

MASTER PLAN 2016



SHELBURNE NH

Final Plan

Adopted December 6, 2016

Chapter 7 Revision November 2021

"If you fail to plan, you are planning to fail"

-Benjamin Franklin

"You can design and create, and build the most wonderful place in the world. But it takes people to make the dream a reality."

-Walt Disney

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS7

INTRODUCTION.....9

EXECUTIVE SUMMARY.....9

GENERAL STATEMENT OF GOALS.....10

OBJECTIVES.....10

PLANNING HISTORY.....11

CURRENT PLANNING & REGULATORY DOCUMENTS.....11

THE COMMUNITY OF SHELBURNE, NH.....11

CURRENT TOWN STATISTICS.....12

CHAPTER 1: LAND USE – AGRICULTURE & FORESTRY15

INTRODUCTION.....15

MASTER PLAN SURVEY RESPONSE.....15

CURRENT LAND USE.....16

FUTURE LAND USE.....18

LAND USE: GOALS.....18

LAND USE: SUMMARY.....20

CHAPTER 2: NATURAL RESOURCES & HAZARDS21

INTRODUCTION.....21

MASTER PLAN SURVEY RESPONSE.....22

COMMUNITY VALUES & GOALS.....22

CLIMATE.....23

GEOLOGY.....25

SOILS AND TOPOGRAPHY.....27

VEGETATION/FORESTS/LARGE LAND BLOCKS.....30

OWNERSHIP AND PARCELIZATION.....31

CHANGES IN FOREST LANDS.....32

WATER RESOURCES.....37

WILDLIFE.....39

RECREATION.....44

SCENIC RESOURCES AND VIEWSHEDS.....50

PROTECTED/CONSERVED LANDS.....53

HAZARDS.....56

NATURAL RESOURCES & HAZARDS: GOALS.....59

NATURAL RESOURCES & HAZARDS: SUMMARY.....59

CHAPTER 3: COMMUNITY FACILITIES, RECREATION & SERVICES61

INTRODUCTION.....61

MASTER PLAN SURVEY RESPONSE.....61

COMMUNITY PERCEPTIONS AND NEEDS.....62

ANTICIPATED POPULATION TRENDS.....62

TOWN HALL & COMMUNITY OFFICES.....63

HIGHWAY DEPARTMENT.....63

TRANSFER STATION.....64

PARKS AND RECREATION.....65

CEMETERIES.....66

LAW ENFORCEMENT66

FIRE DEPARTMENT66

EMERGENCY MANAGEMENT67

GORHAM RANDOLPH SHELBURNE COOPERATIVE SCHOOL DISTRICT (GRS).....68

SHELBURNE PUBLIC LIBRARY.....68

COMMUNITY FACILITIES, RECREATION & SERVICES: GENERAL GOALS69

COMMUNITY FACILITIES, RECREATION & SERVICES: SUMMARY70

CHAPTER 4: ECONOMIC DEVELOPMENT.....71

 INTRODUCTION.....71

 MASTER PLAN SURVEY RESPONSE71

 THE REALITIES OF ECONOMIC DEVELOPMENT72

 THE EXISTING BUSINESS BASE IN SHELBURNE.....72

 EMPLOYMENT STATISTICS73

 INCOME & POVERTY75

 ECONOMIC DEVELOPMENT: GOALS.....75

 ECONOMIC DEVELOPMENT: SUMMARY75

CHAPTER 5: HISTORY, CULTURAL & HISTORIC RESOURCES.....77

 INTRODUCTION.....77

 MASTER PLAN SURVEY RESPONSE77

 SHELBURNE HISTORY77

 SHELBURNE HISTORIC & CULTURAL RESOURCES OF SIGNIFICANCE80

 HISTORY, CULTURAL & HISTORIC RESOURCES: GOALS80

 HISTORY, CULTURAL & HISTORIC RESOURCES: SUMMARY80

CHAPTER 6: HOUSING81

 INTRODUCTION.....81

 MASTER PLAN SURVEY RESPONSE81

 HOUSING DEMOGRAPHICS82

 HOUSING HISTORY83

 HOUSING SUPPLY.....84

 FUTURE HOUSING NEEDS84

 HOUSING: GOALS.....85

 HOUSING: SUMMARY85

CHAPTER 7: TRANSPORTATION & ROADS87

 INTRODUCTION.....87

 MASTER PLAN SURVEY RESPONSE87

 PLANNING POLICY CONTEXT.....87

 NEW HAMPSHIRE LONG RANGE TRANSPORTATION PLAN.....88

 NEW HAMPSHIRE STATEWIDE TRANSPORTATION/TEN-YEAR IMPROVEMENT PLAN (STTIP)88

 NH STATE HIGHWAY CLASSIFICATIONS.....89

 US DOT FUNCTIONAL CLASSIFICATION SYSTEM91

 SHELBURNE ROAD CONDITIONS92

 NEW DEVELOPMENT92

 ACCESS MANAGEMENT93

 PUBLIC TRANSPORTATION.....93

 AIR.....93

 BUS.....94

 RAIL94

 TOWN ROAD CONSTRUCTION STANDARDS.....94

 SCENIC ROADS.....94

 CLASS VI ROADS & TRAILS.....95

PRIVATE ROADS95

TRANSPORTATION FUNDING OPPORTUNITIES96

LOCAL SOURCES OF TRANSPORTATION IMPROVEMENT FUNDS97

TRANSPORTATION & ROADS: GOALS.....98

TRANSPORTATION & ROADS: SUMMARY98

CHAPTER 8: ENERGY.....99

 INTRODUCTION99

 MASTER PLAN SURVEY RESPONSE99

 WATER99

 WASTE WATER DISPOSAL.....99

 ELECTRIC99

 COMMUNICATION.....99

 TOWN ENERGY USAGE.....100

 ENERGY: GOALS.....100

 ENERGY: SUMMARY100

CHAPTER 9: REGIONAL CONCERNS101

 INTRODUCTION.....101

 MASTER PLAN SURVEY RESPONSE101

 SHELBURNE’S ROLE IN THE REGION.....101

 REGIONAL GROUPS & ORGANIZATIONS102

 REGIONAL CONCERNS: GOALS103

 REGIONAL CONCERNS: SUMMARY103

CHAPTER 10: IMPLEMENTATION & ANNUAL REVIEW.....105

 IMPLEMENTATION TABLE105

 ANNUAL REVIEW FORMS.....111

CHAPTER 11: MAP DOCUMENTS131

 MAP #1, SHELBURNE SOILS133

 MAP #2, 100-YEAR FLOOD ZONE, AQUIFER & WETLANDS135

 MAP #3, NH WILDLIFE HABITAT LAND COVER 2015137

 MAP #4, 2015 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITIONS139

 MAP #5, SHELBURNE’S DEER YARDS & MOUNTAIN PEAKS141

 MAP #6, SHELBURNE TRAILS.....143

 MAP #7, HYDROGRAPHY & THE WHITE MOUNTAIN NATIONAL FOREST145

 MAP #8, ANDROSCOGGIN RIVER TRAIL & HIKING/SNOWMOBILE TRAILS.....147

 MAP #9, CRITICAL INFRASTRUCTURE & KEY RESOURCES149

 MAP #10, CONSERVED LANDS151

 MAP #11, ZONING DISTRICTS153

 TRANSPORTATION MAP #1 – SHELBURNE ROADS (NOVEMBER 23, 2021 REVISION)155

 TRANSPORTATION MAP #2 – SHELBURNE CLASS 1-5 ROADS (NOVEMBER 23, 2021 REVISION)157

CHAPTER 12: APPENDIX159

 APPENDIX A: STATEMENT OF ADOPTION161

 APPENDIX B: CONSERVATION COMMISSION REPORT.....163

 APPENDIX C: SURVEY RESULTS167

 APPENDIX D: BIBLIOGRAPHY177

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*Shelburne Town Offices
Photo Credit: MAPS*

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The Town of Shelburne would like to thank the following people for the time and the effort spent to complete this Plan. Many thanks for your hard work and effort. This Plan would not exist without your knowledge and experience.

The following people have attended meetings and/or been instrumental in completing this Plan:

- John Carpenter.....Chair, Planning Board
- David LandryPlanning Board
- Francis ChamberlainPlanning Board
- Heidi BehlingPlanning Board & Board of Selectpersons
- Roger Gagnon.....Planning Board
- Timothy BuxtonPlanning Board
- Robert ConePlanning Board
- Jen Corrigan.....Planning Board (former)
- Larry ElyCitizen
- Ann Leger.....Former Planning Board Member
- Stan JudgeBoard of Selectpersons Chair & Emergency Management Director
- Lucy Evans.....Board of Selectpersons
- Katherine StuartDistrict Ranger, US Forest Service
- Jo Carpenter.....Administrative Assistant & Deputy Emergency Management Director
- Raymond DanforthCitizen
- Hildy Danforth.....Citizen

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INTRODUCTION

EXECUTIVE SUMMARY

The Shelburne Master Plan is designed to produce a community-wide document that will guide the growth and development of the Community for the next ten years and beyond. The resulting Plan will help to improve developmental stability and help to insure the economic well-being of the Community. The Master Plan will also assist in the preservation of the physical vision that residents have for Shelburne. Building upon the Town's prior Master Plan (Adopted in 2001), the 2016 Shelburne Master Plan will further enhance the ideals that have been envisioned for the Town while taking into consideration the changes that have taken place locally, in the surrounding communities and the world in the past fifteen years.

The Shelburne Master Plan was developed to be in accordance with NH RSA 674:2. RSA 674:2 requires a community's Master Plan (the Plan) to minimally include:

“(a) A vision section that serves to direct the other sections of the plan. This section shall contain a set of statements which articulate the desires of the citizens affected by the Master Plan, not only for their locality but for the region and the whole state. It shall contain a set of guiding principles and priorities to implement that vision.

“(b) A land use section upon which all the following sections shall be based. This section shall translate the vision statements into physical terms. Based on a study of population, economic activity, and natural, historic, and cultural resources, it shall show existing conditions and the proposed location, extent, and intensity of future land use.”

RSA 674:2 goes on to say that the Master Plan may also include other sections. In preparing this Master Plan, the Town of Shelburne has chosen to include the following chapters:

- | | |
|---|-----------------------------|
| 1) Land Use | 7) Transportation & Roads |
| 2) Natural Resources & Hazards | 8) Energy |
| 3) Community Facilities & Services | 9) Regional Concerns |
| 4) Economic Development | 10) Implementation & Review |
| 5) History, Cultural & Historic Resources | 11) Map Documents |
| 6) Housing | 12) Appendix |

Additionally, an Appendix was created which includes the following sections:

- | | |
|-----------------------------------|-------------------|
| A. Signed Documents | C. Survey Results |
| B. Conservation Commission Report | D. Bibliography |

This Master Plan will guide the Planning Board in the performance of its duties and aid in the design and development of ordinances in areas which fall under their authority. The Shelburne Master Plan will provide legal standing for future actions of the Shelburne Planning Board and will be maintained as a public record.

As a means to visualize long-term growth for the Community, the Master Plan considers past trends and anticipates future development and potential. The Master Plan is a guide to the future, not an unbending tool. As new trends, regional development, technological advances and viewpoints change, so may the visions and goals of this document change. As a living document, changes as recommended by town officials and the citizens of the Community are anticipated and welcome.

Vision Statement

The vision for the Town of Shelburne is:

“To preserve the rural charm, natural resources, scenic vistas, waterways and historic places in a manner that sustains the social fabric and promotes economic stability of our community.”

A “Vision Statement” is designed to define what members of the Community value most and is a shared image of what they want the Community to become. A “Vision Statement” defines a preferred future. It is broad and may be idealistic, but it should be attainable.

GENERAL STATEMENT OF GOALS

The general goals of this Master Plan are:

- To preserve the current way of life for the members of the Community.
- To accommodate future needs of the Community using comprehensive planning practices and sound fiscal management strategies.
- To look to the future to accommodate a slight growth in the population.

A “Goal” identifies what the Town intends to accomplish. It should be broad, not identifying specific activities. It is oriented toward achieving the Vision. Goals help identify and prioritize the actions required to achieve the Vision.

The highest priorities of the Town are the preservation of natural beauty, keeping intact the rural nature of the Town, balancing budget requirements against a realistic tax rate, guarding against the loss of open spaces, developing in an orderly way, with good civic design and increasing town services as required by the state without too much impact on the tax rate. *Chapter 10, Recommendations & Implementation*, provides an action plan for the implementation the goals described in each section of this Plan.

SMART GOALS
Smart
Measurable
Achievable
Realistic
Task-Oriented

OBJECTIVES

An “Objective” is a statement of action which the Town needs to take to achieve a Goal. The chapters that follow present the Town as it exists today and the actions needed to effect changes to meet the needs of those who live, work, and play in Shelburne while at the same time preserving, as best we can, the Community’s natural environment and its unique character.

PLANNING HISTORY

As the population and demographics began to change in the mid-20th century, the Community’s concern about uncontrolled growth and development led to the establishment of the Shelburne Planning Board and the creation of zoning, subdivision and site plan review regulations. The first Shelburne Master Plan was developed in 1982 followed by revisions in 1996 and 2000; the revised Plan was adopted by the Town at a Public Hearing on May 14, 2001.

Looking toward the future, the Shelburne Planning Board began a Master Plan update in 2009 with a Master Plan Survey issued to town residents early that year. Of the approximately 370 residents at that time, 114 took the time and effort to respond to the Master Plan Survey, representing approximately a 30% response rate. In preparation for this Master Plan update, the Shelburne Master Plan Committee reviewed the 2009 Master Plan Survey results; these results are included in Appendix C of this Plan.

CURRENT PLANNING & REGULATORY DOCUMENTS

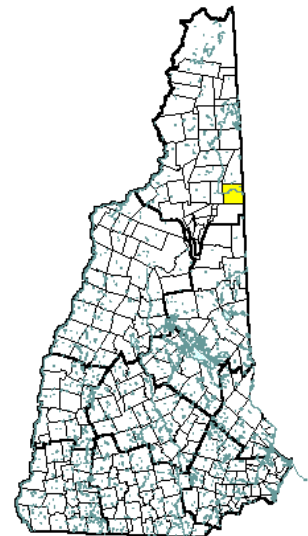
Subdivision Regulations	Adopted, July 21, 2004; Amended June 13, 2005
Zoning Ordinances	Adopted, March 12, 2002; Amended March 11, 2014
Site Plan Review.....	Adopted, March 1983
Flood Ordinance	April 21, 1986
Flood Maps	February 20, 2013
Emergency Operations Plan.....	October 16, 2013
Hazard Mitigation Plan.....	June 17, 2016

THE COMMUNITY OF SHELBURNE, NH

Shelburne is located in northeast New Hampshire and is bordered in the west by the town of Gorham, the north by the unincorporated place of Success, the south by the unincorporated place of Bean’s Grant and to the east by Gilead, Maine.

Paralleling the Androscoggin River, US Route 2 travels east-west through the entire width of the Town. Also paralleling the Androscoggin is the St. Lawrence and Atlantic Railroad and two pipelines owned by Portland Pipeline (one active and two inactive) and another pipeline carrying natural gas owned by Portland Natural Gas Transmission System. There are approximately 32 miles of roads and only two named state roads, Meadow Road leading to North Road, which meanders beautifully along the northern bank of the river and then back to Route 2.

Shelburne has a population of 372 according to the 2010 Census, a slight decrease from the 2000 Census, with a population density of 7.9 persons per square mile. The population of this community can increase 100% during the summer months; this large increase of population is a concern for emergency responders because of the limited resources in Town.



