northumberland for about fourteen miles before crossing the Lancaster town line. It has a drainage area of about 799 square miles at Northumberland.

The river has been used for the disposal of domestic and industrial waste for many years. The installation of pollution control measures and improved sewage treatment has led to an improvement in the river's water quality, except during periods of low flow. The Connecticut

River Wasteload Allocation Study, undertaken by the New Hampshire Water Supply and Pollution Control Commission in 1980, indicated that the river met the requirements necessary to maintain its Class B water quality designation. This designation allows for fishing and swimming and use as a municipal water supply after adequate water treatment.

The Connecticut River Valley in Northumberland provides a large amount of natural flood storage as the result of its flat gradient and wide floodplain. This allows flood peaks to rise and fall slowly. In a 1970 study of the Connecticut River Basin conducted by the U.S. Army Corps of Engineers, it was concluded that “the significance of maintaining existing valley storage cannot be overstressed.” Also of significance is the floodplain’s quality for ideal agricultural lands, as well as its natural use as a wildlife habitat. Because of these inherent values of the land, it is important to protect the floodplain from development.

Encouraging compatible development and protecting critical areas along the Connecticut River may be one of the most important challenges that the Town will face in the next decade. It has been predicted by planners and developers that the undeveloped Connecticut River shoreline will be experiencing greater development pressure, as other recreational centers in the state (i.e. Lake Winnepesaukee) become more developed and crowded. There are many tools available to riverfront communities in New Hampshire to help protect river corridors and guide appropriate development. The Connecticut River Watershed Council, in cooperation with the Vermont Law School, is preparing a guidebook call Community Tools for River Corridor Protection. This guidebook will describe techniques for developing river protection strategies based on community goals.

The Upper Ammonoosuc River is the second largest watercourse in Northumberland. Its headwaters lie on the eastern slopes of the Kilkenny’s. The river winds through lower plains of Berlin, West Milan and Stark before draining into the Connecticut River at Groveton Village.

Just east of Groveton Village, Roaring Brook converges with the Upper Ammonoosuc River. Principal tributaries to this watercourse are Ames Brook, Moore Brook and other unnamed tributaries. Each drains the steep slopes of the Pilot Range.

Dean Brook is a second waterway draining into the Connecticut River in Northumberland. Parks Brook drains from the Pilot Range into Dean Brook, as do three large wetlands to the south, east and west of Cape Horn.

Burnside Brook, another watercourse in Northumberland, also drains slopes of the Pilot Range. Tributaries to this brook include Whipple Brook, Fox Brook, Cummings Brook and a series of wetlands. All form the watershed for Otter Brook and the Israel River, principal watercourses in the town of Lancaster.

A final major brook in Northumberland is Potter Brook. Its watershed lies predominantly in Stratford and is also fed by Jonathon Brook and adjacent wetlands.

## **Wetlands**

For the purpose of this plan, wetlands are defined as areas of poorly or very poorly drained soil with a predominance of water-tolerant vegetation. Water may be present on the surface for most of the year or only for several months.

The wetlands adjacent to the Dean Brook watershed, between Page Hill Road and Burnside Brook, southwest of the Island Farm, southwest of Groveton Village along the Brown Road and between Brown Road and the Connecticut River are some of the most prominent natural areas in the town. There are additional wetlands in Northumberland as well.

In their natural condition, wetlands perform a number of valuable functions. They store floodwaters during peak overflow periods, store and retain nutrients thereby preventing their addition to downstream lakes, discharge water to streams during periods of low flow and provide prime habitat for many types of wildlife. These lands are unsuitable for development because of their year-round high water table. Wetlands frequently have not received the attention and protection that they demand. Northumberland should take steps to protect this important resource and disallow development that may harm the wetlands.

The New Hampshire Wetlands Board and the US Army Corps of Engineers regulates any filling, dredging, dumping or other destruction of wetlands.. A permit is required from one or both of these agencies before any alteration occurs. The magnitude of the alteration dictates which is the permitting agency.

The conservation commission or planning board may designate certain wetlands in the town as prime wetlands, which need special protection. Prime wetlands shall be of substantial significance because of their size, unspoiled character, fragile condition and/or because they provide many of the functions described above. The criteria for designating prime wetlands are described in RSA 483-A:7. This designation affords these wetlands an extra measure of protection when the permitting agencies review dredge and fill applications. It also provides the community with more information about the wetlands within the town and their importance.

