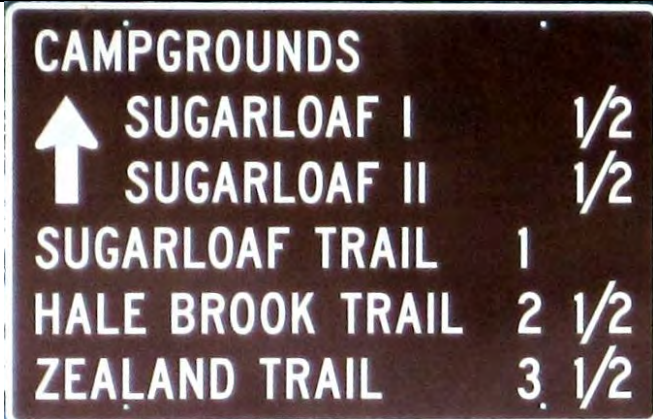


# Carroll

## New Hampshire



# Crossroads for Adventure



# Carroll New Hampshire Crossroads for Adventure

Developed by the  
Carroll Master Plan Committee



with assistance from the  
Carroll Conservation Commission  
and  
North Country Council

Adopted by the Carroll Planning Board  
June 11, 2015

Photo credits: Tara Bamford, North Country Council



Contents	Page
Introduction.....	1
The People .....	3
Population	
Housing	
Income	
Housing Affordability	
Employment	
Property Taxes	
The Land .....	17
The Future .....	37
Vision	
Survey Results	
Land Use	
Town Facilities	
APPENDIX A   NRI Tables	
APPENDIX B   NRI Maps	
APPENDIX C   Survey Results	



# Introduction

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The purpose of the Master Plan is to guide the future development of the town. More specifically, it will be used to guide the Planning Board to ensure it carries out its responsibilities in a manner that will best achieve the goals of the community. The Master Plan also represents the Planning Board's recommendations to other town boards and committees and to the voters. The Master Plan is a policy document. It is not regulatory.

The process of developing this Master Plan began with the appointment by the Planning Board, chaired by Donna Foster, of a Master Plan Committee. The Master Plan Committee was comprised of:

George Brodeur, Chair  
Michael Hogan  
Evan Karpf  
Kenneth Mills

North Country Council was hired to facilitate the public participation process and draft the plan document, with the exception of the natural resources section. A Natural Resource Inventory had recently been completed by the Carroll Conservation Commission; North Country Council Planning Coordinator Tara Bamford worked with the Commission to adapt this report to serve as the section entitled *The Land*.

Public input was gathered at several steps through a variety of mechanisms. First, a visioning session was held at the project start to identify the attributes of the community most valued by residents and the issues of most concern. Next a survey was mailed to all households with a voter and/or property owner to follow up on the topics raised at the visioning session. Also, during the development of the plan, North Country Council facilitated a public workshop about the Town Hall to identify what functions served by the current building and/or site are important for town decision makers to hold onto as plans are made to either replace or renovate the existing building. Finally, a public hearing on the draft plan was held on June 11, 2015.

The Master Plan is organized into three sections. The first, *The People*, reports some key demographic and socioeconomic data that is essential to understanding the needs of the community. The second section, *The Land*, describes the natural resources and development limitations that provide the foundation for planning the future development of the town. The third section, *The Future*, reports on the results of the public participation process, the Planning Board's recommendations for achieving the community's goals relative to future land use, and some discussion on what improvements may be needed to certain town facilities to meet the needs of the community.

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# The People

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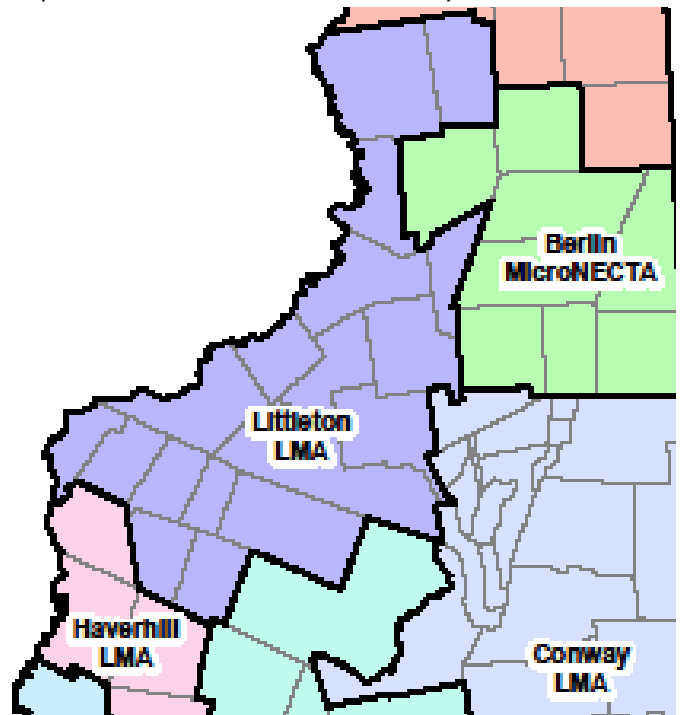
## Population

According to the US Census, the population of Carroll was 763 in 2010, up 15.1% from 663 in 2000. However, the population listed in group quarters increased from 9 to 73 over the same period. That means the population in households only increased 5.5% over the ten years. The 690 people living in 309 households represented an average household size of 2.23 persons.

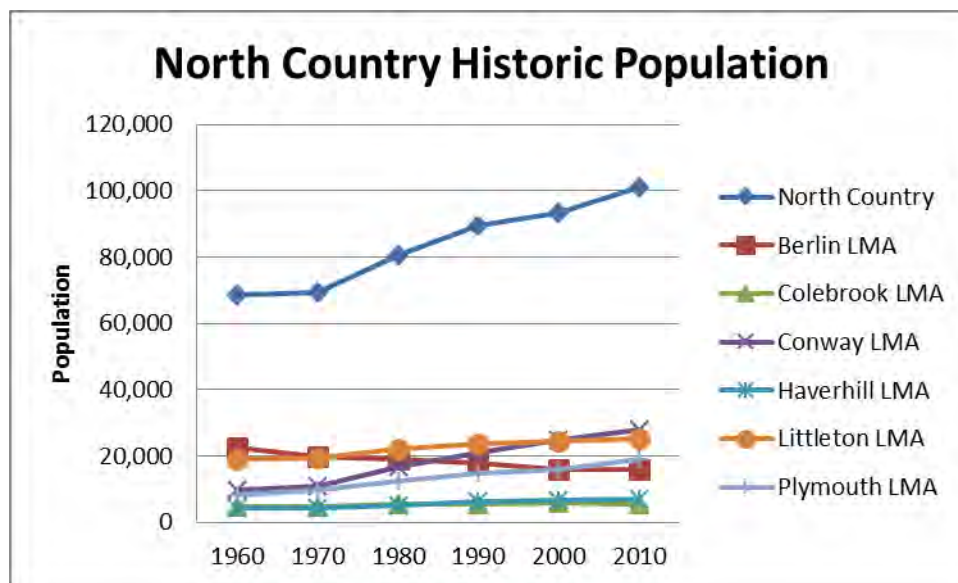
Labor Market Areas (LMAs), based on commuting pattern data, are used by many federal and state agencies for organizing and analyzing socioeconomic data. LMA's tend to more accurately portray the area where residents live, work, shop, and use services, compared with counties which in many cases are merely political boundaries. Carroll is part of the Littleton LMA along with the other communities listed below.

### Littleton Labor Market Area

Bethlehem  
Carroll  
Dalton  
Easton  
Franconia  
Jefferson  
Kilkenny  
Lancaster  
Landaff  
Lisbon  
Littleton  
Lyman  
Monroe  
Northumberland  
Odell  
Stratford  
SugarHill  
Whitefield

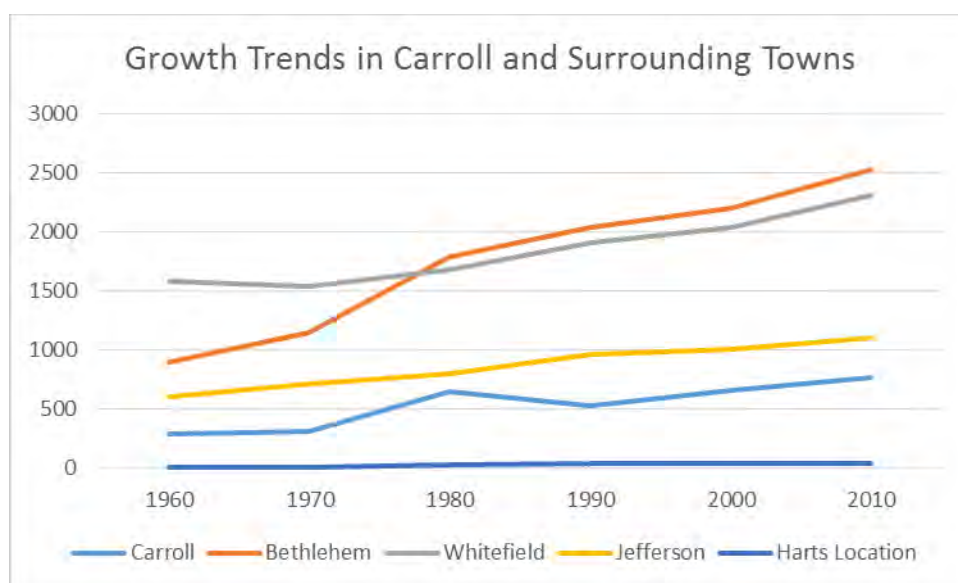


As shown below, the population growth in the Littleton LMA has been only moderate over the last fifty years compared with the North Country Region as a whole.



**Sources: U.S. Census Bureau, N.H. Office of Energy and Planning**

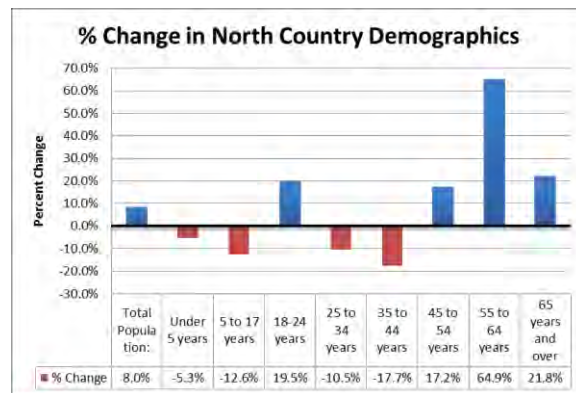
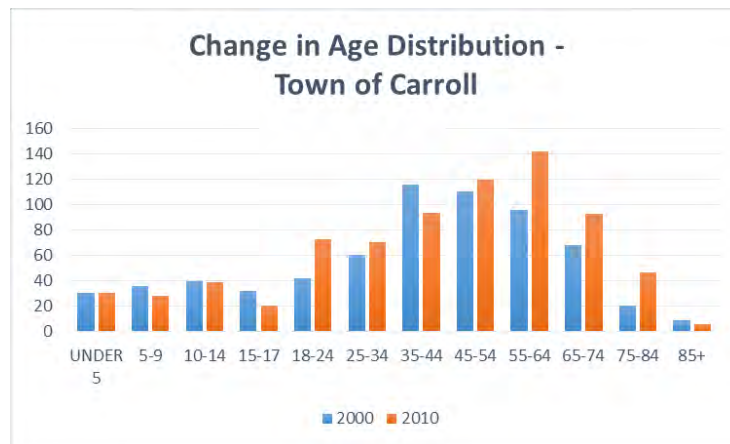
As shown below, despite some changes in growth patterns over the last few decades, Carroll has remained at about the same share of the area population.



Most of the growth in the past decade in the area and in Carroll itself has been associated with people moving into the area. The number of births and deaths have been similar.

LMA	2000 Pop	2010 Pop	# 2000-2009 Births	# 2000-2009 Deaths	2000-2009 Natural Population Change	Total Net Migration
Carroll	663	763	66	58	+8	92
Littleton NH-VT	24,297	25,406	2,469	2,577	-108	1,001
Sources: U.S. Census 2000 and 2010, NH Vital Records						

As shown below, the age structure of the population has been changing. The decade 2000-2010 saw increases in the proportion of the population over 55 and between 18-24, and slight increases in those between 25-34 and 45-54. Similar patterns were seen throughout the North Country Region and state as a whole. Factors include the "baby-boomers" and "baby-boomer echo," the "graying of the population," and retirees moving to the region. As shown below, a similar pattern is seen region-wide.



Source: US Census 2000, 2010

## Housing

The total number of housing units in Carroll was 898 in 2010, up 12% from 799 in 2000 (US Census). In 2000 the US Census counted 427 seasonal units in Carroll. In 2010 this figure was 523. This means all but three of the additional units were seasonal. The number of seasonal units grew at a higher rate than year-round dwelling units area-wide as well; seasonal units represented 16.2% of the total housing stock in the Littleton LMA in 2000 and 18.7% in 2010 (NCC, North Country Regional Housing Needs Assessment, June 2011 Update). Carroll accounted for 15% of the area's increase in seasonal units over the ten year period. In 2010, while accounting for less than 3% of the labor market area's population, Carroll accounted for 19% of the area's seasonal dwelling units.

The most recent data on the type of housing units in Carroll is the American Community Survey Five-Year Estimates 2008-2012. The table below shows the breakdown for Carroll. Carroll has a greater proportion of multifamily units than many rural communities due to the Bretton Woods planned unit development.

Type of Dwelling Unit	Number Estimated in Carroll
Single Family	576
2-4 Units	221
5 or more units	104
Mobile homes or other	44
<b>TOTAL</b>	<b>945</b>

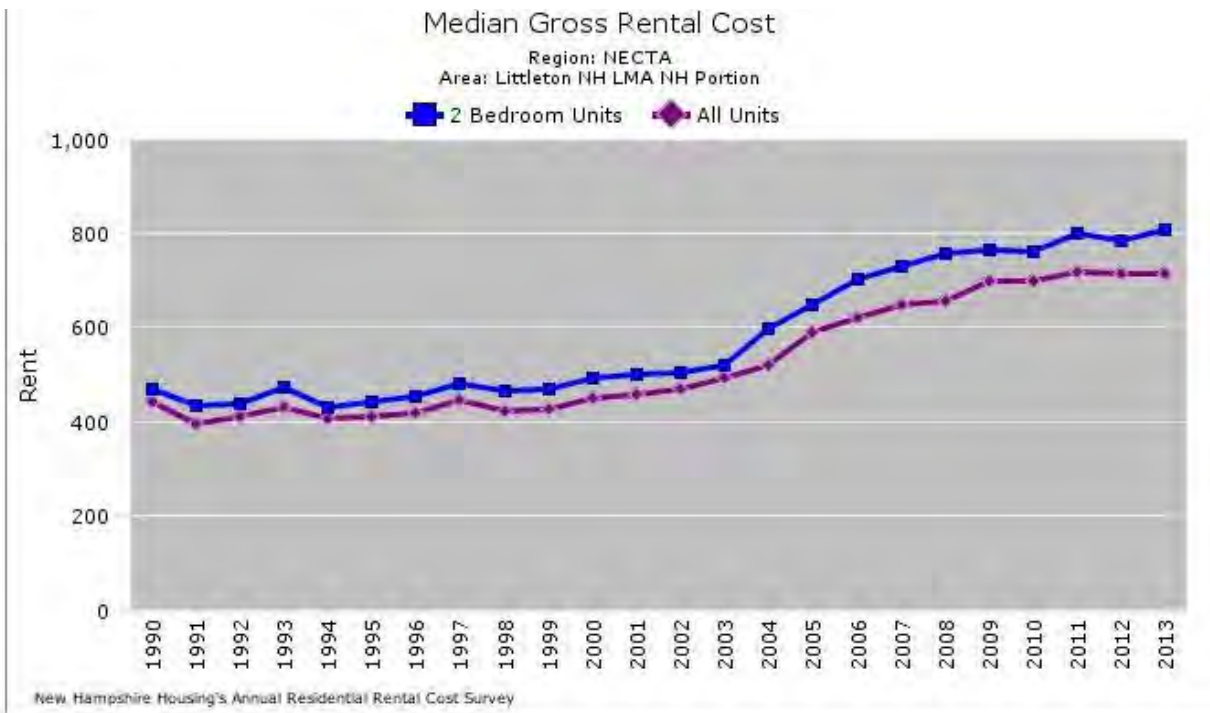
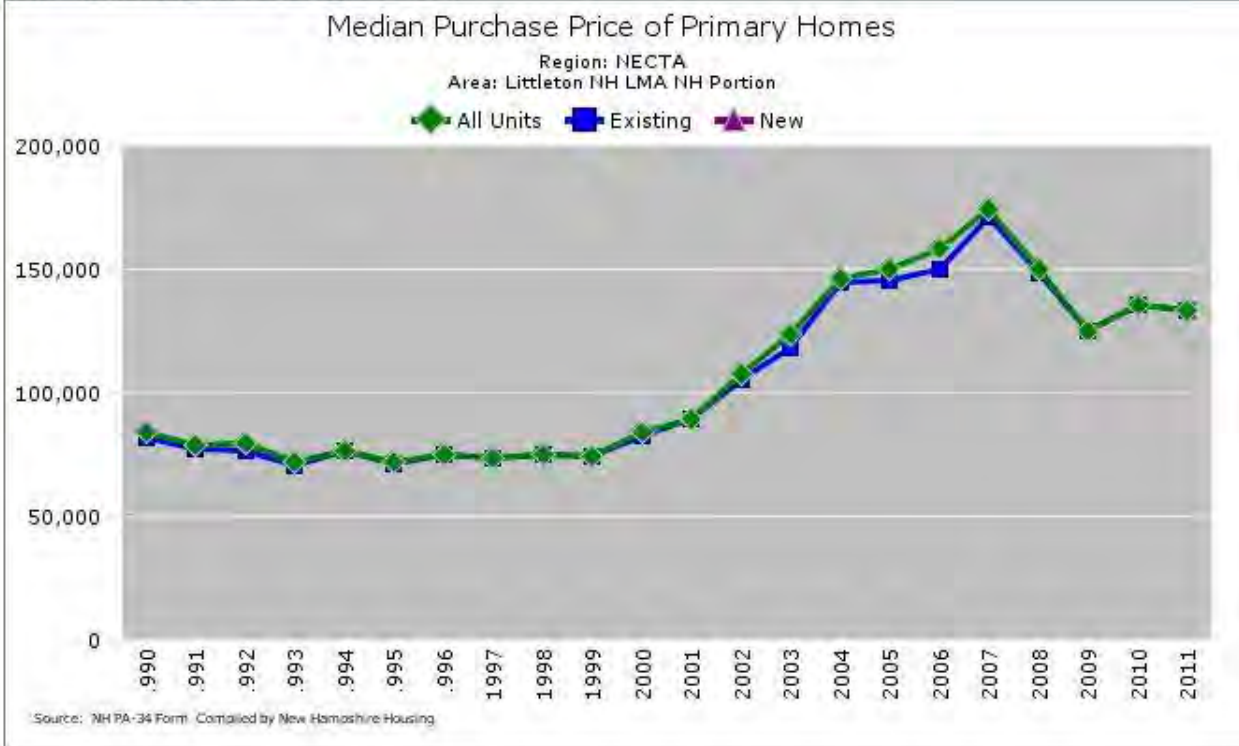
The number of building permits issued gives us another way to look at recent growth trends. In Carroll, 42 permits were issued during the period 2005 to 2010, a 70.8% decrease from the 144 permits issued from 2000-2005. This is a similar pattern to the -60.9% decrease seen in the number of permits issued through-out the Littleton LMA over the same period. During the latter period studied, the number of building permits issued in Carroll also represented a slightly smaller portion of the total number of building permits issued in the LMA (8.5%) compared with the earlier period (11.4%). This means that growth is both slowing, and possibly also shifting to other communities.

The number of vacant units available for rent as year-round living quarters in Carroll was reported to be 47 in 2010 (US Census). Six vacant residences were for sale. This means the rental vacancy rate was 38.5% compared to 2.5% for a homeowner vacancy rate. For comparison, the average vacancy rate in the Littleton LMA in 2010 was 11.1% for rentals and 2.7% for owned dwelling units.

The figures below show the housing cost trends in the Littleton LMA over the past two decades. As shown, while purchase prices peaked in 2007 and then came back down somewhat, rental costs continued to rise.



Chart: Median Home Purchase Price

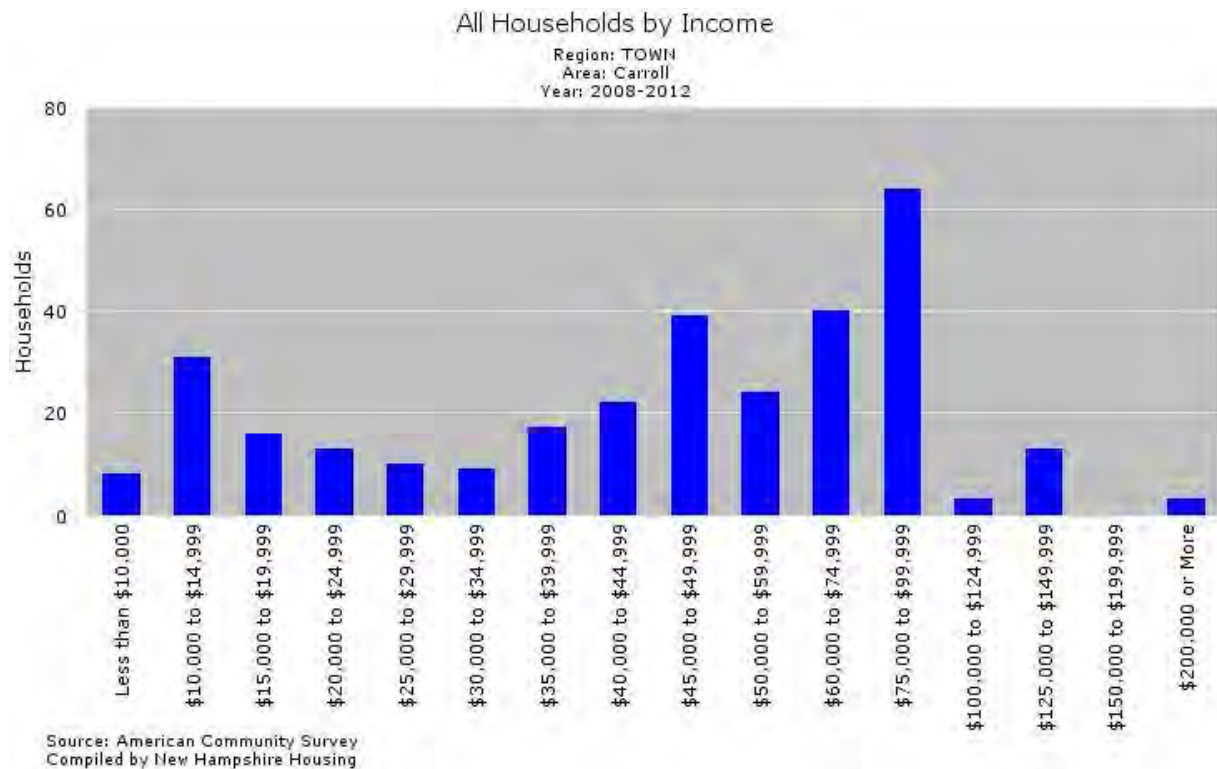


## Income

Based on American Community Survey Five-Year Estimates 2007-2011, the median household income in Carroll is about \$47,330 and the average per capita income is about \$24,895. As shown below, these figures are slightly higher than those for Coos County as a whole, but substantially lower than statewide averages. The figures for neighboring towns are shown as well for comparison.

Area	Median Household Income	Per Capita Income
Bethlehem	\$50,430	\$26,446
<b>Carroll</b>	<b>\$47,330</b>	<b>\$24,895</b>
Harts Location	\$38,750	\$31,614
Jefferson	\$53,571	\$32,213
Whitefield	\$47,617	\$24,610
Coos County	\$44,419	\$24,351
New Hampshire	\$64,664	\$32,357

The distribution of Carroll households across income categories is shown in the figure below. As shown, the highest category is \$75,000 - < \$100,100, followed by \$60,000 - < \$75,000 and \$45,000 - < \$50,000. The next highest category is \$10,000 - < \$15,000.



## Housing Affordability

Thirty percent of a household income has been used for many years by state and federal agencies as the maximum that can be paid for housing costs while still leaving enough for other basic necessities. Paying more than this means not having enough left for healthy food, day care, health care, reliable transportation, and other basic needs.

It was estimated using US Census sample data that in 1999 22.7% of owner households and 48% of renter households in Carroll were spending more than 30% of their incomes for housing costs. Using American Community Survey Five-Year Estimates 05-09, it was estimated that ten years later 30.4% of owner households and 35.9% of renter households were paying 30% or more. The figures for the Littleton LMA as a whole were 39% for renters and 29% for owners. (NCC, North Country Regional Housing Needs Assessment, June 2011 Update) The 2010 US Census counted 74 renter occupied housing units in Carroll and 235 owner-occupied units. That means an estimated 27 renter households and 71 owner households in Carroll were spending an amount on housing that did not leave enough for other basic necessities.

## Employment

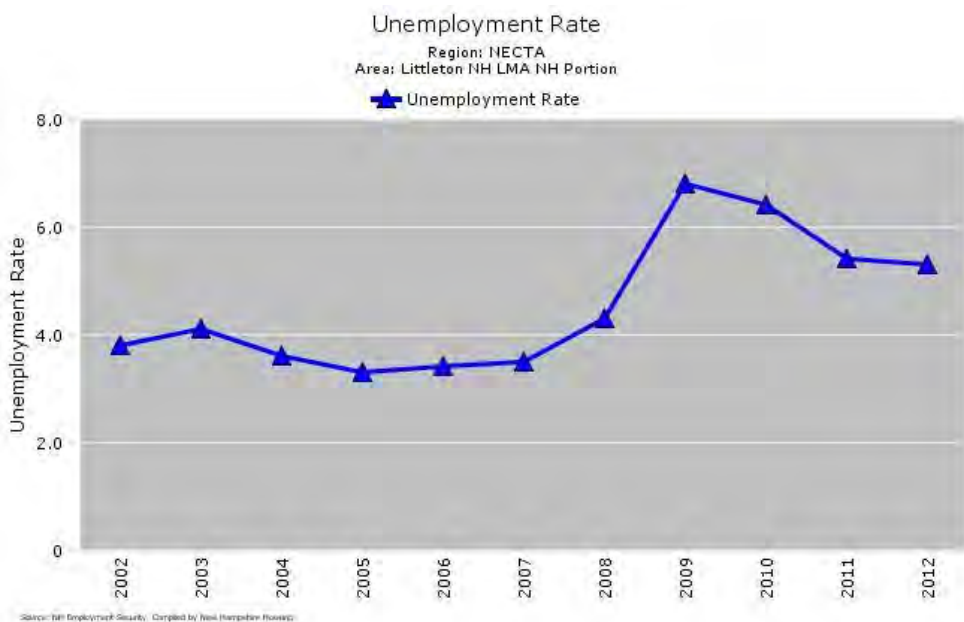
New Hampshire Employment Security Economic and Labor Market Information Bureau reported an average of almost one thousand jobs covered by unemployment insurance in Carroll in 2012. The vast majority were in Accommodations and Food Services with average weekly wages just over \$500.

Employment and wage figures for the same period are also included for the Littleton Labor Market Area (NH portion) for comparison.