Shelburne consists of a total area of 47.9 square miles of land with .9 square miles of inland water.¹ The White Mountain National Forest covers nearly 50% of the land in Shelburne and includes part of the Appalachian Trail and the Wild River Wilderness Area. The highest point in Shelburne is on the southern border at 3,970 feet on the slope of Mount Moriah, measured below the summit at 4,049.

Due to its location in New Hampshire's scenic North Country, the Town is host to many outdoor recreation enthusiasts but retains the character of small-town New England. Mountain and meadow vistas along the Androscoggin River are framed on the north by the Mahoosuc Range and on the south by the White Mountain National Forest. Brooks and streams, rocky watering spots, vast forested areas and the stately mountains of the White Mountain National Forest all contribute to the beautiful yet rugged terrain of Shelburne. In addition, Shelburne is home to the famed Shelburne Birches, which are known to artists and photographers and dedicated to the Town's soldiers who served in World War II.²

During the 2016 Shelburne Hazard Mitigation Plan planning process, hazards were identified and analyzed for their risk potential. Severe winter weather (including ice storms), followed by flooding and high winds were considered to be the most likely hazards to affect Shelburne.³

A three-member Board of Selectpersons governs the Town of Shelburne. Appointed Planning, Zoning and Conservation Boards also exist. Shelburne is a member of the Gorham Randolph Shelburne Cooperative School District; school children attend school in Gorham.

There is an established Emergency Management Director and Shelburne Fire Department with thirteen volunteer fire fighters. Law Enforcement is provided by the NH State Police, Troop F; the Shelburne Fast Squad and Gorham EMS provide emergency medical services. The Androscoggin Valley Hospital (AVH) 15 miles away in Berlin is the largest hospital in the region with 25 beds. There is a siren at the Fire Station that can be heard in the vicinity of the village center.

CURRENT TOWN STATISTICS

Current Town Statistics				
Population (US Census)	2010	2000	1990	1980
Coos County	33,055	33,156	34,879	35,014
Town	372	380	411	318
<i>Growth Rate 2000-2010 (Census 2010)</i>	-2%			
<i>Elderly Population - Percent over 65 (Census 2010)</i>	20.2%			
<i>Median Age (ACS 2009-2013)</i>	53.6			
<i>Median Household Income (ACS 2009-2013)</i>	\$54,094			
<i>Families below the poverty level (ACS 2009-2014)</i>	4.2%			
<i>Population Seasonal</i>	Summer; campgrounds, nearly doubles population			
<i>Change in Population-Weekend</i>	Slightly larger for weekends; summer & winter			

¹ Economic & Labor Market Bureau, NH Employment Security, 2015; Community Response 5/23/14

² Wikipedia; http://en.wikipedia.org/wiki/Shelburne,_New_Hampshire#History

³ Shelburne Hazard Mitigation Plan, 2015

Current Town Statistics	
Regional Coordination	
<i>County</i>	Coos
<i>Regional Planning Commission</i>	North Country Council
<i>Tourism Region</i>	White Mountains
Municipal Services & Government	
<i>Town Manager or Administrator</i>	No
<i>Select Board</i>	Yes (elected)
<i>Planning Board</i>	Yes (appointed)
<i>School Board</i>	Part of the Gorham Randolph Shelburne Cooperative
<i>Zoning Board of Adjustment</i>	Yes (appointed)
<i>Conservation Committee</i>	Yes (appointed)
<i>Master Plan</i>	Yes 2000
<i>Emergency Operation Plan (EOP)</i>	Yes 2013
<i>Subdivision Regulations</i>	Yes 2004
<i>Last Hazard Mitigation Approval Date</i>	Yes 2010
<i>Zoning Ordinances</i>	Yes; amended 2014
<i>Capital Improvement Plan</i>	No
<i>Capital Reserve Funds</i>	Yes
<i>Building Permits Required</i>	Yes
<i>Flood Ordinance</i>	Yes; part of Zoning
2013 Percent of Local Assessed Valuation by Property Type (NH Dept. of Revenue Administration)	
<i>Residential Buildings</i>	47.4%
<i>Commercial Land & Buildings</i>	13.4%
<i>Other (including Utilities)</i>	39.2%
Emergency Services	
<i>Emergency Warning System(s)</i>	Siren on Fire Station; Future Emergency Notification System (ENS); warning horn on the Shelburne Hydro Dam
<i>Dispatch Center</i>	Gorham Dispatch, Shelburne Fast Squad, Fire and Emergency Management Notices, Flood conditions at the Dam; Police (State) come from Troop F
<i>Law Enforcement</i>	No - NH State Police
<i>Law Enforcement Mutual Aid</i>	NA
<i>Fire Department</i>	Paid On-call
<i>Fire Mutual Aid</i>	Northern NH Fire Mutual Aid District; also Mutual aid with Gilead, ME
<i>Fire Stations</i>	One
<i>Fire Warden</i>	Yes
<i>Emergency Medical Services</i>	Yes; Shelburne Fast Squad
<i>Emergency Medical Transportation</i>	Gorham EMS
<i>HazMat Team</i>	North Country Emergency Response Team (NCERT)
<i>Established EMD</i>	Yes
<i>Nearest Hospital(s)</i>	Androscoggin Valley Hospital, Berlin; (15 miles, 25 Beds)
	Weeks Medical Center, Lancaster; (31 miles, 25 beds)
	Memorial Hospital, Conway (33 miles, 25 beds)

Current Town Statistics	
Utilities	
<i>Road Agent</i>	Yes
<i>Public Works Mutual Aid</i>	No
<i>Water Works Director</i>	No
<i>Water Supply</i>	Private wells
<i>Waste Water Treatment Plant</i>	No
<i>Electric Supplier</i>	Eversource
<i>Natural Gas Supplier</i>	None
<i>Cellular Telephone Access</i>	Yes; Verizon Wireless, US Cellular, T-Mobile
<i>Public Access Television Station</i>	No
<i>High-Speed Internet</i>	Partial
<i>Telephone Company</i>	Fairpoint & Time Warner
Transportation	
<i>Primary Evacuation Routes</i>	US Route 2; North Road to ME; possible Hogan Road to Gorham (flood risk)
<i>Nearest Interstate</i>	I-93 (42 miles), Exit 35-36
<i>Nearest Airstrip</i>	Gorham Airport (2,800 ft. turf runway)
<i>Nearest Commercial Airport(s)</i>	Portland (ME) International (87 miles)
	Berlin Regional Airport (20.5 miles, 5,200 ft. paved; nav. aids, lights)
	Manchester-Boston Regional (138 miles)
<i>Public Transportation</i>	No
<i>Railroad</i>	St. Lawrence & Atlantic Railroad
Housing Statistics (Census 2010)	
<i>Total Housing Units</i>	217
<i>Total Occupied Housing Units</i>	166
<i>Owner-Occupied Housing Units</i>	144
<i>Renter Occupied Housing Units</i>	22
<i>Total Vacant Housing Units</i>	51
<i>Seasonal, Recreational or Occasional Use</i>	40
Other	
<i>School Administrative Unit</i>	SAU 20 - Gorham Randolph Shelburne Cooperative
<i>Elementary, Middle & High School</i>	Grades K-12 are part of Gorham Randolph Shelburne Cooperative
<i>Private School</i>	No
<i>Childcare Facilities</i>	No
<i>Web Site</i>	Yes (http://www.shelburnenh.com/)
<i>Emergency Page</i>	No
<i>Local Newspapers</i>	Berlin Daily Sun; Berlin Reporter
<i>Assessed structure value (2014-MS1)</i>	\$70,433,596
<i>National Flood Insurance Program</i>	April 21, 1986
<i>National Flood Insurance Rate Study</i>	February 20, 2013
<i>Latest Flood Maps (DFIRM)</i>	February 20, 2013
<i>Information found in Table 2.1, unless otherwise noted, was derived from the Economic & Labor Market Information Bureau, NH Employment Security, March 2015. Community Response Received 5/23/2014; http://www.nhes.nh.gov/elmi/products/cp/profiles-htm/shelburne.htm</i>	

CHAPTER 1: LAND USE – AGRICULTURE & FORESTRY

INTRODUCTION

It is impossible to look at land use in the Town of Shelburne as an isolated issue, since many factors affect land use patterns. Virtually every development related action, whether public or private, has some impact, upon the way land is utilized. The other chapters of this Master Plan which discuss, community facilities and services, economic development, and historic and natural resources relate in some way to land use.

Three basic steps have been followed in the development of the Land Use-Agriculture & Forestry Chapter. They are:

- 1) Review of community attitude Master Plan Survey results,
- 2) Preparation of an inventory and analysis of existing conditions, both natural and man-made,
- 3) Establishment of goals and objectives.

For the original Master Plan and subsequent revisions, the Shelburne Planning Board surveyed citizens to determine the Community's needs, preferences and opinions with respect to current and future planning activities. The results of the Master Plan Survey are reflected in this chapter.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- The importance of preserving open space and agricultural lands was ranked second and third in Question #10, General Issues.
- The protection of the Androscoggin River was ranked fifth in Question #10, General Issues.
- The majority of respondents indicated a desire to allow home businesses to be permitted in all zones.
- The majority of respondents felt that ridgeline development should be regulated.
- The majority of respondents felt that zoning should be adopted that would be consistent with the State of NH model related to small wind energy systems for personal use.
- A majority of respondents were not in favor of cluster development in new residential subdivisions.
- A majority of respondents were not in favor of adjusting the current 1-acre lot size to accommodate smaller lot sizes in already congested areas.
- A majority of respondents were not in favor of using local tax dollars to purchase developable land.

CURRENT LAND USE

Zoning Ordinances

The Shelburne Planning Board was established in 1963. The original Shelburne Zoning Ordinances were developed in response to a planning study carried out at that time and adopted at Town Meeting in 1964. The Zoning Ordinance were amended several times and then were extensively rewritten and adopted at Town Meeting in 2002 incorporating findings of the Master Plan adopted in 2000. The Planning Board and Zoning Board of Adjustment are the governing boards charged with the administration of the Zoning Ordinances.

Districts

The 2002 Zoning Ordinance created four districts within the Town and an overlay district for the FEMA identified Flood Plain. Boundaries were established working with the existing uses, the suitability of the land for development, the natural resources and community input. These districts, their characteristics, land use, and boundaries are defined in those ordinances. The Zoning Ordinances were most recently amended in 2014.

The Districts as outlined in the Zoning Ordinance are:

- 1) Forest District
- 2) River Valley District
- 3) Route 2 District
- 4) Industrial District

Subdivision Regulations

The Planning Board was granted authority to create subdivision regulations at town meeting in March of 1971. The first Subdivision Regulations were adopted in 1973 by the Shelburne Planning Board according to New Hampshire RSA's. These regulations have been updated several times since adoption, the latest being in June 2005. This document serves as a guide to the planning board in processing subdivisions, lot line adjustments and non-commercial land use changes. The 2004 update included the incorporation of the Town of Shelburne's Road Standards into the regulations.

Site Plan Development Regulations

The Planning Board was granted authority to adopt site plan review at Town Meeting in March 1983. The Board adopted these regulations in 1987. The site plan regulations cover the commercial development of land including multi-family dwellings.

Gravel Pit Regulations

The Planning Board was granted authority to adopt regulations consistent with the New Hampshire RSA's in 1980. The current regulations were last updated in 1998 to accommodate changes to the New Hampshire RSA's. These regulations were enacted to protect the identified groundwater supplies within the Town and to assure that natural barriers to flooding along the Androscoggin River were protected.

Conserved Land in 2015⁴

Conserved Land Percent-2015	Acres	% of Land Area
Federal Government Ownership	15,273	50.3%
State of NH Ownership	246	0.8%
Town of Shelburne Ownership	122	0.4%
Private Conserved Land	1448	4.8%
Total Conserved Land	17,089	56.3%
Total Un-Conserved Land	13,253	43.7%
Total Land Area	30,342	100.0%

Land use in 2015⁵

Land Use Percent -2015	Acres	% of Land Area
Residential Land & Buildings	1,206	4.0%
Commercial Land & Buildings	270	0.9%
Tax Exempt	15,642	51.6%
Current Use	13,224	43.6%
Discretionary Easement	0.40	0.0%
Total Land Area (excluding water)	30,342	100.0%

Soils Data⁶:

(Total land area differs in this chart because an alternative data source was used; the Soil Survey from Granit uses a GIS analysis, which may not provide the identical numbers that were provided by the Town.)

Soils Data	Acreage	% of Land Area
Total Area (Acres)	31,212	100%
Land Area	30,636	98%
Surface Water Area	576	2%
Area Mapped for Soils	17,813	58%
Prime Farmland	815	3%
Farmland of Local Importance	1,931	6%
Not Prime Farmland	15,067	48%
Farm Land of Statewide Importance	0	0%

⁴ Town of Shelburne's 2015 MS1

⁵ Ibid

⁶ Based on GIS Analysis of the 2009 Soil Survey Geographic Database for NH; available from Granit; UNH Cooperative Extension

FUTURE LAND USE

Since the 2000 Master Plan was adopted, the types and distribution of land uses in Shelburne have remained much the same. The Conservation Commission has worked to identify important areas of land in the past decade to protect wildlife and conserve the rural setting of Shelburne. The following are items of concern and goals developed in the process of developing this plan

Concerns

The Master Plan Survey showed various areas of concern relative to the use of land in the Town. These areas can be summarized in three broad categories.

1. PRESERVATION OF OPEN SPACE AND AGRICULTURAL LAND

The two items of the greatest concern in the Master Plan Survey was the preservation of open space and preservation of the limited amount of agricultural land in Shelburne. This is consistent with the strong desire to maintain the rural character of Shelburne.

2. PROTECTION OF THE ANDROSCOGGIN RIVER

The issue of protection of the Androscoggin River and the lands abutting the river is a new issue for Shelburne. Heavy industrial activity upriver of Shelburne had limited use of the river thru the early 2000's but that has largely ceased. The issues become how to accommodate an increased recreational demand for access to the river while protecting both the river and the rights of the abutting land owners.

3. AQUIFER AND WATER PROTECTION

As the Town of Shelburne has no municipal water system the residents rely on a combination of water sources including springs, dug wells, and drilled wells. Shelburne thus has considerable interest in protecting the quality of the various sources of water used by it residents. Several aquifers have been identified in Shelburne which require continued protection. The Town also utilizes the surface waters of Shelburne for fire protection by the placement of hydrants in a number of ponds and reservoirs throughout the Town.

LAND USE: GOALS

The Planning Board developed the following Future Land Use goals based upon community feedback and input from other Town Boards and Commissions.

Goal 1 – Maintenance of the “Rural” Nature

To maintain what the residents consider to-be the “rural” nature of the Town while providing for commercial and agricultural activities that support this vision. This would include provision for secure housing, the maintenance of a good transportation system, continued renewal of required Town services and maintaining a tax base that supports the Community without unduly burdening the residents or the commercial ventures within the Community.

This goal is supported by the following objectives:

- a) Use zoning and land use regulations to protect sensitive environmental areas, particularly along the Androscoggin River and adjacent lands.
- b) Review regulations around the development of wind energy and adopt regulations where practical to preserve the viewsheds within Shelburne.
- c) Continue to insist that additions and/or expansions of roads, rail, utilities, and pipelines follow existing corridors through the Town to the maximum degree possible.
- d) Discourage the fragmentation and subdivision of large undeveloped parcels.