## **Aquifers**

According to a study by the US Geological Survey, sufficient amounts of water to supply single-family homes throughout the upper Connecticut River Basin are available from the bedrock aquifer. Unconsolidated aquifers of sand or sand and gravel are found only in major stream valleys. These aquifers are typically the most productive, commonly capable of yielding more than 200 gallons per minute in properly located and designed wells.

The U.S. Geological Service developed in 1975 Groundwater Availability maps showing areas of high, medium and low potential groundwater yield. Areas with a high potential to yield water are sufficient to meet or augment municipal and industrial requirements. These areas are located all along the Upper Ammonoosuc River and directly beneath and to the southeast of Groveton Village. Areas with a medium potential to yield water are sufficient to meet small municipal, rural water districts, commercial and light industrial uses. Locations of these areas are in the vicinity of the intersection of Route 3 and Brown Road (north end), at the confluence of Ames Brook and Roaring Brook, in and around Northumberland Village and underneath the Island

Farm on Route 3. Areas with a low potential to yield water are sufficient only to meet domestic well and light commercial requirements. These areas occur along the Connecticut River and around the town's major wetlands.

Chemical quality of groundwater often reflects land use practices. Failing septic systems, leachate from solid waste disposal sites, leaking underground storage tanks, run-off from agricultural lands, road salt and commercial and industrial wastes are all potential groundwater contaminants. Iron and manganese often occur naturally in New Hampshire in excessive levels as well.

If the town of Northumberland chooses to develop a groundwater source for public water supply, aquifer protection will become even more important.

### **VEGETATION**

Forests are a very important element to the character of Northumberland, as well as to the environment. Much of the forested land occurs in areas that are fair to unsuitable for agriculture or more intensive uses. Hardwood stands typically occur in soils that are shallow to bedrock (ledgy) and have slopes in excess of 15%. Softwood stands occur on more level ground with a high water table. The forest cover types found in Northumberland include northern hardwoods (sugar maple, white birch, beech, white ash), red spruce, balsam fir, eastern white pine and northern spruce-northern white cedar. Areas of mixed species growth also exist in old fields, pastures and croplands.

According to the New Hampshire Natural Heritage Inventory at the Department of Resources and Economic Development, there are a number of plant species occurring within town boundaries which are considered to be endangered or threatened in New Hampshire. These include hidden sedge, lesser panicked sedge, squirrel corn, green adder's mouth, thin-leaved alpine pondweed and satin willow.

### **WILDLIFE**

The southwestern part of Coos County is a very productive wildlife area due to a great diversity in habitat. The old fields, active croplands, forests and wetlands in Northumberland contribute to this diversity. Northumberland is a common hunting ground for many hunters of deer and bear in the fall permit period.

The survival of the deer population in the North Country depends upon the availability of suitable deeryard habitat. Deeryards are where deer herd together during the long winter months for mutual food gathering and protection. Stands of spruce and fir or hemlock in low-lying areas are important, as well as the surrounding hardwood stands. Young growth must also be available for browse. Southern slopes, which lose the snow cover early, are also preferred. Efforts should be made to protect these important habitats.

Fish populations include brook trout, cusk, dace and suckers. Jonathon Pond may include pickerel, yellow perch, sunfish and lake trout.

## Chapter Eight

### LAND USE

The development of Northumberland is reflective of the traditional New England town settlement pattern. There is the village, or community center, in which primary residential and commercial development occurred. In Northumberland two village settlements were established, at Northumberland Falls and at Groveton. The placement of these centers upon the major waterways of the Connecticut and Upper Ammonoosuc Rivers provided significant benefits for industrial growth. Timber industries flourished at these locations, supported by the transportation and energy generating capabilities of the rivers.

In the outlying areas of Northumberland were hillside farms. Historically, these farms supplied most of the village needs. Northumberland's farming was also concentrated along the fertile Connecticut River valley. Spidering throughout the land were a few feeder roads providing contact with the neighboring settlements of Lancaster, Stark and Stratford.