	Carroll			Littleton LMA		
Industry	# of Employers	Average Annual Employment	Average Weekly Wage	# of Employers	Average Annual Employment	Average Weekly Wage
<b>Goods Producing</b>						
Animal Production	0	0	0	4	95	\$623.51
Forestry & Logging	0	0	0	14	68	\$756.39
Construction	n	n	n	71	377	\$785.40
Manufacturing	0	0	0	30	1320	\$730.76
<b>Service Producing</b>						
Utilities	0	0	0	8	102	\$1,567.99
Wholesale	n	n	n	27	138	\$1,078.64
Retail	5	52	\$366.48	150	2320	\$583.97
Transportation and Warehousing	3	84	\$850.36	27	260	\$669.69
Information	n	n	n	22	122	\$891.81
Finance & Insurance	0	0	0	41	226	\$746.12
Real Estate	n	n	n	35	153	\$590.19
Prof. & Technical	n	n	n	63	266	\$1,019.38
Admin. & Waste	n	n	n	34	156	\$612.12
Health Care/Social	n	n	n	102	1831	\$893.33
Arts, Entertainment, Recreation	n	n	N	21	575	\$342.56
Accommodations & Food	9	507	\$508.85	95	1573	\$374.54
Other Services	n	n	N	67	261	\$610.10
<b>Government</b>						
Federal Government	1	2	\$529.55	13	85	\$947.16
State Government	5	64	\$1,152.71	46	368	\$713.93
Local Government	1	21	\$515.51	46	1258	\$652.81
<b>TOTAL</b>	<b>37</b>	<b>984</b>	<b>\$555.66</b>	<b>933</b>	<b>11,708</b>	<b>\$666.63</b>

n = Too few data to report without violating privacy.

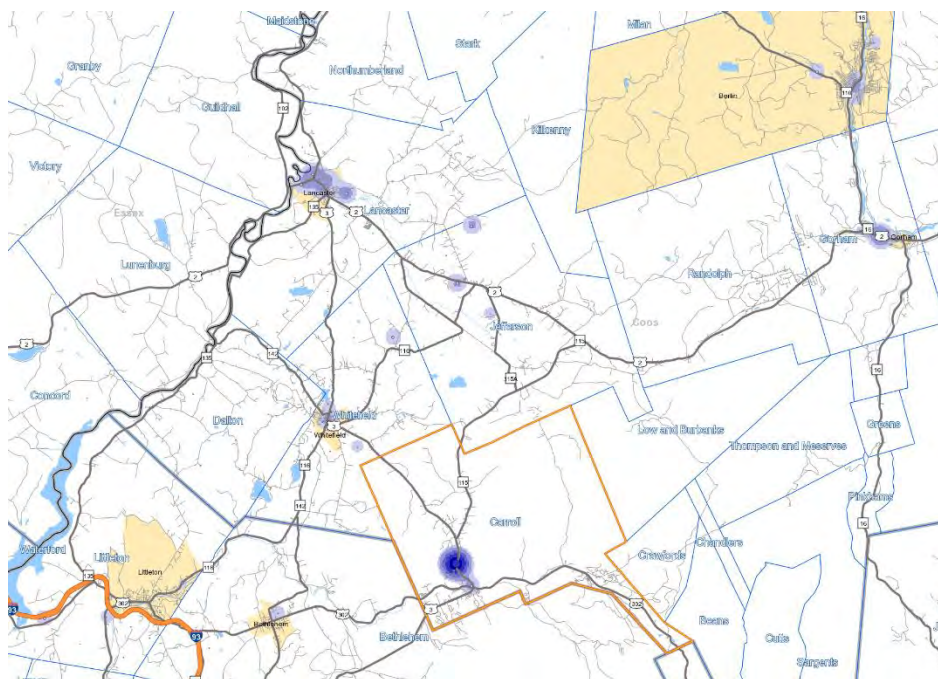
Here, the number of residents in the Littleton LMA labor force are shown along with those who were employed each year. The gap represents the unemployment rate, shown in the next figure. As shown, the area's workforce is slightly larger now than when the economy declined in 2009, and the unemployment rate has decreased significantly.



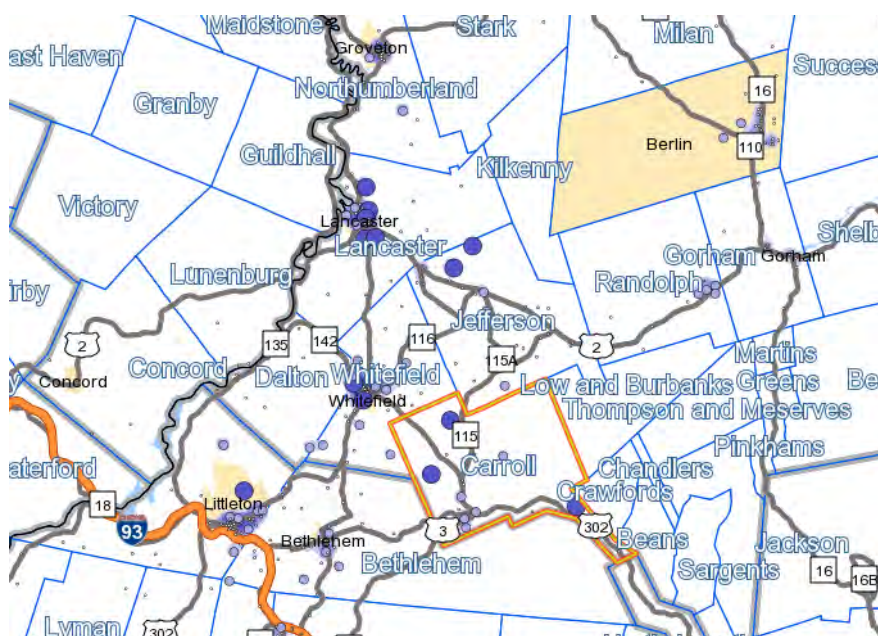


Approximately half of Carroll residents are employed in town and half commute to other communities. Carroll residents on average have a slightly shorter commute time than the average for Coos County (20.3 minutes vs. 22.4 minutes), and several minutes shorter than the average for the state (26.2 minutes) (American Community Survey, Five-Year Estimates 2008-2012).

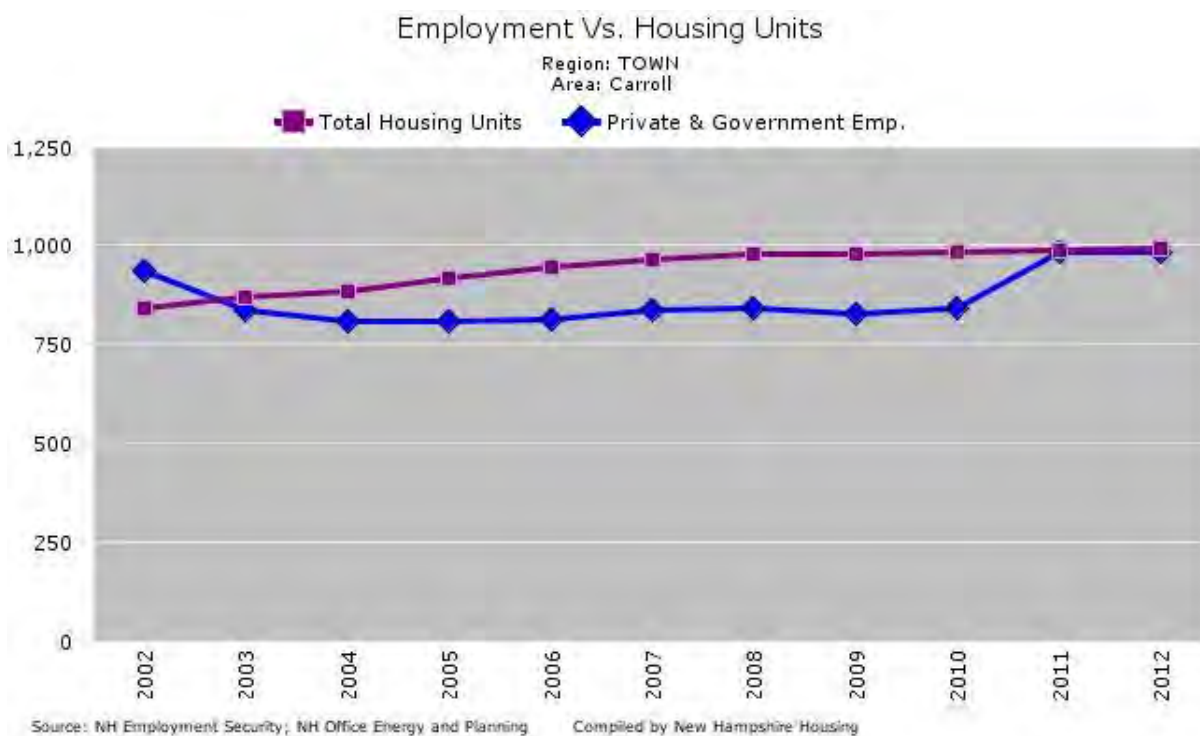
The figure below from the Census Bureau's On the Map shows where those employed in Carroll live.



The next figure shows where those who live in Carroll work.



As shown in the figure below, the number of jobs and the number of housing units have remained in balance, with the number of jobs catching back up in recent years.



## Property Taxes

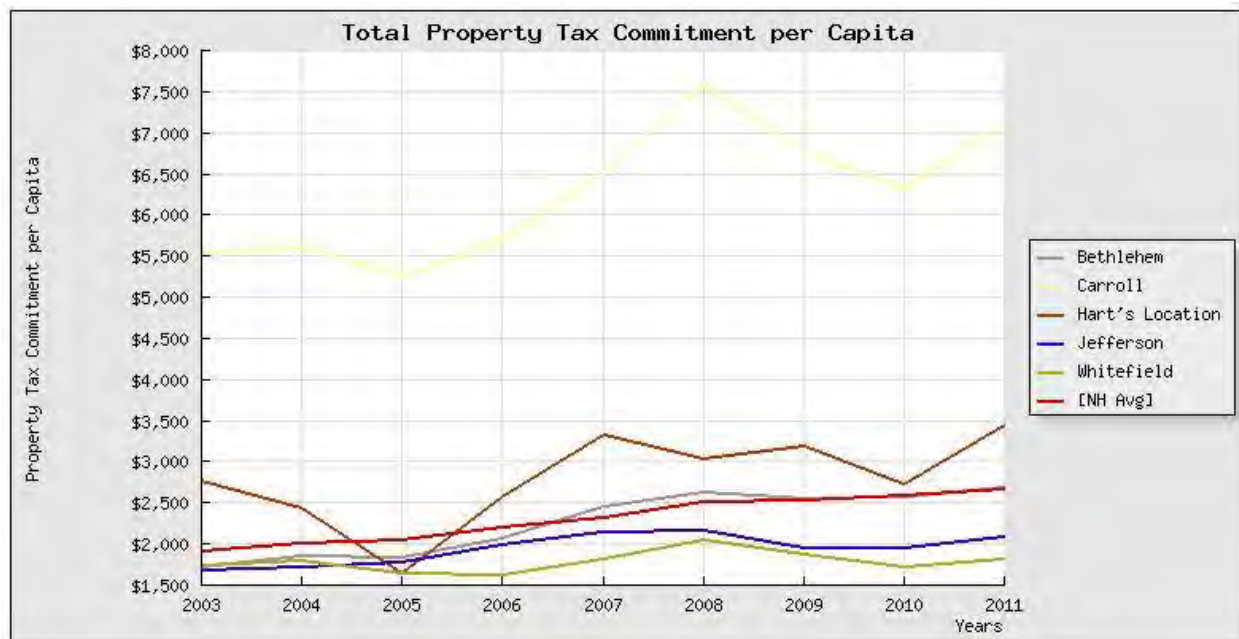
The town's second homes and Bretton Woods resort area have a mitigating effect on property taxes for residents. Carroll's equalized assessed valuation per capita is shown below along with neighboring towns for comparison. As shown Carroll's property values when looked at on a per person basis are significantly higher than the average for the state.



(Source: NH Public Finance Consortium, a Committee of NH Government Finance Officers Association)

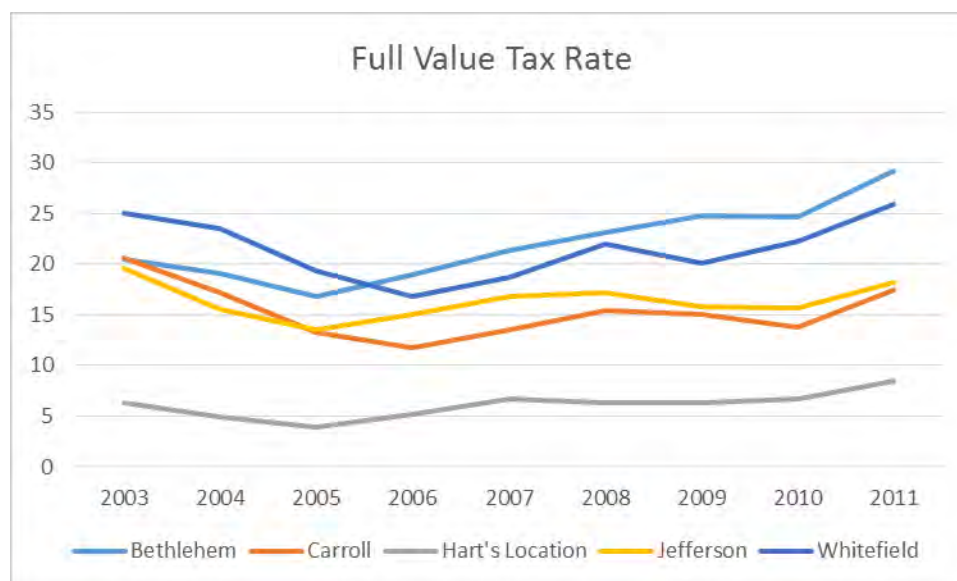


The number of second homes along with the value of nonresidential properties enables the Town of Carroll to raise a significant amount of tax revenue per person.



(Source: NH Public Finance Consortium, a Committee of NH Government Finance Officers Association)

When compared to neighboring towns, Carroll's full value tax rate is lower than all except Hart's location.



(Source: NH Public Finance Consortium, a Committee of NH Government Finance Officers Association)

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# The Land

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The town's landscape and associated natural resources are both drivers of land use and important elements of the town's economic base. The Carroll Conservation Commission compiled this overview of the town's natural environment to guide future planning activities.

## Climate

Long-term climate conditions and trends have an influential role on all other natural resources. Temperature, precipitation, and humidity are all factors that determine physical habitats and thus the kinds of plant and animal life that can survive in any particular area. Air patterns and weather systems, seasonal and annual amounts of precipitation, storm frequencies and intensities, freezing dates and heating degree days are among the items that are valuable in community planning and resource management. In addition, precipitation is the major controlling factor of a hydrologic cycle and, combined with river flow data, describes the town's water supply, water quality, and runoff characteristics.

Carroll's climate is largely controlled by four factors: latitude, air masses, elevation and topography. The town has latitude of 44 degrees north, about halfway between the equator and the north pole. This puts Carroll directly in the belt of eastward moving air, which encircles the entire globe in the middle latitudes. These "prevailing westerlies" bring continuously changing weather systems to much of the United States. The primary sources of air and precipitation patterns are the colder masses of land and water to the north. Specifically, the air masses that create Carroll's temperature and precipitation are the continental polar (cold, dry air), maritime polar (bringing cool, moist air from the northeast), and maritime tropical (warm, moist air from the Gulf of Mexico).

The climate varies from season to season because these air masses shift generally to the south in fall and winter, and to the north in spring and summer. As an example, because of its northerly location in summer and its source over the ocean, the air masses are a stronger influence on Carroll's weather in the summer than in any other season, bringing the most intense rainstorms and greater number of thunderstorms than at any other time during the year. The large amount of spring and early summer rainfall comes as a result of the strength and proximity of another air mass. The precipitation caused by this air mass combines with snowmelt to cause the usual but nonetheless worrisome spring flooding.

Elevation and topography are two other factors that affect Carroll's climate. The mass of the White Mountains causes higher rain and snowfall and greater and more variable wind speeds compared to otherwise similar areas. The mountains do cause the weather as a whole to be variable from year to year and within a single day and to be slightly unpredictable.

## Temperature

Carroll gets an average of 39 inches of rain per year with about 169 days of precipitation. Snowfall averages about 94 inches. There are, on average, 198 days of sunshine per year in Carroll. *See Appendix A: Table 1, Average Temperatures and Precipitation in Carroll*

- On average, the warmest month is July and the coolest month is January.
- The highest recorded temperature was 93°F in 1982.
- The lowest recorded temperature was -31°F in 1957.
- The most precipitation on average occurs in October.

## Precipitation

There is not usually a large variation in rainfall throughout the year. While snowfall and the consequent melt make spring a particularly wet time of year, there is no season that lacks precipitation. The Northeast is considered to be a water-abundant region, but the occurrence of a drought season or year is possible and can affect river flow, municipal and private water supply, and water quality.

## Climate Change

State researchers are predicting weather events of stronger intensity than we are observing today. These changes are projected to increase the risk of flooding, increase insect-borne diseases, decrease the abundance of sugar maples, and create stresses in our fisheries—all of which will have a negative impact on our economy. In order to adapt to these ongoing changes, plans should be developed to move at-risk populations and critical infrastructure out of harm's way. Further development in risk-prone areas should be avoided. Measures should be taken to protect those areas and populations that can't be moved, and recovery plans should be developed for those areas where impact cannot be avoided or deflected.

*See Appendix A: Table 1, Average Temperatures and Precipitation in Carroll*

## CONSERVATION LAND

The total acreage of the Town of Carroll is 32,187.5 acres (*see Appendix A: Table 2, Summary of Political Unit Acreage Report*). Over half of that acreage is conservation land. The Twin Mountain part of Carroll is bordered to the east by the White Mountain National Forest which accounts for 16,714 acres of Carroll's conservation land (*see Appendix B: Map 1, Conservation Land in Carroll*).

Located along the Ammonoosuc River in the heart of Twin Mountain is a 125-acre lot designated as the Town's Recreation Area (Map 206, Lot 28). North on Route 3 is a 10.9-acre lot in conservation—the site of the NH Fish and Game Fish Hatchery (Map 203, Lot 25).

Further north in Twin Mountain, situated on the east and west sides of Route 3, is a privately owned 66.2 acre conservation easement known as the Flats. The land, formerly owned by the Grantor, Harriet Livingstone, was acquired in 1989 through the NH Land Conservation Investment Program to protect the field for its wetlands, valuable habitats for wildlife, and excellent scenic views. In the easement contract, the Town of Carroll agreed to provide public access to the protected property, to maintain the boundaries of the protected property, and to mow the open fields in the event the grantor fails to mow the fields to protect the scenic beauty of the property. The Carroll Conservation Commission is responsible for monitoring the easement contract.

Pondicherry is a division of the Silvio Conte National Fish and Wildlife Refuge located in Jefferson, Carroll, and Whitefield. It is a conservation partnership between the US Fish and Wildlife Service, NH Fish and Game Department, and NH Audubon. The current size is 6,405 acres. It was first established in 1963 at 312 acres to provide feeding, resting, and nesting habitat for migratory birds at remote Cherry and Little Cherry Ponds. Since 2000, the US Fish and Wildlife Service has acquired over 6,000 additional acres of prime boreal forest, river, swamp, and marsh habitat using Duck Stamp and Land and Water Conservation Funds.

Pondicherry was designated as a National Natural Landmark in 1972 by the National Park Service. It was designated as New Hampshire's first Important Bird Area in 2004. Pondicherry has been a destination for birders since 1899 when Ornithologist Horace Wright began studies here. The Refuge and adjacent lands form the headwaters of the John's River, an important tributary of the Connecticut River. Grassland, shrub-land, and successional forest habitat surrounding the Refuge enhances the diversity of wildlife found here. The view from Cherry Pond of the surrounding White Mountains is considered to be one of the finest in the region.

In June 2011, The Nature Conservancy added 380 acres in the Town of Carroll, connecting the Refuge land to the White Mountain National Forest on the opposite side of Route 115 in the area of the Scenic Overlook and Oleson Memorial Plaque. The acquired tract provides high quality, diverse wetland habitat for waterfowl, migratory birds, black bear, moose, and other wildlife, and helps protect the iconic view of the Cherry Pond from the Route 115 Oleson Overlook. The spruce fir forest, wetlands, and brooks feed Moorhen Marsh in the heart of the Refuge. Funds for the purchase came from the Migratory Bird Conservation Fund derived from the sale of waterfowl hunting licenses and ducks stamps. Hunting and fishing will continue to be allowed.

In March 2014, an important addition to White Mountains National Forest was

completed, involving 370 acres (app. 210 acres in Carroll and app. 150 acres in Whitefield). The land was previously owned by Whitefield Water to protect their water supply. The acquisition will permanently protect the headwaters of Ayling and Bear Brooks, which flow into Pondicherry National Wildlife Refuge and the John's River. Two streams are in the tract—Slide Brook and Leonard Brook. The tract provides an important wildlife travel corridor between low elevation spruce fir around Pondicherry with high elevation spruce fir forest on Cherry Mountain. The land in Carroll is on tax map 406, parcels 1 and 2.

Bretton Woods, located in the lower eastern portion of Carroll and surrounded by the White Mountain National Forest, has its own Concept Plan that provides for a percentage of open space to be maintained in and around any developed area. In 2007, CNL Income Properties and Celebrations Associates began planning the Dartmouth Brook development located off the north side of the Base Station Road. The Ammonoosuc Conservation Trust worked together with NHDES and NHF&G to encourage the creation of a permanent conservation easement within the development to protect the highly valuable wildlife habitat and maintain water quality with a riparian buffer zone. When development was suspended due to economic conditions, these efforts stopped. These conservation partnerships will continue to play an important role in identifying and protecting high priority resource lands when additional phases of the development are planned.

Many landowners with 10 acres or more of undeveloped land have placed their land in current use. Approximately 9,410 acres of private land are under Current Use in the category of Forest, Farm, or Unproductive Land.

In summary, conservation lands in Carroll are as follows:

- White Mountain National Forest, USFS
- The Livingston Conservation Easement (known as “The Flats”)
- Pondicherry National Wildlife Refuge, USFW
- NH Fish & Game Hatchery
- Town of Carroll Recreation Area

*See Appendix A: Table 2, Summary of Political Unit Acreage Report*

*Appendix B: Map 1, Conservation Land in Carroll*

## **WATER RESOURCES**

### **Watersheds**

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

A watershed can be defined as a natural unit of land within which all water drains to a common outlet. A watershed includes two components: a surface water drainage basin and a groundwater drainage basin. The surface drainage basin is the land area from which all surface water flows toward a surface water body. The groundwater drainage basin is the land area and subsurface through which groundwater drains to a surface water body at a lower elevation. The surface drainage basin may be larger or smaller than the groundwater drainage basin, depending on factors such as soils, slope, and surface cover. One of the most important concepts is that surface water and groundwater are inextricably linked. For example, groundwater and surface water interact where groundwater discharges to lakes, rivers, and in areas where ground conditions impede the drainage of water, such as in wetlands. This means that management of contamination and pollution sources throughout a watershed will benefit both groundwater and surface water.

All of Carroll is located in the Connecticut River Watershed up to the height of land at Crawford Notch. The small portion of town around Saco Lake flows to Maine via the Saco River. Rainwater and snowmelt flow to the Connecticut River via the Ammonnosuc River in the southern part of town, via the Isreal River in the northeast corner of town, and via the Johns in the northwest portion of town. For federal and state purposes, the watersheds follow a naming convention shown below and on the Water Resources Map in the Appendix.

#### **Watersheds**

Upper Connecticut River

Connecticut-John River to Waits River

Saco River

#### **Sub Watersheds**

Mill Brook

Johns River

Forest Lake-Bog Brook

*See Appendix B: Map 2, Aquifers/Watersheds in Carroll*

## **Surface Waters**

One of the most important natural resources is water. Maintenance of a quality water supply in ample quantity, prevention of point and nonpoint sources of pollution, and management of water resources for recreation and wildlife habitat should be a high priority.

### **Lakes and Ponds in the Town of Carroll**

Carroll has two lakes—both located in the Bretton Woods section of town. Saco Lake is in

National Forest Service land. The Ammonoosuc Lake is a man-made lake located behind the AMC Highland Center. A goal of the 2010 Crawford Stewardship Project is to rehabilitate the dam at the Ammonoosuc Lake and preserve this habitat. In addition, small ponds have been identified in the Twin Mountain section of town, identified by tax map locations. They are:

Twin Mountain Area: Map 206, Lot 53

Map 206 Lot 102.5 & 102.6 King's Pond

Map 409 Lot 8

Map 416 Lot 22

Bretton Woods Area: Saco Lake

Ammonoosuc Lake (historic man-made)

Map 419 Lot 15

### **Rivers and Streams in the Town of Carroll**

The Ammonoosuc River is a 4<sup>th</sup> Order river that runs through the southern edge of town. Meaning “fish place,” the Ammonoosuc River attracts fisherman, campers, and sightseers. Realizing the important significance as both a recreational attraction and a natural resource, the Ammonoosuc River was elected into the NH River Management Program in 2007 as a Designated River. The town is an active participant on the Ammonoosuc River Local Advisory Committee to cooperative with the other Ammosoosuc River communities on the management of this important regional economic asset. The Committee (ARLAC) adopted a management plan that focuses primarily on education and best management practices to maintain the currently high water quality in the river. Several streams of different orders also flow through Carroll providing additional aquatic habitat, surface water, and scenic beauty. In 2005, the Profile School in Bethlehem and Horizons Engineering of Littleton evaluated the culverts, bridges, and mainstream dams within the Ammonoosuc River to determine which structures presented a barrier to brook trout passage. Their report identifies sites that should be given high priority for brook trout passage improvements and raises awareness of the existence of the fish passage problems and the implications of blocking off natural brook trout habitat. In 2010, Horizons applied for grant money to replace a perched culvert on Tuttle Brook near the Town Recreation Area. Unfortunately, the grant was denied. Future efforts should continue to correct fish passage obstructions along the Ammonoosuc River whenever possible.



Below is a list of streams in Carroll, including their order and their relationship to the Ammonoosuc River. *See Appendix B: Map 3, Water Sources in Carroll: Streams, Ponds, Wetlands.*

Twin Mountain Area:	Little River 3 <sup>rd</sup> Order	Ammonoosuc River Tributary
	Tuttle Brook 2 <sup>nd</sup> Order	Ammonoosuc River Tributary
	Alder Brook 2 <sup>nd</sup> Order	Ammonoosuc River Tributary
	Cherry Mountain Brook 2 <sup>nd</sup> Order	
	Carter Brook 1 <sup>st</sup> Order	
	Carroll Stream 3 <sup>rd</sup> Order	
	Bear Brook 1 <sup>st</sup> Order	
	Bear Brook 2 <sup>nd</sup> Order	
	Bog Brook 3 <sup>rd</sup> Order	
	Leonard Brook 1 <sup>st</sup> Order	
	Black Brook 2 <sup>nd</sup> Order	Ammonoosuc River Tributary
	Zealand River 3 <sup>rd</sup> Order	Ammonoosuc River Tributary
Bretton Woods Area:	Deception Brook 3 <sup>rd</sup> Order	Ammonoosuc River Tributary
	Dartmouth Brook 2 <sup>nd</sup> Order	Ammonoosuc River Tributary
	Crawford Brook 3 <sup>rd</sup> Order	Ammonoosuc River Tributary
	Sebosis Brook 2 <sup>nd</sup> Order	Ammonoosuc River Tributary
	Saco River	
	Elephant Head Brook	
	Gibbs Brook	

## **Groundwater**

Twin Mountain has two sources for its municipal water supply—Cherry Mountain and Little River. Bretton Woods provides water to their residents by the privately owned Rosebrook Water Company.

The highest yielding aquifers in Carroll exist along US Route 3 and Paquette Drive in Twin Mountain, along Route 302 at Old Cherry Mountain Road, and at the ski resort in Bretton Woods. In 2004, Carroll added an Aquifer Protection District in the zoning ordinance. This stratified-drift aquifer is identified on the Carroll Drinking Water Resource Map. The purpose of the ordinance is to preserve, maintain, and protect from contamination existing and potential groundwater supply areas and to protect waters that are fed by groundwater. This protection is accomplished by regulating the land uses which contribute pollutants to designated wells and/or aquifers identified as being needed for present and/or future public water supply.