Goal 2 - Develop Future Land Use Map

The Future Land Use Map will displays areas of the Town recommended for various land use types. It is intended to be a graphical representation of the Planning Board's direction regarding future land use. The map also serves as a guide to assist the Planning Board in the coming years in making decisions regarding the preservation of the Town's physical, natural, economic, and historic assets and in promoting appropriate opportunities for commercial, industrial, and residential land growth.

The Future Land Use Map is not the same thing as a zoning map, although closely related. It expresses the desire for a certain geographic distribution of land use type. It can be used as the basis for zoning changes in the future. However, it does not represent regulatory districts or authority regarding current land development applications or decisions. The Community and the Planning Board should regard this map as a planning tool.

Goal 3 - Future Changes in Planning and Zoning Regulations

The future uses of land and the recommendations for changes in the current pattern of zoning, as described below, were developed from suggestions proposed by the Planning Board, the results of community surveys, and from recommendations that grew out of public forums.

- a) Continue to review options that might allow for denser residential development of suitable parcels while encouraging the retention of open space.
- b) Encourage the inclusion of "home businesses" in all of Shelburne's districts.
- c) Encourage limited development of small retail businesses along the US Route 2 Corridor while discouraging any large box store or mall development.
- d) Review zoning to determine if Shelburne Village should be a separate district.

LAND USE: SUMMARY

Shelburne's general character and land use priorities have not changed drastically since the last Master Plan was adopted. The Future Land Use Map incorporates only a few changes from the 2000 version. Residents wish to keep the small town, rural feel of Shelburne intact.

The Zoning Ordinance, as well as Site Plan Review and Subdivision Regulations, are the most effective and commonly used tools to affect future land use goals. The Planning Board should examine these documents on a regular basis to make sure that they reflect the desires of the Community contained in the Master Plan.

The Planning Board, Conservation Commission, Zoning Board of Appeals, and other boards and committees should work together whenever possible to keep communication lines open and to include a range of ideas on land use matters. Finally, community outreach and education are very important aspects when planning for future development as well as regulatory changes. The Community at large may support an outcome, but not fully understand the reasons behind an ordinance change or a new set of land use regulations. The Planning Board and other Town officials should do their best to publicize such discussions, invite public participation, submit articles to the Town website, and hold informal events from time to time so that residents may be involved in shaping the future of Shelburne.

CHAPTER 2: NATURAL RESOURCES & HAZARDS

INTRODUCTION

In our fast-paced, modern life, it is easy to become disconnected from our natural environment. We may forget that our physical surroundings influence our actions and color our moods. We also may forget that the land and all its inherent components have shaped our infrastructure and influenced our livelihoods.

*"The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value."
~Theodore Roosevelt*

Shelburne's earliest settlers followed the river valley, locating farms and homes along the Androscoggin River for a long growing season, hunting the mountain sides for game, and harvesting the trees for wood. The location of the village was as much determined by the land as by the residents, with its wide gentle shelf of farmland in proximity to the river.

Our natural resources continue to shape our lives: the forests provide building materials, jobs, wood fuel and places to hike, hunt, or get away; water is ever more a precious and marketable substance, threatened by pollution; our streams, rivers, mountains, and wildlife draw residents and visitors. We depend on nature for sustenance and renewal.



A 1999 study commissioned by the Society for the Protection of New Hampshire Forests estimated that over 8 billion of revenue was generated each year by New Hampshire's open space, second only to manufacturing. More difficult to articulate is the environment's effect on our psyche and wellbeing – Shelburne's residents cherish their landscape. Of the five top issues identified by Shelburne residents in the 2009 Shelburne Master Plan Survey of public opinion, three issues related to the environment: preservation of open space, preserving agricultural lands, and protection of the Androscoggin River.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- As a general concern, preservation of open space, preserving agriculture lands, and protection of the Androscoggin River were ranked 3, 4, and 5 in importance respectively.
- The majority of respondents indicated that they would like to regulate ridge-top development.
- A majority of respondents indicated that they would like to protect the quality of lakes, ponds, rivers & streams.
- A majority of respondents indicated that they feel the aquifers should be protected for drinking water sources.
- While rating scenic vistas in town, the highest responses were for Reflection Pond, the White Birches, and the Androscoggin River. Several other sites in town received a number of responses and another 31 vistas scattered across the Town received one or two responses.

Comments from the Master Plan Survey:

- *“Small town feel, undeveloped surrounding mountains & forests & Androscoggin River”*
- *“Small town, good people with water & mountain views”*
- *“It’s quiet and we can enjoy the nighttime skies!”*
- *“Quality of life, being close to hiking, canoeing, biking, running, snowboarding – nice neighbors”*
- *“The rural character & the people”*

COMMUNITY VALUES & GOALS

Shelburne Master Plans over the past three decades have used community surveys to determine its citizen’s views or vision for the future of their town. Since the 1982 Master Plan, that vision has been primarily to see the Town preserve its rural character with reasonable guidelines for growth, while protecting Shelburne’s considerable natural resources.

The 1996 and revised 2000 Master Plans were more elaborate in scope, but continued the earlier vision from the 1982 Plan. The 1996 Plan’s General Statement of Goals stated that the goal of the Town of Shelburne is to preserve the present way of life by its citizens. It also stated that the highest priorities of the Town are the preservation of natural beauty, keeping intact the rural nature of the Town, balancing budget requirements against a realistic tax rate, guarding against the loss of open space, and developing in an orderly way. It further stated that the central theme of the Town’s plan for the future is based on its rural setting and natural beauty. The revised 2000 Master Plan retained those basic goals using a more in-depth framework to implement the Plan.

Each of those plans utilized a written survey of town residents to identify goals, and a review of the comments and responses to those earlier surveys will show that little has changed in those views over the past three decades. Most respondents still want to see Shelburne continue as a small rural town with strong protection for its natural resources. The responses in the box at the top of this section to one question in the 2009 Master Plan Survey reflect the most prominent responses. Still, those feelings are not unanimous and there continue to be many residents who place a high value on seeing significant residential and/or commercial growth and development in town. Even those who highly value the current rural character and natural resources and open space often have a different vision of how to implement their views.

The Questionnaire Results from the 2009 Master Plan Survey will be included in the appendix of this report and will not be thoroughly reviewed here. Readers may read the full questionnaire and draw their own conclusions from it.

CLIMATE

Climate is the average of weather conditions including temperature, wind, sunshine, humidity, and precipitation over a period of years. Characteristics of New Hampshire's and Shelburne's climate are: changeable weather with large ranges in temperature, both daily and annual; great differences between the same seasons in different years; and equitable distribution of precipitation. Regional climatic influences are modified in Shelburne by the distance from the relatively mild Atlantic Ocean waters and Androscoggin River waters, as well as elevation, aspect, and terrain. Continental air masses that affect Shelburne's climate originate over Canada bringing cold, dry air, and over the Gulf Coast bringing warm, moist air up the east coast. Although the Canadian air mass dominates in winter and the maritime air mass takes over during the summer months, the boundary between air masses shifts as storms pass through the region creating typical New England changeable weather. The succession of contrasting air masses and the relatively frequent passage of storms bring about a roughly twice-weekly alternation from mainly fair to cloudy or stormy conditions. These fluctuations are often attended by rapid changes in temperature, moisture, sunshine, and wind direction and speed. There is usually no regular or persistent rhythm to this sequence and it can be interrupted by intervals during which the weather patterns are stable for several days. The same month or season will often exhibit varying characteristics over the years, sometimes in close alternation, sometimes arranged in similar groups for successive years. A "normal" month, season, or year seems to be the exception, rather than the rule.

*"There is a sumptuous variety about the New England weather that compels the stranger's admiration – and regret."
~Mark Twain*



Presidential Mountain Range from US Route 2 near Reflection Pond, October 2000

Temperature

The nearby Berlin weather station, managed by the National Climate Data Center, provided key estimates for temperature and precipitation information, although Shelburne temperatures are typically a few degrees warmer. Temperatures at Berlin range from a mean of 15 degrees Fahrenheit (F) in January, consistently the coldest month, to 67 degrees F in July, consistently the warmest month, with an average annual temperature about 42 degrees F. Temperatures can range from a low of less than -40 degrees to +100 degrees. The diurnal range may reach 40 degrees or more during cool, dry weather in valleys and lowlands.

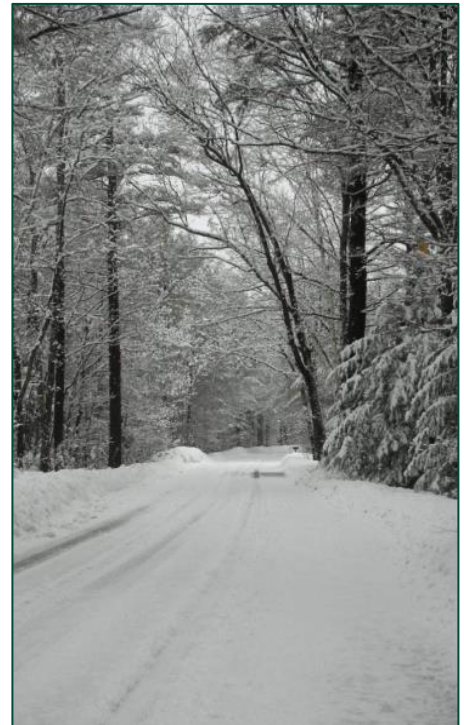
The growing season for vegetation subject to injury from freezing temperatures averages from 95 to 125 days, though local topography causes exceptions to these values. Swampy areas typically have a shorter season. For most residents, the growing season begins in May and ends in the latter part of September, with killing frosts a threat even into June and August in some areas.

Precipitation

Shelburne, like the rest of New Hampshire, is fortunate in having its precipitation somewhat evenly distributed throughout the year. Low pressure storm systems are the major year-round moisture producers. This activity ebbs somewhat in the summer, but thunderstorms increase at this time, tending to make up the difference. Though brief and often of small size, local thunderstorms produce the heaviest rainfall intensities, and sometimes cause minor washouts of roads and soil erosion.

Monthly precipitation totals vary widely, ranging from no measurable amount to 10 inches or more. Floods occur most often in the spring when they are caused by rain and melting snow. Typical annual precipitation averages nearly 42 inches in the Shelburne area, although the mountainous terrain creates variability from place to place. As an extreme example, Berlin, approximately 10 miles northwest of Shelburne, elevation 930 feet, has an annual average precipitation of 40 inches, which is about 39 percent that of Mt. Washington (102 inches), where the elevation is about 6,200 feet above sea level. These stations are only about 18 miles apart. Measurable precipitation falls on an average of one day in three.

Average annual snowfall amounts also vary greatly over the terrain. While Berlin receives about 80 inches of snow annually, the summit of Mt. Washington often receives over 300 inches. Most years will have several snowstorms. Snowfall is highly variable from year to year or for the same month in different years, as well as from place to place. Snow cover is often continuous through the whole winter with snow depth greatest in February and March. Recent years have experienced heavier snow cover in January and February, with a declining snowpack in March. Yearly snowfall totals in excess of 200 inches have been recorded in Shelburne.



North Road after snowfall

Sunshine averages near 50 percent in the lower elevations, while higher elevations and the peaks are cloudier, especially in winter, reducing the percentage to less than 50. Heavy fog occurrence varies widely with location and topography, however heavy early morning ground fogs frequently occur along the Androscoggin River.

The prevailing winds, based on a yearly average, are westerly, predominantly from the northwest in winter and from the southwest in summer. Topography has a strong influence on prevailing direction, and the generally east-west Androscoggin River valley can cause the prevailing winds to parallel the valley. Thunder and hailstorms typically occur from mid-spring to early fall. Thunderstorms typically occur 15 to 30 days a year.

Ice storms can produce perilous travel. A few widespread and prolonged ice storms have occurred such as in 1998. Besides affecting travel and transport, the weight of the ice breaks limbs and trees, utility lines and poles.

Climate and the Economy

Activities in Shelburne are profoundly influenced by the climate. The forestlands that result from the climate that dominates Shelburne constitute a recreational and scenic attraction for visitor and hikers, highlighted in the fall with spectacular color. Our forests also provide material for forest product industries. The abundant rainfall is a source of electricity generated from hydroelectric power. Climate is also a significant factor in our local agriculture, producing vegetable and fruit crops, as well as maple syrup for some residents. In the summer and fall, pleasant temperatures abound bringing in tourism in the form of sight-seers, hikers, canoers and kayakers. In the winter, cross country skiing, snowmobiling, and related winter sports are made possible by the abundant snowfall. For hunters and anglers, the forested lands and Androscoggin River provide opportunities to hunt and fish. Predictions for climate change portray a shorter winter season, changes in amount and intensities of precipitation, and changes in the forest composition over the long term.

GEOLOGY

The underlying bedrock in Shelburne consists primarily of high-grade metamorphic rock (quartzites, schists and gneisses) formed predominantly from Early Silurian to early Devonian (~430 to ~400 million years ago) sedimentary rocks which were deposited offshore of the North American tectonic plate. At this time on earth, all life was in the sea. Metamorphic rocks are formed by heat and pressure deep underground as the earth's tectonic plates shift and portions of the crust are pushed downward into the earth's crust where the material may become plastic in form, folding the rocks, and the rocks may even partially to completely melt. The pressure and heat cause the minerals to chemically combine into new minerals. When the rocks cool, some will have metamorphosed into a new rock different from the parent material.

*"To protect your rivers; protect your mountains."
~Emperor Yu of China, 100 BC*

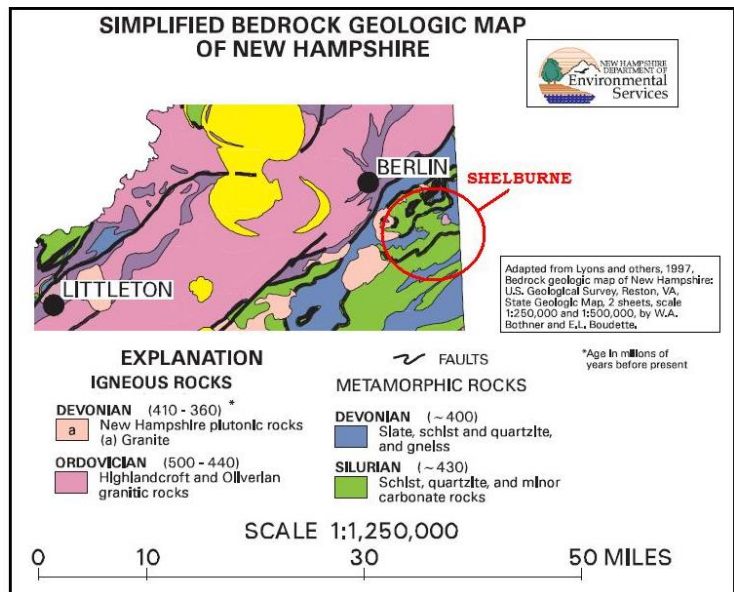
Metamorphism in our area occurred just before and during the collision of the North American and European plates about 375 to 350 million years ago. This collision also resulted in several granitic igneous intrusions through the older rocks in the Shelburne area. Plants also started to grow on land at approximately this time. In contrast to the Shelburne area, the granitic rocks of the nearby Presidential Range of the White Mountains are much younger, having originated through plutonic and volcanic igneous processes only 150 to 245 million years ago. Igneous rocks originate as molten material in the mantle layer, some 60 or more miles below the earth's surface.