Some of this traditional character remains in Northumberland. Northumberland Village has maintained much of its village atmosphere, though its prominent industries have fallen by the side. The village of Groveton has also sustained its community character. There are still a few rural farms, primarily along the fertile floodplains of the Connecticut River. The feeder roads have been transformed into the principal highways to and from town.

The historical character, however, is constantly being challenged. Residential development is moving further into the rural areas as society grows more mobile. It is commonplace to see single-family homes located within former hay and corn fields. The increased mobility has also allowed commercial and industrial developments to move away from the residential neighborhoods which housed its employees and customers. The effect of this transition is to lessen the distinction between the village and outlying areas.

#### **EXISTING LAND USE**

Although there are no published figures on Northumberland's exact total acreage, an average of two sources places the total at 22,577 acres. The figures used to arrive at this calculation are from 1) a study conducted by the University of New Hampshire and the USDA Soil Conservation Service, Agriculture, Forest and Related Land Uses in New Hampshire 1952 to 1975 (22,389 acres) and 2) a tabulation of the town's 1988 property assessment cards (22,765 acres). The discrepancy between the acreage totals from these sources, 376 acres, is a relatively small difference and amounts to less than 2% of the town's total land mass,

Both studies on Northumberland's acreage assessed it according to its land uses. These uses are described below:

Undeveloped/Idle: Land which lies idle. Once in agricultural use, it is now abandoned. It has not matured into a forest, nor has it been developed. This is considered a transitional land use.

Forest: Land which supports tree growth, typically greater than one-quarter acre in size.

Agricultural: Land supporting tilled cropland, pasture, hayland, orchards, nurseries, greenhouses and any open area being cultivated, hayed, mowed, etc.

Residential: Land used for residences. In the colored Existing Land Use Map at the Northumberland Town Offices, residential land is identified as that which supports a number of residences within a small amount of land.

Commercial/industrial: Land used for activities carried out for financial gain, including grocery stores, offices, automobile dealerships, gasoline stations, manufacturing, warehousing, etc.

Other uses: Wetlands, public/quasi-public lands and utility right-of-ways.

These land uses often are not homogeneous. Instead, there may be mixed uses and two or more uses per land parcel. The land in the downtown district is predominantly mixed use, whereas the outlying land areas are typically single use. In mapping the uses, as has been done on the Existing Land Use Map with information from the 1988 Windshield Survey, the more dominant use is the one colored on the map. For example, in the event of a hay field with a single residence on its edge, the entire area will be shaded for agriculture. Similarly, a downtown building with stores on the first level and apartments on the second will be shaded for commercial use.

In Agriculture, Forest and Related Land uses in New Hampshire 1952 to 1975, the land uses were tabulated and consistently defined for 1952 and 1970 (there have been no subsequent studies since 1970). By comparing the totals for these years, as done in [Table 8-1](#), it is possible to identify early trends in changing land use patterns.

The land use experiencing the largest change in actual acreage total was agriculture. By 1970, agricultural land had lost 1,149 acres and was the only land use to decline in total acreage. In contrast, idle land gained 704 acres between 1952 and 1970, amounting to a percentage gain of 235%. Developed lands also posted acreage gains. This use increased 205 acres, gaining by 74%. Forested lands had a marginal gain of 1%, or 240 acres. “Other uses” of land held constant at 70 acres.

**Table 8-1**  
**ACREAGES BY LAND USE**  
**NORTHUMBERLAND**  
**1952 and 1973**

	<b>1952</b>	<b>1970</b>	<b>Percentage Change</b>
Total acreage	22,389	22,389	0%
Idle	299	1,003	235
Forest	17,681	17,921	1
Agriculture	4,062	2,913	-28
Developed	277	482	74
Other Uses	70	70	0

Source: Agriculture, Forest and Related Land uses in New Hampshire 1952 to 1975, Research Report #64, New Hampshire Agricultural Experiment Station at University of New Hampshire, Durham NH, April 1978.

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These figures indicate that many sources are being removed from agricultural use. It is either being developed or being allowed to lay idle. It may be assumed that the additional acreage in forest use was previously idle land, as idle land represents a transitional state between active agriculture and matured forest-land.