## **Water Quality Threats**

Nonpoint pollution is defined as pollution that originates from multiple sources and is released over a wide land area and not from a specific location. Common nonpoint sources are runoff from roadways and parking lots, construction sites, excavations, lawns, and golf courses. This runoff, if not managed properly, could contaminate streams, lakes, wetlands, and groundwater.

The Department of Environmental Services (DES) regulates and monitors all underground storage tanks (UST) that store more than 110 gallons of gasoline, diesel fuel, motor oil, used oil, or other regulated substances. Leaks or spills from these containers can contaminate surface and ground water supplies. In addition, fumes from a leaking tank can collect in areas such as basements, living spaces, and garages and pose a serious threat of explosion, fire, and asphyxiation. The DES OneStop Data site lists 17 property locations in the Town of Carroll that have or had a history of a UST. It also includes information on the status of the UST including removal or remediation projects for known leaking tanks. The data lists 7 UST locations where leaking tanks occurred and have been or are still in the process of remediation. Since its closure, the Old Carroll Landfill located on New Straw Road has been monitored on a yearly basis. These sampling activities are performed in accordance with the DES Groundwater Management permit and will continue until 2030.

## **Floodplains and Fluvial Erosion Hazard Areas**

Floods occur in Carroll periodically depending on storm patterns, snow melt, and ice jams. As recent as 2011, flooding of the Ammonoosuc River was seen as a result of ice jams and Hurricane Irene. The flooding of the Mt. Washington golf course as well as Base Road, and Upper Ammonoosuc Falls and the resulting damages have been pictorially recorded. There is a U.S. Geological Survey gauging station located on the Ammonoosuc River at river mile 35 in Bethlehem Junction. Records for this 87.6 square mile area have been maintained since August 1939.

In 2011, Dr. John Field completed a study on the fluvial geomorphology of the Ammonoosuc River. The results of the geomorphic assessment identified fluvial erosion hazard areas, that is, areas where the river is likely to move through either gradual erosion over time, or suddenly during an extreme storm event, such as by cutting off a meander. Dr. Field's report also discussed potential

causes of flooding and erosion hazards, areas of increased sediment loading, and degraded aquatic habitat. The report offers a number of restoration projects to address these hazards and habitat concerns including corridor protection, riparian buffer planting, removal of floodplain constraints, bank stabilization with bioengineering methods, and encouraging meander formation along straightened reaches. *See Appendix B: Map 4, Ammonoosuc River Fluvial Erosion Hazard*

## **Riparian Buffers**

The shorelines of rivers, streams, and ponds are important for wildlife habitat and water quality. The NH Water Quality Protection Act, RSA 483-B (formally called Comprehensive Shoreland Protection Act) establishes a “protected shoreland” of 250 feet, including a 150-foot wide vegetative buffer. The Act affects fourth order or higher rivers (such as the Ammonoosuc River), lakes, ponds and artificial impoundments of 10 acres or larger, and tidal waters. Certain activities are restricted or prohibited and others require a state permit from NH Dept. of Environmental Services. For a summary of requirements, go to the Water Division of State of NH DES website.

Riparian buffers are important for all wetland areas, streams, lakes and ponds, certain impoundments, not just those regulated under state law. In fact, in recent years in Northern New England it has been the more upland streams with narrow valleys and shallow soils where the most damage has occurred during severe rains.

Natural vegetation along streams and ponds stabilizes stream banks, moderates the impact of heavy rains, and filtering and capturing sediments and pollutants from runoff, slowing of flood waters, providing shade to lower water temperatures (cooler water holds more oxygen, important for aquatic animals), and offering wildlife nesting habitat, food sources, migration routes for birds, and travel corridors for animals.

*See Appendix A: Table 3, Summary Shoreline Buffer Acreage Report*

*See Appendix B: Map 2, Aquifers/Watersheds in Carroll*

*Map 3, Water Sources in Carroll: Streams by Order, Ponds, Wetlands*

*Map 4, Ammonoosuc River Fluvial Erosion Hazard Zones (2 pages)*

## VEGETATION

The kind of vegetation that is native to an area is primarily influenced by climate, topography, and soils. Sugar maple, yellow birch, and beech—the key species of the predominant northern hardwoods—cover the lower and middle slopes of Carroll. Other major species include red maple, white birch, hemlock, and white pine. These trees and others associated with the northern hardwood type usually grow on sites that are moderately well drained or poorly drained.

At lower elevations, well-drained soils of the valley provide good sites for stands of white pine. The higher elevations and cooler temperatures of the peaks encourage an intermixing of spruce-fir among the northern hardwoods. Red spruce and balsam fir are common along the ridges and in pockets. Major hardwood species include sugar and red maples, yellow and white birches, beech, and white ash.

The NH Wildlife Action Plan (WAP) identifies the following critical habitat types in Carroll:

Floodplain Forest

Grasslands

Marsh & Shrub Wetlands

Peatlands

Vernal Pools (likely but not mapped)

Hemlock-Hardwood-Pine Forest

High Elevation Spruce-Fir

Lowland Spruce-Fir Forest

Northern Hardwood-Conifer Forest

There are four major forest types in Carroll ranging from Northern Hardwood Conifers to Lowland Spruce Fir. According to the NH WAP Habitats Map, the majority of the High Elevation Spruce-Fir Forest is located within the boundaries and management of the National Forest. Although a matrix of forest types are within the National Forest, a good majority of Lowland Spruce-Fir Forest is located in the undeveloped northwestern section of Twin Mountain. This particular forest type is an important habitat for the American Marten, which is listed in the state as a threatened species. *See Appendix A: Table 5, NH Natural Heritage Bureau, Habitats and Species of Concern in Carroll.*

The majority of Carroll provides a predominant forest habitat, but other important habitats can be located on the WAP Map.

- A 66-acre **grassland habitat**, maintained under a conservation easement, is located along Route 3 in Twin Mountain.
- **Peatlands and shrub wetlands** can also be found in the undeveloped northwestern section of Twin Mountain.
- The Ammonoosuc River is a 4<sup>th</sup> order Designated River that runs along the southern border of Carroll. According to the WAP Habitats Map, **floodplain forest habitats** can be found all along the River corridor
- **Vernal pools** are likely to be located in Carroll but verification of their location requires field observations or knowledge from local residents.

The Highest Ranked Wildlife Habitat Map (*see Appendix B: Map 5*) depicts habitats that are ranked as highest quality on a statewide, regional, and local scale. The areas of Highest Ranked Habitats in Carroll not including the White Mountain National Forest are located in northern Twin Mountain along area streams and their tributaries including the Carroll Stream, Bear Brook, Carter Brook, Cherry Mountain Brook, and Leonard Brook. High ranked habitat areas are also seen in the Bretton Woods section of town within the developed resort area and along the Ammonoosuc River floodplains.

The areas of Highest Ranked Habitat in the Biological Region are located in the undeveloped northwestern region of Twin Mountain and the southern border of town along the Ammonoosuc River.

*See Appendix A: Table 4, Summary Palustrine Wetlands Acreage Report*

*Table 5, NH Natural Heritage Bureau, Habitats and Species of Concern in Carroll*

*See Appendix B: Map 5, Highest Ranked Wildlife Habitat by Ecological Condition in Carroll, NH Wildlife Action Plan*

*Map 6, Wildlife Habitat Land Cover in Carroll, NH Wildlife Action Plan*

## WILDLIFE

Nearly half of the land in Carroll is part of the White Mountain National Forest, which is actively managed to preserve critical and diverse habitats and which supports an abundant wildlife population. Towns such as Carroll, which are within or border large protected areas, play an important role in providing forested corridors for wildlife that require larger base areas, such as bobcat, bear, moose, American marten, and lynx, and riparian travel corridors along rivers and wetlands. These corridors provide an important link between unfragmented blocks of habitat and sources of food and water.

### Economic Value of Wildlife

Tourism has driven the economy of Carroll since the early 1820s. Wildlife viewing is often perceived as an adjunct tourist activity, when, in fact, it provides more economic fuel than people realize. In 2006, NH residents and nonresidents involved in game and nongame recreation spent more than \$222 million in trip-related expenses in New Hampshire—**of which \$116 million related to wildlife viewing**. Fishing brought in an estimated \$88.6 million that year and hunting brought in \$17.6 million for trip-related expenses alone. Expenditures in NH for trips and equipment for wildlife viewing, fishing, and hunting totaled more than \$520 million (*2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, US Fish and Wildlife Service and US Census Bureau).

USDA calculates **total spending/year for White Mountain National Forest visitors at \$145.7 million** (2005 National Visitor Use Monitoring Program). *See Appendix A: Table 6, Annual Total Spending in White Mountain National Forest.*

### Land Use Development and Wildlife

In addition to critical habitats, certain habitat features are important to many wildlife species:

- **Wildlife travel corridors**, both riparian and forested, offer connectivity between primary habitats and watersheds in Carroll. The Ammonoosuc River offers a variety of pristine habitats and the corridors allow seasonal movement between habitats for food, cover and water, as well as dispersal (establishment of new territories).
- **Wetland complexes and vernal pools** (depressions and pools that dry up for a portion of each year) serve as critical breeding habitats for amphibians and reptiles, as well as food sources for many species. Surrounding upland areas to wetlands and vernal pools (a minimum of 300 yards) are vital to their life cycle.
- Other habitat features important to wildlife are **mast stands** (oak, beech and other “hard” food sources, as well as soft mast, such as berries), **shrub borders** of at least 20 feet separating fields and forests, and **deer wintering areas** (dense softwood stands with crown cover greater than 60%).

## **Birds**

Over 140 bird species have been identified in the town of Carroll including bald eagle, osprey, Bicknell's Thrush, and black-backed woodpecker. Some are year-round residents, some fly from as far as Central and South America, and some Arctic and Sub Arctic species spend their winter in Carroll. Many make their spring and fall migration along the Ammonoosuc River and some can be seen en route to nearby Pondicherry Wildlife Refuge. Others find the variety of diverse habitats ideal nesting grounds and many of these migratory songbirds call the White Mountain National Forest their summer home. Several open areas in the town of Carroll have been identified as prime habitat for American Woodcock.

## **Fish**

The Ammonoosuc River provides habitat for many cold and warm water fish species. The list of fish commonly found in the Ammonoosuc River and various tributaries in town include: brook trout, rainbow trout, Atlantic salmon, longnose sucker, longnose dace, blacknosed dace, slimy sculpin, and creek chub.

The Ammonoosuc River is stocked annually with rainbow, brook, and brown trout. According to NH Fish & Game, the Ammonoosuc River is suitable for wild, self-sustaining populations of brook trout. Brook trout is included in the NH Wildlife Action Plan as a "Species of Greatest Conservation Need." Critical habitat found within the corridor includes deep pools, such as Lower Falls. Smaller pocket pools and spring seeps are scattered throughout the system, which provide cool water refuge necessary for summer survival of cold water species. Additionally, the many tributaries of the Ammonoosuc River provide critical habitat for cool water refuge and spawning for trout and salmon.

The Ammonoosuc River has been identified by the US Fish and Wildlife Service as an important cold water fishery. Atlantic salmon fry have been stocked in the river as part of the federal Atlantic Salmon Restoration Program since 1990. Sampling efforts have shown some success, finding salmon that are one, two, and three years of age. Damage from Hurricane Irene to the White River National Fish Hatchery in Vermont resulted in a total loss of their salmon. This facility was the primary distribution of salmon fry for the Connecticut River Watershed. This loss as well as years of poor return rates resulted in the unfortunate termination of this program.

## **Mammals**

Mammals such as deer, moose, lynx, and bear have large range and territory requirements. The proximity of the National Forest results in animal/human interaction, made more difficult when humans feed animals. Opportunistic species, such as fox and coyotes, can pose concern to humans as well as their domestic pets. Beavers can have both a positive and a negative impact on the environment. When beavers build dams, they create new wetland environments for other species. These wetlands can help slow erosion, raise the water table, and help purify the water. Beavers can play a major role in creating a more diverse habitat. When beavers abandon their lodges and dams, aquatic plants take over the pond. Eventually, shrubs and other plants will grow and the area will

become a meadow. The shrubs in the meadow will provide enough shade to allow tree seedlings to grow and the land will turn into a woodland area. Beaver dams can also cause problems. Dams can slow the flow of water in streams and cause silt to build up, and some other species can lose habitat. Dams can also cause flooding in low-lying areas.

In spring 2010, an early emergence of bats was observed in the Mt. Washington/Bretton Woods and Base Station Road areas. Dead bats (little brown bats) were collected, tested, and confirmed positive for White Nosed-Syndrome. NHF&G, USFS and USF&W are not aware of any known hibernaculum in the area; the closest is over 13 miles away. The agencies are working on locating a hibernaculum in the area that could be of significant size. Some of the live bats observed were big brown bats, which are known to hibernate in buildings, including the Cog Railway buildings, as well as caves and mines. White Nose Syndrome has not been detected in bats living in buildings. Currently, five of the eight species of New Hampshire bats are affected by White Nose Syndrome, including the common little brown bat. One species, the northern long-eared bat, has now disappeared from hibernacula all over the Northeast. Bats play an important role in the ecosystem—in addition to eating millions of insects, bats are also pollinators.

### **Rare Species and Species of Special Concern**

*See Appendix A: Table 7, NH Species of Greatest Conservation Concern*

The NH Natural Heritage Bureau indicates two vertebrate mammal species for the town of Carroll—the Northern Bog Lemming, listed as “species of special concern,” and the American Marten listed as “threatened.” Only three specimens of Bog Lemming have been recorded in NH in the past 100 years, one of which is a historical record for the town of Carroll. The Bog Lemming is probably the least understood mammal species in NH due to its rarity. The American Marten can be found in spruce/fir habitat types and in areas with blowdowns and course woody material.

Historic records and photographs exist of Canada lynx in the town of Carroll and a documented lynx crossing occurred in nearby Jefferson in the winter of 2006. Recent evidence (Nov. 2011) also indicates the presence of a breeding population of lynx in Northern New Hampshire. With its large range requirements, and presence of suitable habitat, the possibility of lynx returning to the area in the future may be a possibility.

NH Fish and Game has a database which outline habitat types and species associated with them. The database further indicates species identified as “wildlife species of special concern.” Although a formal inventory has not been done, several of these species have been documented in the town of Carroll.

*See Appendix A: Table 6, Annual Total Spending in White Mountain National Forest*

*Table 7, NH Species of Greatest Conservation Concern*

*See Appendix B: Map 5, Highest Ranked Wildlife Habitat by Ecological Condition in Carroll*

*Map 6, Wildlife Habitat Land Cover in Carroll*



## **SOILS**

The surface layer of the earth is composed of organic and inorganic materials that represent a multiple use resource for human activity. A soil profile provides information concerning the capability of land to support various land uses. Depth of soil type, permeability, wetness, slope and susceptibility to erosion are factors to be considered when developing land.

In Carroll, variations in topography and parent materials have contributed to the formation of almost 40 soil series. Soil maps are based on extensive field work by trained soil scientists. An individual unit on the soil map contains one of two dominant soils or soil phases and is named after the dominant soil. Other kinds of soils, too small in acreage to map, may occur within the mapped unit. This places a certain limit to the accuracy of the soil map, as its scale may not allow accurate classification and location of each small area of soil. An on-site evaluation may be necessary to understand the soil characteristics on a lot of a few acres or less.

Soil scientists describe soils and soil phases by particle size and shape, color, compactness, moisture content, structure, permeability, and texture. This measureable data is used to determine the capability of land to support various land uses. Each soil phase includes a profile of favorable and unfavorable attributes of the soil for different land uses.

Six soil condition groupings are found in Carroll and are listed and defined as follows:

### **Group 1: Wet Soil Conditions**

These are poorly and very poorly drained soils that are wet most of the year. Water table is at or near the surface seven to twelve months of the year. Some of these soils are ponded or have standing water on them most of the year.

### **Group 2: Seasonal Wet Conditions**

Included in this group are moderately well drained soils that have a water table 1 to 2.5 feet below the ground that keeps the soil wet from late fall to late spring and during wet periods of the year.

### **Group 3: Sandy and Gravelly Soil Conditions**

This group consists of well drained to excessively drained soils formed in sand and gravel. Slope range from nearly level to very steep.

### **Group 4: Shallow to Bedrock Soil Conditions**

This group consists of shallow to bedrock soils mixed with pockets of deeper soils. The shallow soils predominate and have formed in a thin mantle of glacial till underlain by

bedrock at about 20 inches. In some places it is four or five feet below the ground surface

and in other places the bedrock is exposed at the surface as rock outcrops. Slopes range from gently sloping to steep.

#### **Group 5: Hardpan Soil Conditions**

The soils in this group are well drained and have formed in compact glacial till. A hardpan layer is generally encountered about 1.5 to 3 feet below the ground surface. Slopes are gently sloping to steep. Water generally moves down slope over the hardpan layer and comes to the surface as seep spots especially after prolonged rains.

#### **Group 6: Deep Stony (Non-Hardpan) Soil Conditions**

This group consists of well drained to somewhat excessively drained sandy or loamy soils that formed in stony glacial till. Slopes range from gently sloping to steep. The water table is commonly more than 4 feet below the ground surface throughout the year.

The soils in the town of Carroll have a certain degree of limitation on their various uses. Closer analysis of soil type in a specific area will determine the soils' estimated degree and kind of limitation for uses that include dwellings, septic systems, streets and parking lots, and camping areas.

*See Appendix A: Table 8, USDA Soils Legend and Drainage Class, Coos County*

*Table 9, Summary Forest Soil Group Acreage in Carroll*

*Table 10, Summary Soil Farmland Class Acreage in Carroll*

*See Appendix B: Map 7, Soils in Carroll by Drainage Class*

*Map 8, Soils in Carroll by Forest Group*

*Map 9, Soils in Carroll by Slope*

## **SURFICIAL GEOLOGY**

Surficial geology is concerned with those deposits above bedrock. The surface layer of weathered material—soil—is not included in the study of surficial geology. Surficial deposits are unconsolidated, loose conglomerations of rock fragments.

Surficial deposits in Carroll are the result of glaciation. There have been several periods of glaciation, with the most recent period ending ten to twelve thousand years ago. As the glaciers advanced, the bedrock was scraped and gouged, and this material was picked up and moved along. This glacial advance, or scraping, did not drastically alter the topography of the area; the profile of the mountains appears much as it did before the Ice Age. However, the glaciers did have a great impact on the appearance of the valleys. As the climate warmed and the ice retreated north, it deposited two major types of material—till and glacial outwash deposits.

Till is composed of a mixture of soil and rock fragments that were scoured loose by the moving ice, carried for a distance, then deposited. It is generally highly compacted and contains many large angular stones and boulders. Till covers most of the mountainous and hilly areas of Carroll, ranging in depth from 0, where bedrock is exposed, to about 40 feet.

Outwash deposits were caused by glacial meltwaters. They are the stratified sand and gravel deposits which are found along the Ammonoosuc River. Outwash deposits are important economically for mining purposes, but they also serve as major groundwater recharge areas.

## **BEDROCK GEOLOGY**

Bedrock geology is concerned with the underlying “hardrock” or ledge. Formed hundreds of millions of years ago, Carroll’s bedrock is composed of mostly igneous rocks, such as granite, and metamorphic rocks, such as schist. The metamorphic rock was formed under heat and pressure from many layers of mud, sand, and silt and was later uplifted by the earth’s internal forces. Igneous rocks, while in a molten state, forced their way upward and formed metamorphic rocks. The youngest bedrock in town was formed during the Carboniferous age, approximately 200 million years ago. Being the least eroded of all the bedrock in the region, these rocks made up the rugged scenic areas of the White Mountains.

## **SLOPE**

Slope is the amount of rise or fall in feet for a given horizontal distance. It is expressed in percent. An 8% slope means that for a 100-foot horizontal distance, the rise or fall is eight feet. Slope is one of the major characteristics of landform, which presents limitations for development. As slopes become steeper, the cost of building generally increases. In addition, steeper slopes indicate there is a greater chance of erosion, structural problems or water pollution. In general, slopes over 15% are considered too steep to provide adequate sites for roads, homes, septic systems and the like. Suitable uses for such areas are forest production, wildlife, recreation, and grazing. Slopes in Carroll range from level to nearly vertical on some mountainsides. *See Appendix B: Map 9, Soils in Carroll by Slope*

## **GRAVEL EXCAVATIONS**

Sand and gravel deposits from glacial activity make Carroll a good location for excavations. Residents in the town were concerned about the expansion of the then Twin Mountain Sand & Gravel commercial excavation operation as reflected in the 1996 landmark case of Whitcomb vs. Town of Carroll. The ZBA addressed several excavation applications during that period, but those that were granted were small, time-limited operations which are now inactive. The Whitcomb operation, however, now owned by Pike Industries, is still an active excavation, along with the NH DOT excavation—both located in the southeast area of the Town. As of 2009, the Town faced another excavation case, Rines vs. Town of Carroll. This excavated property is located off Route 3 adjacent to the Town Hall lot.

## **TOPOGRAPHY**

Carroll's highest elevations are found in the eastern half of town, especially within the White Mountain National Forest. Two prominent peaks are Mount Deception located on the eastern border of Carroll and Cherry Mountain running through the center of the town. Mount Deception is the highest peak reaching an altitude of 3,671 feet. Cherry Mountain, at a height of 3,182 feet, also includes the peaks of Owl Head at 3,248 feet and Mount Martha at 3,563 feet. Appleby Mountain (2,310 ft), Little Mount Deception (2,428 ft), Beech Hill (2,200 ft) and The Humps (3,012 ft) are also identifiable features.

The Twin Mountain section of town lies in the valley west of Cherry Mountain and along the Ammonoosuc River, while Bretton Woods sits in the Ammonoosuc River valley in the southeast portion of town.

*See Appendix B: Map 10, Topographical Map of Carroll*

## **SCENIC RESOURCES**

Carroll is located in the heart of the White Mountains. Two Scenic Byways converge in Twin Mountain: the Presidential Range Trail, and the Nationally-designated White Mountains Trail. Thousands of tourists are drawn to our scenic town every year, which is why our scenic resources relate directly to the economic stability of the town. Some of the more important natural and scenic areas in Carroll include:

Mount Washington

The White Mountain National Forest/ Presidential Range

The Historic Mount Washington Hotel

The Ammonoosuc River

Fall foliage in the National Forest

Pondicherry National Wildlife Refuge

Wildlife viewing, hunting, and fishing

Crawford Notch

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# The Future

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## Public Workshop

To begin the update of the Carroll Master Plan, the Carroll Planning Board enlisted the assistance of North Country Council to plan and facilitate a public meeting to begin to shape a vision statement to guide the direction of the plan. The March 7, 2013 public meeting was organized into three parts:

1. Brief introduction to master plan purpose
2. Participants were asked to write down what they felt were the three most important qualities of the town for the Planning Board to have in mind as they draft the plan.
3. Responses were collected and grouped by North Country Council planners who then together facilitated discussion on each topic, e.g., what are the issues, needs etc. It was noted that there would be a lot of overlap among categories since all elements of a plan, like all elements of a community, are inter-related.

## Results

### *Natural Resources*

#### Observations

- There is still lots of potential future growth at Bretton Woods
- Twin has been growing but most of the new development is taking place off of the main roads
- Much of the town will remain forested as it is National Forest
- All issues are related to natural resources, e.g., tourism
- Everything depends on clean water
- Wildlife sightings have increased – in some cases due to increased populations, in other cases due to increased development leading to more interaction

#### Needs

- Standards for appropriate development to protect resources
- Improved stormwater management systems
- Review zoning – densities, open space development
- Ridgeline development standards
- Preserve hillsides/steep slopes
- Control sprawl

- Maintain open spaces
- Preserve and protect the River – scenic value
- Preserve flood storage capacity by preventing development within floodplains
- Understand wildlife corridors/crossing and reduce human-wildlife conflicts

### ***Retain People/Population***

#### **Observations**

- Young people are leaving due to lack of jobs
- There are no recreation opportunities for young people that don't want to recreate outdoors
- Motels have been lost

#### **Needs**

- Regulation needs to be balanced with growth opportunities
- Need to increase year-round jobs and businesses
- Need sewer to attract business, e.g., on US 3 in Twin
- Need infrastructure in industrial zone – roads, water, sewer - could town fund it to prepare for/enable growth

### ***Infrastructure/Route 3 Sewer***

#### **Observations**

- Twin lacks direct access to Interstate 93
- No sewer in Twin – population is small
- Need business management training for small business growth and retention
- Radon is an increasing concern in private wells

#### **Opportunities**

- Twin is at the crossroads of two major Routes – US 302 and US 3
- New innovative wastewater treatment technologies may enable businesses to locate in areas without sewer, and may lower water usage for business
- TIF districts possible
- Strong Career Technical Education program may help keep young people here via job training
- Town has water system – drilled well near river with adequate future supply

### ***Increase Commercial Business***

#### **Observations**

- Food stores have closed – two small convenience-type stores remain, groceries must be purchased out of town



- Difficult to attract retail business
- Retail space exists, but no renters are willing to locate here
- Low numbers of visitors in spring and fall hurt existing business and prevent new business – no critical mass < > no infrastructure
- One dimensional economy – tourism only

#### **Needs/Desires**

- Small grocery store
- May not want to be Vail, but something smaller

#### ***Tourism/Recreation***

#### **Observations**

- Winter sports, esp. snowmobiling and to some extent skiing as well, are not a reliable source of business due to poor snow years
- US Route 3 geometry may cause some potential customers to drive through without noticing a town
- Trucks and commuters traveling long distances are important considerations re through-traffic – don't want to stop to patronize local business, or be behind someone who might

#### **Opportunities**

- 4,600 cars per day travel through town on US 302
- Increased hiking and multi-use trails
- Walking trail, potential dog park

#### **Needs**

- Need NHDOT to work with town on traffic calming on US 3 through Twin
- Community (incl. Bretton Woods and Twin) needs to come together to accomplish goals

#### ***Need for Increased Parking (consensus that this is probably not a priority)***

- Town would need to purchase land or use private properties for large events, status quo may be ok right now
- Some trailhead parking areas are too small for peak use, that may be ok

#### ***Standards for Appropriate Development***

#### **Currently**

- Have guidelines re “New England feel”, e.g., color, finishes
- Bretton Woods – cluster; Twin – more traditional zoning

### **Desired changes**

- No big boxes
- Upgrade zoning ordinance to incorporate some conservation subdivision concepts

### ***Need for Increased Broadband/Cell Service***

- Need to expand coverage area and increase reliability

### ***Civil/Civic Participation***

### **Observations**

- Bretton Woods and Twin are separated by several miles of national forest
- No local school
- Only two churches remain active – not here for social ties or after church shopping/eating
- The town doesn't get together as a town enough
- Bretton Woods year-round residency declining, driven by economic conditions and aging population
- Bretton Woods residents don't generally serve on town boards
- Small group of town volunteers wearing many hats

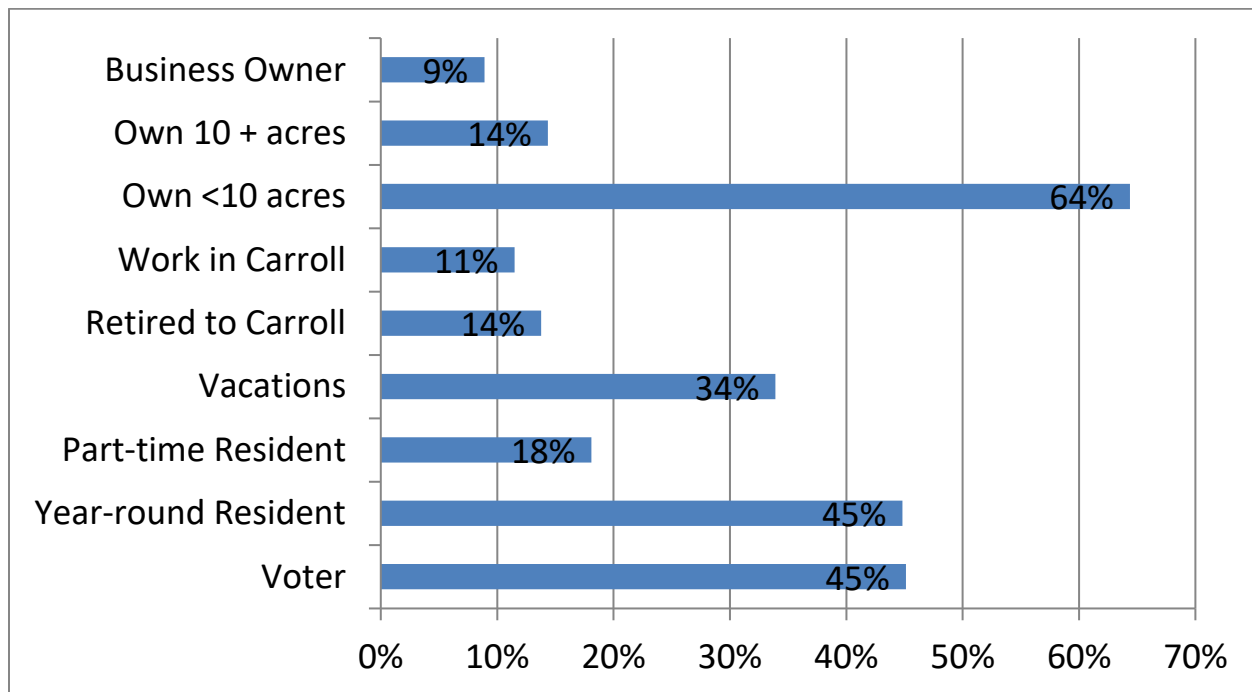
### **Opportunities to Build On**

- Snowmobile club very active, social events such as dinners and dances
- Covered dish suppers, fundraisers
- The master plan update

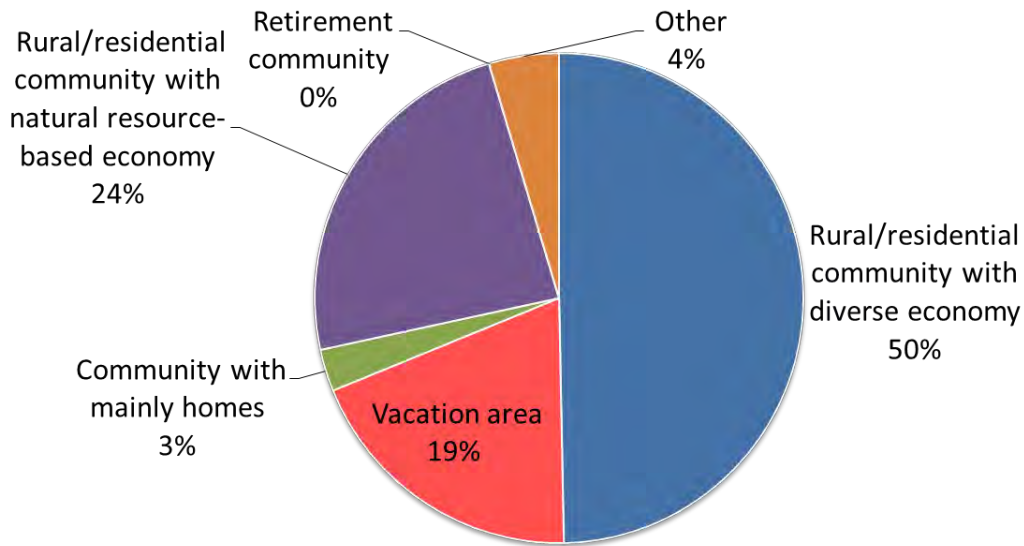
## Survey

A survey was developed by the Master Plan Committee with the assistance of North Country Council and mailed to the 1,169 valid addresses of households with a voter and/or property owner. The survey allowed for more than one response per household. A total of 348 responses were received for a response rate of 30%.