Granite present today intruded as molten material into the earth's crust, many miles below the surface, where it slowly cooled – subsequent erosion has resulted in the granite being exposed at the surface. Granite is the most common intrusive igneous rock and is made up primarily of quartz, orthoclase feldspar, and biotite mica.

About 200 million years ago, after a long period of erosion, and some 50 million years after dinosaurs started evolving, the North American and European tectonic plates separated, resulting in the present North American continental plate boundary off the coast of Maine, and the formation of the still-widening Atlantic Ocean. Erosion of the Shelburne and surrounding area has generally continued from the Jurassic period area (~ 200 to ~150 million years ago) to the present.

Bedrock geology is important because it is the underlying source for the soils that develop, and determines the type of soil that will become present on a site, although in much of Shelburne, bedrock is covered by relatively recent glacial deposits. Shelburne's soils are covered extensively under Soils/Topography in the Natural Resources section of this Master Plan. The map below shows the simplified bedrock geology of Shelburne.

Toward the end of the last "Ice Age," some 10-15,000 years ago, a glacier of vast proportions covered New Hampshire and the northeastern United States. The Laurentide Continental Ice Sheet had advanced southward out of Canada about 25,000 years ago and remained for almost 15,000 years. The slowly flowing ice was thick enough to cover Shelburne's highest mountains and swept away much of the evidence of even earlier periods of glaciations, eroding both the bedrock and previously existing sediment cover. Many of the glacial features seen today were left behind during the final northward retreat of the last ice sheet, when the pulverized rock debris was released from the melting ice.



As the ice margin withdrew, internal flow within the glacier continued to transport its sediment load southward toward the edge of the ice sheet. Through a variety of processes, this dirty material was either released directly from the ice, forming a stony deposit called "till," or washed out of the glacier in meltwater streams. The water-laden sediments were deposited as layered accumulations in our river valley and include the majority of our extensive sand and gravel deposits.

The clearest markers of glacial retreat are ridges of sediment called "end moraines". These ridges were heaped up along the edge of the glacier during brief periods (as short as a single year or season) when the ice margin remained in a stationary position or re-advanced slightly. Moraines provide important supplies of sand and gravel or sandy till that are useful for construction purposes, and, depending on their composition, may also constitute significant aquifers. Shelburne has a significant stratified drift aquifer as a result of the glacier's retreat. The Androscoggin River originally consisted of a series of large connected lakes following the glacier's retreat and became a flowing river only as the lakes dried and the land rebounded from the weight and pressure of the more-than one mile thick ice.

Past large commercial extractions of sand and gravel in Shelburne have occurred in pits south of the Androscoggin River below the village center and near Leadmine Brook just above North Road. Numerous smaller pits are found along the logging roads in Shelburne's commercial timberlands and have been used periodically in the maintenance of those roads and for forest management activities. Sand and gravel mining at an extensive esker (a deposit left by a river of glacial meltwater flowing beneath the glacier) in Gilead just to the east of the Shelburne state line has been ongoing the past few years.

A commercial lead mine was operated on the West Branch of Leadmine Brook after discovery of galena ore there by Amos Peabody in 1820. Deep shafts were sunk beginning in 1845 and mining continued off and on through the late 1800's, though the only substantial profit the mine owner earned was from speculator's investments on the projects. Galena, or lead sulfide, is the most common lead mineral, but may also contain silver in small quantities. An early report on the mine indicated that miners were obtaining approximately 3 lbs. of silver per ton of ore excavated. A 2,400 pound cubical form of galena was removed at the mine and exhibited at a world's fair in London, England in 1851.

In a town list of the distribution of minerals for the Town of Shelburne, not including the most common minerals, bornite, chalcopyrite, galena, pyrite, siderite, and sphalerite are reported in Shelburne (*Geology of New Hampshire Part III*).

An outdated 1975 map titled “Geologic Map and Structure Sections of the Gorham Quadrangle, New Hampshire – Maine”, shows a few unusual areas of intrusive igneous rock in Shelburne, including a large deposit of quartz diorite on the summit and southern exposure of Mt. Cabot and an area of abundant dikes and sills of quartz diorite extending from Mt. Cabot southeasterly across Crow Mountain and Hark Hill near the Maine border. A deposit of pegmatite, known as the Fisher Prospect, was also noted along the west slope of Artist Rock at an elevation of 1,050’. Pegmatite is a coarse-grained intrusive igneous rock, usually with a granitic composition; the principle minerals are quartz, feldspar, and mica, though small amounts of garnet, tourmaline, and beryl may be present.

Note: *Knowledge of the bedrock and glacial geology of our greater region has evolved over time as new discoveries and research alter current thinking. The descriptions of our geologic history in the beginning chapters of this section may not fully agree with the texts presented in the references used for this section, many of which date back to the 1950’s. No new reports have been printed, but the sequence of geologic events presented has been reviewed by a local geologist familiar with current thinking and reflects his updates.*

SOILS AND TOPOGRAPHY

Topography

Topography describes the surface of the land in terms of shape, relief, and relative positions of natural features. It is usually expressed as elevation and slope, and it modifies our climate (microclimates), determining drainage patterns and affecting severity of storm water runoff, soil erosion, wind patterns, and vegetative growth, in turn affecting human activities. Shelburne is principally a mountainous township located in the northeastern part of the White Mountains along the northeasterly extension of the Appalachian Mountain chain.

The Township of 46.15 square miles measures 7.1 miles east to west and 6.5 miles north to south. The Androscoggin River is the major feature that bisects the Town east to west. The narrow valley has the Carter-Moriah mountain range on the south side of the river, and the Mahoosuc mountain range on the north. Several major brooks drain to the Androscoggin River from the north, including Leadmine, Peabody, Austin Mill Brook, Ingalls, and Larry Brooks (the latter two originate in New Hampshire and drain into Maine just over the border in Gilead), and Pea, Kidder, Josh, Schoolhouse, Rattle River, Clement, and Connor Brooks drain from the Carter Moriah range. The highest point of land in the Town is the summit of Mt Moriah at 4,049 feet, and the lowest point is where the Androscoggin River crosses into Maine at an elevation of 670 feet.

The topography of Shelburne has created a land pattern where the most desirable, feasible, and accessible residential, non-residential, utility rights-of-way, and roadway locations are on more or less flat parcels at relatively low elevations with gradual slopes. These same locations are, in general, already developed.

“We know more about the movement of celestial bodies than about the soil underfoot.”
~Leonardo Da Vinci

Soils

Soil is the layer of the earth which directly overlies either bedrock or the assortment of till and outwash deposited by the receding glaciers. Soils develop over time through the interaction of soil-forming factors including climate, topography, parent material, and plant and animal life, and that interaction creates many types of soils as classified by the Natural Resource Conservation Service (NRCS). Soil types can be quite variable within the Town's landscape, sometimes within very short distances, and understanding those characteristics and capabilities is useful in planning the kinds, locations, and intensities of future land use activities. Important physical characteristics of soil are drainage, slope, stability, and depth to ledge (bedrock). For example, a poorly drained soil (hydric soil) or one subject to flooding is unsuitable for septic fields, building basements, or underground installations. Shallow-to-ledge or unstable soils provide poor foundations for buildings or roads. Soils with better potential for development have the following characteristics: they do not flood, are not wet (has good drainage), have sufficient permeability, have suitable texture, have a relatively deep water table, have adequate depth to bedrock, and have a mild slope. **See Map #1-Soils, in Chapter 11, Map Documents.**

Private Lands Soils

All of the private lands within Shelburne, (approximately 17,813 acres), have been mapped by the NRCS; the remaining acres are in the White Mountain National Forest and have not been mapped by NRCS. The Coos County Soil Survey was developed for private lands by soil scientists within the NRCS who recorded the characteristics of the soil profiles that they studied, noting color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, acidity, and other features. After describing the soils and determining their properties, the soil scientists assigned the soils to taxonomic classes (units with a set of soil characteristics with precisely defined limits). The classes are used as a basis for comparison to classify soils systematically and to identify the best uses for which humans can use those soils. A mapping delineation on a soil map represents an area dominated by one or a few major kinds of soil with specific properties. On the landscape, however, soils are natural objects and in common with other natural objects, they have a natural characteristic variability in their properties.

The mapped soils in Shelburne generally fall into 4 different soil associations, two generally along the alluvial Androscoggin River and two in the glaciated uplands.

The Fryeburg-Lovewell-Grange and Adams-Colton-Sheepscot soils series are found along the Androscoggin River in nearly level to gently sloping alluvial terraces, flood plains, and glacial outwash terraces, broken by steeper escarpments and occasional glacial features such as kames and eskers. Historic and modern farms in Shelburne, including the Philbrook, Whitney, Peabody, and Tassey Farms, are dominated by these soil associations. Crops such as silage and hay can be grown, as well as some fruits and vegetables. Where farming, haying, or mowing is abandoned, these areas will revert to the natural vegetation of the terraces and escarpments, which is pre-dominantly spruce, balsam fir, and white pine, with some areas of sugar maple, or even grassy areas where flooding and disturbance is very frequent. Spring wetness may delay planting on Lovewell soils. Fryeburg, Lovewell, and Sheepscot soils have severe limitations for urban development, occurring in areas prone to flooding and wetness in late winter and spring.

The majority of the remaining mapped soils in Shelburne consist of the Becket-Monadnock-Tunbridge and Lyman-Berkshire-Marlow series. Both soils associations are loamy soils formed on upland glacial till.

The Becket-Monadnock-Tunbridge series soils lie in a large block north of the Androscoggin River and east of Peabody Brook, and in separate locations south of the Androscoggin River west of Rattle River, and near Connor Brook. These soils are generally very to moderately deep, well drained, and gently sloping to very steep; the natural vegetation is dominantly hardwoods including sugar maple, red maple, beech, white birch, and yellow birch. Soil fertility and moisture of these soils is favorable for growth of high quality timber, although woodland management on these soils can be limited by slope, wind-throw hazard, and erosion along skid trails and access roads. Residential development is possible in carefully selected areas of this unit, but slowly permeable hardpan, slope, and bedrock at 20 to 40 inches are limitations to development.

The Lyman-Berkshire-Marlow series is found north of the Androscoggin River west of Peabody Brook, and south of the Androscoggin River from Mt. Winthrop to Connor Brook. These are shallow to very deep, well drained, gently sloping to very steep, loamy soils formed in glacial till on uplands. The natural vegetation on these glaciated uplands areas is usually red spruce and balsam fir on the shallow Lyman soils, and sugar maple, red maple, beech, white birch, and yellow birch on the Berkshire and Marlow soils. Soil fertility and moisture characteristics on these soils are generally fair to poor for the growth of high quality timber, and woodland management on these soils can be limited by slope, depth to bedrock, wind throw hazard, and erosion along skid trails and access roads. Community development is possible in carefully selected areas of this unit; however, the bedrock at 10 to 20 inches, slope, and the slowly permeable hardpan are limitations to residential development. **See Map #1, Soils, in Chapter 11, Map Documents.**

White Mountain National Forest Soils

As noted earlier, soils on the White Mountain National Forest have not been mapped by the NRCS. On the national forest, soils are managed under a related concept, the Ecological Land Type (ELT). An ELT ranges in size from a few hundred to a few thousand acres on soils with well-known vegetative succession patterns. The basis for ELT classification is a combination of geomorphic history, climax forest, and nature of the soil substrata. Climax forest reflects the plant community that would naturally develop on a given piece of ground if the land were left in a relatively undisturbed state. This is known as potential natural vegetation (PNV) or land capability. For example, a rich northern hardwood forest of sugar maple, beech, and white ash on basal till soil is an ecological land type. After substantial disturbance, such as fire or clear cutting, some softwood ELTs regenerate as northern hardwood or mixed wood forest. Over time, a softwood understory develops and gradually grows into and replaces the overstory until the stand becomes a climax softwood habitat. The intensive harvesting of the White Mountains in the late 1800s and early 1900s resulted in large areas of northern hardwood, mixed-wood, and aspen-birch forest where softwood forest had previously occurred.

When a project is initiated on the National Forest, an interdisciplinary team representing a variety of disciplines including soils, fisheries, watershed, forestry, recreation, botany, wildlife, engineering, and more, comes together and reviews the resource conditions and available data for the National Forest land in the project area and compares those with desired conditions described in the Forest Plan. Recent projects in Shelburne have included the Rattle River and Connor Brook timber sales, and the Connor Brook watershed restoration project.

Land Development

In combination with soil types, topography, in particular slope, is a condition that should be factored in future land development activities. Depending on the region of Coos County and type of proposed development, regulations generally put limitations on development on slopes over 10 – 15%. Development costs and probabilities of environmental degradation vary depending on soil and slope characteristics.

Potential for development is low for soil that: floods, is wet (poor drainage), is not very permeable, has fine texture, has a high water table, has shallow depth to bedrock, or has a steep slope. Further, although soil development potential rating, found in the NRCS' soil survey, is a useful guide for locating areas suitable for economic development with minimal soil-related problems, it does not consider the effect of development on other natural resources. Some prime agricultural land has a high development potential but might be better used for farming. Outwash soils also may rate high, but they often overlie stratified drift aquifers. Construction on the surface may be compatible with aquifer protection, but some uses will jeopardize water quality, such as waste disposal, storage of road salt, junkyards, and waste water lagoons.

Maps are included in the appendix of this report showing slope by percent class. A separate map shows the 100-year floodplain, aquifer, and wetlands. These maps serve as planning guides with on-site investigations necessary for final determinations for land use activities. **See Map #2, 100-Year Flood Zone, Aquifer & Wetlands, in Chapter 11, Map Documents.**

VEGETATION/FORESTS/LARGE LAND BLOCKS

Terrestrial vegetation includes trees, shrubs, and grasses, and other non-woody plants (herbs, forbs, ferns, etc.). They form forests, thickets, meadows, wetlands, and alpine habitats.

*"The gift of that wild forest,
those green mansions where I
had found so great a
happiness."
~William Henry Hudson*

Like much of New Hampshire, Shelburne is largely defined by its abundant forests. Forests are an important source of our clean air, water, scenery, wildlife, and recreation. They are one of the key engines that drive our tourism and provide a base for manufacturing. Forested land is one of Shelburne's greatest treasures and one of the resources that is transformed when development occurs. Preservation of open space (undeveloped land, including forested lands), was one of the highest concerns identified by residents in the 2009 questionnaire.

Aside from being a scenic resource for local residents and visitors alike, forests provide a host of environmental benefits. Forests:

- Stabilize soil, especially on hillsides - deforestation diminishes the ability of soils to absorb water and results in erosion of sedimentation into streams and rivers.
- Supply renewable wood for heating, lumber, and a variety of other products.
- Absorb carbon dioxide and provides oxygen to the air.
- Act as a dust filter.
- Stabilize the water table, which protects watershed and drinking water supplies.
- Provide habitat for numerous wildlife species, including rare and sensitive species.
- Provide shade in summer and wind protection in winter reducing home energy needs.
- *Screen or buffer sights, sounds, and wind around homes.*
- Absorb and store large amounts of carbon.
- Provide natural beauty and scenic vistas for residents and visitors, especially in the fall.

The majority of Shelburne's forests are a mosaic of northern hardwoods, spruce-fir, oak-pine, aspen-birch, and hemlock in various successional stages. Most of the current forest land is comprised of second and third growth, having regenerated from abandoned farms and agricultural fields, or from heavy lumbering for an emerging pulp-wood industry in the early 1900's. If a forested area is left undisturbed, it succeeds over time to what is known as a climax forest. Climax forest reflects the plant community that would naturally develop on a given piece of ground if the land were left in a relatively undisturbed state.