Though it is not possible to compare the acreage totals from the 2013 property assessment cards with these historical figures because of differing methodologies, the 2013 information is useful to examine. The uses were defined more specifically than they were in the previous report. Developed lands are identified as residential, commercial, industrial and public. Public lands comprise of all town-owned property. Forest and agriculture uses are similar to those defined by the above-referenced University of New Hampshire-Soil Conservation Service report. The idle land designation for the property assessment evaluation encompasses undeveloped lands, wetlands, and right-of-ways. The land use breakdown is in [Table 8-2](#).

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**Table 8-2**  
**ACREAGES BY LAND USE**  
**NORTHUMBERLAND**  
**2013**

	<b>Number of Acres</b>	<b>Percentage of Total</b>
Total Acreage	22,531	100%
Agriculture	1,825	8
Idle	1,061	5
Forest	17,305	77
Developed	1,640	7
Residential	1,203	5
Commercial	203	1
Industrial	62	0.3
Public	172	0.8
Federal	420	2
State	280	1

Source: Analysis of the Northumberland 2013 MS1.

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Northumberland has adopted in its taxation schedule a state program of current use taxation. Land assessed under the current use system is taxed at its “use” value rather than its potential or “highest use” value. If the land use changes, a penalty of 10% of the land’s full value is charged, as well as a higher rate of taxation.

## **Idle Lands**

According to the 2013 tax cards, there were 1,061 acres of idle or undeveloped, land. These acres account for 5.0% of Northumberland's total land area and include wetlands, utility right-of-ways and land in an undeveloped (transitional) state. The right-of-ways and transitional lands are identified on the colored Existing Land Use Map at the town office. The transitional uses are primarily located along existing roadways.

Transitional lands tend to be the most vulnerable to development. Many of these lands have been given up for their farming purposes and often have prime agricultural soils. Their level of suitability for agriculture often dictates their suitability for development, as good agricultural soils are generally shallow sloped and easy to excavate.

## **Forest**

In 2013, 17,305 acres of Northumberland were dedicated to forest use. This represents the largest land use category at 77%. The town's forested lands are dispersed throughout the town. Specific areas that are heavily wooded include Cape Horn, Lost Nation, Page Hill and the northern third of Northumberland. A very large forest tract on Cape Horn was recently purchased by the State of New Hampshire for conservation purposes.

## **Agricultural**

Approximately 8% of Northumberland's land was dedicated to agriculture in 2013, encompassing 1,825 acres. Most is currently used as pasture or to cultivate forage crops. Although town-wide soil surveys have not been conducted, it is expected that some of these lands may be classified as prime farmlands using federal criteria.

There are constant pressures on Northumberland's farmlands, as on most New England farmlands. Because good agricultural soils are also ideal for development, the value of the land has escalated. The enticement of profiting from this inflation can be strong, particularly because of the agricultural market in which small-scale farms find it hard to compete. The provision of the current use tax in Northumberland's taxation schedule has alleviated some of this pressure. It benefits farmers by reducing their expenditures and may ultimately enhance their competitiveness.

The areas of Northumberland that are actively used for agriculture are along the Connecticut River. There is evidence of conversion of this land to residential uses along Route 3 and Brown Road. Areas along these roadways in town are very scenic. Measures should be taken to protect some of the beauty along the Connecticut River through easements and zoning overlays.

## **Residential**

Northumberland's residential acreage in 2013 totaled 1,203 acres or 5% of the total land in town. This acreage encompasses single-family dwellings, multi-family units and manufactured housing. Residential development in Northumberland has been increasing slowly in recent years, but increased development pressures are anticipated. As growth continues to reach further north, the town will inevitably experience some pressure. The North Country Council Windshield Survey of December 1988 identified undeveloped lots marked for future residential development. These acres were scattered uniformly throughout the rural sections of town.

The heaviest residential uses occur within Groveton. These uses are scattered among the various dwelling types. Multi-family units are typically derived from single-family conversions. Many of the former large, closely-spaced single family residences in downtown are now apartments. Apartments are also found above the center's few commercial units. Manufactured housing is permitted throughout town and occurs both as multi-unit parks and on individual housing lots. Northumberland has some residences used on a seasonal basis as well. These account for a very small percentage of the residential land use and are concentrated in the rural areas.