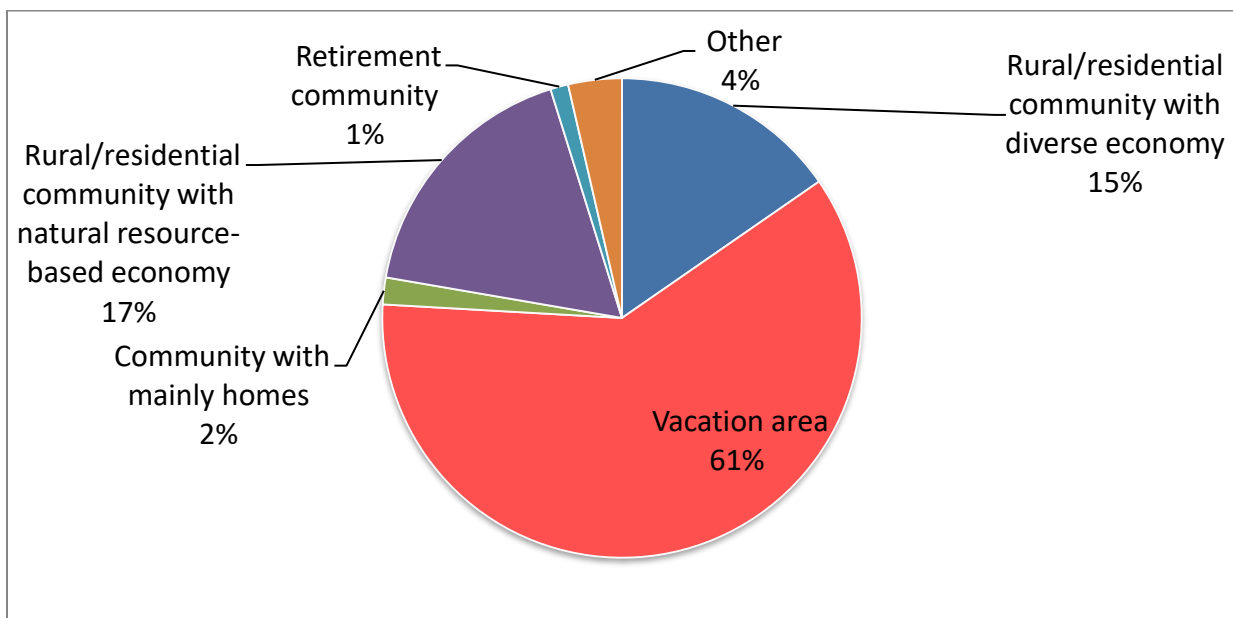
The majority of respondents own less than 10 acres in town. Forty-five percent are Carroll voters and 45% are year-round residents of Carroll.



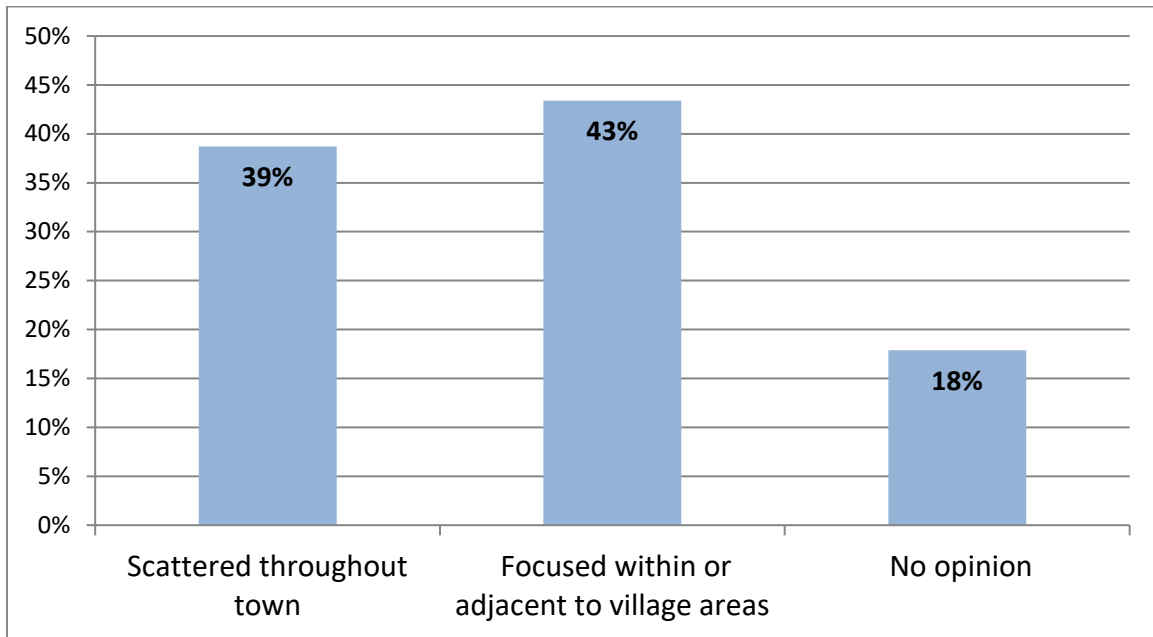
Respondents were asked what kind of community they would like the Twin Mountain area of Carroll to be 15 years from now. Fifty percent chose “rural/residential community with diverse economy.”



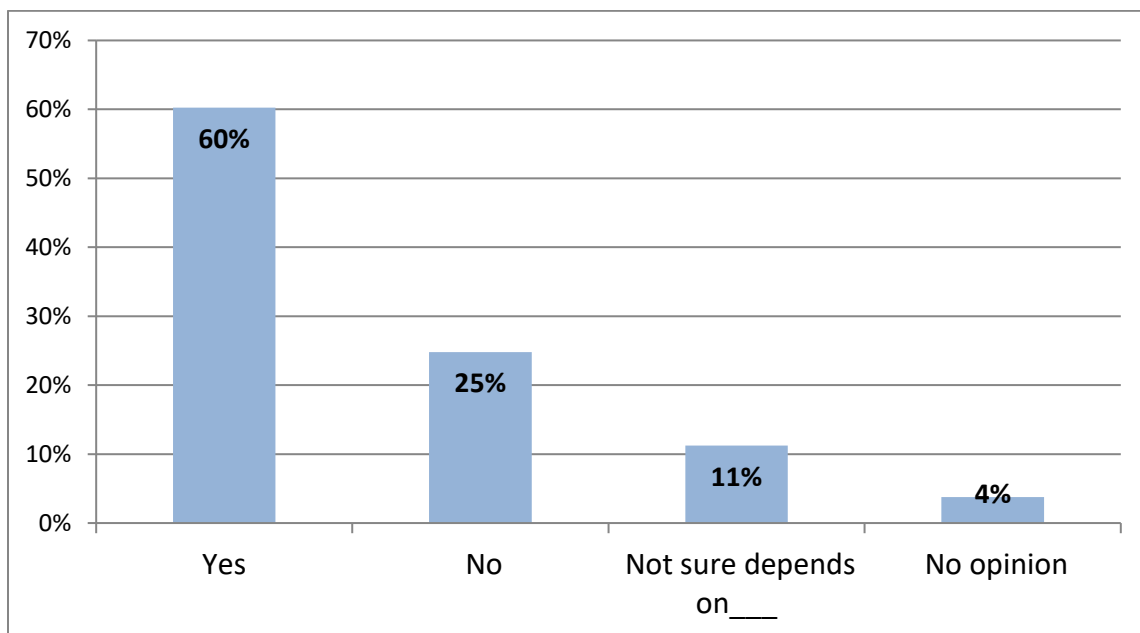
Respondents were next asked what kind of community they would like the Bretton Woods area of Carroll to be 15 years from now. Sixty-one percent chose vacation area.



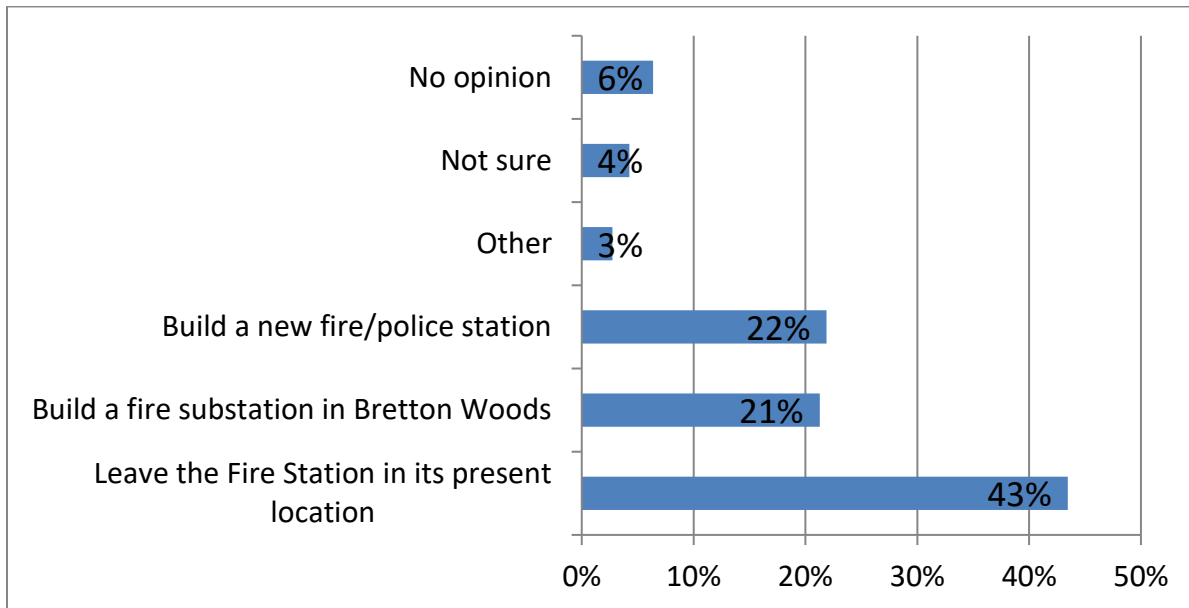
Results were less decisive when it comes to how new development should be sited. Forty-three percent responded that they would like to see the majority of new development be “focused within or adjacent to village areas;” 39% chose “scattered throughout town.”



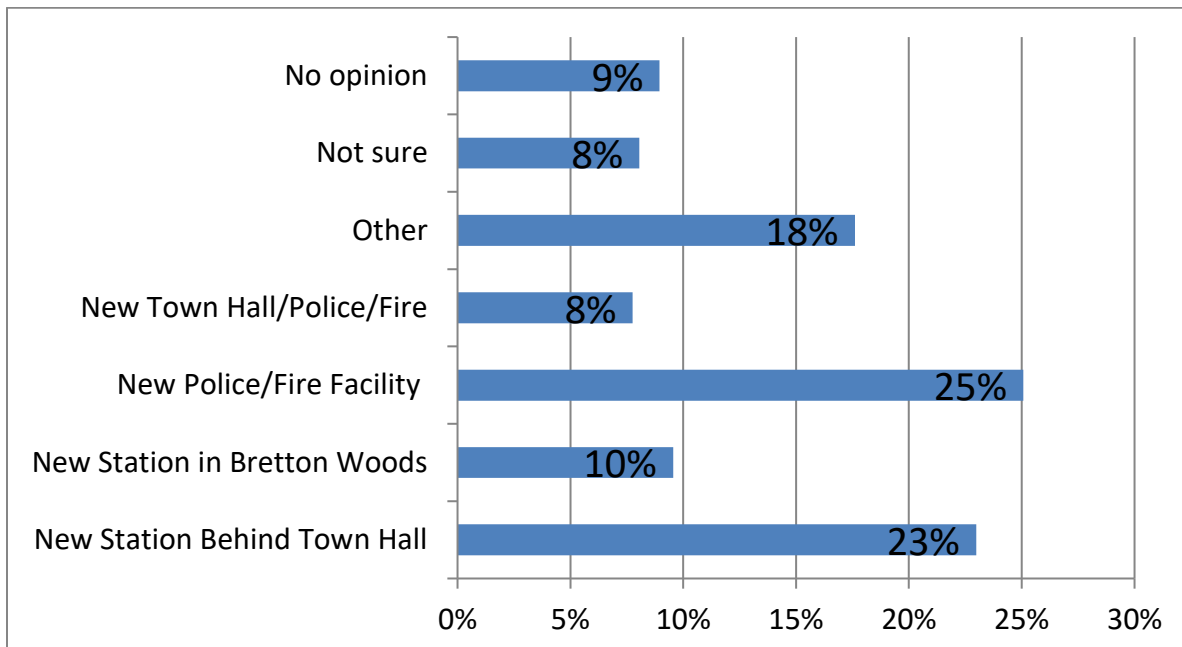
Respondents showed strong support for “enhancing the village area at the junction of US 3 and US 302 to make it more of a real town center,” including, for example, relocating other town services to this area, adding an attractive parking area and green space that could be the focal point for outdoor events, and making a walking path for visitors.



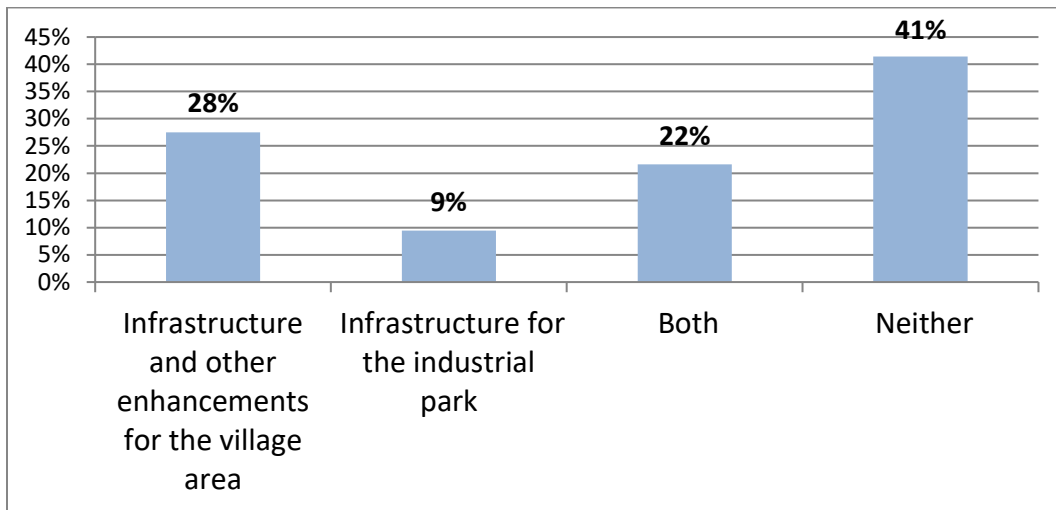
Respondents were asked which option they prefer of three that have been brought forward for the fire station. The choice receiving the highest number of responses was leaving the fire station in its present location.



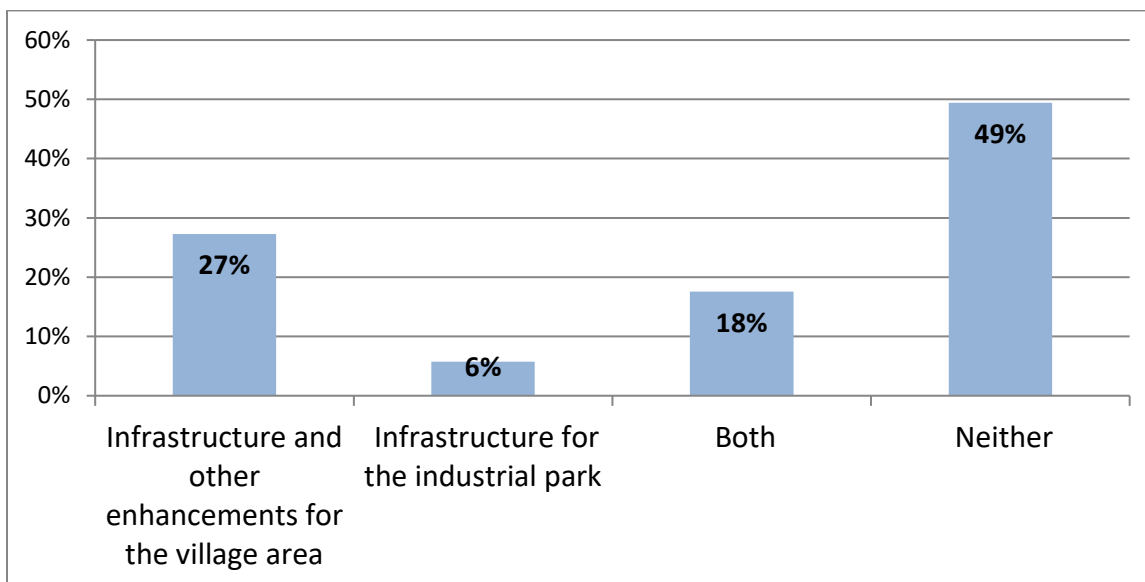
The survey also asked about the future of the police station which is currently located on Route 3 South within rented space. Several committees have worked, in the past, to resolve the Police Station problem. Respondents were asked to choose among three options under consideration by the Town Facilities Committee. Respondents were divided among several alternatives.



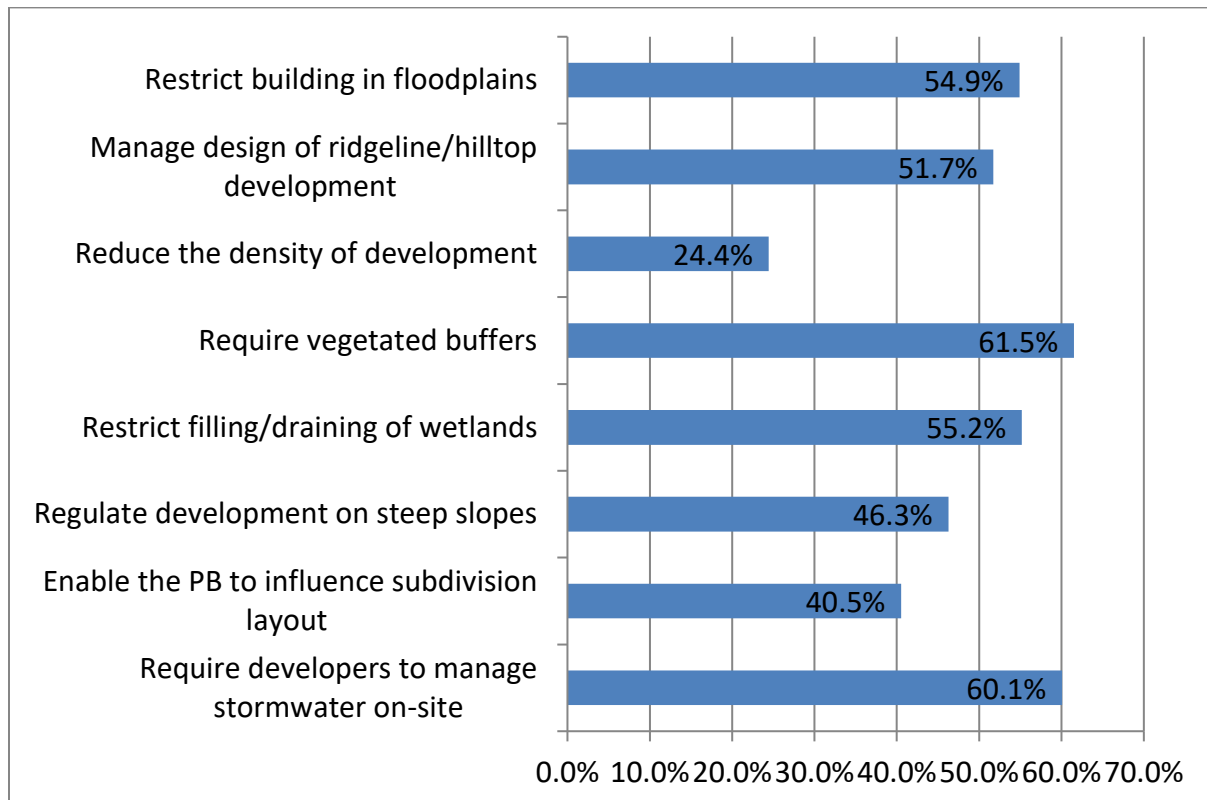
Next, respondents were asked about possibilities that have been discussed for attracting businesses to create year-round jobs in Carroll, specifically, (a) to provide sewer and other amenities to enhance the village area at the junction of US 3 and US 302, and (b) to provide roads, water and sewer to the area set aside for an industrial park off New Straw Road. When asked if they would support some initial investment of town funds in either (or both) of these options in order to encourage private investment, neither activity was supported.



When the town adds or improves infrastructure in an area, property values generally increase. A TIF District (Tax Increment Financing) is a tool that enables the increased property tax revenues that result from that increase in value to be used by the town to pay for those infrastructure improvements. Respondents did not support a TIF District for the village area or for the industrial park.

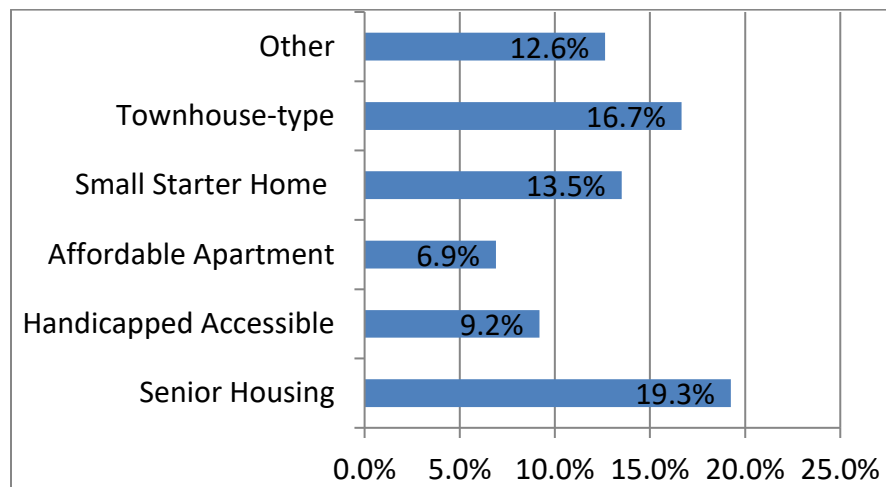


Our natural resources, clean environment and scenic beauty provide an important part of the foundation for our economy. Survey respondents expressed support for several planning and zoning tools available for the town to manage the siting and impacts of development. Results were similar for resident and nonresidents respondents.





When asked if they or a family member would live in a different type of housing in Carroll than they do now if it was available in the next ten years, senior housing received the highest number of responses.



The survey also asked about special places or buildings in town that respondents would like to see conserved. The Town Hall, stone churches, and Fosters Crossroads stood out as the highest priorities of survey respondents.



## Vision for the Future of Carroll

The town of Carroll grew up around a rich history in tourism and other natural resource-based industries. The scenic beauty and outdoor recreation opportunities make this one of the best known destinations in northern New England.



For many who call it home, job opportunities have declined, due to the economy in the short term and to the changing character of family vacations in the longer term.

The Carroll community envisions a future where the local economy has been strengthened by building on the natural resource base and adapting to current trends to offer tomorrow's opportunities. This means:

- Providing the infrastructure needed for economic growth.
- Creating economic diversity to ensure stability during challenging economic times.
- Involving everyone with an interest in the future of the community, from Bretton Woods as well as Twin Mountain, in developing and implementing plans and celebrating successes.
- Making Twin Mountain an attractive commercial center meeting the everyday needs of residents and visitors.
- Encouraging growth throughout town and managing that growth to ensure it is compatible with protection of natural and scenic resources.
- Ensuring that continued development at Bretton Woods meets the needs of tomorrow's vacationers, second home owners and retirees, while maintaining scenic beauty.
- Collaborating with the White Mountain National Forest to encourage a sustainable flow of timber for the forest products industry along with varied high quality recreation opportunities.

## Land Use

The following preface to the *1987 Town Plan* sets the stage for today's land use patterns and land use issues facing the community today.