Special and well-known among the forests of the Town, are the large stands of white birch, (also known as paper birch), epitomized by the Memorial Forest located along Route 2. White birch is an early-successional species that is replaced by other species if disturbance does not allow it to regenerate under an open canopy. At higher elevations, paper birch is a common early-successional species, while at lower elevations, paper birch and aspen both fill this role. Both species are shade-intolerant and result from moderate to large gap-forming disturbance or stand-replacing events, such as fire or harvest. Over time, the Shelburne white birch forests will succeed to other forest species if not disturbed by natural events such as wind or fire, or man-made events such as timber harvest.

OWNERSHIP AND PARCELIZATION

The single largest ownership in Shelburne is the federally-administered White Mountain National Forest located largely on the south side of Route 2 except for the strip of the AT corridor surrounding the Appalachian Trail as it crosses Route 2 and ascends into the Mahoosuc Mountains. Acquisition for the forest began in the early part of the 1900's as a result of widespread deforestation. Late nineteenth-century New England activists were deeply worried about deforestation's impact on rampaging floodwaters and damaging fires. In 1903 alone, 84,000 acres of cutover land burned in New Hampshire. Steep slopes stripped of tree cover fostered erosion of the headwaters, and mill owners along the lower Merrimack River noted the growing inconsistency of water flow, as well as floods and drought. People began to understand the connection between a healthy, well-managed forest and the water quality of the streams and rivers that flowed from it.

The Weeks Act, which President William Howard Taft signed into law on March 1, 1911, authorized the federal government to create national forests across the east. It thus changed the face of New Hampshire and Shelburne. The White Mountain National Forest south of Route 2 is predominantly managed as a multiple-use forest, while the AT corridor lands are managed under an agreement with the National Park Service and Appalachian Trail Conservancy.

State ownership is vested in the Lead Mine State forest with a little over 200 acres just north of the eastern end of Reflection Pond and along the Hogan Road. The Lead Mine State forest was originally donated to the Appalachian Mountain Club and subsequently transferred to the state. The state manages this forest for timber, but maintains it as a high cover mature forest along the Appalachian Trail. No active management has been evident in at least the last 20 years.

The Town of Shelburne owns over 100 acres of land, including the area around the Town Hall (.42 acre), the Town Garage (1.5 acres), two cemeteries (1 acre each), Chester Hayes Park (6 acres), the Peabody House (5 acres), and property near the Shelburne Dam (1.5 acres). Approximately 19 acres is located along Route 2, and this area, known as the Memorial Forest, highlights the scenic beauty of the Shelburne birches. Recent cutting was designed to regenerate birch, which requires disturbance and light to remain present. Another 57 acres support the area around the Shelburne landfill and 20 acres of Town Forest (William C. Hastings Memorial Forest) lies along the very eastern end of the Town line adjacent to Gilead, sandwiched between Route 2 and the Androscoggin River.

According to the New Hampshire Statewide Forest Resources Assessment – 2010, private forestland ownership is significantly changing in New Hampshire, especially in the larger private ownership category. Large industrial forest ownerships, i.e., those ownerships with large acreages of forest connected to forest products manufacturing, including paper-making, have largely changed to Timber Investment Management Organizations (TIMOs).

TIMOs use investor funds to purchase forestland assets and manage the lands for a return on investment. This is primarily made through appreciated land values, timber management, and selling of high value development parcels. According to the Society for Protection of New Hampshire Forests (SPNHF), no large industrial timberland owners remain *in the state of New Hampshire* – having changed to TIMOs or fragmented ownerships to smaller ownerships or development.

Of note, the largest remaining industrial ownership – the 170,000-acre Connecticut Lakes ownership, formerly owned by International Paper and Champion International, previously in the Pittsburg area, and the over 120,000 acre-Mead Westvaco ownership, including forests in the Androscoggin River Valley, both sold to TIMOs in the early 2000's. The latter is Shelburne's largest private landowner and is now Bayroot LLC, a TIMO which owns nearly 8,000 acres of forested lands from along the Androscoggin River to some of the highest elevations in the Mahoosucs in Shelburne, including slopes on Mt Ingalls and portions of Middle Mountain.

Catalyst Paper (formerly New Page) is the second largest private landowner in Shelburne with approximately 1200 acres of forested lands surrounding the chipping mill along Route 2 at the eastern end of Shelburne, and which supplies the paper mill in Rumford, Maine.

The balance of forested blocks of land is owned by private individuals/families, businesses such as the Androscoggin Valley Country Club, River View Properties, and trusts. About a dozen entities (families) own parcels larger than 100 acres and an additional dozen or so entities own parcels between 50 and 100 acres. A little over 4% of privately owned forested lands have been placed under conservation easements providing permanent conservation protection. Depending on landowner desires when they were placed into permanent protection, most of these easements allow timber harvest and public access for hunting, fishing, or hiking.

CHANGES IN FOREST LANDS

According to the SPNHF (Society for the Protection of New Hampshire Forests), New Hampshire remains the second-most forested state in the nation after Maine, but forest cover has been steadily diminishing since the early 1980s. This loss, which totals about 17,500 acres per year, is largely being driven by development.

Large “forest blocks” are shrinking as development breaks up large forests into smaller ones, gradually losing the values provided by extensive forests, including their contribution to water and air quality and quantity, wildlife habitat, scenic values, the forest products industry, and recreation opportunities. Ownership blocks under 50-100 acres usually become too small to be economical for timber management. While historic conversions for timbering and agriculture were largely transitory and kept the lands in production, today's conversion is largely a one-way process as land is cleared for development with structures and pavement.

Of further note, in New Hampshire, according to the NH Statewide Forest Resources Assessment – 2010, only 4% of family forestland owners are under 45 years of age, 45% are between 45 and 64 and, 51% of owners are

65 or older. This demographic data implies a large percentage of forest land may be sold or passed down to heirs in the near future, increasing the chances of subdivision and development.

Forest types

In acreage, Shelburne's forests are dominated by northern hardwoods, which include sugar maple, red maple, beech, and yellow birch. Other common forest types include spruce-fir, oak-pine, hemlock, and aspen-birch. It is likely that northern hardwoods are more abundant now than they were in pre-European settlement. This is because of the historic disturbance from fire, heavy timbering, or clearing for agricultural lands, such that some prior softwood forests regenerated as northern hardwood or mixed wood (mix of hardwoods and softwoods), forest. The intensive harvesting in the late 1800s and early 1900s resulted in large areas of hardwood, mixed wood and aspen-birch forest where softwood forest had previously occurred.

Over time on many sites, a softwood understory will develop and gradually grow into and replace the over story until the stand becomes a climax softwood habitat, unless there is further disturbance. The differences between softwood, mixed wood, and northern hardwood habitats are not always distinct. Most spruce-fir habitats have a small component of hardwood species, and most northern hardwood habitats have a small spruce-fir component. Mixed wood habitat is predominantly northern hardwood forest, but with a substantial softwood component. Once the majority of trees in a stand are softwoods, it is considered softwood habitat regardless of the hardwood component. Softwoods occur at both low and high elevations. Low elevation spruce-fir stands are usually small, while spruce-fir forest above 2,500 feet is often extensive. Mixed wood and hardwood forests occur in large and small patches at low and mid-elevations across Shelburne.

Oak and pine stands were not abundant in most parts of New Hampshire, Vermont, and northern New York prior to European settlement. Oak-pine stands are found in Shelburne and they occur most often in lowland valleys, and are uncommon in the uplands and mountains. Oak-pine and hemlock forests are limited, but are important habitats for wildlife. Oak and pine trees are also components of some hardwood and mixed wood forests.

Hemlock forest also is a limited habitat that is important to some wildlife species and occurs in small scattered stands throughout Shelburne. Like oak-pine, hemlock also is an important component of hardwood and mixed wood forests.

Owing to the active management programs on Bayroot Properties in Shelburne, these forested areas will likely maintain a mix of northern hardwoods well into the future. Lands on the National Forest echo similar patterns. The large blocks of timber in the steeper sections of the Carter-Moriah range that have remained relatively undisturbed are largely in softwood (spruce-fir) forests. Lower, more actively managed areas are currently a mix of aspen-birch, hardwoods, and mixed wood. Small inclusions of hemlock and oak-pine are in the lower fringes.

Forest management considerations

Excellent opportunities exist for forest management to produce sugar maple, red maple, beech, yellow birch, white ash, white pine and northern red oak sawtimber. Other important commercial timber species to favor are red spruce, balsam fir, white birch, and Eastern hemlock. At present, the dominant timber types are northern hardwoods (maple, beech, birch) and spruce-fir. Clearcuts in northern hardwoods tend to encourage pioneer species (white birch, aspen and pin cherry) and intermediate shade tolerant (white ash and yellow birch). Selective cuttings tend to favor the shade tolerant (sugar maple, beech, and softwoods).

A 1983 report to the New Hampshire legislature on the status of its forests stated that in the past 30 years forest quality declined markedly due to over cutting of the larger, better, and more desired species and leaving lesser

quality trees. Extensive use of fuel wood, pulpwood, and other low grade wood somewhat mitigates the effects of the decline. The 2010 New Hampshire Statewide Forest Resources Assessment noted that Coos County has the lowest percent of forest cover in large diameter (>9 inches) forest stands reflecting the continuing extensive harvesting practiced in the northern part of the state.

The soils and climate of Coos County and Shelburne are also ideally suited for growing balsam fir Christmas trees and producing sugar maple sap and maple syrup products. Sugar bushes, stands of sugar maple trees tapped for sap in the spring, are a special agricultural tradition. Maple syrup provides an additional source of income to farms and other large landowners. Forest management may also be used to enhance the non-timber values of wildlife, water, recreation, and aesthetics.

From a planning perspective, forests are not just a source of wood products and tax revenue: the forest industry provides area jobs. Forests also play an important role in providing areas for outdoor recreation, wildlife habitat, and scenic enjoyment. They play a role in the water quality of Shelburne's ponds, streams, and wetlands. All of these uses are sustainable and can co-exist.

Timber harvesting, while having dramatic visual impacts in some cases, is rather short-term. However, subdividing large forested parcels into small lots for development can have long term, nearly irreversible impacts. Considerable care should be taken during harvesting to ensure the conservation of soils by mitigating erosion. "Viewsheds," the views available to residents and tourists while driving, hiking, etc., and the impact of large clearcut areas on a viewshed, are an important consideration when the stated goal of the Community is to maintain rural character. The maintenance of important forested and agricultural views should be promoted.

Current Use is a voluntary program that allows landowners who own 10 or more acres to be taxed at its "Current Use" as opposed to its "highest" and developable use. Presently, approximately 13,451 acres in Shelburne are in one of nine Current Use categories. Under the Current Use taxation provisions under NH RSA 79A, land in the program is assessed at its value as forest land, farm land, unproductive land or wetlands. While not permanently protected, this offers landowners a tax savings and promotes keeping the land open and undeveloped. Land in Current Use generates more tax revenue than the cost of town services it requires. There are multiple categories of Current Use forest land. Forest land with documented stewardship plans are assessed at lower rates than unmanaged forest lands, but these categories require the landowner to have a management plan written by a licensed forester or to have the land in the Tree Farm program. If the land in Current Use is later developed, owners must pay 10% of the newly assessed value of the lands removed from Current Use.

Maine and New Hampshire are the two most heavily forested states in the United States. New Hampshire's Vanishing Forests (2001) found that while New Hampshire remains predominantly forested, the amount of forest cover will decline to 80% statewide within the next 20 years, and of that, less and less will be committed to long term forest management in large tracts. In 1970, 139 New Hampshire towns were classified as rural; by 2025, this number will have dropped by nearly half to 72, and New Hampshire's population is growing twice as fast as the rest of New England. Forest cover has been steadily diminishing since the early 1980s and this loss, which totals about 17,500 acres per year, is largely driven by land development.

Most landowners no longer rank timber production as the primary reason for owning land. Only 10% of landowners rank timber production as the primary management goal, while aesthetic enjoyment is now a major landowners' reason for owning the land.

Forest management on the White Mountain National Forest is under the guidance of a Forest Plan which is updated every 10-15 years; the most recent one was updated in 2005 after extensive public involvement. Under the Forest Plan, areas of the forest are assigned Management Area (MA) directions which identify a purpose, desired condition of the land, and standards and guidelines for each of these MAs. Lands in Shelburne fall under 5 different MAs including General Forest Management, Wilderness, Semi-Primitive Recreation, Semi-Primitive Non-motorized Recreation, and Appalachian National Scenic Trail. The biggest allocation in Shelburne is General Forest Management (44%), although access to some of the 2.1 MA lands is problematic. Most recent harvests in Shelburne include the Connor Brook Timber Sale which was completed in 2010 and the Rattle River Timber Sale which will close in the summer of 2011. At this time there are no proposals for future timber sale offerings in the next 5 years.

Forest Health

Damage to our forests can come in the form of insect pests, invasive plants, ice storms, wind storms, or wildfire. In some instances this is a normal part of nature and considered an agent of change or disturbance. However, in some cases such as non-native plants and pests, they can be extremely destructive and considerably change the ecology in our landscape.

At larger scales, these natural and invasive forces can negatively impact the goods and services we rely on from our forests. As an example, a wind storm might blow down a mature stand of white pine causing a financial loss to the landowner, or a hemlock stand that is prime deer habitat is destroyed by hemlock wooly adelgid.

In 2009, major biotic stressors on New Hampshire forests included oak leafroller, birch dieback, weevils and bark beetles, beech bark disease, balsam wooly adelgid, and hemlock wooly adelgid. Beech bark disease has been common for some decades and is quite evident in beech throughout Shelburne. Fortunately, American beech continues to remain a sizeable component of many northern hardwood stands.

Low levels of native insects and diseases, such as spruce budworm, are always present and generally do not present a threat to forest health.

The most notable, recent impact to forest health occurred as a result of a region-wide ice storm in January of 1998. Some species such as sugar maple, white ash, and red oak demonstrated a strong ability to regenerate live crowns and are recovering quite well. Other species including white birch, beech, and aspen have not responded well and have shown greater mortality.

There is concern that climate change and an increasingly warm climate will alter the suite of species that occur in New Hampshire and Shelburne. Climate models project decreases in the number of frost days, where temperatures dip below freezing, and increases in the length of the frost-free growing season. The top species with predicted loss in habitat in NH include red maple, Eastern white pine, sugar maple, balsam fir, beech, hemlock, yellow birch, red spruce, paper birch, quaking aspen, and northern white cedar. Warming will cause these species to “migrate” north, with “bugs and fungi nipping at their heels,” according to one climatologist. With declining habitat of sugar maples alone, the impacts will be profound to wildlife and humans. For humans, the impacts will include decline of the sugar maple industry, increasing forest health problems associated with sugar maple, and less dramatic fall colors.

Non-native Invasive Species

Non-native invasive species (NNIS) are plants or animals whose origin is generally somewhere other than North America. They may be completely harmless or even beneficial in their native environments, but when introduced

elsewhere, they can disrupt the established order and function of the ecosystem and become especially aggressive or difficult to manage. In the United States, non-native invasive species are a primary cause for almost half of the species being listed under the Endangered Species Act, and are estimated to cost \$138 billion per year in major environmental damages and losses nationwide. NNIS is one of the biggest threats to the health of our forests. In 1900, there were a handful of exotic insects and diseases in North America. Today, there are more than 500 exotic, invasive insects and diseases impacting our forests.