### **Commercial/Industrial**

In 2013, 265 of Northumberland's acres were used for commercial and industrial purposes, just a little over 1% of the total acreage. This percentage is small and is concentrated predominantly within downtown Groveton. This acreage belongs to a variety of local entrepreneurs.

### **LOCATION OF CURRENT DEVELOPMENT**

The face of Northumberland as development occurs will be dictated by the town's prevailing land use regulations. Perhaps contributing the most will be the zoning regulations, as they define where types of growth may occur.

Northumberland's current zoning has five districts. They are listed below, with a general description of the district's characteristics. A more detailed description may be found in the Town of Northumberland Zoning Ordinance. Maps of zoning districts may be found in the Appendix, Maps #5 and 6.

### **Residential**

Permits residences, sale of home produce/products, tourist homes, specific home occupations, churches, schools and sanitarium. The minimum lot sizes are 1) 5,000 square feet with municipal sewer and water and 2) 30,000 square feet without these services. The district is located throughout Northumberland Village, on the hill in Groveton and along the west side of Groveton Village.

### **Agricultural**

Permits all uses specified in the Residential District, all general farming activities, woodlands and specified locations for garbage, rubbish and sewage disposal. The outlying areas from the immediate village districts lie within the agricultural zone. The minimum lot size is one acre.

### **General Residential**

Permits all uses specified in the Residential District and apartment houses. This district is primarily confined to the north side of Cumberland Street and extends generally to Hillside Avenue.

### **Commercial**

Permits all uses specified in the General Residential District, lodging houses, hotels, motels, shops, restaurants, retail trade, wholesale trade, garages, parking lots, filling stations, banks, offices, theaters, clubs and halls. This district is confined to the immediate downtown area of

Groveton Village, at the junction of Route 3 and Route 110 and at a northeast point on State Street.

### **Industrial**

Permits manufacturing, storage and distribution of petroleum products, coal products, grains, fertilizers, lumber and products of mines, quarries and gravel operations. Industrial operations are permitted along the Upper Ammonoosuc River, generally bound by the dam to the south, Route 3 to the east, Route 110 to the east and north and downtown Groveton to the west. They are also permitted in Northumberland Village at the crossroads to Vermont.

Given the permitted uses and locations of these five districts, future development in Northumberland may significantly change the character of existing neighborhoods. As the zoning districts exist currently, any incoming industries, light or heavy, must locate to the south and east edges of Groveton Village or at the crossroads in Northumberland Village. Commercial enterprises are restricted to the immediate downtown area of Groveton Village and two small locations just outside this downtown area. High-density residential development must locate at the base of the hill in Groveton Village. General residential development may locate anywhere in town, with minimum lot sizes of 5,000 square feet, 30,000 square feet and one acre depending upon location and available services. Agricultural activities are permitted throughout the outlying areas of Northumberland. The neighborhoods whose character may be most affected by this zoning pattern are Northumberland Village and all those in the outlying areas. The location of an industry into Northumberland Village will significantly alter the residential character of this neighborhood. Continued residential development of outlying areas onto one-acre minimum lots will diminish the rural character and continue to lessen the traditional distinction between the villages and outlying areas. This development would similarly alter the character of the major routes into town. The character of Groveton Village would be least affected, as the zoning pattern closely follows the development pattern of this area.

In addition to considering how existing zoning requirements affect neighborhoods, the suitability of such requirements must also be assessed. In order to provide development opportunities that are in the town's best interest, the zoning ordinance must be sensitive to existing circumstances, as well as future needs.

### **FUTURE LAND USE**

This section analyzes future needs of the community. It creates a model for future land use that combines the strengths of the existing community with projected future demands, to appeal to both today's and tomorrow's residents. The results of the Community Attitude Survey were used to create this model. The recommendations are organized along three lines: community character to be preserved and promoted, desired future growth and suggested methods for achieving the coordination of these.