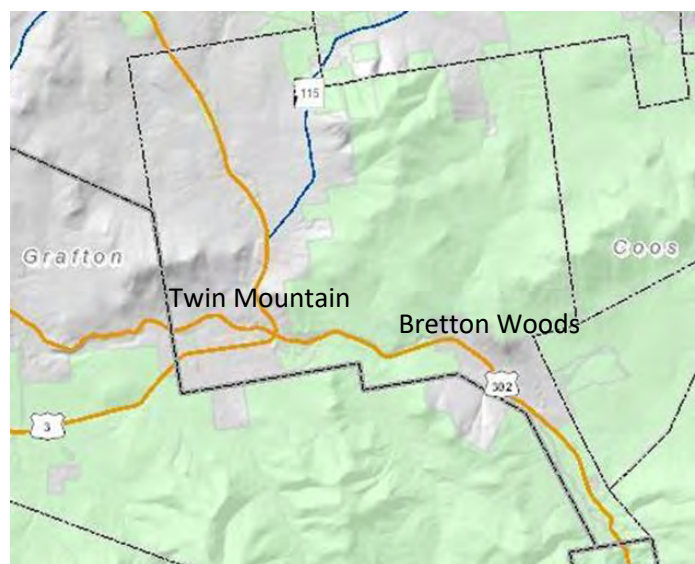
*In 1772, 25,000 acres of land initially known as Bretton Woods was granted to a group of men by King George's Royal Governor of his New Hampshire Province, John Wentworth. It wasn't until 1832 that the Town was incorporated to include the settlements of Twin Mountain, Crawford's and Fabyan. Its name was changed to Carroll to honor the heroes of the Revolutionary War by the State Legislature.*

*Carroll's early history is tied to the tourist industry. As early as 1803 travelers were making their way to Carroll to "experience" the mountain trails and air that lacked any allergy-type pollen. It was during this time that the Grand Hotels were appearing to take their place in Carroll's history. With the establishment of the railroad system, Carroll insured its place as a tourist attraction for over 70 years.*

*The early economy of Carroll was based on the tourist and lumbering industries. The lumbering industry was at its peak in the late 1800's with the Zealand Village lumbering operation. This operation was owned by James Everell Henry and was located between Fabyan and Twin Mountain. The early lumbering industry died out in the early 1900's. Today's lumbering operations are a small part of the Town's economy.*

*Today the Town of Carroll still caters to the tourist trade. The construction of motels along most of the major highways emphasizes this fact. The emergence of the "second" home in the North Country has also been felt in Carroll. Many new and pending homes are targeted for the second home market.*

Land use patterns in Carroll continue to be shaped by topography, transportation corridors, the forest and associated recreation opportunities. As shown in this map from NH GRANIT's GRANITView, the Twin Mountain area of Carroll is at the crossroads of US 302 and US 3; Bretton Woods is to the east of Twin Mountain. In between these two developed areas, and comprising most of the eastern side of town, is White Mountain National Forest. Much of the National Forest area is mountainous.



As shown in the Landsat land use/land cover data shown below, also from GRANIT, the majority of the town is forested, even outside of the National Forest. Developed areas are shown in and around Twin Mountain and along US 3 North and a short distance up NH 115.



The two distinct development centers of Carroll - Twin Mountain and Bretton Woods - along with the continuing growth of the leisure industry and the location of the town at a major crossroads a short distance from Interstate 93, make Carroll perfectly situated to continue to play a major role in the region's tourism industry. In addition, the quality of life and recreation opportunities found here have the potential to attract the young entrepreneurs of today and tomorrow. Carroll offers an amazing variety of high quality outdoor experiences: both downhill and Nordic skiing at Bretton Woods Ski Area, guided trips and educational programs at the AMC Highland, multi-use winter trails in and around the National Forest, abundant hiking and wildlife viewing opportunities, fishing in the Ammonoosuc and its tributaries, and the Presidentials and Pondicherry National Wildlife Refuge nearby.



## Land Use Recommendations

Some proactive steps need to be taken by the town in order to fully capitalize on its assets:

- Review the residential densities allowed in each zoning district to ensure that the town encourages a variety of residential options. This should include low density rural living with privacy and income producing activities allowed, provided that noise, lighting, odor, traffic and appearance do not detract from the ability of current or future neighbors' enjoyment of their property. In addition to the needs of our growing senior population, the interest in denser, walkable neighborhoods is also increasing among young people. More compact neighborhoods should be encouraged in areas served by town water.

Care must be taken to ensure that the residential "feel" in different residential zoning districts remains distinctive. This can be accomplished without increasing the minimum lot size. Density-based zoning and meaningful differentials between the setbacks and frontage requirements between districts can ensure that some areas continue to feel rural, some feel like neighborhoods, and some feel like a village.

- Review the Industrial zoning district boundaries to ensure that is still a viable plan for all of the properties involved. For example, the communities needs and the region's business strategies have both changed since the old landfill was designated for a industrial park. This might be explored as a possibility for a small senior housing complex in concert with AHEAD and private developers. Investment in the industrial park was not supported by survey respondents, while a need for senior housing was indicated.
- Review the businesses allowed in each zoning district to ensure that they are both forward-looking and compatible with the type of residential feel desired in each district. Consider ways to focus future development in the Twin Mountain village area on businesses that complement activities at Bretton Woods and in the National Forest, and those that serve the needs of residents. Remain distinctive from Littleton. Focus on businesses that support outdoor recreation and those that will reinvigorate community vitality by bringing people together. Consider incorporating more performance-based zoning into the ordinance, e.g., regulations focused on the impacts associated with proposed uses, such as lighting, noise, traffic volumes, etc., rather than the use itself.

- Work with the town's tourist businesses with assistance from NH Department of Resources and Economic Development to market the many high quality outdoor recreation opportunities available in Carroll for both the year-round resident and visitor.
- Take advantage of the differences between Twin Mountain and Bretton Woods to market to potential residents and businesses; diversity means more choices, and more types of people who can find their needs met here.



- Develop a master plan for the town center area. The options for providing the future needs of the community for a town hall - rehabilitating the existing structure or constructing a new one - are still under consideration. As part of that project, a committee should be formed to develop a plan for the surrounding area. Much work has gone into providing some wonderful focal points for this town center. This includes a gazebo with wi-fi, information kiosk, and historic railroad engine and car. The view from the gazebo area is beautiful in all seasons. However, the enjoyment of this location is easily missed. Signage is inadequate for visitors who might be looking for information or a rest stop to take in the view. Also, School Street as an entrance is poorly marked and unattractive.



Once one is parked at the gazebo area, it is evident that safety improvements are also needed, as some local traffic uses School Street as a short cut around the light at the intersection of US 302 and US 3. Improvements could easily be made to better meet the needs of both residents and visitors. For example, the entrances could be made more attractive and signage added. The roadway could perhaps also be reconfigured to



discourage cut-through traffic while still enabling access from either end. An area designated as a park-and-ride would increase resident interest in this area. As part of an overall master plan for the town center, NHDOT should be invited with the assistance of NCC to discuss options for increasing the safety of pedestrians wishing to cross the adjacent U.S. highway, such as crosswalks and a pedestrian-activated light. Sidewalks go up US 3 North and US 302 West from the Town Hall area, but there are no crosswalks at the intersection to connect the segments of the village area. This linkage will be a key part of restoring the “village feel” to Twin Mountain. Walking paths with linkages to surrounding trails would also provide additional benefits by encouraging longer visits to the town center.

- Continue to work closely with the owners of the Mount Washington Resort at Bretton Woods to ensure that the concept plan is reviewed and updated as needed. Care must be taken, for the benefit of both the Resort and the town as a whole, to maintain Bretton Woods and Twin Mountain as distinct and complementary commercial areas.
- Unsightly unused buildings and signs detract from the economic vitality of the community. Review land use regulations to ensure that it is easy for landowners to renovate, rehabilitate, or demolish buildings that can no longer serve an economically viable purpose. Unsafe structures should be demolished, and signs and other improvements kept up in an attractive manner. Zoning should incorporate the flexibility needed to redevelop nonconforming sites.
- Amend the zoning to allow accessory dwellings as a Permitted Use in the RU district. This is an easy way to enable homeowners who need physical assistance with some of the tasks of aging in place, or additional income, to use their existing property to meet their own needs. At the same time, additional low rent housing units are made available

to the area's seniors and young residents who are just starting out. Continue to allow two-family dwellings as a Permitted Use in the RB and R-1 districts.

- Promote stewardship of the town's scenic and natural resources by conducting events aimed at increasing civic pride coupled with education on best practices, such as: erosion and sedimentation control when logging; restoring and maintaining vegetated buffers along rivers and streams; protecting wetlands and their buffers; and making buildings on slopes less visible through selective cutting and consideration of colors/surfaces that will blend in.
- Strengthen the town's land use regulations to prevent stormwater runoff from lowering the water quality in the town's rivers and streams. For all subdivisions and developments requiring site plan review, require that the quantity of stormwater leaving the site is the same or lower than prior to the project, and that the quality is the same or better. Requiring developers to manage stormwater on-site was supported by 60% of survey respondents. Special attention needs to be paid to those developments on steep slopes and those which are associated with an increase in impervious surfaces (including gravel). Best management practices for the storage and handling of toxic and hazardous substances are also essential to ensure that these materials do not enter stormwater.
- Amend the zoning ordinance to prohibit construction in the mapped 100 year floodplain and in the mapped fluvial erosion hazard areas. Development in areas known to be subject to periodic flooding, or in the likely path of the future course of the river, threatens lives and property, puts emergency responders in needless danger, and burdens taxpayers. Restricting building in these areas was supported by a majority of survey respondents.
- Amend the zoning ordinance to require vegetated buffers along surface waters. This was favored by over 60% of survey respondents. To maintain the high quality of surface waters it is necessary to keep development separated from rivers and brooks and to maintain a vegetated buffer along them. Shoreline vegetation and the layer of organic matter that builds up underneath it, slow down stormwater and trap sediment and other pollutants before they reach the river or brook. Vegetation also provides for necessary shade for aquatic species. Following a thorough review of available research and consultation with natural resource professionals and state and federal regulators, new Hampshire experts recommended a minimum naturally vegetated buffer width of 100 feet for removal of pollutants and some of the needs of the wildlife (*Buffers for Wetlands and Surface Waters: A Guidebook for New Hampshire*



*Communities*, Chase, Deming, and Latawiec, 1997). The 100 foot width had been shown to be associated with 70% of better removal rate for pollutants. In Carroll, only the mainstem of the Ammonoosuc River is protected under the state's Shoreland Water Quality Protection Act, and the standards associated with the Act do not provide adequate protection.

- Amend the zoning ordinance to restrict the filling/drainage of wetlands. This was favored by a majority of survey respondents. Wetlands protect water quality by removing excess nitrogen and trapping sediments and associated contaminants, such as metals and phosphorous. Wetlands also help reduce floods by acting like a sponge, slowing runoff from upland areas and releasing water slowly, reducing peak flood flows downstream. During dry periods, wetlands help keep brooks flowing, because groundwater is often discharged into wetlands.
- Partner with the many organizations and businesses in town with an interest in the future of the community to ensure that implementation of the Master Plan benefits from the energy, talent and ideas of many. These include, for example, the Twin Mountain-Bretton Woods Chamber of Commerce, Twin Mountain Snowmobile Club, Twin Mountain - Bretton Woods Historical Society, White Mountain National Forest, and Appalachian Mountain Club.

## Town Facilities and Services

### Town Hall

The Town Hall is used for the town offices, town record storage, and library. In addition, there is a gymnasium used for sports and special events. The kitchen area provides space for meetings of town boards. The original building was built in 1895 as an elementary and high school with the gymnasium added in 1949. The school closed in 1968 and the building was renovated in



the early 1970s to be used as the Town Hall and offices. Because all offices were located on the second floor, and thus not handicap accessible, an addition of about 1,233 sq. feet was built in 2001 to house the Town Clerk/Tax Collector's and Selectmen's Offices, which allowed these to all be on the first floor.

Currently, neither the amount of office space nor the facility itself is adequate for today's needs. Energy efficiency is one of the primary concerns. The main boiler, though rebuilt about twenty years ago, is inefficient by today's standards and so uses an excessive amount of oil. Over 4,403 gallons of oil are used to heat the building. Electric use is also high as the lighting is out of date. Other issues include inadequate record storage, lack of usable space in the basement, lack of handicap access to the second floor, and some additional fire and safety concerns. In 1998, the town purchased approximately 13 acres adjacent to the Town Hall. Options have been explored for replacing the current building on the site. Respondents to the survey conducted in conjunction with this Master Plan indicated that the existing Town Hall is highly valued by residents. To explore this issue further, the Master Plan Committee and Planning Board hosted a workshop in November 2014 with the help of North Country Council staff. There were fifty-five participants in the workshop.

Participants in the Town Hall workshop identified these functions as important to have in Carroll's town hall:

- Administration of town, record keeping
- Gathering place – public & private functions that need large hall and kitchen
- Center/foundation of town, sense of community
- Place for youth recreation
- Place for seniors
- Food pantry
- Place for new residents to learn about the town
- Place of history
- Emergency services, shelter
- Library

The following attributes were identified by participants in the Town Hall workshop as what a town hall in Carroll needs to have in order to provide the functions and values listed above:

- Adequate office space
- Library space/shelves
- Hall for 200 people + kitchen + bathrooms
- Vault
- Meeting rooms/function spaces incl. gym and food pantry
- Energy efficiency/alt. energy sources/green
- Security system, lighting
- Parking, easy access to main roads
- Generator/shelter area
- Accessible to all residents

In addition to cost, workshop participants identified the following as important considerations in the decision of whether to renovate the existing Town Hall or replace it with a new structure:

- Sentiment
- Priorities for spending
- One building vs more than one
- What are other towns doing
- What would happen to existing town hall if build new one/demo costs
- Police and fire needs/benefits of complex
- Land costs
- Timeline/urgency
- Moving costs/ temporary office space
- Funding sources

## **Library**

The library, located in the Town Hall, currently provides books for all ages, audio books, movies and educational DVDs, and internet access. There is also a summer reading program for children, and a program for adults featuring local authors. The library would benefit from increased inventory and increased hours of operation. In addition, as discussed above, the facility is in need of modernizing and upgrading. The possibility of building a new library in combination with a historical society museum and meeting rooms has been explored.

## **Schools**

Carroll's school system is a part of the White Mountains Regional School District SAU #36 which includes Whitefield, Dalton, Jefferson, and Lancaster.

### **Grades K-8**

Whitefield K-8 School serves students from Whitefield, Dalton and Carroll. The 52,200 s.f. building was built in 1992. The Kindergarten program is a ½ day 5 day a week program; Grades 1-6 are in self-contained classrooms; and Grades 7-8 travel to different teachers in different subjects.

According to the **White Mountains Regional School District Assessment of Educational Facility Needs K-12**, prepared in 2007 by New Hampshire Administrators Association, the facility has limitations. These include: lack of separate locations for the cafeteria, gymnasium, and music area; the fact that the current playground is located away from the school building; a need for additional space for additional programs and support services; and uneven heating and ventilation system.

### **Grades 9-12**

Carroll's Grades 9-12 attend classes at White Mountains Regional High School. The High School was opened in 1966 and is located off of Route 3 on Regional Drive. The 109,085 s.f. one-story building sits on 391 + acres. This school offers a wide range of curriculum, including career and technology education, honors, and advanced placement. Students have the options of taking courses through Littleton High School's Technical Programs and New Hampshire Technical College.

According to the **White Mountains Regional School District Assessment of Educational Facility Needs K-12**, prepared in 2007 by New Hampshire Administrators Association, the facility has limitations. These include: the current classroom size of 750 s.f. does not meet the current guideline of 800 s.f.; the age, location and number of bathrooms / locker rooms in the facility are inadequate; there are an insufficient number of small work spaces to be used for teachers, meetings and department heads; there are locations that are not readily handicapped accessible; and current heating and ventilation system is poor and uneven.

### **Future Needs**

Based on the **White Mountains Regional School District Assessment of Educational Facility Needs K-12**, 2007, by New Hampshire Administrators Association, the current growth trends for the district are as follows:

From the 2009/10 school year to the 2013/14 year, the district has declined 6% in K-12 enrollment. It is predicted that over the next 5-10 years K-12 student enrollment will continue to decline. (New Hampshire Administrators Association)

## **Transportation**

### **Federal and State Highways**

In New Hampshire, public highways are divided into both “functional classes and “legislative classes.” These classes determine funding and responsibility for maintenance. According to NHDOT (2012), there are 19.354 miles of legislative Class I highway, or primary state highway, in Carroll. This is comprised of US 3 and US 302. US 302 is a principal arterial and US 3 is a minor arterial under the state’s functional classification system. In Carroll there are also 9.297 miles of Class II highway (DOT 2012), or secondary state highway. These are NH 115, Lennon Road, and Base Station Road. NH 115 functions as a minor arterial, while Lennon Road and Base Station Road are considered minor collectors. The cost of maintaining these highways is paid by the state. In addition, there are 7.139 miles of road maintained by the White Mountain National Forest (DOT 2012).

As shown below, traffic on US 3 has increased since 2007. In some locations, data indicate a slight decrease in between 2007 and the most recent counts. This may be due to the recession that began in 2007-2008 along high fuel prices decreasing travel. On US 3, data indicate an increase in traffic in the Twin Mountain area, but not at the town lines. Significant increases were seen on NH 115.

### Annual Average Daily Traffic

	2007	2008	2009	2010	2011	2012	2013	2014
<b>US 302 west to east</b>								
Bethlehem town line	2800			2400			2900	
East of US 3	3500			4200			4200	
Ammonoosuc River bridge	3200			2700			3900	
Carroll-Hart's Location town line		2200			2700			2300
<b>US 3 south to north</b>								
Bethlehem town line	4100			3200			4100	
South of US 302			4300			5100		
North of Fieldstone Lane (near Fire Dept.)	5600			5300			6400	
South of Ledoux Drive (near UPS)			4700			5300		
Whitefield town line			2500			2300		
<b>NH 115 south to north</b>								
0.75 miles east of US 3			2800			3300		
Jefferson town line			2600			3100		

(Source: NCC and NHDOT)



The Twin Mountain area of Carroll is at the crossroads of several Scenic Byways. The White Mountain Trail National Scenic Byway enters town on US 3 from Franconia and heads east on US 302 toward Bartlett. The same segment of US 302 is also part of the Presidential Range Trail, a state Scenic Byway. US 3 heading north from Twin Mountain to Whitefield, and NH 115 to US 2 to the north are also part of the Presidential Range Trail.

### Town Roads

The town is responsible for the maintenance of Class V highways. NHDOT records currently show 11.121 miles as of 2015, although several other roads have been accepted by the town in recent years bringing this figure up over 14 miles. Summer maintenance, such as road reconstruction and resurfacing, culvert replacements, roadside mowing, bridge repair and maintenance, and maintenance of street signs, and snowplowing and sanding in winter, are annual projects done by the town's Highway Department. Due in part to deferred maintenance, the estimated cost of needed improvements on town roads was estimated to be over \$1 million in 2013. A regular program of repair and maintenance such as is now being

established by the Road Agent is needed to eliminate the need for rehabilitation or reconstruction due to deferred maintenance. A Road Surface Management System (RSMS) such as the one supported by the UNH Technology Transfer Center is one way to prioritize improvements for incorporation into the town's capital improvement program. RSMS is a systematic computerized method for ensuring road maintenance funds are spent in the ways which will prove to be the wisest long term investment.

In addition to highways maintained by the state, town, US Forest Service, and the 14.219 miles owned and maintained by private landowners, Carroll also has 0.772 miles of Class VI highway. Class VI highways are public ways which have been discontinued or have not been maintained by the town for year-round travel for five or more years. (RSA 229:5 VI and VII). State law (RSA 674:41) provides that no permit can be issued for building on a Class VI road or private road not approved by the Planning Board unless the Selectboard votes to issue permits on that section of road and the applicant has filed a waiver of the town's responsibility for maintenance and liability for damages with the Registry of Deeds. The law also provides for the Selectboard to provide the Planning Board with an opportunity for review and comment. To ensure that relevant issues are discussed and considered by the two boards ahead of time, and that all applications are evaluated against the same criteria, it is recommended that communities adopt a Class VI highway ordinance.

### **Highway Garage**

The Highway Garage and Yard is adequate, except for a need for additional storage for seasonal equipment and spare parts for a variety of public works needs, including water main piping, valves, and hydrants. The suggestion has been made to negotiate with the federal government to acquire two buildings located off of Harmony Hill Road. These structures have not been used in years and the site is conveniently located in close proximity to the US 3/ US 302 intersection.

### **Other Modes of Transportation**

Nearby interstate highways provide residents, business and visitors to Carroll with access to large commercial airports in Montreal, Que. ; Manchester, N.H.; and Boston, Mass. In addition there are two small local airports. Twin Mountain Airport is a privately owned/public-use airport with a paved 2,640' x 60' runway. There is a small building that serves as a terminal building and a tiedown apron for aircraft. The Mount Washington Regional Airport is located nearby in Whitefield. The airport is equipped with a 4,001 x 75 foot paved runway with pilot activated lighting. Portions of the itinerant operations that occur during the summer months

are corporate turboprop/jet aircraft and charter aircraft that transport passengers to the Mount Washington Resort - Bretton Woods. The airport is operated and managed by the Mount Washington Regional Airport Commission, which is comprised of ten (10) surrounding Towns in a cooperative financial agreement to support the airport. The Town of Carroll is not currently a member of the Commission.

The nearest passenger rail connection is in White River Junction, Vermont. Freight rail in nearby Whitefield feeds into the Main Line connecting Portland to Montreal in Groveton.

Bus service to major cities can be accessed via Concord Coach Lines in Littleton or Berlin.

### **Assistance with Transportation**

A network of human service, health care and volunteer drivers meet some of the needs of the town's nondriving population. These include:

- American Cancer Society - rides to treatment with volunteer drivers
- Caleb Interfaith Volunteer Caregivers - rides for medical/recreational/social trips for seniors with volunteer drivers
- Easter Seals - services for the disabled
- Granite State Independent Living - services for the disabled
- Tri-Country CAP -North Country Transit - rides for seniors and the disabled
- Veterans Administration - Non-emergency medical rides for veterans

In addition, North Country Rideshare helps residents get access to the state's free on-line carpool matching service.

## **Water**

The Town of Carroll water system services a total of 415 lots throughout the Town and 6 lots in the town of Bethlehem. The current service area includes Route 3 South with branches to those roads off of Route 3 South. Route 3 North services Twin View Drive, Evan's Road to approximately halfway along the road, ending before the area known as the 'Flats'. There is no municipal water service to Lennon Road. Water service continues west on Route 302 to Blueberry Road with no service to Blueberry Road, and east to the lot of the location formerly known as Mooseland Grill. Portions of each zoning district - R-1, R-B, IND and RU - are served by the town water system.



In 1994, the source of water for the Carroll water distribution system changed from dams on the Little River in Bethlehem, serving the south end of town, and on Cherry Mountain Stream in Carroll, serving the north end of town, to three wells adjacent to the Ammonoosuc River at the site of the current Carroll Recreation Area. The distribution system was installed in the 1930s and 1940s, built by the WPA. The changes were mandated by the federal government requirements necessitating that Carroll discontinue both surface water sources. Of the three wells, only two are currently active and capable of providing 250,000 gallons of water per day. The current peak water use during the summer averages 100,000 gallons per day. The two operating wells are gravel packed wells at a depth of 60' to 70'. This location was near the mid-point of the distribution system. The piping from the wells is connected to the distribution system on Riverside Drive in front of Foster's Crossroads Store off Route 3. The dams at Little River and Cherry Mountain Stream were each replaced with 160,000 gallon water storage tanks that were sized to provide water and fire protection for the town through the existing fire hydrants and distribution system. The wells are controlled by a pump house located adjacent to the wells where metering, testing and treatment are conducted.

Although the distribution system was installed in the 1930s by the WPA, a number of water mains have been added as part of the development of specific subdivisions, including Ruth Road, Brian's View, Ridgeview Drive, Mahlyn Drive, Woodcrest, and Sugarloaf Drive. Other improvements have included extension of the water main to Route 3 from the Little River supply main, and upgrade of undersized piping along Little River Road for fire protection. Water waste has been greatly reduced by locating and repairing leaks that had been in place for many years. Upgrades to pump house and storage tank systems were recently made as well, including changes to the pumps to increase efficiency.

The system capacity at the wells, pump house and storage is adequate at this time to support growth in and around the Twin Mountain area of town. However there are needed upgrades to continue to provide a reliable and cost effective water system. Tank stirring systems need to be installed in the Little River and Cherry Mountain Tanks to prevent the water from freezing in the winter. Without stirring the water in the tanks, ice forms in the tanks and floats up and down within the tanks. This movement of ice causes abrasion of the fiberglass tank liner and can cause tank failure. Ice in the tanks reduces the capacity of liquid water to provide fire protection for the town in an emergency. The Little River Tank cannot currently have a tank stirring system installed because there is no electric power to the tank to operate a stirring system. Because there are several (21) owners of the right-of-way to the Little River Tank, and the tank is located in the town of Bethlehem, it has been very difficult to acquire the necessary permissions for installing electric power poles to bring electricity to the Little River Tank. Solving this problem is a priority since damage from ice has caused damage to the fiberglass

liner of this tank (which is in the process of being repaired). In addition, the town should own the land on which the water tanks are located.

The existing storage tanks can be expanded by extending them vertically. However, doing so would increase the static pressure of the water within the distribution system. Since much of the piping within the distribution system is over 80 years old and consists of a variety of materials (cast iron, transite, ductile iron, copper, galvanized, and plastic), increased water pressure would likely result in additional water main breaks. The replacement of the 2 inch piping along Route 302 west with 6 inch piping for fire protection has been identified as one of the highest priority improvements to the distribution system.

In addition, the river crossing in the Ammonoosuc River is in danger of failing since it is exposed to the ravages of changes in river water velocity and depth. There may be unknown leaks in the existing river crossing piping. Replacing this piping by punching a new main under the river is a great priority. Failure of the existing piping would cut off all water to the north of the river from the wells and the pump house.

### **Bretton Woods Water & Sewer**

Residential units at Bretton Woods and the Mount Washington Hotel are served by the Rosebrook Water Company. This system serves a population of 1,050 via 407 connections (NHDES). In 2014, the Public Utilities Commission approved the transfer of Rosebrook Water Company Stock from BW Land Holdings, LLC to REDUS NH Water Co., LLC, a holding company formed by Wells Fargo to assume ownership of the system as part of a foreclosure settlement against BW Land Holdings, LLC. Prior to the change in ownership there had been several compliance failures relative to PUC requirements. The PUC determined that the Wells Fargo-held REDUS NH Water Co., LLC will be able to properly manage the system.

The Bretton Woods development is provided wastewater treatment by Resort Waste Services. It is a nonprofit organization owned by the user members and run by a board of directors. They are currently completing an asset management study to look at capital needs.

### **Solid Waste**

At this time the Transfer Station is adequate for the disposal needs of the town.

## Emergency Services

### Police

The Police Department is currently in a rented building on US 3 South. Over the last ten years, different proposals brought before the town to build a new Police Station and/or a combination Police and Fire Safety Complex were rejected by voters. Most recently, in March 2015, voters rejected ballot

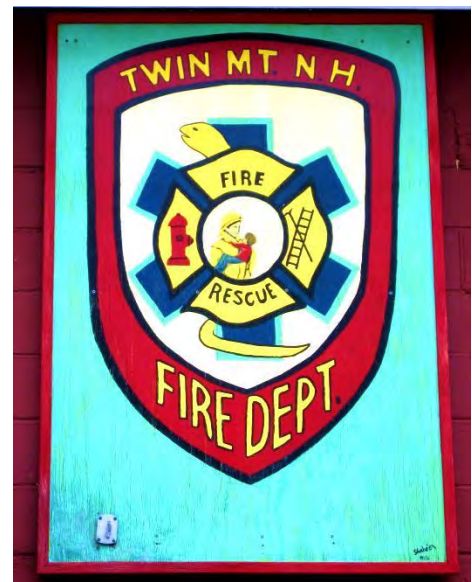


articles to expend funds to develop concept drawings and specifications for a Safety Complex or a combination Town Hall/Safety Complex. Survey responses showed that residents are of many different opinions as to the best approach to this need. Further work is needed to develop consensus on a plan.