The ecological, social, and economic damage invasive exotics have already caused is extensive, and the potential for more is problematic. With expanding world-wide trade and transport, natural barriers like oceans are no longer restricting the movement of damaging insects and diseases. The global economy has given pests the opportunity to establish populations where there is little genetic resistance within host trees and no native biological controls. Examples from the past are the Chestnut Blight and Dutch elm disease, which virtually eliminated the American chestnut and American elm tree that were once major components of the eastern forest. Examples of exotic insects currently found in NH forests include Gypsy moth, Hemlock wooly adelgid, and Balsam wooly adelgid. In the general area there are non-native pests that could become a problem if they reach Shelburne. Most notable among them is the hemlock wooly adelgid which has caused considerable defoliation of hemlocks in the eastern US and has been detected along the coast of Maine and south of the White Mountains in New Hampshire in both Hillsborough and Merrimack counties.

Pests at high risk of invading our forests include the Emerald ash borer, Asian long-horn beetle, Sudden Oak death, Oak wilt, the Asian gypsy moth, Brown tail moth, and the Sirex wood wasp. These pests all share the common trait of being aggressive killers of tree species found in New Hampshire, and there are no natural controls in our system.

An extensive invasive plant inventory was conducted by the New England Wild Flower Society in 2001 and 2002 in and around the White Mountain National Forest (WMNF); additional inventories in selected project areas are conducted annually. Almost 40 invasive plant species were found occurring on or adjacent to the WMNF. Two-thirds of the invasive plant occurrences were found outside the WMNF on private land. Almost half (47 percent) of all occurrences are individuals that were intentionally planted (e.g., in a garden). Thirty percent of the occurrences are found along roads. The areas of greatest ecological concern are open wetlands, because aquatic invasive species are especially prolific and difficult to eradicate. Other significant ecological areas (e.g., alpine and cliffs) are of less concern because their harsh environmental conditions make establishment of non-native invasive species less likely.

Non-native invasive species may spread through a variety of processes, including wind or water dispersal, in forage for wildlife such as birds, or by using barbs that attach to fur or clothing. However, while seeds and plant material may be dispersed or carried to new sites, new occurrences generally do not establish and spread unless certain environmental conditions exist. Invasive plants tend to be most successful when soil has been disturbed and sunlight levels are high (i.e., open canopy). The majority of the invasive plant occurrences are in open sunlight conditions along roads or in fields, yards, or gardens.

In communication with Chris Mattrick, White Mountain National Forest Botanist, the only documented NNIS infestation that is mapped in Shelburne is Japanese knotweed (along Route 2), but he was also sure that reed canary grass, common reed, honeysuckle, purple loosestrife, barberry and bittersweet all occur in Shelburne. Another Japanese knotweed population is also located on the North Road at Leadmine.

Rare species and inventories

The New Hampshire Natural Heritage Bureau (NHNHB) tracks and monitors the state's rarest and most imperiled plants species and "exemplary" natural communities. Exemplary communities are natural communities usually of a rare type, or a high quality example of a more common type, and represent the best remaining examples of New Hampshire's biological diversity. The NH Heritage identifies and tracks these occurrences to inform conservation decisions. Rare species and exemplary communities are tracked in partnership with NH Fish & Game, the White Mountain NF, The Nature Conservancy, researchers, and others.

There has not been a comprehensive search of the state for rare species or natural communities, so the NHNHB is frequently finding or learning about previously unknown populations. Further, many rare populations have not been checked since they were originally found, so the status of some populations is unknown. Rare plants and exemplary communities in Shelburne are largely known from surveys completed for specific activities such as lands being surveyed for conservation easements or project activities planned on the WMNF. A compiled list by the state of NH for exemplary communities and rare plants and animals is contained in the publication, "Rare Plants, Rare Animals, and Exemplary Communities in New Hampshire Towns, January, 2011" which includes a listing for Shelburne. Maps for these occurrences are not typically provided because of some occurrences of stolen or destroyed populations.

The presence of a rare plant or natural community does not limit a landowner's ability to use their land – this is stated explicitly in the NH Native Plant Protection Act. Landowners applying for state wetland permits are required by NH DES to review options for achieving their land-use objectives while protecting a rare plant or natural community, but projects will not be denied solely on the basis of a rare plant occurrence. According to NHNHB, rare plants are typically destroyed because landowners are not aware of them and minor changes to projects can usually save them.

WATER RESOURCES

Surface Water Resources

The Androscoggin River is one of the defining features of the Town of Shelburne, and thanks to the Clean Water Act, has progressed from being an open sewer carrying up-river effluents to the sea into a Class B river providing significant recreational opportunities.

The Clean Water Act was passed in 1972, crafted by Senator Edmund Muskie of Maine, and inspired by the heavily polluted Androscoggin River.

The Androscoggin River once consisted of a number of lakes linked by short river passages as the result of the continental glaciers retreat some 15,000 years ago. As the lakes dried, a rich alluvial field of intervale soil was left behind, through which the river channel now flows. When the valley was first settled, explorers believed the Androscoggin to be one of the most powerful rivers in North America, as the western rivers were still many years from discovery.

The river drops 1,500 feet in elevation over its 165 mile length to the sea, with over half of that drop in the 60 miles between Lake Umbagog and Shelburne at the Maine border. The river had numerous waterfalls and cascades along its entire length before colonial settlement and was then not navigable, except by birch bark canoe. Even though 344,000 acres of New Hampshire watershed still drain into the Androscoggin, the dams and hydro stations have now eliminated the dramatic cascades and falls and have made the river a shadow of its former self.

The natural flow of the river through Shelburne is interrupted only by the Leadmine Dam, though numerous dams are located upstream. The Leadmine Dam is a hydro power facility and backs up the stilled water of Reflection Pond. The dam and others upstream also serve as flood control gates, reducing but not eliminating the periodic heavy flooding of the intervalle land from the river. The river can be crossed in Shelburne only at the Leadmine Dam Bridge and the Meadow Road Bridge.

The Androscoggin River is the Town's only fourth order stream and is consequently protected by the state's Comprehensive Shoreland Protection Act (RSA 483-B), along with the upstream Reflection Pond. Several third and second order streams feed the river from the mountain slopes on both sides of the valley.

Major streams from the Mahoosuc Range include Leadmine Brook, Peabody Brook, Austin Mill Brook, Ingalls Brook, and Lary Brook, though the last two enter the river in Maine. Major streams draining from the Carter-Moriah and White Mountains include Pea Brook, Rattle River, Clement Brook, and Connor Brook. During the spring melt and heavy rains, these streams often force the Androscoggin out of its banks and flood much of the bottom land in the valley. The mountains also contain a large number of first order and intermittent streams, many of them un-named.

There are two major scenic natural waterfalls in town, both of which are in the Mahoosuc Mountain range. Giant Falls lies on Peabody Brook and offers a dramatic cascade visible from US Route 2 near the Reflection Pond and other points in town. Dryad fall is on the upper reach of Dryad Brook, which is a first order stream entering Austin Mill Brook. That set of falls is best seen from the Austin Brook logging road or from the trail to the falls itself.

The Mahoosuc Mountain Range also includes a number of wetland complexes and "Ray's Pond" to the north of Mt. Ingalls and Judson Pond northeast of Mt. Cabot. These are small high mountain ponds or tarns under one acre in size, similar to the high elevation ponds just to the north in Success along the Appalachian Trail. Other natural ponds include the 90' deep Wheeler Pond at the junction of North Road and Lary Brook/Ingalls Valley Road and the Moose Pond on US Route 2. The US Fish and Wildlife Service National Wetlands Inventory map identifies significant Shelburne wetland complexes exceeding ten acres in size. **See Map #2, 100-Year Flood Zone, Aquifer & Wetlands, in Chapter 11, Map Documents.**

Underground Water Resources

While access to world oil resources now generates much conflict among nations, that demand and source of conflict may be dwarfed by a growing demand for clean water in the future. Nations can find other resources for energy, but there is no substitute for water. Water will become an increasingly valuable and important natural resource in the United States and worldwide as demand increases for fresh water and climate change alters its availability.

A major unseen water source in Shelburne is the stratified drift aquifer along both sides of the Androscoggin River extending from Leadmine Dam to near the state line. A stratified drift aquifer is typically a layered deposit of gravel, sand and silt found in valleys like Shelburne. Approximately 14% of the land surface in the State is underlain with stratified-drift aquifers. They typically are the most productive sources of groundwater and therefore the most high yielding public water supply wells tap these aquifers. Stratified-drift or 'overburden' aquifers are most directly influenced by surface waters and land-use activities. They are therefore, perhaps most susceptible to contamination.

Bedrock wells are usually limited by the inability of bedrock fractures to transmit much water, but gravel in a stratified drift aquifer does not have that limitation. There is much storage space between the gravel particles in a stratified drift aquifer and water can travel towards any well relatively easily. As a general guideline for interpreting the discussion on transmissivities, a transmissivity value above 2,000 ft² /d constitutes a major aquifer. The stratified drift aquifer in Shelburne has been estimated to have a transmissivity value greater than 4,000 ft²/d and computer model simulations indicate it can yield up to 23.2 Mgal/d (J .R. Olimpio, US Geological Survey, written communication, 1995). In comparison, stratified-drift aquifers in the Towns of Berlin, Colebrook, and Gorham together supplied a total of 4.5 Mgal/d of water for municipal public-supply wells in 1990.

Shelburne possesses 3,609 acres of stratified drift aquifer or approximately 11.8% of its total land area. Some 610 of those acres are suitable for high yield wells producing >75 gpm with only ten acres protected and another 416 acres are suitable for high yield wells producing >150 gpm with only one acre protected. Recent conservation easements have increased the total number of acres protected, but not significantly. **See Map #2, 100-Year Flood Zone, Aquifer & Wetlands, in Chapter 11, Map Documents.**

WILDLIFE

When Willey wrote the above description, the Shelburne Valley was much noted for its wildlife, especially for bears and wolves. The wolves are gone, but bears are still prolific and only one sheep farmer remains in the valley. The Shelburne valley is home to wide ranging moose and bobcat and a healthy population of deer. The eastern coyote has replaced the extirpated wolf as one of the top predators in the valley. River otters have returned to the once polluted Androscoggin River and the elusive pine marten is occasionally observed in high elevation forests. Other fur-bearers, such as fisher, ermines, weasels, snowshoe hare, and muskrat are plentiful. A variety of warblers return to the valley to raise their young and the calls of deep interior forest birds such as the hermit and wood thrush echo along North Road.

"This region (Shelburne & Gilead) is very much infested with bears, especially during the summer months. Many now live on the mountains, preventing the raising of sheep."

~Benjamin Willey: Incidents in White Mountain History, 1856-1882

Bald Eagles nest along the Androscoggin, northern Goshawks nest in the adjacent upland pine forests, and blue herons and kingfishers make their home along the Androscoggin and its backwaters. Wild turkey and ruffed grouse are important game birds in the valley. Native brook trout inhabit the cool valley streams and have helped make the Androscoggin a "blue ribbon fishery".

Wildlife is considered a significant natural resource within the Town, a resource dependent upon the land base for habitat. Individual species rely upon many different and specific habitat types for their survival, but the most critical habitats are water resources, including wetlands, riparian habitats, and large blocks of connected undeveloped habitat blocks and the connectivity corridors between those blocks. Shelburne is blessed with an abundance of all three critical habitats and planning and development for the Town should reflect the value of protecting those habitats. Because habitat is so important to wildlife, the Shelburne habitats which support its abundant and varied wildlife are covered extensively in this section.

Shelburne also hosts these specialized state designated critical wildlife habitat types:

- Silver maple forest floodplains along the Androscoggin River
- High elevation spruce forests on Bald Cap Peak and Mount Hayes and in the southeasterly portion of the Carter-Moriah Range of the White Mountain National Forest (WMNF)
- Cliff habitat on the south slope of Bald Cap Peak and on several smaller mountains on the front of the Mahoosuc Mountain Range
- Low-land spruce-fir forests in pockets in the Mahoosuc Range and the lower slopes of the WMNF Carter-Moriah Range
- Rocky ridge or talus slopes along Mt. Cabot and Mt. Ingalls and other front range mountains
- Hemlock-Hardwood-Pine forests in the southeast quadrant of town
- Northern Hardwood-Conifer forests extensively in the Mahoosuc Mountain Range and the lower elevations of the WMNF
- Grassland habitats at the Whitney and Philbrook Farms and farmland along Meadow Road

Summary of NH WAP Habitat Types, Listed by Town Acreage & Degree of Protection	
Total Hemlock/Hardwood/Pine Acres (11% of Town Acreage)	3,507
<i>Hemlock/Hardwood/Pine Acres Protected</i>	1,454
<i>% Hemlock/Hardwood/Pine Acres Protected</i>	41.5%
Total Northern Hardwood/Conifer Acres (50% of Town Acreage)	15,483
<i>Northern Hardwood/Conifer Acres Protected</i>	5,298
<i>% Northern Hardwood/Conifer Acres Protected</i>	34.2%
Total Lowland Spruce Fire Acres (17% of Town Acreage)	7,738
<i>Lowland Spruce Fire Acres Protected</i>	5,962
<i>% Lowland Spruce Fire Acres Protected</i>	77.0%
Total High Elevation Spruce Fir Acres (11 % of Town Acreage)	3,562
<i>High Elevation Spruce Fire Acres Protected</i>	3,457
<i>% High Elevation Spruce Fire Acres Protected</i>	97.0%
Total Grassland (over 25) Acres (2% of Town Acreage)	603
<i>Grassland (over 25 Acres) Acres Protected</i>	110
<i>% Grassland (over 25 Acres) Acres Protected</i>	18.3%
Total Cliff Acres (.1 % of Town Acreage)	37.4
<i>Cliff Acres Protected</i>	0.6
<i>% Cliff Acres Protected</i>	1.6%
Total Rocky Ridge/Talus Slopes Acres (.5% of Town Acreage)	155
<i>Rocky Ridge/Talus Slopes Acres Protected</i>	16.8
<i>% Rocky Ridge/Talus Slopes Acres Protected</i>	10.8%
Total Floodplain Forest Acres (3% of Town Acreage)	919
<i>Floodplain Forest Acres Protected</i>	113.0
<i>% Floodplain Forest Acres Protected</i>	12.2%
Total Wet Meadow/Shrub Wetland Acres (.5 % of Town Acreage)	162
<i>Wet Meadow/Shrub Wetlands Acres Protected</i>	32.0
<i>% West Meadow/Shrub Wetland Acres Protected</i>	19.8%
Total Peat Land Acres (.1% of Town Acreage)	40
<i>Peat-land Acres Protected</i>	23.0
<i>% Peat-land Acres Protected</i>	57.2%
Shelburne 31,212 Total Acres - 30,970 Land Acres	

The State of New Hampshire completed a detailed Wildlife Action Plan (WAP) for all of the state in 2006, with updates in 2010.⁷ The plan was created to identify wildlife and habitats at risk, map habitats statewide, and assess risks to species and habitats, with a goal of developing conservation strategies through further research, inventorying, and monitoring. A series of state-wide maps, useful down to a town-wide scale, were created identifying NH Wildlife Habitat Land Cover and NH Highest Quality Wildlife Habitat.