### **Community Character**

Public sentiment toward Northumberland's character is to continue the traditional New England settlement pattern of a compact commercial village surrounded by rural outlying areas. This includes strong support for retaining small neighborhood environment. Concern was also expressed for preserving the town's valuable scenic and natural resources, including the

Connecticut River, Upper Ammonoosuc River and floodplains. The Community Attitude Survey results substantiate these concerns. Ninety-two percent (92%) of respondents agreed that the town should protect scenic and natural resources. Ninety percent (90%) of respondents did not want to purchase viable natural resources. The Conservation Commission supports preservation of the town's natural and built environment. Established goals of the Commission are revitalizing the historical character of Groveton Village, recognizing the importance of woodlands, designating scenic roads, mapping the town's natural and cultural environment and actively protecting the most viable of these resources. As stated in a public hearing, the underlying objective for promoting and preserving Northumberland's character is to ensure that the town will continue to be appealing as a residential community.

### **Future Growth**

The Town is actively searching for industrial/commercial enterprises to locate in Northumberland. The survey respondents indicated a desire to insure that all new development be sensitive to and accommodate the identified long-term needs of the town. Generally, the goal is to create an appealing community with quality employment opportunities.

The Planning Board proposed that these goals of appropriate economic and residential growth and preservation of important natural and cultural resources be coordinated through sensible land use regulations. The Board focused upon amendments to the zoning ordinance as a critical step in implementing the community goals. To devise suitable amendments, specific land uses were evaluated according to their appropriate placement in the community. ([Map #7](#), the Future Land Use map, may be found in the Appendix). The following pattern for future land use is recommended:

Forest: Growth of forests to benefit the primary industry in the area and also enable the residents recreational pursuits is vital to the health of the community. The forest district shall encourage the growth of timber.

Agricultural: The importance of maintaining the best agricultural lands into the future is a priority. Most of these agricultural lands are in the flood plain along the Connecticut River and some hill farms in Lost Nation.

Residential: Residential development in Northumberland shall be divided into three categories based upon allowable density. They are high-density, low-density and rural-density and are defined and districted as follows:

1) High-Density: High-density housing shall be located on the municipal services of water and/or sewer and shall be characterized by apartment, multi-family and single-family structures. The minimum lot size shall be less than one acre, depending upon the provision of town services. High-density housing shall be permitted in Groveton Village, Deanbrook Park and proximate to the Ocean State Job Lots Shopping Center near Northumberland Village.

2) Low-Density: Low-density housing shall be located outside the perimeter of available municipal services and be characterized predominantly by single family

homes situated proximate to one another. The minimum lot size shall be based on soil capabilities with there being a minimum of one acre.

Low-density housing shall be located along the north side of Spaulding Hill Road, the west side of US Route 3 south of the Island Farm, the east side of US Route 3 across from Perras Lumber, the southwest side of Morse Mountain, both sides of North Road, Wemyss Drive and the north and south sides of Moore Mountain.

3) Rural: Rural housing shall be characterized by single home development in the outlying areas of town. The minimum lot size of the rural district shall be based on soil capabilities with a one-acre minimum. Rural density housing shall be developed throughout all other areas of town that have not been previously specified.

Cluster housing, designed to complement the character of the areas and blend with the agricultural landscape, will be permitted in any zone and shall be subject to Site Plan Review. Exceptions to districted minimum lot size requirements should be provided to create incentives for cluster developments.

Commercial: The commercial district shall be developed to create a pleasant and efficient village shopping area. It shall be conveniently located to nearby residents who may walk to the shopping area, as well as have adequate parking for people from outside the immediate area. Appropriate commercial uses include retail businesses, motels, restaurants, automobile service stations, financial institutions and theater. The primary commercial district shall be located in the central village area of Groveton and be permitted to expand north on Main Street to Brown Road and the Legion and south on Route 3 to the Down Home Motel. The Ocean State Job Lots Shopping Center near Northumberland Village is also a commercial area.

Industrial: Industrial development involves industries that manufacture or assemble products and is defined as light and heavy industry. Light industry shall be powered only with electric power and not create smoke, odors, sound or other hazards carrying beyond the boundaries of an industry's premises. Heavy industries may endanger the public or be a public nuisance. Such industry may include, but not be limited to, chemical plants, oil refineries, blast furnaces, foundry rolling mills, paper mills, drop forge plants, fertilizer and reduction plants, varnish plants, soap factories, fireworks and munition plants, and woodchip power plants.

The topography and flood plain areas of Northumberland greatly limit the sites for future industrial development. Light industrial uses shall be located in the vicinity of Perras Lumber and along the east side of Route 3 from the southerly intersection of Brown Road north to the location where the railroad crosses under Route 3.