### Fire

The current fire station building located in the Twin Mountain area of town contains one office section and another that houses apparatus etc. The office section has two offices, a training/general use room and one bathroom. The garage area has five bays across the front of the building and one located in the back. There is another bathroom and a kitchen area in that section. The building is handicapped accessible and contains an emergency generator.

There are currently unmet needs of concern to the Fire Department. One is that the current building is not large enough to house a ladder truck. A ladder truck is needed to provide fire protection to the Mount Washington hotel and Bretton Woods Condominiums. Another need is for a fire station nearer to the Bretton Woods area of town to improve response times and lower insurance rates. This could be achieved by either developing a town safety facility closer to Bretton Woods or by developing a substation in the Bretton Woods area, equipped with an ambulance and a piece of firefighting apparatus.



## **Ambulance**

The town provides its own ambulance service as part of the Fire Department. The two town-owned ambulances are housed at the Fire Station. There are two full-time Fire/Ambulance certified emergency personnel in addition to the volunteers.

## **Emergency Management**

In 1941 the Office of Civil Defense was established to coordinate civilian defense efforts with the Department of the Army during WWII. In the 1950's and early 1960's, known as the "Cold War", more emphasis was placed on regional and local efforts to protect the homeland and citizens from harm and disruption that might result from nuclear war. Those of us growing up in those years can recall school house drills encompassing "Duck and Cover" and the ubiquitous bright yellow and black "Fallout Shelter" sign in every school and public building across the United States directing us to safety. Communities sounded daily Air Raid signals atop public building and fire stations, and local radio and TV stations broadcast monthly checks of the "Conelrad" radio system. In the early 1980's as the threat of nuclear war diminished, and the "Cold War" receded in memory, more emphasis was placed on preparing measures to mitigate the effects of natural and manmade disasters. Civil Defense morphed into a new agency called Emergency Management.

In accordance with federal and state laws, the Town of Carroll established as part of their local government, the position of Emergency Management Director (EMD) for the town. The EMD serves directly under the Selectboard and his duties include coordinating the town's response to natural and manmade disasters.

## **Emergency Operations Plan (EOP)**

The town of Carroll last completed an EOP in 2008. The EOP follows a model developed by the NH Department of Safety, Office of Emergency Management. This plan describes the basic mechanisms and structures by which the Town of Carroll would respond to potential and actual emergencies. To facilitate an effective response to a critical incident, the EOP incorporates a functional approach that groups the types of assistance to be provided into Emergency Support Functions (ESFs) (i.e., communications, transportation, shelter, etc.). Each ESF is assigned a primary or co-primary agency based upon current roles and responsibilities. Other departments may be designated in a support role. For example in the case of a ski lift derailment, the Fire Department would be primary and the EMS would be co-primary departments in-charge. The

Police Department, Highway Department and Health Officer would support their efforts, to ensure a positive and effective response.

The following natural or man-made hazards are the prime consideration of the Emergency Operations Plan:

Multiple Vehicle Accident	Haz Mat Incident
Snow and Ice Events	Long Term Power Outage
Flooding/Major Erosion	Landslide
Water Disruption/Outage	Wind Storm
Hurricane	Forest Fire
Train Wreck/Derailment (Cog)	Major Food Borne illness
Plane Crash	Bomb Threat/Blast
Nuclear/Biological/Chemical Threat	Pandemic

The Emergency Operations Plan should be reviewed and updated at least every two to three years to ensure that accurate and timely information is available for stakeholders when important decisions are contemplated. Exercises on a variety of scenarios are also important for training and for identifying any gaps in the plan.

### **Emergency Operations Center (EOC)**

It is imperative that the town of Carroll establish and maintains an Emergency Operations Center as part of the emergency preparedness program. The EOC is where department heads, government officials and volunteers gather to coordinate their response to a critical incident. The EOC goes into operation when elected officials decide that the situation is serious enough to require a coordinated and other-than-routine response is warranted. Plans are developing to possibly establish an EOC in the current fire station. Any new government buildings contemplated in the future should consider the possibility that they also house an EOC or a shelter for residents in time of an emergency.

### **Emergency Shelter**

Currently the town does not maintain a shelter for residents or potential victims of disasters or critical incidents. Town officials need to consider protecting its vulnerable citizens and employees in order to preserve life and property.

## Hazard Mitigation Plan

Hazard mitigation plans identify ways that the community can reduce the losses of life and property when an extreme weather event or other disaster occurs. The Selectboard has recently adopted the *CARROLL HAZARD MITIGATION PLAN UPDATE 2014*. There are many benefits to implementation of this plan. Implementation will be a benefit to residents, businesses, visitors and property owners in terms of safety and protection of property. In addition, unnecessary cost to tax payers will be prevented. And finally, implementation increases safety for the emergency responders who must risk their lives to try to save people and property during disasters.

## Cemeteries

The town is responsible for three cemeteries: Crawford, Rosebrook, and Straw. The town's cemeteries have great historical value as many important figures in the history of the White Mountains are buried here. The Board of Cemetery Trustees has been implementing a ten year plan to restore and regularly maintain the cemeteries. In addition to landscaping and entrance improvements, the work to restore broken and leaning stones is nearly complete. The final restoration step will be an acid cleaning of all stones. In addition, gravesites are being cataloged. Capacity is not an issue. The Board of Trustees reports that there are 500 plots available that can potentially accommodate 2,000 people.

## Recreation

The town recreation area is located off of US 3 on Lake Road.

The Recreation

Committee strives to provide a positive, enjoyable community experience through

all of their traditional and nontraditional activities and facilities. The recreation area includes a playground, basketball court, baseball and recreational field. Activities include a summer camp program for the children of Carroll and surrounding towns. Some modernizing and upgrading is also needed. In addition, the recreation area would benefit greatly from a pool instead of the small pond currently used for swimming, and an area for a skating rink for winter activities.



*Town of* **CARROLL**  
**RECREATION AREA**

Residents of and visitors to Carroll also have an abundance of four-season outdoor recreation opportunities offered by the White Mountain National Forest, Bretton Woods Ski Resort, AMC Highland Center, the Ammonoosuc River, and a network of multi-use trails. Together these provide access to fishing, hiking, snow-shoeing, cross-country and downhill skiing, snowmobiling, camping, nature study, and golf. There is also a group in town working toward providing access to the region's ATV trail network from Carroll.

## **Broadband and Telecommunication Service**

In the Twin Mountain area of the town of Carroll telephone service other than wireless is provided by Fair Point Communications . Service is provided through land line connections that are supported by the telephone pole infrastructure in town. Fair Point Communications also provides broadband, internet service via a 2-wire copper telephone line known as Digital Service Line (DSL). Broadband is defined as access that is at least 768 kbps downstream and 200 kbps upstream.

Time Warner provides coaxial cable service that includes TV, internet, telephone service, and home security to the Twin Mountain community.

The Bretton Woods area of the town of Carroll receives voice, video and data service through Bretton Woods Telephone Company, a privately owned and operated company. The Bretton Woods infrastructure is 100% optical fiber. There are 52 TV channels available to its customers of Bretton Woods Telephone Company with video entertainment available as well. The company provides both local and long distance telephone service. Future plans only include the expansion of the optical fiber network to any future development in Bretton Woods.

## **Facilities Recommendations**

### **Town Hall**

- Continue to explore the cost and feasibility of renovating the existing Town Hall/Library in comparison with a replacement facility on the same site.

### **Schools**

- Continue to participate in the regional school system, making necessary facility upgrades as needed for health and safety and future success of graduates.

## **Transportation**

- Explore the purpose of land and buildings off of Harmony Hill Road for additional public works storage.
- Stay abreast of federal and state transportation program and funding sources, and advocate for Carroll's needs to NHDOT and the North Country Transportation Advisory Committee.
- Explore utilizing a road surface management system to prioritize/time the backlog of needed road improvements in the most cost effective manner.
- The Selectboard and Road Agent should continue to regularly evaluate the maintenance needs of town roads, and budget to perform needed maintenance in a timely manner to ensure that deferred maintenance does not result in additional cost to the tax payer.
- The Selectboard and Road Agent should update NHDOT annually when any private roads have been accepted as town roads to ensure that the increased Class V mileage is used in block grant aid calculations.
- The Planning Board should ensure that private roads built for subdivisions are built to appropriate standards through the approval and inspection process, and that they have an entity and funding mechanism in place to perform ongoing maintenance if/while the road remains private.
- The Selectboard and Planning Board should work together on a town policy regarding building on a Class VI road.
- Carroll leaders should advocate for residents' needs in regional transportation planning initiatives through such means as representation on the North Country Transportation Advisory Committee and input to the Grafton-Coos Regional Coordination Council.

## **Water**

- Acquire the land under both water tanks.
- Acquire the rights to install the electric service needed to install tank stirring systems and install in both tanks. Ice formation diminishes storage capacity and damages the tank liners.
- Replace the main under the Ammonoosuc River; it is a crucial link between the water system's two tanks.
- Upgrade the 2" main along US 302 West to 6" and extend to and up Blueberry Hill.
- Construct water main along Lennon Road and down NH 115. This would require a booster pump station.



- Replace water main along Parker Road and Parker Road extension along its entire length. The existing main consists of several kinds and sizes of water mains making it difficult to procure parts when repairs are needed.
- Develop a plan for upgrading the distribution system and implement the plan over a number of years based on residents' ability to absorb the costs.
- When considering expansions of the service area, prioritize those zoning districts where business development and dense residential development are desired.

### **Emergency Management**

- Update the Emergency Operations Plan and review it annually.
- Conduct emergency response exercises annually with area towns.
- Establish an Emergency Operations Center.
- Establish an emergency shelter with a generator.
- Review the Hazard Mitigation Plan annually to identify opportunities for implementation.

### **Emergency Services**

- Address the lack of fire protection in closer proximity to Bretton Woods.
- Address the need for a ladder truck and a facility in which to house it.
- Continue plans for a new town-owned safety complex to house fire, police, and ambulance equipment.

### **Cemeteries**

- Continue regular maintenance.

### **Recreation**

- Continue a regular program of modernizing and upgrading the town recreation area.
- Replace the pond with a pool.
- Create an area for a skating rink in the winter.

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## Appendix A NRI Tables

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**Monthly Averages for**  
**Twin Mountain, NH (03595)**  
 [ English | [Metric](#) ]

**The Weather Channel**

<b><u>Jan</u></b>	25°F	5°F	15°F	4.65 in.	64°F (1950)	-31°F (1957)
<b><u>Feb</u></b>	29°F	8°F	19°F	4.21 in.	62°F (1994)	-28°F (1962)
<b><u>Mar</u></b>	36°F	16°F	26°F	4.61 in.	70°F (1998)	-19°F (2007)
<b><u>Apr</u></b>	49°F	29°F	39°F	5.46 in.	86°F (1990)	-6°F (1974)
<b><u>May</u></b>	61°F	40°F	51°F	5.19 in.	89°F (1962)	17°F (1968)
<b><u>Jun</u></b>	70°F	49°F	60°F	5.29 in.	90°F (1995)	26°F (1988)
<b><u>Jul</u></b>	74°F	54°F	64°F	5.05 in.	93°F (1982)	32°F (1968)
<b><u>Aug</u></b>	73°F	52°F	63°F	5.35 in.	91°F (1975)	31°F (2000)
<b><u>Sep</u></b>	66°F	45°F	56°F	4.97 in.	92°F (2002)	21°F (1980)
<b><u>Oct</u></b>	54°F	34°F	44°F	6.56 in.	82°F (1963)	3°F (1972)
<b><u>Nov</u></b>	42°F	25°F	34°F	5.63 in.	73°F (1950)	-5°F (1989)
<b><u>Dec</u></b>	31°F	13°F	22°F	5.19 in.	67°F (2001)	-21°F (1980)

# Summary Political Unit Acreage Report

Date Generated: 06/27/2008

Reporting Units: acres

## Town of Carroll

FIPS	7030
Town Name	Carroll
County	Coos
RPC	North Country Council
Total Acreage	32187.5
Land Area	32079.1
Surface Water Area	108.4

# Summary Shoreline Buffer Acreage Report

Date Generated: 03/16/2012

Reporting Units: acres

## Town of Carroll

Acreages presented here are based on surface water features selected from the New Hampshire Hydrography Dataset (see metadata for a listing of the FCODES used) and may differ from previously reported totals.

<b>FIPS</b>	<b>7030</b>
<b>Town Name</b>	<b>Carroll</b>
<b>County Name</b>	<b>Coos</b>
<b>Total Acreage</b>	<b>32187.5</b>
<b>Surface Water Acreage</b>	<b>108</b>
<b>Perennial/Intermittent Streams and Shoreline Length (feet)</b>	<b>1028507.4</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 50ft</b>	<b>2184.7</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 100ft</b>	<b>4325.2</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 150ft</b>	<b>6405</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 200ft</b>	<b>8396.8</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 250ft</b>	<b>10278.8</b>
<b>Perennial/Intermittent Streams and Shoreline Buffer at 300ft</b>	<b>12057.2</b>
<b>Perennial Streams and Shoreline Length (feet)</b>	<b>350569.5</b>
<b>Perennial Streams and Shoreline Buffer at 50ft</b>	<b>643.3</b>
<b>Perennial Streams and Shoreline Buffer at 100ft</b>	<b>1275.9</b>
<b>Perennial Streams and Shoreline Buffer at 150ft</b>	<b>1897.5</b>
<b>Perennial Streams and Shoreline Buffer at 200ft</b>	<b>2509</b>
<b>Perennial Streams and Shoreline Buffer at 250ft</b>	<b>3108.6</b>
<b>Perennial Streams and Shoreline Buffer at 300ft</b>	<b>3696.9</b>

# Summary Palustrine Wetlands Acreage Report

Date Generated: 03/16/2012

Reporting Units: acres

## Town of Carroll

FIPS	7030
Town Name	Carroll
Town Acres	32187.5
Emergent Wetlands	93.1
Forested Wetlands	347.9
Scrub-Shrub Wetlands	399.6
Other Palustrine Wetlands	43.1
Total Palustrine Wetlands	883.7
Percent of Town	2.7





Town	Species or Community Name	Listed? Federal	State	# reported last 20 yrs Town	State
<b>Carroll</b>					
<b>Natural Communities - Terrestrial</b>					
***	High-elevation spruce - fir forest system	-	-	1	10
<b>Natural Communities - Palustrine</b>					
	Acidic riverside seep	-	-	Historical	4
**	Moderate-gradient sandy-cobbly riverbank system	-	-	1	8
**	Sugar maple - ironwood - short husk floodplain forest	-	-	1	6
<b>Plants</b>					
***	Broad-leaved Twayblade ( <i>Neottia convallarioides</i> )	-	T	1	23
*	Heart-leaved Twayblade ( <i>Neottia cordata</i> )	-	T	1	23
	Hidden Sedge ( <i>Carex umbellata</i> )	-	E	Historical	12
	Inflated Sedge ( <i>Carex bullata</i> )	-	E	Historical	5
	Kidney-leaved Violet ( <i>Viola nephrophylla</i> )	-	E	Historical	8
	Mountain Firmoss ( <i>Huperzia appressa</i> )	-	E	Historical	14
	One-leaf Orchis ( <i>Amerorchis rotundifolia</i> )	-	E	Historical	1
	Scirpus-like Sedge ( <i>Carex scirpoidea</i> )	-	T	Historical	13
	Viviparous Knotweed ( <i>Bistorta vivipara</i> )	-	E	Historical	5
<b>Vertebrates - Mammals</b>					
**	American Marten ( <i>Martes americana</i> )	-	T	1	144
	Northern Bog Lemming ( <i>Synaptomys borealis sphagnicola</i> )	-	SC	Historical	3

Listed?	E = Endangered	T = Threatened	SC = Special concern	M = Monitored
Flags	**** = Highest importance *** = Extremely high importance ** = Very high importance * = High importance	These flags are based on a combination of (1) how rare the species or community is and (2) how large or healthy its examples are in that town. Please contact the Natural Heritage Bureau at (603) 271-2214 to learn more about approaches to setting priorities.		

## Annual Total Spending by Spending Category

### Annual Total Spending Associated with National Forest Visits\* by Spending Category†

Spending Category‡	Total Spending Associated with Non-Local§ Visits (\$1,000s)	Total Spending Associated with Both Local and Non-Local§ Visits (\$1,000s)
Lodging	40,004	40,959
Restaurant	24,205	26,240
Groceries	14,675	16,446
Gas & Oil	18,468	21,865
Other Transportation	763	795
Activities	10,622	11,991
Admissions/Fees	15,132	17,289
Souvenirs/Other	8,963	10,106
Total	132,832	145,690

Select Forests	Round 2
White Mountain NF (FY 2005)	

\* A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A National Forest Visit can be composed of multiple Site Visits.

† Dollar figures are expressed in 2007 dollars and include spending on the forest and within 50 miles of the forest boundary. Spending associated with "non-primary" visits is not included.

‡ Definitions of the spending categories are available in "Spending Profiles of National Forest Visitors, NVUM Four-year Report" by D.J. Stynes and E.M. White (2005), available online: <http://www.fs.fed.us/recreation/programs/nvum/NVUM4YrSpending.pdf>.

§ "Non-local" visits are those where the individual(s) traveled greater than approximately 50 miles from home to the site visited.

Individuals are urged to consult an economist when interpreting the NVUM economic tables.

**TABLE 2-1. Species of greatest conservation concern. E = NH endangered (List revised 2001), T = NH threatened (List revised 2001), SC = NH species of special concern (List revised 2000), RC = Regional conservation concern (Therres 1999), FE = Federally endangered (current 8/05), FT = Federally threatened (current 8/05), BGP = Only included in the New Hampshire Big Game Management Plan (Appendix E)**

TAXA		
Invertebrates	Fish (continued)	Birds (continued)
Freshwater molluscs	Swamp darter	Nelson's sharp-tailed sparrow, SC
Brook floater, E, RC	Tessellated darter	Northern goshawk
Dwarf wedgemussel, E, FE	Amphibians	Northern harrier, E, RC
Eastern pondmussel, RC	Bluespotted salamander, RC	Osprey, T
Insects	Fowler's toad, SC	Palm warbler
Barrens itame	Jefferson salamander, SC, RC	Peregrine falcon, E
Barrens xylotype	Marbled salamander, E	Pied-billed grebe, E, RC
Broad-lined catoprytha	Mink frog	Piping plover, E, FT
Cobblestone tiger beetle, T	Northern leopard frog, SC, RC	Purple finch
Cora moth	Reptiles	Purple martin, E
Frosted elfin butterfly, E	Black racer	Purple sandpiper
Karner blue butterfly, E, FE	Blanding's turtle, SC, RC	Red shouldered hawk, SC
Persius duskywing, E	Eastern box turtle, RC	Roseate tern, E, FE
Phyllira tiger moth	Eastern hognose snake, T, RC	Ruffed grouse
Pine barrens zanclognatha moth, T	Ribbon snake, RC	Rusty blackbird, SC
Pine pinion moth, T	Spotted turtle, SC, RC	Salt marsh sharp-tailed sparrow, SC, RC
Puritan tiger beetle, FT	Smooth green snake, SC	Seaside sparrow, SC
Ringed boghaunter, E	Timber rattlesnake, E, RC	Sedge wren, E, RC
Sleepy duskywing	Wood turtle, SC, RC	Semipalmated sandpiper
White Mountain arctic	Birds	Spruce grouse
White Mountain fritillary	American bittern, RC	Three-toed woodpecker, T
Vertebrates	American black duck	Turkey, BGP
Fish	American pipit, SC	Upland sandpiper, E, RC
Alewife	American woodcock	Veery <sup>2</sup>
American brook lamprey, RC	Arctic tern, T	Vesper Sparrow
American eel	Bald eagle, E, FT	Whippoorwill, SC, RC
American shad	Bay-breasted warbler	Willet, SC
Atlantic salmon	Bicknell's thrush, SC, RC	Wood thrush <sup>2</sup>
Atlantic sturgeon, RC	Black guillemot, SC	Mammals
Banded sunfish, RC	Canada warbler <sup>2</sup> , RC	American marten, T
Blueback herring	Cerulean warbler, RC	Black bear, BGP
Bridle shiner, RC	Common loon, T	Bobcat, SC
Burbot	Common nighthawk, T	Canada lynx, E, RC, FT
Eastern brook trout	Common tern, E, RC	Eastern pipistrelle, SC
Finescale dace	Cooper's hawk, T	Eastern red bat, SC, RC
Lake trout	Common moorhen	Eastern small-footed bat, E, RC
Lake whitefish	Eastern meadowlark	Hoary bat, SC, RC
Northern redbelly dace	Eastern towhee	Indiana bat, FE
Rainbow smelt	Golden eagle, E, RC	Moose, BGP
Redfin pickerel	Golden-winged warbler, SC, RC	New England cottontail, SC, RC
Round whitefish, RC	Grasshopper sparrow, T	Northern bag lemming, SC, RC
Sea lamprey	Great blue heron	Northern myotis
Shortnose sturgeon, E, FE	Horned lark	Silver-haired bat, SC, RC
Slimy sculpin	Least bittern, SC	White-tailed deer, BGP
Sunapee trout, E	Least tern, E, RC	Wolf, FT

<sup>1</sup>In addition to the above species of greatest conservation concern, a non-breeding birds profile was completed to assess concentrated wintering and migratory areas of New Hampshire.

<sup>2</sup>Canada warbler, veery, and wood thrush assessments were incorporated into matrix forest habitat profiles (See Appendix B).

TABLE A - FINE TEXTURED SOILS

(Compiled from USDA-NRCS NH Statewide Numerical Soils Legend, April 2010)

County Name	Map Unit Symbol	Map Unit Name	Parent Material	Drainage Class
Coos	406A	Medomak, frequently flooded	Silty Alluvial	very poorly
Coos	433A	Grange, poorly drained		poorly
Coos	505A	Cohas, occasionally flooded		poorly
Coos	549A	Peacham, very stony	Alluvial	very poorly
Coos	589A	Cabot		poorly
Coos	589B	Cabot		poorly
Coos	589C	Cabot	Firm, compact, silty, till	poorly
Coos	590A	Cabot, very stony		poorly
Coos	590B	Cabot, very stony		poorly
Coos	590C	Cabot, very stony	Firm, compact, platy till, 3-8% slopes	poorly
Coos	633A	Pemi		poorly
Coos	646A	Pillsbury, poorly drained		poorly
Coos	646B	Pillsbury, poorly drained	Firm, compact, platy till, 3-8% slopes	poorly
Coos	646C	Pillsbury, poorly drained		poorly
Coos	647A	Pillsbury, poorly drained, very stony		poorly
Coos	647B	Pillsbury, poorly drained, very stony	Firm, compact, platy till, 3-8% slopes	poorly
Coos	647C	Pillsbury, poorly drained, very stony		poorly
Coos	768A	Peacham-Wonsqueak-Cabot association, extremely stony		poorly
Coos	769B	Monarda-Burnham association, very stony	Firm, compact, silty, till	very poorly
Coos	770B	Monarda-Telos association, very stony		poorly
Coos	825B	Pillsbury-Peacham-Peru association, very stony		poorly
Coos	832A	Peacham-Wonsqueak-Pillsbury association, extremely stony	Firm, compact, platy till, 3-8% slopes	poorly
Coos	865B	Bemis-Surplus association, very stony		very poorly
Coos	895A	Bucksport		poorly
Coos	964B	Howland-Cabot association, very stony	Muck Organic Freshwater	very poorly
Coos	965B	Cabot-Howland association, very stony		poorly
Coos	105A	Rumney, frequently flooded		poorly
Coos	209A	Charles, frequently flooded	Alluvial	poorly
Coos	600	Endoaquents, loamy		poorly
Coos	224C	Bemis, very stony		poorly
Coos	246B	Lyme	Loamy Alluvial	poorly
Coos	247A	Lyme, very stony		poorly
Coos	247B	Lyme, very stony		poorly
Coos	247C	Lyme, very stony	Firm, compact, platy till, 8-15% slopes	poorly
Coos				poorly
Coos				poorly
Coos			Firm, compact, platy till, 3-8% slopes	poorly
Coos				poorly
Coos				poorly
Coos			Loose or firm loamy till, 3-8% slopes	poorly
Coos				poorly
Coos				poorly
Coos			Loose or firm loamy till, 8-15% slopes	poorly
Coos				poorly
Coos				poorly

# Summary Forest Soil Group Acreage Report

Date Generated: 11/03/2011

Reporting Units: acres

## Official Data for the Town of Carroll

Areas within the White Mountain National Forest in Coos County are not mapped by NRCS.