Much of Shelburne’s landscape is designated as part of the state’s highest ranked wildlife habitat by ecological condition or highest ranked habitat by ecological condition in the biological region. The remaining Shelburne landscape is designated as valuable Supporting Landscape. Two WAP maps for Shelburne are included in Chapter 11. The first map details wildlife habitat land cover and the second denotes highest ranked wildlife habitat by ecological condition in Shelburne. **See Map #3, NH Wildlife Habitat Land Cover 2015 and Map #4, 2015 Highest Ranking Wildlife Habitat by Ecological Condition, in Chapter 11, Map Documents.**

⁷ NH Wildlife Action Plan; Data from tables for Shelburne, Table 1bk March, 2010

Statewide Habitats Not Identified in Shelburne:

- Alpine Habitat, Appalachian Oak–Pine, Coastal Islands, Dunes, Pine Barrens & Salt Marshes

A Brief Description of NH Habitats Identified in Shelburne:

HEMLOCK-HARDWOOD-PINE FORESTS

Hemlock-hardwood-pine forests are transitional forests, occurring between hardwood conifer and oak-pine forests. This common forest type is comprised of dry, sandy soils with red oak and white pine.

NORTHERN HARDWOOD CONIFER FORESTS

This habitat type is typically found between 1,400 and 2,500 ft. in elevation and is typified by American beech, sugar maple, and yellow birch.

LOWLAND SPRUCE-FIR FORESTS

This system is a mosaic of lowland spruce-fir forest and red spruce swamp communities.

HIGH-ELEVATION SPRUCE-FIR FORESTS

High-elevation spruce-fir forests can be found between 2,500 and 3,500 ft. in elevation on upper mountain slopes and ridge tops. High-elevation spruce-fir forest has a very limited distribution in New Hampshire, covering approximately 4% of the state's land area, and provides some of the last areas relatively free of human disturbance.

GRASSLAND

Extensive grasslands are defined as areas greater than 25 acres that are dominated by grasses, wildflowers, and sedges with little shrub or tree cover. Some examples include hayfields, pastures, and cropland. Only 8% of NH grasslands are currently under conservation easements.

CLIFFS

Cliffs are steep rocky outcrops greater than 65° in slope and 3 meters in height, and have sparse vegetation that is typically restricted to cracks and crevices where soil accumulates.

ROCKY RIDGES AND TALUS SLOPES

Rocky ridges and talus slopes are two related but distinct habitats. Talus slopes, comprised of loose or stable boulders and rocks, range from open, lichen covered talus "barrens" to closed-canopy forested talus communities. Rocky ridges generally occur on outcrops and bedrock ridges and summits below the alpine zone.

FLOODPLAIN FOREST

Floodplain forests occur in valleys adjacent to river channels and are prone to periodic flooding. Also referred to as riparian forests, they support diverse natural communities, protect and enhance water quality by filtering and sequestering pollution, and control erosion and sediment. Their rich soils have been used in agriculture for centuries; many floodplains are no longer forested wildlife habitat.

MARSH AND SHRUB WETLANDS

Emergent marsh and shrub swamp systems have a broad range of flood regimes, often controlled by the presence or departure of beavers. This system, which is an important food source for many species, is often grouped into three broad habitat categories: wet meadows, emergent marshes, and scrub-shrub wetlands.

PEAT-LANDS

Peat-lands have water with low nutrient content and higher acidity caused by limited groundwater input and surface runoff.

Note: *The portion of Shelburne north of the Androscoggin River falls within the Mahoosuc Rangeley Lakes Ecoregional Subsection, while the portion south of the river is grouped within the White Mountains Ecoregional Subsection.*

Certain habitat types make up a small percentage of Shelburne's landscape, but are deemed to be critical habitats of greatest conservation concern statewide. The percentage of those critical habitat acres protected within the Town is quite low. Grasslands comprise 2% of the Town's land base with only 18% of that acreage protected. Cliff acres comprise .1% of the land base with 1.6% protected. Rocky Ridge/Talus Slopes Acres comprise .5% of the land base with only 10.8% protected. Flood-plain forest acres comprise 3% of the land base with 12.2% protected. Wet Meadow/Shrub Wetland acres comprise .5% of the land base with 19.8% protected.

Many of these critical habitats do not show up on the maps included in this report, due to the map scale or lack of on-ground research to identify sites. On a positive note, High Elevation Spruce-Fir forest comprises 11% of the Town land base with 97% of those acres protected through WMNF or AT/NPS ownership. **See Map #4, 2015 Highest Ranked Wildlife Habitat by Ecological Conditions, in Chapter 11, Map Documents.**



Presidential from Route 2 near Reflection Lake, October 2010

Photo Credit: <http://www.shelburnenh.com/thumb13.html>

NH Wildlife Action Plan - Data from Tables for Shelburne, NH

From Table1a; March 2010

Summary of NH WAP Habitat Tiers, Listed Town Acreage & Degree of Protection

Shelburne 31,212 Total Acres; 30,636 Land Acres; 576 Surface Water Acres

Tier 1: Acres of Highest Quality Habitat in NH

Tier 1 Acres in Town:18,144.9 (58.5% of Town Land Acreage)
 Tier 1 Acres Conserved:9,490.6
 % Tier 1 Acres Protected:52.3%


Tier 2: Acres of Highest Quality Habitat in Biological Region (TNC eco-regions or watershed groups)

Tier 2 Acres in Town:2608.5 (8.5% of Town Land Acreage)
 Tier 2 Acres Conserved:1,000.1
 % Tier 2 Acres Protected:38.3%

Tier 3: Acres of Other Significant Habitat (Regional Scale)

Tier 3 Acres in Town:10,436.5 (33.6% of Town Land Acreage)
 Tier 3 Acres Conserved:5,851.0
 % Tier 3 Acres Protected:56.1%

The New Hampshire Heritage Bureau identifies Rare/Threatened/Endangered Species by both federal and state listing in Shelburne. The below table shows Natural Communities and bird and animal species reported in Shelburne.

NH NATURAL HERITAGE BUREAU 					
Town Flag	Species or Community Name	Listed?		# reported last 20	
		Federal	State	Town	State
<u>Shelburne</u>					
Natural Communities - Terrestrial					
*	High-elevation spruce - fir forest	--	--	1	16
**	Northern hardwood - spruce - fir forest	--	--	1	12
**	Red spruce - heath - cinquefoil rocky ridge	--	--	1	12
***	Subalpine heath - krummholz/rocky bald system	--	--	1	18
	Sugar maple - beech - yellow birch forest	--	--	Historical	18
Natural Communities - Palustrine					
***	Alpine/subalpine bog system	--	--	2	14
**	Sugar maple - silver maple - white ash floodplain forest	--	--	1	3
Vertebrates - Mammals					
**	American Marten (<i>Martes americana</i>)	--	T	2	69
Vertebrates - Birds					
*	Bald Eagle (<i>Haliaeetus leucocephalus</i>)	M	T	1	31
**	Bicknell's Thrush (<i>Catharus bicknelli</i>)	--	SC	1	18
**	Northern Harrier (<i>Circus cyaneus</i>)	--	E	1	11
Listed?	E = Endangered	T = Threatened	SC = Special concern	M = Monitored	
Flags	**** = Highest 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.			
	*** = Extremely high importance				
	** = Very high importance				
	* = High importance				

January 2010

154

Areas of Special Concern

Deer yards or Deer Wintering Areas (DWA) are mapped by New Hampshire Fish & Game and are considered a valuable natural resource by both hunters and those concerned about survival of the deer herd in New Hampshire's North Country where deer are at the northern edge of their range. The white-tailed deer is both ecologically and economically important in New Hampshire.

Deer hunting has a significant economic impact in the state and deer are also popular subjects for wildlife observation and photography. Deer densities in New Hampshire's White Mountains/Shelburne region usually average less than 6 per square mile, but may be higher in Shelburne due to its high value habitat. Nutritional stress during severe winters may result in more than 30% mortality of adults, as well as high mortality of fawns born the following spring (Lavigne 1999). Studies in the northeast indicate that deer begin to move from summer/fall range to wintering areas when snow depths reach approximately 15 inches (Tierson et al. 1985). They commonly move 4-5 miles between summer and winter ranges, and may move more than 25 miles (Lavigne 1999). Deer wintering areas occur in softwood stands of various types, often in riparian areas. Deer wintering areas consist of core areas with dense coniferous trees that reduce snow accumulation and provide shelter from wind, adjacent to mixed hardwood and coniferous trees that provide an accessible food supply.

The mapping of deer yards by NH F&G was conducted in the 1980's and was considered as incomplete at that time. Extensive logging in Shelburne may have shifted the location of some deer yard areas, though most of the mapped deer yards in Shelburne are located on smaller private tracts of land or within the WMNF, and not in the more heavily harvested commercial timberland tracts. The map below shows the approximate location of mapped historic and present deeryards in Shelburne. **See Map #5 Shelburne's Deer Yards & Mountain Peaks Map, in Chapter 11 Map Documents.**

RECREATION

For much of its early years, Shelburne was primarily a farming landscape along the Androscoggin River and residents ventured into the mountain forests only to hunt game and to harvest timber for building or for firewood. Most energy expended by residents was devoted to survival in a harsh new environment and little time or effort could be devoted to recreational hiking in the mountains or paddling on the river. It wasn't until the mid-1800's that tourists from the south began exploring the mountains of Shelburne, often guided by local guides or innkeepers from the many inns that began to open at that time.

Hiking Trails

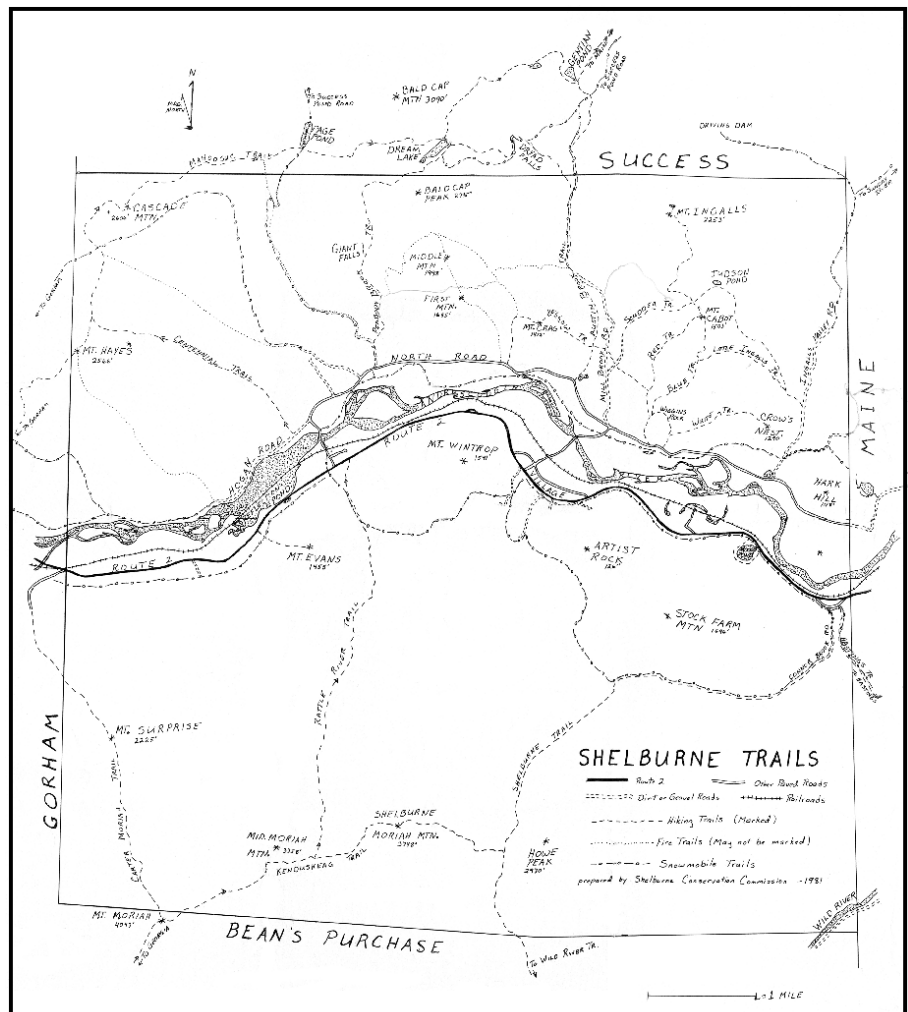
The rugged Mahoosuc Mountain Range began to be extensively explored by Appalachian Mountain Club (AMC) hikers as early as 1877. The exploration had been conducted by a noted pair of unusual AMC hikers, Lucia Pychowska and her daughter Marian. The Pychowska women were legends in the AMC and produced one of the earliest maps of the northern Presidentials and had been leaders in trail building and exploration. They conducted their early explorations in the Mahoosucs from a base at the former Gates Cottage in Shelburne, but later became regular summer visitors of Randolph. The quotation above is from the Pychowska report presented at an AMC field meeting in 1879, which documents in great detail a hiking route to Middle Mountain and Bald Cap Peak via the ledges of Mt. Joe (now First Mountain). That trail is the earliest documented recreational hiking trail in the Mahoosuc Mountains. Marian and Lucia gave the names to most of the natural features in the southern Mahoosucs still in use today, i.e. Gentian Pond, Dream Lake and Dryad Falls etc.

"Our usual mode of ascent from the valley was over Joe and Middle Mountains, to the ledgy font top; and, in the summer of 1877, Mr. R.S. Chase (A.M.C.), of Haverhill, Mass., and his sons cut a path over this route as far as Dream Lake." (Appalachia Vol. II, 1879-1882)

In the year 1907, the AMC, which had been founded in Boston in 1876, began assuming responsibility for the maintenance and trail clearing for the hiking trails in the White Mountains and Mahoosucs and published their first AMC Guide. The Weeks Act passed the Congress in 1911, creating the ability for US Forest Service (USFS) to purchase private land in the eastern United States, and resulting in the first purchases of the White Mountain National Forest (WMNF), one of the nation's first two eastern national forests. The USFS expanded the WMNF and eventually acquired lands in Shelburne in the Carter-Moriah Mountain Range. The USFS now also owns and manages the 1,000' wide *Appalachian Trail* (AT) corridor in Shelburne as the trail passes through private lands in the lower Mahoosuc Range outside the proclamation acquisition boundary of the national forest.

The Randolph Mountain Club maintained many hiking trails in Shelburne during the mid-1900 but is no longer active in maintaining Shelburne trails. The history of the creation of hiking trails in Shelburne by a wide group of organizations and local citizens could fill a volume of its own and is not dealt with here. Today there are three principle organizations responsible for the management and maintenance of nearly 40 miles of hiking trails in Shelburne. The AMC is responsible for trail maintenance for most Mahoosuc Mountain trails north of North Road and the USFS manages and maintains most of the hiking trails in the WMNF Carter-Moriah Range south of US Route 2. The local Shelburne Trails Club organized in 2010 and began restoring and maintaining old hiking and fire trails in Shelburne that were in existence in the 1950's to early 1980's, and had been dropped by AMC or otherwise allowed to return to a closed forest. The 1981 Shelburne Conservation Commission map of recreational trails shows trails in existence at that time and appears to the right.