A need for an industrial park that could be serviced with town water and sewer exists in order to attract a number of small industries. A few sites have been considered and an in-depth analysis of soils and topography have been completed for some of them.

Public: Publicly-owned properties are essential for the orderly provision of public services. These include White Mountain National Forest lands, state highway garages, fire stations, police stations, town offices, cemeteries, libraries and schools. These parcels of land are distributed throughout Northumberland.

### **Land Use Regulation Changes**

The challenge to designing Northumberland's future land use model is in promoting appropriate economic and residential development while preserving the town's appealing natural and cultural resources. The results of the Community Attitude Survey and generous public input generated a number of suggestions. These are presented according to their position in the Town's land use regulations and ordinances.

#### Zoning Ordinance:

1) Rezone the town's land use districts, directing future development to the appropriate locations in town. See the Future Land Use Map, [Map #7](#), in the Appendix.

2) Conduct a town-wide cultural and natural resources inventory, as recommended by the Conservation Commission. This may encourage the establishment of a local historic district in the downtown, thereby retaining economic and aesthetic elements of the classic New England village character. Existing and future businesses may benefit from the preservation and restoration of historical resources.

3) Adopt and enforce environmental conservation overlays in the Zoning Ordinance. These overlays will effectively conserve and protect Northumberland's critical resources. Refer to the Development Capabilities Map, [Map #8](#), in the Appendix.

#### a. Wetlands Conservation Overlay

The town should define a wetland using soil composition and establish a Wetlands Conservation Overlay. The purpose of the overlay is to ensure the wetlands' roles as wildlife habitats, recharge areas for aquifers, storage of floodwaters, filtering of run-off and passive recreation.

#### b. Steep Slope Conservation Overlay

The town should adopt a Steep Slope Conservation Overlay to reduce damage to streams and lakes from erosion, stormwater run-off or effluent from improperly sited sewage disposal systems; to preserve vegetative cover and wildlife habitat, preserve scenic views and maintain an ecological balance; and to permit those uses which can be harmoniously, appropriately and safely located on steep slopes. Development of slopes exceeding 25% shall not be allowed. Lots with a slope cover greater than 15% shall be a minimum of six (6) acres.

#### c. Flood Hazard Overlay

The town should adopt a Flood Hazard Overlay, the boundaries to be determined by the Flood Hazard Boundary Map developed by the Federal Emergency Management Agency. The purpose of this overlay is to prevent the loss of life and

property damage and other risks associated with flood conditions. Refer to the Floodplain Map, Map #9, in the Appendix.

d. Important Agricultural Lands Conservation Overlay.

The town should adopt an Important Agricultural Lands Conservation Overlay, incorporating those lands designated at the federal, state or local level. The importance of agriculture is deep-rooted in Northumberland's historical experience. It is valuable to preserve the most productive lands for future use and appreciation.

4) Restrict the number of housing units per structure allowed in multi-family structures. Restricting density per structure promotes the general safety, health and welfare of Town residents.

5) Analyze the adequacy of the existing frontage requirements in the zoning ordinance. Examine the suitability of the existing frontage requirements in meeting community goals for rural character and amend if necessary.

6) Require appropriate site improvements for multi-family housing. Require that all multi-family housing structures provide adequate parking (two vehicles per unit) for tenants. Also insist on the provision of recreational space, such as a yard or playground, for such structures.

7) Increase setback requirements. Amend the zoning ordinance to increase setbacks required for new structures. Greater setbacks will create more open space and contribute to a more rural setting.

Subdivision Regulations:

1) Examine the impact of developments/subdivisions on off-site roads and amend the subdivision regulations to require appropriate improvements. Certain subdivisions that meet the town's on-site road standards may be accessed by town roads which are inadequate for the increased traffic of the subdivision. In these circumstances, the town should require the developer/subdivider to pay his/her proportionate share of the upgrading of these roads. The extent of these improvements should bear a rational connection to the demands created by and benefits conferred upon the subdivision.

2) Discourage high-density growth in the town's outlying areas. It is more difficult to successfully serve the public good of residents in outlying areas than those in the downtown district. To provide optimum service to all residents, premature development of outlying areas should be discouraged.