FIPS	7030
Town Name	Carroll
County Name	Coos
Status	Official
Total Acreage	32187.5
Mapped Soil Acreage	15416.2
IA (deeper, loamy textured, moderately well, and well-drained	6176.4
IB (sandy or loamy over sandy textures and slightly less fertile than those in group IA)	1918.5
IC (outwash sands and gravels, somewhat excessively to excessively drained and moderately well drained)	2099.9
IIA (similar to groups IA and IB, except physically limited due to steep slopes, bedrock outcrops, etc.)	794.2
IIB (poorly drained soils, seasonal high water table generally within 12" of surface)	3135.8

# Summary Soil Farmland Class Acreage Report

Date Generated: 11/05/2007

Reporting Units: acres

## Official Data for the Town of Carroll

FIPS	7030
Town Name	Carroll
County Name	Coos
Status	Official
Total Acreage	32187.5
	15598.4
Prime farmland	409.7
Farmland of local importance	3036
Farmland of statewide importance	78.5
Conditional prime farmland	0

## Appendix B NRI Maps

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# NH GRANIT DATA MAPPER

## Land Conservation: Conservation Land Carroll



**Legend**

<p><b>Routes</b></p> <ul style="list-style-type: none"> <li>Interstate</li> <li>US Route</li> <li>State Route</li> <li>Turnpike</li> </ul> <p><b>Political Boundaries</b></p> <ul style="list-style-type: none"> <li>State</li> <li>County</li> <li>Town</li> </ul>	<p><b>Streams</b></p> <ul style="list-style-type: none"> <li>Perennial Stream</li> <li>Intermittent Stream</li> <li>Canal/Ditch</li> </ul> <p><b>Lakes</b></p> <ul style="list-style-type: none"> <li>Lake/Pond</li> <li>Reservoir</li> </ul>	<p><b>Rivers</b></p> <ul style="list-style-type: none"> <li>River</li> <li>Canal/Ditch</li> </ul> <p><b>Conservation Lands</b></p>
---	---	--



Location Map



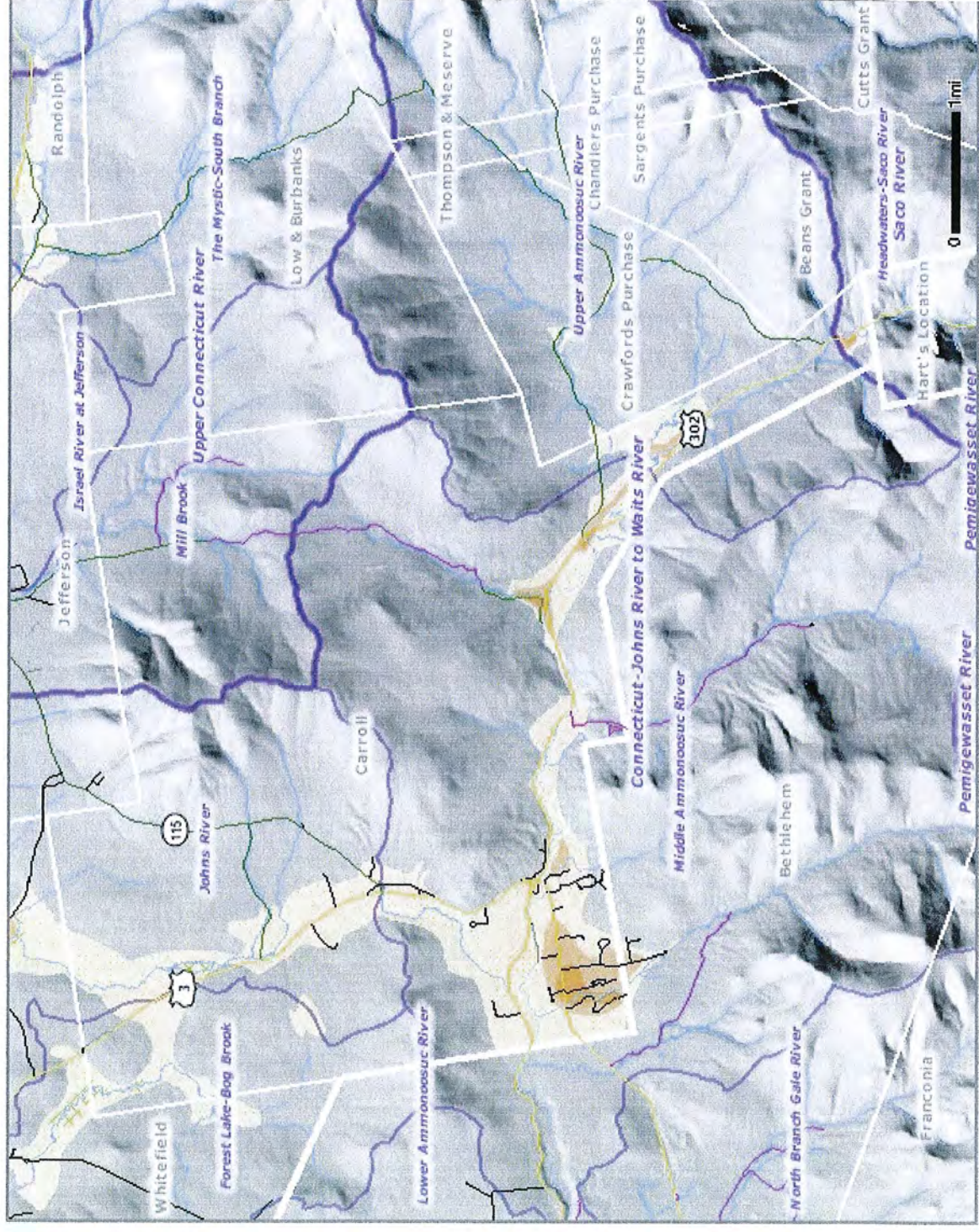
Map Produced:  
March 16, 2012





# NH GRANIT DATA MAPPER

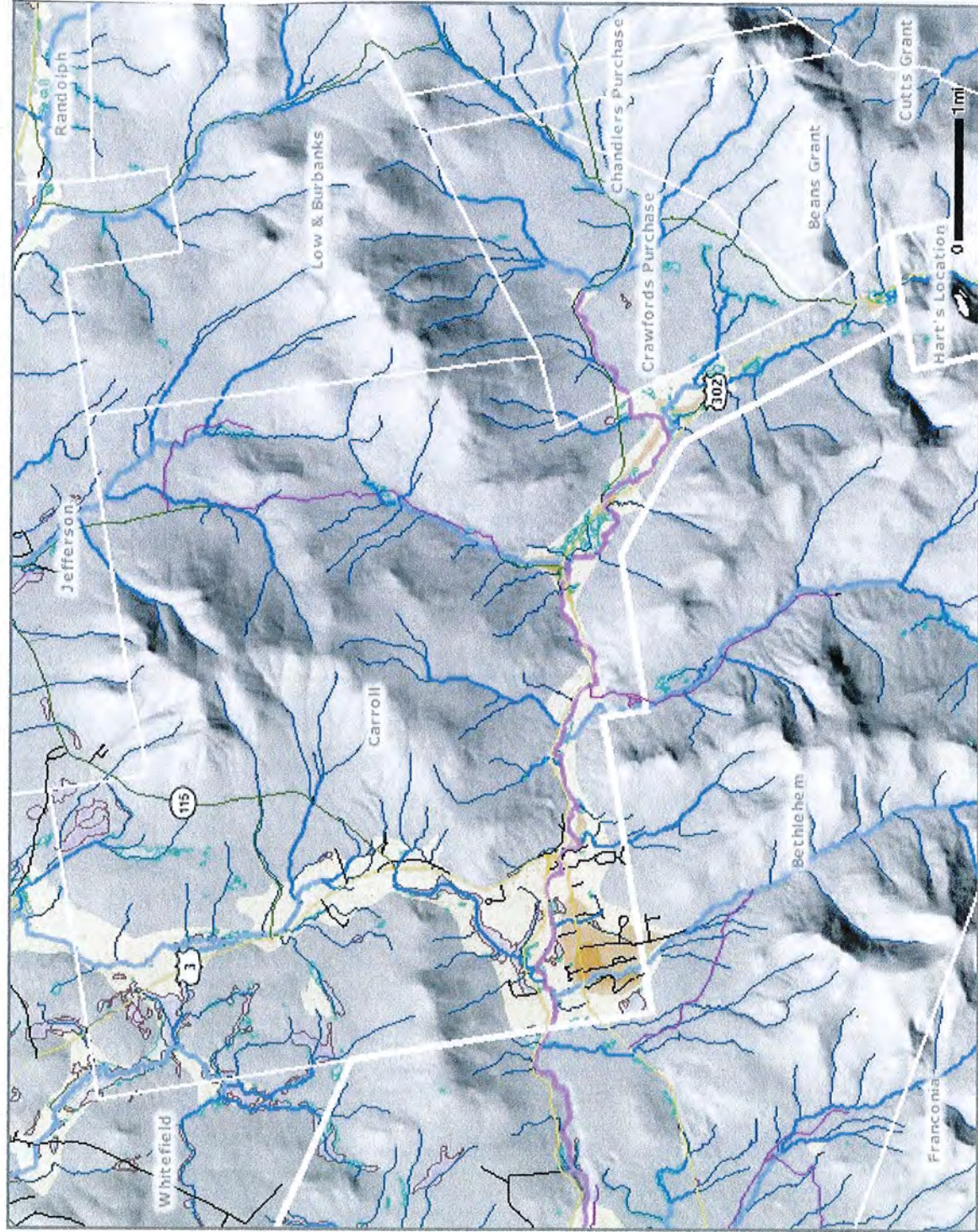
## Water Resources: Aquifers/Watersheds





# NH GRANIT DATA MAPPER

## Water Resources: Water Sources



### Legend

#### Roads

- Class I: primary system
- Class II: secondary system
- Class III: state recreational
- Class IV: within compacts
- Class V: municipal
- Class VI: unmaintained municipal
- Class VII: federal highway

#### Political Boundaries

- State
- County
- Town

#### Stream Order: All

- 1st Order Stream
- 2nd Order Stream
- 3rd Order Stream
- 4th Order Stream
- 5th Order Stream
- 6th Order Stream
- 7th Order Stream

#### Water Bodies

- Lake/Pond
- Reservoir
- Swamp/Marsh

#### Other Water Features

- River
- Spillway
- Inundation Area
- Dam/Weir
- Canal/Ditch
- Rapids

#### Hydric Soils

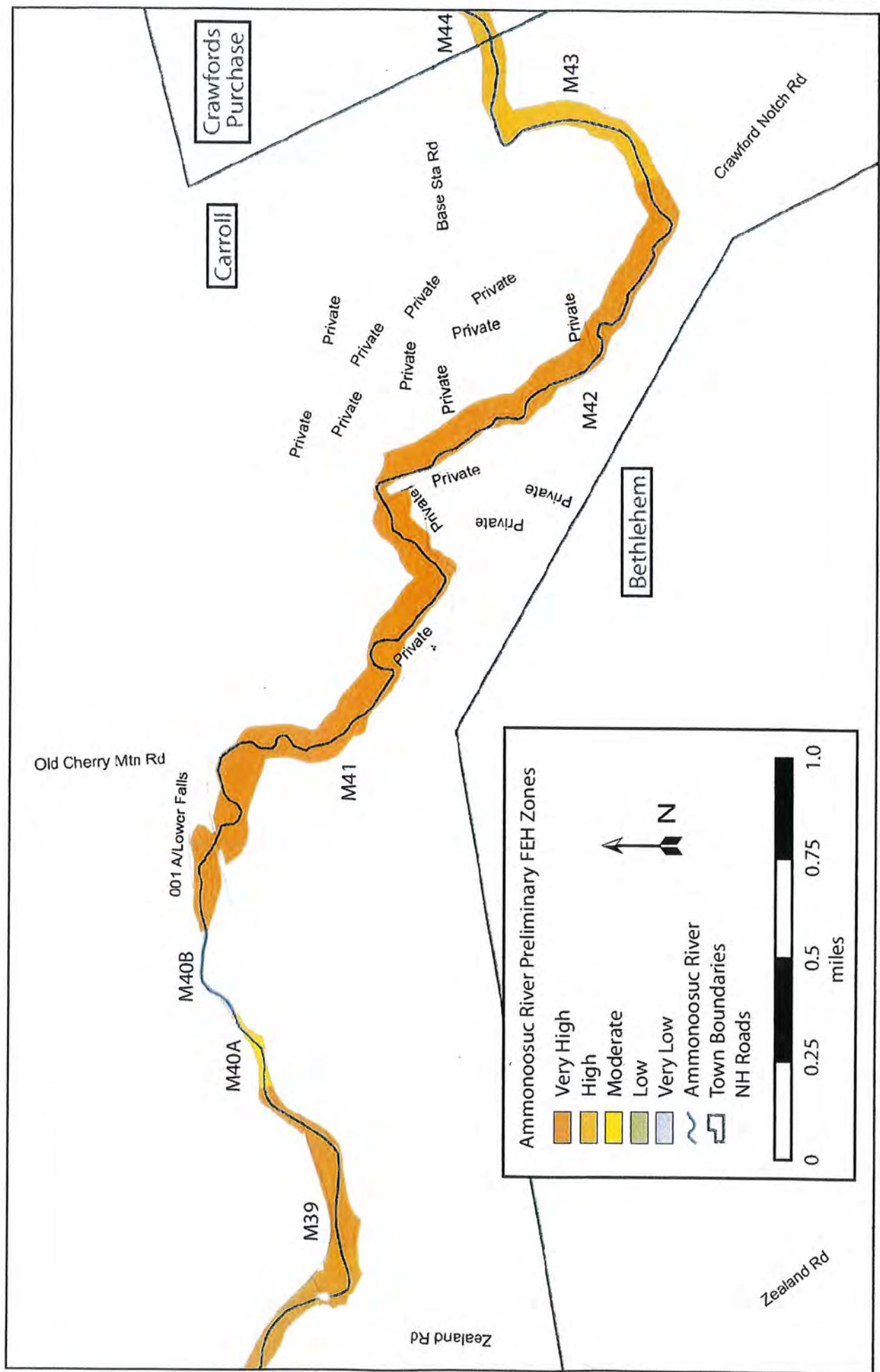
#### Wetlands

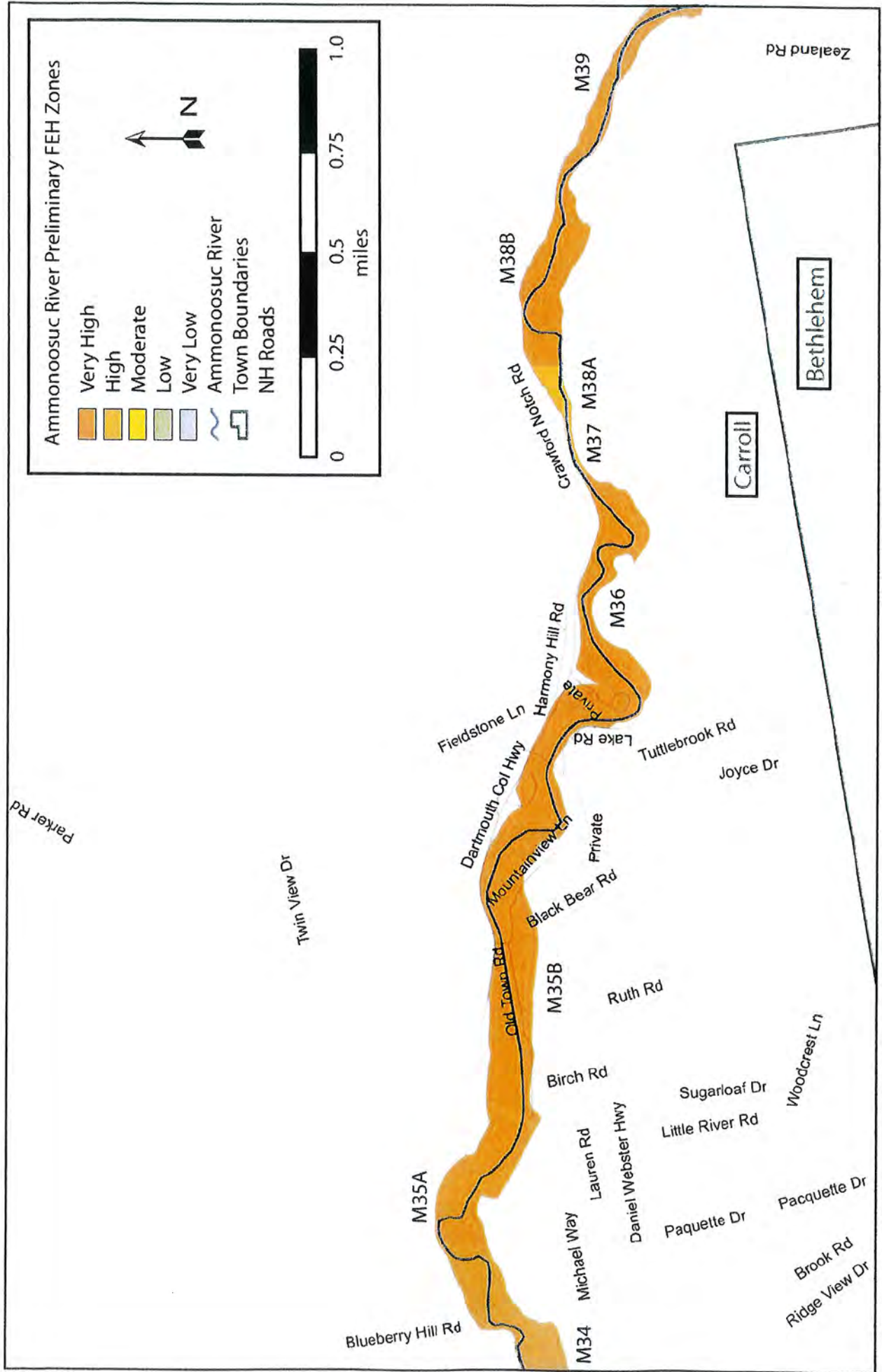
- Estuarine
- Lacustrine
- Marine
- Palustrine
- Riverine

#### Aquifer Transmissivity

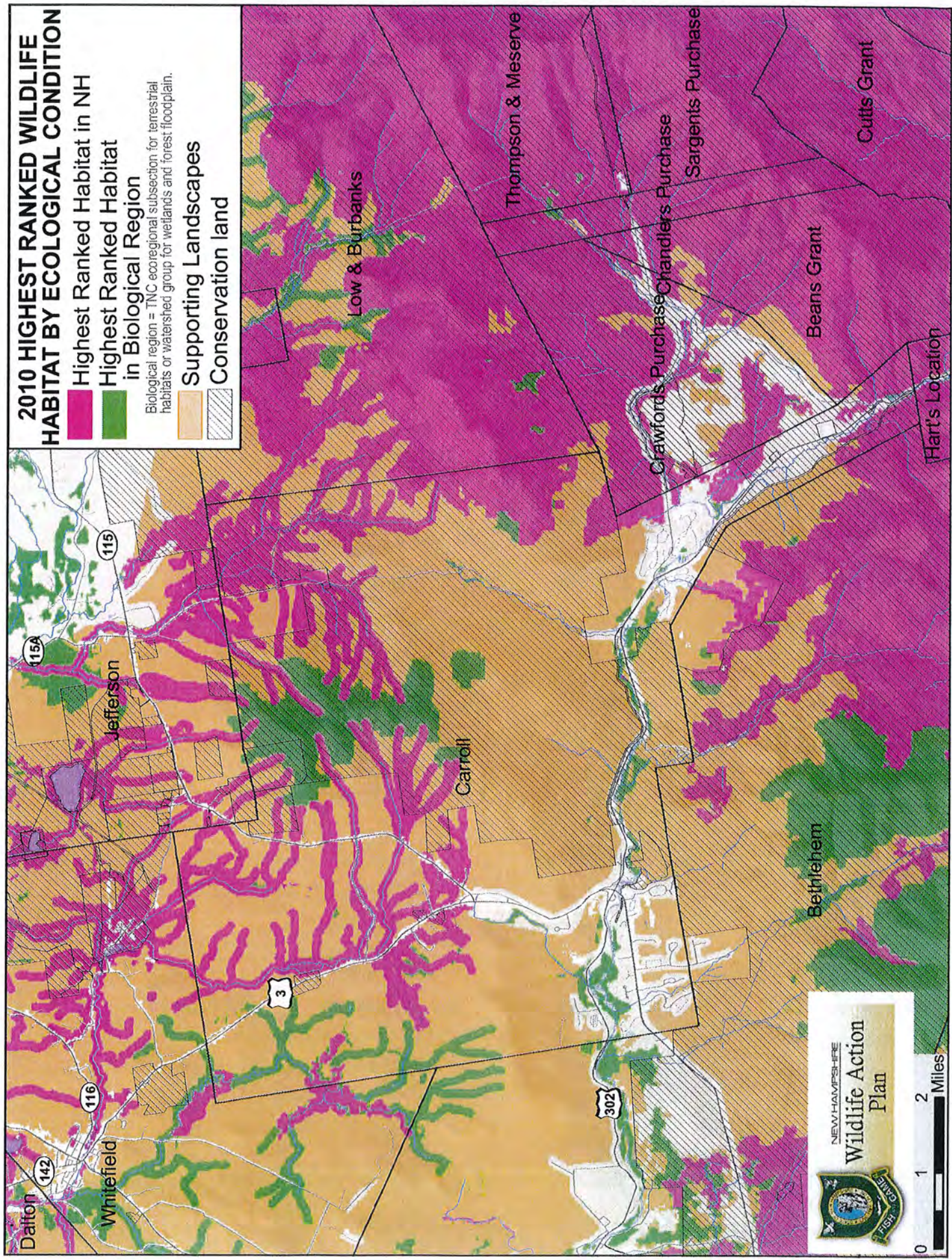
- Less than 2000 ft<sup>2</sup>/day
- 2000-4000 ft<sup>2</sup>/day
- Greater than 4000 ft<sup>2</sup>/day












NEW HAMPSHIRE  
Wildlife Action  
Plan



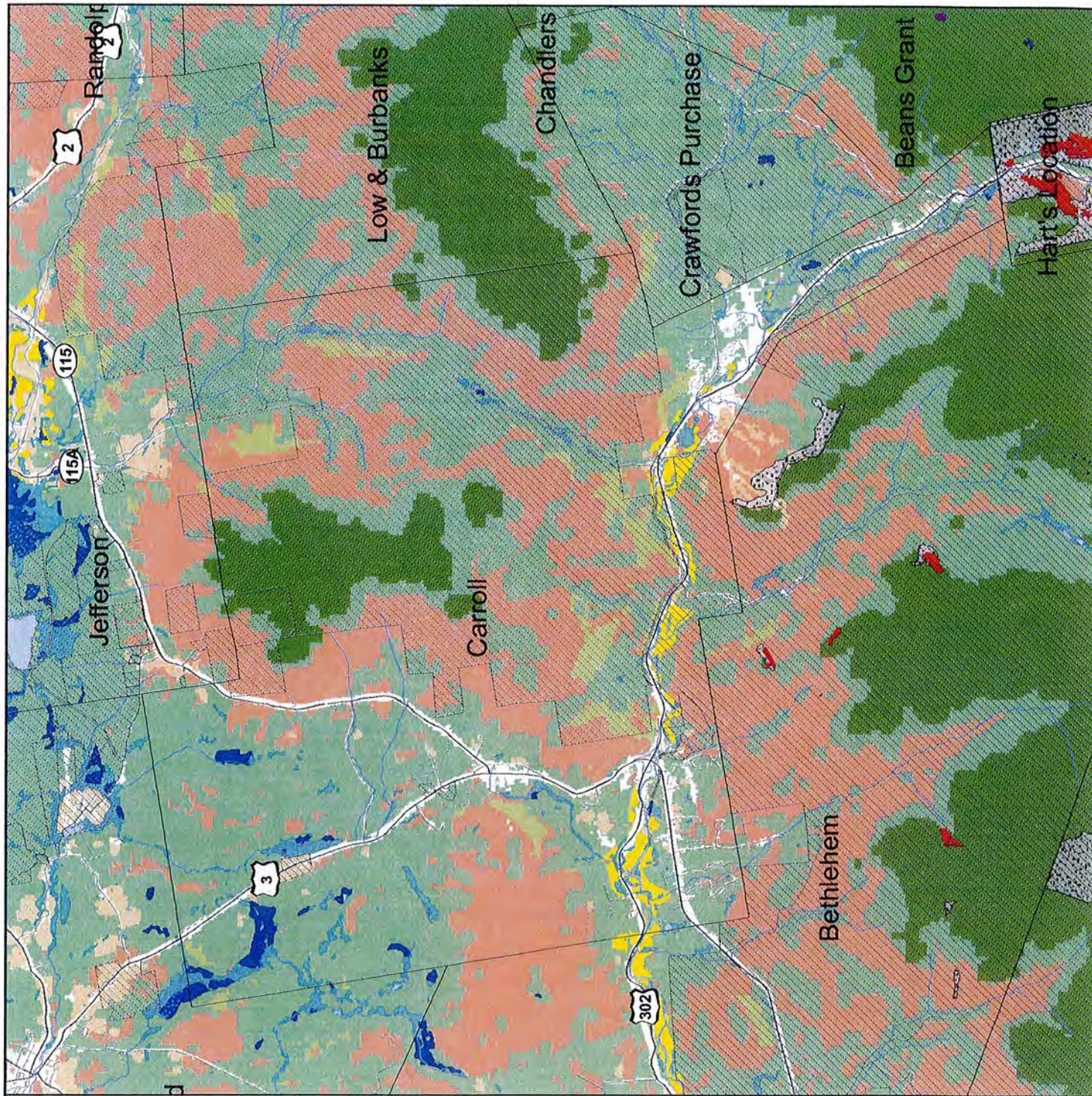


# NEW HAMPSHIRE WILDLIFE HABITAT LAND COVER 2010

Locations of known and potential critical wildlife habitat in the state.



Developed or Disturbed







## Legend

### Roads

- Class I: primary system
- Class II: secondary system
- Class III: state recreational
- Class IV: within compacts
- Class V: municipal
- Class VI: unmaintained municipal
- Class VII: federal highway

### Political Boundaries

- State
- County
- Town

### Streams

- Perennial Stream
- Intermittent Stream
- Canal/Ditch

### Lakes

- Lake/Pond
- Reservoir

### Rivers

- River
- Canal/Ditch

### Soils: Drainage Class

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained





- ### Legend
- Roads**
- Class I: primary system
  - Class II: secondary system
  - Class III: state recreational
  - Class IV: within compacts
  - Class V: municipal
  - Class VI: unmaintained municipal
  - Class VII: federal highway
- Political Boundaries**
- State
  - County
  - Town
- Streams**
- Perennial Stream
  - Intermittent Stream
  - Canal/Ditch
- Lakes**
- Lake/Pond
  - Reservoir
- Rivers**
- River
  - Canal/Ditch
- Soils: Forest Group**
- IA (deeper, loamy textured, moderately well, and well-drained)
  - IB (sandy or loamy over sandy textures; slightly less fertile than those in group IA)
  - IC (outwash sands and gravels, somewhat excessively to excessively drained and moderately well drained)
  - IIA (similar to groups IA and IB, except physically limited due to steep slopes, bedrock outcrops, etc.)
  - IIIB (poorly drained soils, seasonal high water table generally within 12" of surface)



# NH GRANIT DATA MAPPER

## Soils: Slope Carroll



UNIVERSITY of  
NEW HAMPSHIRE

## APPENDIX C

### 2013 Town of Carroll Master Plan Survey

Mailed 1,191 surveys to addresses of households with a voter and/or property owner. Twenty-two (22) were returned undeliverable, leaving 1,169 valid surveys.  
 Allowed more than one response per household and enabled emailing.  
 Received 348 responses for a response rate of 29.8%.

1. What is your relationship to the Town of Carroll? (Please circle ALL that apply.)

N = 348

		<u>N</u>
A.	45% vote in Carroll	157
B.	45% live in Carroll year-round	156
C.	18% live in Carroll part of the year	63
D.	34% vacation in Carroll	119
E.	14% retired to Carroll	48
F.	11% work in Carroll	40
G.	64% own less than 10 acres	225
H.	14% own 10 acres or more	50
I.	9% own a business in Carroll	31

2. What kind of community would you like to see the Twin Mountain area of Carroll be fifteen years from now? (Please circle just ONE.)

N = 324

		<u>N</u>
A.	50% Rural/residential community with diverse economy	161
B.	19% Vacation area	62
C.	3% Community with mainly homes	9
D.	24% Rural/residential community with natural resource-based economy	77
E.	0% Retirement community	0
F.	5% Other	15

3. What kind of community would you like to see the Bretton Woods area of Carroll be fifteen years from now? (Please circle just ONE.)

N = 332

		<u>N</u>
A.	15% Rural/residential community with diverse economy	51
B.	61% Vacation area	201
C.	2% Community with mainly homes	6
D.	17% Rural/residential community with natural resource-based economy	58
E.	1% Retirement community	4
F.	4% Other	12



4. Where would you like to see the majority of new development occur in Carroll over the next fifteen years? (Please circle just ONE.)

N = 341

		<u>N</u>
A.	39% Scattered throughout town	132
B.	43% Focused within or adjacent to village areas	148
C.	18% No opinion	61

5. Would you support enhancing the village area at the junction of US 3 and US 302 to make it more of a real town center? This may include relocating other town services to this area, adding an attractive parking area and green space that could be the focal point for outdoor events, and making a walking path for visitors.

N = 347

A.	60% Yes	(209)
B.	25% No	(86)
C.	11% Not sure, depends on_____	(39)
D.	4% No opinion	(13)

6. In the past, three proposals have been brought forward for the Fire Station. Which option do you prefer?

N = 329

A.	43%	Leave the Fire Station in its present location. (143)
B.	21%	Build a fire substation in Bretton Woods to enable businesses and residents to reduce their fire insurance rates by having fire apparatus within 5 miles. (70)
C.	22%	Build a new fire station to be located with a new police station within a common facility. (72)
D.	3%	Other (9)
E.	4%	Not sure, depends on_____ (14)
F.	6%	No opinion (21)

7. Currently, the Police Station is located on Route 3 South, within rented space. Several committees have worked, in the past, to resolve the Police Station problem. A Town Facilities Committee is currently meeting on a regular basis to work on several space needs of the Town, with the Police Department being the top priority. Of the following options being considered, which do you prefer?

N = 335

- A. 23% Build a new Police Station on Town land located behind the current Town Hall. (77)
- B. 10% Build a new Police Station on donated land in Bretton Woods. (32)
- C. 25% Build a new Police Station and Fire Station to be located with a within a common facility. (84)
- D. 8% Replace the Town Hall with a new Town Hall and Police Station on the vacated property. (26)
- E. 18% Other\_\_\_\_\_ (59)
- F. 8% Not sure, depends on\_\_\_\_\_ (27)
- G. 9% No opinion (3)

8. Two of the possibilities that have been discussed for attracting businesses to create year-round jobs in Carroll are (a) to provide sewer and other amenities to enhance the village area at the junction of US 3 and US 302, and (b) to provide roads, water and sewer to the area set aside for an industrial park off New Straw Road.
- Would you support some initial investment of town funds in either (or both) of these options in order to encourage private investment?

N = 338

- A. 28% Infrastructure and other enhancements for the village area (93)
- B. 9% Infrastructure for the industrial park (32)
- C. 22% Both (73)
- D. 41% Neither (140)

9. When the town adds or improves infrastructure in an area, property values generally increase. A TIF District (Tax Increment Financing) is a tool that enables the increased property tax revenues that result from that increase in value to be used by the town to pay for those infrastructure improvements. Would you favor a TIF District for:

N = 330

- A. 27% Infrastructure and other enhancements for the village area (90)
- B. 6% Infrastructure for the industrial park (19)
- C. 18% Both (58)
- D. 49% Neither (163)

10. Our natural resources, clean environment and scenic beauty provide an important part of the foundation for our economy. Several planning and zoning tools are available for the town to manage the siting and impacts of development. Please circle which land use tools if any that you would support.

N = 348

- A. 60% Require developers to treat and manage stormwater on-site to prevent erosion and sedimentation of rivers and brooks. (209)
- B. 41% Enable the Planning Board to influence the layout of proposed subdivisions to reduce their impact on important resources without reducing the total number of lots. (141)
- C. 46% Regulate development on steep slopes. (161)
- D. 55% Restrict filling and draining of wetlands. (192)
- E. 62% Require vegetated buffers to be left along rivers and brooks to protect water quality and fish habitat. (214)
- F. 24% Reduce the density of development permitted in the Rural District from one dwelling per 2 acres to one dwelling per 5 acres. (85)
- G. 52% Manage the design of development on certain ridgelines and hilltops to maintain scenic views. (180)
- H. 55% Restrict building in floodplains. (191)

11. Would you or a family member live in a different type of housing in Carroll than you do now if it was available in the next ten years? (Please circle any or all that apply.)

N = 348

- A. 19% Senior housing (67)
- B. 9% Handicapped accessible (32)
- C. 7% Apartment affordable for low/moderate income family (24)
- D. 14% Small starter home (47)
- E. 17% Townhouse type development with small units and some shared public spaces (58)
- F. 13% Other \_\_\_\_\_ 44

12. Are there special places or buildings in town that you would like to see town volunteers work with willing landowners and private groups to conserve?

---

13. What else would you like the Planning Board to consider as they develop the next Master Plan for the Town of Carroll?

---

**Question 2. What kind of community would you like to see the Twin Mountain area of Carroll be fifteen years from now?**

***F. Other***\_\_\_\_\_

Prosperous Business Community while still protecting our residential property owners and country atmosphere.

Vacation destination - more to do than ski in the winter

Rural/residential Vacation based economy. Hiking, Snowmobiling skiing, grocery stores, food/dining.

A year round community that will attract all ages. We also need a main street that would include nice restaurants, Theater, etc...

As it is

Rural Residential with a Town Center

Rte. 3 Business area - Lots of them

Leave it as is. Don't fix what is not broken.

Town is unattractive - gorgeous scenery covered with ugly poles & wires. We need a real green.

I want to see more places to shop, eat and meet people

Not Built up.

Drug Store

Remain as it used to be

Let the free market dictate what we become. Get out of the way!

As is

Idyllic Storybook style community with nature based recreation opportunities and tourist oriented shopping and dining experiences.

Let it grow - stop micro-managing

Small rural community with a vacation based economy

Gambling for the elite

---

**Question 3. What kind of community would you like to see the Bretton Woods area of Carroll be fifteen years from now?**

***F. Other***\_\_\_\_\_

Business opportunities which are related to summer & winter recreation. Attempt to keep balance between Twin Mt & Bretton Woods

Plus Mt. Washington Hotel.

Vacation area with homes & some commercial activities.

Would like to have a separate village in Bretton Woods.

Again a year round community that boast the history of the "Mt. Washington Hotel." Add shopping with Cafes, etc...

Major Ski Area like Jackson Hole Wyoming

Smaller resort

No opinion

Vacation area w/shops like other little ski towns.

Let the free market dictate what we become. Get out of the way!

Small rural community with a vacation based economy

---

**Question 5. Would you support enhancing the village area at the junction of US 3 and US 302 to make it more of a real town center? This may include relocating other town services to this area, adding an attractive parking area and green space that could be the focal point for outdoor events, and making a walking path for visitors.**

***C. Not sure, depends on***\_\_\_\_\_

Cost

Cost!! I will say the Gog train looks great. Kudos to whoever came up with this idea.

If we can create "a town center" that is welcoming, attractive and adjacent to small to midsize retail establishments, restaurants and the like.

Cost of relocating services & Bldg.

What you mean?

Cost and who pays?



Design & Placement of Bldgs.

More like North Conway

The plan

Location of the River makes a natural divide to have a total village center.

What enhancement was. Gog RR was start.

Utilize existing structures. Not required to be centered at 3 & 302.

cost

Increase in Taxes

How it affects the surrounding Residential Area

Cost for the change

Cost

Cost & Tax impact

Cost

Cost

Cost to Taxpayer

Cost

Best idea in 50 years!

#1

Depends on Cost

What they put there

How large and the taxes

Cost

Area needs stores and restaurants

Way to reduce property taxes.

\$

Cost

The actual plan

What village area? All I see is an intersection.

If the only addition would be a parking area & green space fine, nothing beyond that.

Cost to benefit analysis

How much taxes will be raised/I'm not in favor if taxes go up heavily or moderately to fund the project.

Cost if taxes go up.

---

**Question 6. In the past, three proposals have been brought forward for the Fire Station. Which option do you prefer?**

***D. Other*** \_\_\_\_\_

Police Station - Poor where it is (A gas station?) Doesn't look good - Needs a good Bldg. Secure spot.

Add Police Dept. to Fire Station

Build new near the present location US 3/US 302

Police Station in with Fire Station - present building.

New Station in Twin Mt., without Police Station attached.

Build new FD with no other "businesses" with. A fire Dept. should only be built for a Fire Dept.

Funded by Bretton Woods

Expand and fix the one with have.

Fire & Police with a new Town Hall

Both B & C

What happened to hotel building a substation for the Town?

The fire station should be located in a spot where it best serves the majority of full time residents.

Ask owners of Mt Washington Resort to provide a building for a Fire Station. Many of the significant ambulance calls come from Bretton Woods. Move the ambulance there.

May add Police Station within Fire Station in present building!

As is

Dismantle all public services coerced w/stolen money. Privatize everything. If it moves, privatize it. If it doesn't move privatize it. Next question?

The location of a fire station should be the subject of discussion as a master plan develops. It would make sense to have a substation to serve Bretton Woods but the location of the main station should be based upon the expected development of the Town of Carroll at large.

***E. Not sure, depends on \_\_\_\_\_***

Costs

Increase to tax rate

Whatever fire protection requires for the entire town and the financial resources reasonably in place for any expansion.

Location and cost of option C.

What the experts think and \$

Costs

Costs

Where

\* B Reliable tax base to support this intriguing idea. This must be backed up with financial facts!!

Cost

Cost versus Savings

Cost

\$

Cost

Disband and dissolve as unnecessary or privatize.

Cost of the above

Community growth and needs assessment of Police and Fire infrastructure needs and capacity to meet future development.

Overall project cost and tax implications.

---

**Question 7. Currently, the Police Station is located on Route 3 South, within rented space. Several committees have worked, in the past, to resolve the Police Station problem. A Town Facilities Committee is currently meeting on a regular basis to work on several space needs of the Town, with the Police Department being the top priority. Of the following options being considered, which do you prefer?**

***E. Other*** \_\_\_\_\_

Keep Police Station where it is now.

Disband the Police Force - Unneeded

Leave as

Move back to the Fire Dept. Building

Locate to F. D. Bldg.

Move back to Fire Station

Add Police Dept. to Fire Station

Do not build. The employees are going to need that money for their pensions.

New Police Station. New Fire Station. New Town Hall.

Continue to rent current space.

Buy Building they're in now,

Buy Existing Building

Buy Building they're in now.

Buy Building they're in now.

None of the above - plenty of vacant property

What problem? Leave as is - State Police are already in Town.

Do not build. Continue renting or move in a vacant property.

Buy better property and build

Put police with the Fire Station

Combine Police & Fire in existing Fire Station.

Use existing Town Hall for Police Station

Leave it alone

Replace Town Hall & Make Police Station at the same place but separate. Tear down existing Town hall

Buy current location

Use Troop F eliminate Police.

Stay where it is

Leave the station where it is

Keep the Police Station on Rte. 3.

Leave the facilities as they are. Too costly to change. Not a crime ridden area.

Not enough info to determine

Town hall & Police Station all in same building. Possible Police Sub-Station in same building as Fire Station in Bretton Woods.

Buy the small strip mall & use it for a Police Station.

Keep status quo - no more tax increases

Police Dept. Necessary? Farm out to State Police.

Leave things alone

Build next to Fire Station

Put back in Fire Station

Build a new Police and Fire Station on Town land at Town Hall site.

None of the above ideas (A-D)

Move Police to the empty strip mall at Little River Road.

Redesign & repurpose current Town Hall & construct new P.D. adjacent to Town Hall.

Leave it where it is

Leave it just as it is

Add on to existing Fire Station

Buy property that Police Station is on

May be possible to combine SVC with surrounding Towns as in Pioneer Valley.

Continue as is

Taxpayers need info on each option under consideration that estimates construction/renovation cost/sq. ft. and annual operating costs. The issue is cost. It makes no sense to pick an option (including continuing to rent) without being able to weigh short and long term cost of each.

Buy the building where they are - probably a lot less expensive.

Leave everything as is

Leave everything as is

Put near existing Fire Station

Build an addition to the Town Hall for Police Station - saving water, sewer, electric, services. Keep Fire Station but enhance appearance

***F. Not sure, depends on\_\_\_\_\_***

Costs

COST !! Come on people, think this through. I as many others in this town am on a small fixed income I can't pay for this.

What the true and reasonable demands for service are & having an affordable budget plan in place to pay for any and all improvements

Keep as is.

What saves over the next 5 - 15 yrs.

The cost of the building

Cost

Costs of each plan proposed.

Whether lease is available on current location.

Cost of project.

Cost

Cost

Cost

Cost for each

Most cost effective way to meet defined needs

How Master Plan forecasts the Town to develop.

No Police Station & Reduce Police to 2 on call Policemen.

---

**11. Would you or a family member live in a different type of housing in Carroll than you do now if it was available in the next ten years?**

***F. Other*** \_\_\_\_\_

Housing suitable for Carroll Residents

How much taxes will go up - New police station use other options - Lots of older people on Limited Income

NO we don't have the facilities that most of these need

None of the above - Maybe an over 55 community.

Mobile Homes should be allowed on lots of 2 or more acres x 2

Vacation Home

We don't need to attract more low income families.

Youth Hostel - Elder Hostel

(Several wrote no in here, or N/A, or happy with current house, or only vacation there.)

---

**12. Are there special places or buildings in town that you would like to see town volunteers work with willing landowners and private groups to conserve?**

Yes, disguise the storage area on Rte. 3.

Fosters/St. Patrick's Church

Keep all wildlife buildings. Keep all brooks & streams flowing and clean in operation.

Clean Roadsides

Town Hall, the Catholic Cemetery (across from Fosters) could use some ground work - the grass is pathetic.

The Gym

Yes, Both Catholic Churches

Rosebrook Rec. Center at Bretton Woods

Town Hall, Fire House

Catch & Release Fly Fishing to improve Trout habitat.

The landmark St. Patrick Stone Church and the Baptist Church as very historical structures. Also the P.O. & Fire Dept.

Stone Churches in Twin and Bretton Woods

Each of the Churches.

Mt. Washington Hotel & Bldgs. on property.

No - You need to get rid of the eyesores around and build new. Most bldgs. on Rte. 3 need to be torn down. Be proud of your Town - Clean it up.

Gazebo

Gazebo and Fosters needs some maintenance.

Mt. Washington Hotel, Stone Church in front of Hotel.

King Pond

Town Hall

Town Hall

All streams, brooks and rivers.

Fun Town Building, Laundromat Building

All along the Ammonoosuc, Little and Gale Rivers

Town Hall

Sell all tax lien property

Need something to bring BW & TM together! A fire station won't do that.

Bretton Woods & Twin Mountain

Yes, the Town should make property owners clean their junk yards with all kinds of debris, that is concerning a clean healthy environment for all residents.

St. Patrick's Church & Town Cemeteries

Snowmobile & Hiking Trails



I would have to see historic photographs to make a determination. Is there a historic review board in place? If not, you should create one. Further, the Town should create a list of historical buildings that would require historical board approval before a permit for demolition or alteration was issued.

Town Hall area. The Cog Railroad Train on grounds is great.

The Beechers Pulpit

St. Patrick's Church & Town Hall.

School/Town Hall

Intersection of Routes 3 and 302

Fosters, Horse Barn at MWH.

The Town Hall/St. Patrick Church (If Closed)/Baptist Church

The Catholic Church should be preserved, but it's already compromised by the ugly highway above it.

Fosters

As determined by public meetings

Conserve any & all access areas that enter White Mountain National Forest!!

No, but there are quite a few "eye sore" bldgs. that should be torn down.

Path up, and top of School Hill. (Picnic & view area)

Fosters Crossroads

Barns! See VT. Laws that protect scenic & non-scenic barns.

Town Hall

The Stone Church

Thompson House (edge of Parker & 115) - Town history! Used to be Town Hall! Grandview maybe.

The Town Hall, a total renovation of this historic structure and former school.

Fosters General Store should be a historical site.

Paint the Gazebo white again.

Save the Town Hall.

I like the Town the way it is.

The former Grandview and St. Patrick's Church.

The observatory hill, Beechers Pulpit, improve Lake area.

Not sure, Vacation there 4 years. Do what you think is best for the future of Carroll.

Land on Base Road between Fairway & Hotel back entrance.

St. Pat Church and Town Hall. Our Lady of the Mountains Church, BW.

Fosters Crossroads

Town Hall; Old farm houses

Fosters

Yes. Clean up/fix up old buildings on Rte. 3 in village

Police Dept.

Buffer zones along streams/brooks in Carroll, wetlands protection. Lot size averaging in subdivisions, incentives for energy efficient development, aquifer protection.

The Ammonoosuc River

The Town hall

Town Hall

Town Hall Reno.

The Askers property "Cold Spring" Rte. 3.

The Askers property (Cold Springs) on Rte. 3.

The Town Hall is about the only one left. Otherwise let's develop the Town and disdain all of this conservation mania.

Work with all tax payers

Kings pond, Forest Service Bldg. on Harmony Hill Rd., Dartmouth Brook Development.

Protect the River

Try to keep areas around Mt. Martha (Cherry Mountain) devoted to natural areas for outdoor activities/hunting & Wildlife preservation.

Town Hall Building

Town Hall Building

More Mobile Home Lots

1) Preserve the Town hall. 2) Historical sign & path to Beechers Pulpit. 3) utilize snowmobile trails, forest roads to develop a walking, bicycling, mountain biking trail network.

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**13. What else would you like the Planning Board to consider as they develop the next Master Plan for the Town of Carroll?**

A better way to manage home & Property Appearance

Keep Taxes Low

Two Turbines to generate electricity; solar panel for new town hall/police/fire dept.; somehow get non-resident landowners involved with the town, we are not able to vote but pay taxes.

Develop a place where families would move & want to vacation. Stores, Restaurants Movies Theaters, Etc...

Get along and act professionally

Keep it Rural and enhance the views of the mountains.

Nice Park Area w/restrooms in gazebo area - farmers mkt, Saturday Amusements Gazebo Area - Gog Looks Fantastic - Enhance whole area around it.

Do not clutter the Town with too much. Keep it well spaced out. That's what makes it the beautiful for all to see and live in. Use our resources for every mile of it and keep it clean.

Shrinking the Budget. Get Educated.

Give Rte. 3 a better image

Leave it alone

Limit the clear cutting near rural homes. The lack of trees has created many water issues!

I like the Town just the way it is; that's why I moved here.

Keep our area country and quaint like it was 15 years ago.

Urge Selectmen to conserve now. We can't afford to spend money superfluously.

Embrace the non-motorized outdoor activities.

Be thorough, reasonable & considerate in choosing your development plans & regulations. Be forthright in letting us know what you plan and make sure you enforce consistently whatever is required.

Foster's Crossroads Building has historic value.

Accelerate Police Presence on Rte. 3, 302 & 115 to enforce speed zones. Pass ordinance on "Jake Brake" use on Rte. 302, Rte. 3 & Rte. 115.

Grocery Store in Twin Mtn.

Develop a process for building approval that is clean, easy to understand and not burdened with paperwork or bureaucracy. Rules can be tough but fair. Not determined by a small group on a project by project basis.

What ever happened to developing village at Bretton Woods plan? Perhaps those plans can be reviewed for viability.

Would like some restaurants, grocery, hardware, shops

Live Free or Die!!

Things need to change. It's time Twin/Carroll moved into the future and stop trying to deny growth. Your Town is one of the most difficult to work with. Get rid of the old Fun Town place & the Old Grandview Bldg. Those are such a disgrace to the Town. It's depressing to ride on Rte. 3 both North & South. Work together as a Town not as a small group of closed minded people who look out for themselves.

Keep our Natural Resources safe. No Big Box Development.

Beautiful unlit sky at night to see stars.

Get rid of abandoned buildings (in last 5 years) or have a Blight Tax - Annex Bretton Woods and change our town status from a donor town.

Plant some trees. Multi-use, covered, natural ice skating rink.

Ice Skating Rink, community garden.

Tear down structures on Rte. 3 that have outlived their commercial usefulness. These eyesores reflect negatively on the community.

More park benches/picnic tables w/shade

Model after North Conway's Master Plan.

How to attract vacation destination amenities.

Treat everyone equal! No favorites! Encourage development, don't halt it.

Pharmacy - Walmart

Dunkin Donuts

Vacation area, no industry

Pave roads as needed.

It's a vacation area, not industrial area.

An entertainment building for kids & adults to visit, play pool, and arcade building. Also Bowling.

No development near any waterways or trail systems.

Pave and repair existing town roads.

Pave town roads.

Ensuring affordable housing for workers. Grants for Police Station & Fire Station Building. Encourage Businesses along Rte. 3 & 302.

Controlled growth with protection for natural resources, but definitely Growth.

Rte. 3 heading toward the village center is a spectacular drive with Mt. Washington as the back drop. This would be enhanced if power lines were put underground. This would have an added benefit of reducing outages during storms. Also prohibit cars being left on the side of Rte. 3 for sale. We should also remove its run down abandoned structures. This stretch could be a real gem and has all the makings of a quaint, vital ski/summer village. It has a lot of traffic flow and the Town could invest in an anchor plaza to help shape the rebirth of the area - a traditional alpine village look with a bookstore, nice restaurant, après ski, pub, etc...

Collect and tax sale all tax lien property

A Major attraction i.e.: Year Round Indoor Water Slide.

The Bretton Woods Community w/Lodge for a "community center". Something like the old Mooseland Grill site could be run by locals & serve both the BW & TM Communities.

Dissolve the Planning Board and Zoning Boards.

Protecting our river and our forest would be very important.

Repair our Town Roads.

Fix our Roads on Tuttle Brook

Ensure that all basic services are provided to all town of Carroll Residents (Tax Paying) - such as those on Old Cherry Mt. Road.

Make sure Town can provide all basic services to all tax-paying residents of Town. (For example, Old Cherry Mountain Rd. - North Segment.

Restrict development to 1/2 acre minimum for all houses.

Work to keep property taxes as low as possible.

No Master Plan is needed.

Who says we need a Master Plan?

A Dunkin Doughnuts at the Rte. 3 & 302 Would be a goldmine for the Town

The Town needs to develop a "WOW" factor when people drive through Carroll. Something that is simple, elegant and beautiful! You need to etch an image in their minds as people arrive and depart this Town.

Keep Taxes low, keep regulating to a minimum.

Not a bedroom community with really high taxes. Keep it affordable.

Industry to enhance job opportunities.

Municipal Water expansion

Focus on Setbacks, Buffers

Encourage business to come to Town - don't do a repeat of the past few years, causing us to be talk of the area & scaring people off.

Take care of existing infrastructure before adding new plans.

A new Town Hall with Police & Fire House

Let fresh blood/ideas come in.

Disband the planning & Zoning Boards.

Focus on Intersection of 302 & 3 Village plan.

Do what is best for the Town. This is a beautiful area.

The escalation of property taxes applied to the Bretton Woods Vacation home properties the last 5 years risk pricing Bretton Woods out of the national vacation home market. Condos are not selling as well as they would have if taxes had not been raised. In fifteen years you may be sitting among many other abandoned/foreclosed buildings if you are not more reasonable in your community plans.

Leave people alone. Government is the problem not the solution. Live Free or Die!

If the Bretton Woods Community continues to receive little in the way of services, eventually it will make sense to break away from the Town of Carroll.

Ensure that developers are bonded to complete portions of development approved such that another "Dartmouth Brook" does not occur.

Letting Gravel Pits operate in Town.

Taxes and the impact on our aging population. People move here because of small Town qualities. Why are some trying to make it be like Littleton.

Bring in businesses that are not related to vacation industry in Twin Mt. part of Town. In 15 years, BW will be a destination but Twin will not be. It has been dropping for years.

Restrict prior BHW developers who have failed in the past from re-entering the market. The financial mess left behind is prohibitive.

Reduce taxes!

Pave Lennon Road

Require double taxes for empty bldgs. Remove eyesores require asphalt to be removed & Grass & Trees planted. Put Poles & wires underground.

Smart, Cohesive, Themed designing with tribute to the environmental richness that surrounds the community. Maximizing recreation/mobility features that encourage use (i.e. pathways for walking/biking.)

Decreasing regulatory encumbrances on private property.

The area of Rt3 & 302 needs to be updated, without destroying the beauty of the natural environment that attracts people to this precious area. The citizens of Carroll should be considered foremost in all your decisions.

Attract business to our industrial park through tax incentives.

Keep taxes Down.

Common Sense

We have State Police coverage after 5:00 PM. Why not have them 24/7 in lieu of Carroll Police Dept.

Please look at other towns' development and what problems came with change.

An advertising budget to market the area. Improvements to the "gateway" to Carroll Rte. 3 performance zone - many buildings need improvement or demolition - it looks tired. A new Fire/Police Station may give it a kick start.

This survey is a good start to making sound decisions everyone can live with.

Leave alone.

I would like to be more closer market.

Please don't be over restrictive, growth and change are normal.

Dog Park

Don't grow too fast.

Zoning law regarding maintaining appearances of in-village structures - Fix Town Hall road. Ad picnic area? Look for grants, donations, fund raising, etc.. To enlarge, expand &/or purchase more books for the Town Library!

Low Tax

Our planning should be centered around the desired outcomes of a resident community that welcomes all development that is consistent with common sense, good judgment and the long term desirability of the place we call home.

Consider bringing businesses to this major North/South and East/West crossroads location to provide employment.

Keep in mind we love this area for its natural beauty & outdoor lifestyle that it offers. This area allows us to live close to nature.

Develop ordinances that would create enforceable regulations to prevent the front yards of homes from being unsightly - no junk cars, trash, unmown grass, etc... in front of homes.

To enhance the appearance of town by developing enforceable regulations that prohibit unkempt properties that are visible from view such as junk cars, unmown lawns and clutter.

Proceed slowly. Keep property taxes responsible.

Do not be too aggressive in plan. Property taxes should not escalate too quickly.

The sidewalks could use some TLC. They are awful dirty in the summer. Sand & gravel makes it hard to push a stroller.

Follow the rules of law, RSA's no matter who is before the board.

Don't go crazy with too much development.

No killing of wildlife.

Just generally, to do whatever will attract some businesses to town to reduce our property taxes, but not materially alter the character of the Town.

Protect rural nature of the Town so as not to become another Lincoln eyesore.



Let 4-wheelers on trails to bring in income.

1) ordinance to clean-up rundown & neglected properties - especially along main streets - Grandview Rte. 3 & Monahan Cabins & Sheehan Cabins. Rte. 302 are examples of trashy looking properties. 2) Trailers (Mobile Homes) restricted to certain areas of Town.

Preserving the natural

Installing Rails to trails paths along the abandoned rail beds- then allow small businesses to service the bicyclers at Town center.

Maintain the small-Town feeling, rural feeling, while somehow embracing technology to attract small business and newcomers.

Where land has been cleared on Base Rd. develop that before allowing more trees to be cut down.

Water lines need to be continued from Rte. 115 to Lennon Road to Rte. 3 as originally proposed.

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Private Businesses

Keep Taxes low, as we have seen an increase in past!!!

Be agreeable - patient - considerate - common sense

Convenience Mall in Industrial park, Straw Road.

A proactive approach to ensure more timely updates to the Master Plan

As an out-of-state owner of undeveloped land, I find my tax rate absurd - It seems like out-of-towners are being targeted unfairly. I plan to sell out.

Maybe a river walk concept?

Keep the natural beauty & outdoor lifestyle. Living close to nature?

That the general age of the local population is changing. It shouldn't be all about just what the seniors want. Appeal to young adults.

Public restrooms.

Pay more attention to needs of Bretton Woods - Mt. Washington Hotel. No services from Town at present. (Other large note on survey: Bretton Woods provides Town of Carroll with large tax base while offering little services. All roads within Bretton Woods are maintained locally and few children (if any) attend schools! Recognize Tax contributions Bretton Woods provides Town of Carroll!)

Maybe looking at feature based density zoning to incorporate steep slope, wildlife habitat, streams or zoning that looks at specific environmental considerations.

The Planning Board should require vacant buildings to have no longevity in the town especially on Route 3 where they are eyesores and make the town look bad. Hanks general store should be torn down.

What can the P & Z do to limit an increase/decrease in taxes? To current landowners' taxes.

Take process slowly, be transparent throughout. Thank you!

Work closely with current homeowner association. Boards to make sure everyone is on the same page with full disclosures.

I shudder to think about what would happen to this still beautiful area if we allow any of the above to happen. If I wanted any of it I would have stayed where I was instead of moving to this area.

Maintain as is

No shopping centers or Malls!

Town map to show above mentioned areas to new comers.

More Business "Friendly"

BW Rec, Center replacement or equivalent.

Please consider innovative land use planning tools to cluster development, encourage walking. Allow for green solutions for paving, roofing, etc... Don't just stick with old approaches. Look to towns Carroll would like to emulate and find out if some of their planning tools apply here.

Change color of information booth.

Change color of information booth, (Yucky Yellow.)

Vision and Mission Statement with Strategic plan to promote preserve and enhance the present and future spirit and interest of the Town of Carroll.

Work with all taxpayers Grow- Grow -Grow

Stricter blight controls to assure residential & commercial buildings are not "eye sores" like Tyvek covered homes for example.

Add nothing more and stop making it so difficult for property owners to build. The Planning Board ruins business by dragging out the process out and coming up with bogus restrictions that belong to state agencies not a local Planning Board.

Protect the Natural Resources, revisit Bretton Woods Master Plan to reduce density. Address the current situation with so many buildings in disrepair, protect scenic beauty.

Address unsightly Buildings in disrepair.

Put emphasis on promoting rural life preservation, the natural scenery is this area is best attribute. Build businesses that will not impact the rural settings. Encourage specialty farming, local crafts, beer - breweries/distilleries. "If you screw up the natural beauty of the area, then this place just becomes another place that people just want to pass through.

Keep Carroll a "Rural/residential community with natural-resources based community."

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Nothing other than gambling for elite.

This survey will be a useful tool as the compiled information will enable the Board to plan based on the desires of Town residents - both year around and seasonal. Work together to achieve common goals. Request input of residents with a specific knowledge base.