An updated map of Shelburne trails was completed in 2016 by the Appalachian Mountain Club; this map includes all hiking trails in Shelburne at a more convenient scale. See *Map #6, Shelburne Trails Club, in Chapter 11, Map Documents.*



Approximately 11.3 miles of the *Appalachian Trail* (AT) passes through Shelburne and an additional mile of the route is along US Route 2, the North Road, and Hogan Road. The AT, or Appalachian National Scenic Trail as it is officially designated, is a 2,174-mile footpath along the ridge-crests and across the major valleys of the Appalachian Mountains from Mt Katahdin in Maine to Springer Mountain in northern Georgia. The trail is enjoyed by day-hikers, section hikers, and by hikers who hike the entire route in a single season and are called thru-hikers. The AT opened as a continuous trail in 1937 and was designated as the first National Scenic Trail by the National Trails System Act of 1968. In much of New Hampshire, the AT route followed existing trails built and maintained by the AMC. The Appalachian Trail Bill, signed by President Jimmy Carter in 1978, allowed for the federal acquisition of a corridor approximately 1,000' around the trails footpath. Portions of the AT lands that are in close proximity to national forests were transferred to the Forest Service by the National Park Service, pursuant to a Joint Memorandum of Agreement and are subject to Forest Service regulations and management. For those areas, trail operations and maintenance were further delegated by the USFS to the Appalachian Trail Conservancy (ATC), which is based in Harpers Ferry, Virginia. ATC in turn designates much of that function to its partner clubs and in Shelburne that club is the AMC. The WMNF retains the section of the AT in the WMNF's Carter-Moriah Mountain Range in a unique arrangement not duplicated elsewhere along the trail. **See Map #7, Hydrography and the White Mountain National Forest Map, in Chapter 11, Map Documents.**

The best trail maps for hiking Shelburne's trails are the AMC's White Mountain Guide series maps, Map 5: Carter Range – Evans Notch and Map 6: North Country – Mahoosuc, which are printed on a two sided single sheet. The maps use a scale of 1:95,000 and cover a large geographic area. Shelburne's current maintained hiking trails with maintaining organizations are summarized below:

APPALACHIAN TRAIL SEGMENTS (WHITE BLAZED TRAIL)

Kundeskeag Trail - .7 mile (1.4 mile total length), USFS, Mt. Moriah to Shelburne Trail
 Rattle River Trail – 4.3 miles, USFS, Kundeskeag Trail to US Route 2, includes open shelter
 Centennial Trail – 3.1 miles, AMC, Hogan Road to Mahoosuc Trail
 Mahoosuc Trail/AT – 3.2 miles, AMC, Centennial Trail to Trident Col

SIDE TRAILS WITH AT ACCESS (BLUE BLAZED TRAILS)

Peabody Brook Trail – 2.9 miles, maintained by AMC, North Road to Dream Lake
 Austin Brook Trail – 2.5 miles (3.5 mile total length), AMC, North Road to Gention Pond/AT corridor

CARTER-MORIAH/WMNF TRAILS

Carter-Moriah Trail – 4.5 miles, USFS, Bangor Road, Gorham to Kundeskeag/AT
 Shelburne Trail – 5 miles (7.2 mile total length, USFS, Connor Brook/RT 2 to Wild River

RESTORED MAHOOSUC TRAILS

Middle Mountain Trail – 1.7 miles, STC, Gates Brook/North Road to Middle Mountain summit
 Middle Mountain Trail – 1.7 miles, STC, Middle Mountain summit to Peabody Brook Trail
 Scudder Trail – 2.7 miles, STC, Austin Brook Road to Mount Ingalls Summit & Ray's Pond

PHILBROOK FARM INN TRAILS

Red Trail 1.3 miles, Inn & STC, Inn to Mount Cabot Summit
 Blue Trail 1.4 miles, Inn & STC, Inn to Mount Cabot Summit
 White Trail 1.3 miles, Inn & STC, Inn to Crow's Nest/Crow Mountain
 Yellow Trail 2.1 miles, Inn & STC, Inn to Mt. Crag & descent to Gates Brook

River Recreation - Paddling and Fishing

PADDLING

The Androscoggin River has been a source of recreation in Shelburne for nearly as long as the mountain hiking trails. Recreational use of the river declined as the river became increasingly polluted from discharge of mill effluents upstream in Berlin. In spite of that pollution, citizen canoe races occurred even during the 1960's when the river was so foul that residents would often dump trash into the river. The Androscoggin River shoreline through Shelburne remains primarily undeveloped today because of the legacy of pollution. With improvements to the river resulting from the Clean Water Act and a change in the release of mill effluents upstream, the river is now a Class B river and become increasingly popular for recreationists, primarily paddlers and fishermen.

The Androscoggin River Watershed Council has produced a river map for paddlers tracing the river from Lake Umbagog to Merrymeeting Bay in Maine and details access points along the river's course. The Mahoosuc Land Trust also offers an Androscoggin River Canoe Trail Map & Guide that follows the course of the river from Shelburne to Rumford, Maine. Both of those maps show the only public access point to the river in Shelburne as being at the Meadow Road Bridge. **See Map #8, Androscoggin River Trail, Hiking, Snowmobile Trails Map, in Chapter 11, Map Documents.**

The increasing popularity of the river for fishing and paddling has focused attention on the lack of a safe launching point at the Leadmine Bridge. There are a number of issues to be addressed in solving this issue including lack of public lands to access the river, liability issues, and funding for the development and operation of the launch point.

There are also significant concerns by the residents of the Community expressed in a session held by the Conservation Commission and during the last Federal Electric Regulatory Commission (FERC) relicensing of the Shelburne hydro station as to what unmanaged access to the river would mean to the property owners along the river and to the "current experience" of those using the river.

Other paddling opportunities are available at Reflection Pond and the upper stretch of the Androscoggin River above Leadmine Dam. Paddlers launch at a small scenic turn-off on US Route 2 along the shore of Reflection Pond that offers parking for a few cars. A 2-mile loop paddle along the shoreline of Reflection Pond and the shallows to the east offers grand views of three mountain ranges and a surprisingly wild experience. There are also two unofficial access points for launching boats upstream of the dam off Hogan Road in Shelburne. Paddlers there can enjoy the short paddle from the upper site to the lower or can paddle a loop upstream around the nearby island from the upper site when the river flow is not too fast.

Fishing

The Androscoggin River in Shelburne has begun to be recognized by anglers as a "blue ribbon fishery" and has become a popular destination for fly fisherman who cast from along the shores or from drift-boats floating downstream. Drift boats are typically paddled by local guides with paying clients. The Town and state have not officially designated public access sites to the river's shoreline for fisherman and most shoreline fishing is conducted from the state land adjacent to Leadmine Dam, the rock ledges on the north side of the dam, and at spots downstream from the Meadow Road Bridge. Fishermen also fish from two spots off Hogan Road, which are signed by New Hampshire Fish & Game with rules posted and at the pull-off adjacent to Reflection Pond on Route 2.

The New Hampshire Fish and Game Department has issued special rules for fishing for the section of the Androscoggin River from the Berlin sawmill dam through Shelburne to the state line. Species identified in this section are Brown Trout, Rainbow Trout, Landlocked Salmon, Smallmouth Bass, Chain Pickerel, and Horned Pout. All trout are subject to "catch and release" and fishermen must use single barbless hooks and artificial lures.

The "Classic New England Waters" website describes the fishery in the Shelburne section of river as coming into its own as one of the best in northern New England. They note: "Of particular interest is the water above and below the Shelburne Dam in Shelburne. Here are several miles of mixed trout water suitable for wading and drifting, with big browns and rainbows a good possibility. The stretch above Shelburne Dam sometimes suffers from low water and high temperatures in summer, but the area below the dam is managed as part of New Hampshire's Quality Trout Program, which means that special catch-and-release, artificial lure/fly-fishing regulations are in effect. The river is also fed by several tributaries, including the Leadmine, Peabody and Austin Mill brooks on the north side and the Rattle River on the south. The mouths of these feeders generally hold fish." The website also provides directions for access sites.

Hunting

Hunting is a popular past-time in Shelburne, both as a form of recreation, tourism and as a source of game for the table. Large and small game are hunted based on state regulated seasons and many local hunters share the land-base with other non-local guide-led hunters, especially for big game like bear and moose.

Based on long-standing tradition, nearly all lands in the state of New Hampshire are open to hunting. The "rule of thumb" in New Hampshire is: all state, federal, municipal, county and private land is open to hunting unless it is posted against hunting. However, hunting is a privilege granted by the landowner -- not a right granted to the hunter. There are four general categories of land ownership in the state and in Shelburne, all of which allow hunting with a few exceptions.

FEDERAL LANDS:

The largest single landholding in New Hampshire is the White Mountain National Forest, comprising over 707,000 acres (and another 42,000 acres in Maine) -- over 10 percent of the land area in the state. Most of this land is open to hunting, except for tourist spots and campgrounds.

STATE LANDS AND STATE-MANAGED LANDS IN SHELBURNE:

The majority of these lands are open to hunting including Leadmine State Forest and other state owned tracts (i.e. state land along Androscoggin River at Leadmine Dam etc.)

PRIVATE LAND OWNED BY PAPER OR TIMBER COMPANIES:

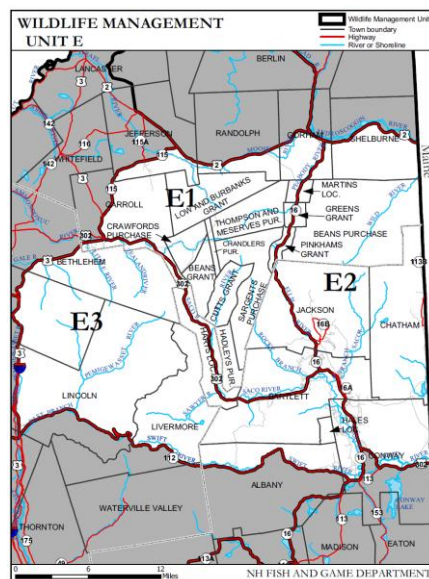
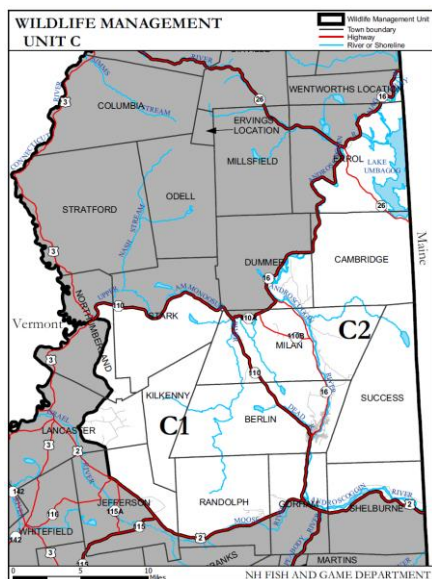
Bayroot LLC and NewPage timber companies and their predecessors in Shelburne have kept their lands open to hunting by the public for over half a century. The lands are enrolled in the New Hampshire's current use program and receive an additional 20% reduction for allowing public recreational access to their lands. Land may have restricted access during harvesting operations.

PRIVATE, COUNTY AND MUNICIPAL LANDS:

80% of New Hampshire's forestland is privately owned. Generally speaking, most private lands -- especially larger tracts -- remain open to hunters in Shelburne, unless otherwise posted against hunting. New Hampshire Fish and Game does recommend that each hunter personally contact landowners whenever possible and seek permission to hunt. Very few landowners in Shelburne have posted their land against hunting, except for a safety zone adjacent to their residences. There are no county lands in Shelburne and undeveloped town land is generally open for hunting.

The New Hampshire Fish and Game Department also owns or has hunting rights to two Wildlife Management Areas in Shelburne, acquired by purchases of easements through the Land Conservation Investment Program in the 1990's and the Land and Community Heritage Investment Program during the past decade. Approximately 290-acres of the Millbrook Trust Land and approximately 800-acres surrounding the Philbrook Farm Inn and the Croftie Farm are designated as such units. The conservation easements require the land be kept open to the public in perpetuity, including for hunting.

The state has designated Wildlife Management Units (WMU) across the state and many rules and hunting seasons are often specific to that unit. Shelburne lies in two different districts, with the portion of town north of US Route 2 in WMU C2 and the area south of US Route 2 in WMU E2.



Motorized Recreation & Biking

Shelburne has only one designated motorized recreational trail within its borders, the New Hampshire Snowmobile Corridor Trail System Trail 18, which is part of a New Hampshire and Maine Co-operative Trail. The east/west trail passes through Shelburne south of US Route 2 and is primarily on US Forest Service land, though it does cross several private ownerships. The snowmobile trail through Shelburne is one of only two designated state trails that connect New Hampshire and Maine systems in the North Country of Coos County.

No New Hampshire All-Terrain Vehicle (ATV) or Off-Highway Vehicles (OHV) trails are present in Shelburne. Shelburne is noted for its quiet recreation activities; motorized recreation has generally not been welcomed by the many private large landholding owners in town.

The Town needs to participate in all regional programs that might lead to an expansion of ATV usage within the Town. The current uses of ATV's must be consistent with both NH RSA's and with any Town regulations.

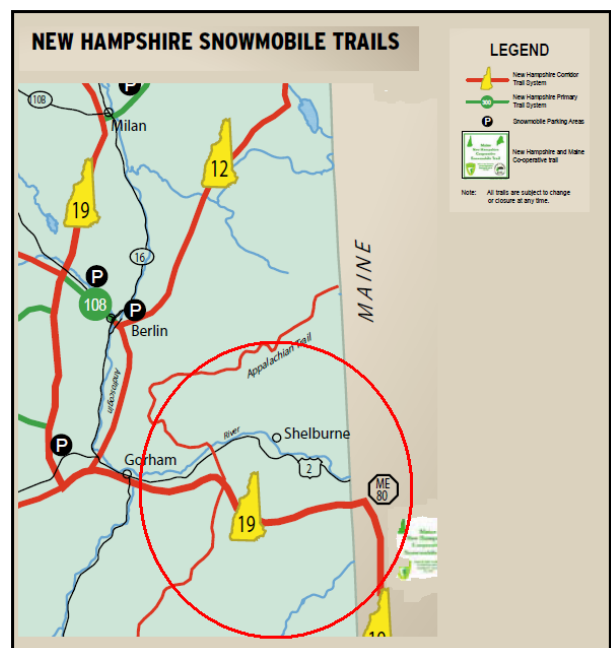
North Road has been a popular scenic touring route for bicycle riders, both by local residents and visitors from surrounding communities. Mountain bikers are less frequent visitors and make use of the Hogan Road extension into Gorham and some of the area's logging roads. There is no developed back-country mountain biking or all terrain bike trail in Shelburne, though hiking trails are infrequently used by riders.

Camping, Winter Sports & Organized Sports

Shelburne has two commercial campgrounds on US Route 2 and those campgrounds typically draw campers with self-propelled recreational vehicles or camper trailers rather than tent campers. Many sites at one of the commercial campgrounds are occupied by RV campers for an entire season. Tent camping is most often done by backpackers on Shelburne's hiking trails. Most tent camping is done on the Appalachian Trail just north of Shelburne at designated sites at Trident Col and Gentic Pond and at the Rattle River shelter in the WMNF. AMC maintains the AT camp sites in the Mahoosucs, which have composting privies and "bear boxes", and the AMC Mahoosuc Rover checks those sites weekly in the summer.

Shelburne has no developed or groomed cross-country ski trails, but back country skiing has become increasingly popular on the lower elevation hiking trails and particularly on the trails surrounding the Philbrook Farm Inn and the logging roads in town when no winter logging is occurring. Snowshoeing is another popular sport enjoyed by locals and visitors and snowshoe hikers use many of the same trails being used by cross-country skiers.

The Gorham/Randolph/Shelburne school system has periodically used the Town's athletic fields at the Chester Hayes Memorial Park during the school year and the annual Wild Man Biathlon with competitors throughout the New England region begin their competition at the athletic field and nearby fire station.



SCENIC RESOURCES AND VIEWSHEDS

The natural landscape and visual quality of a community provide it with a sense of pride and individuality, setting it apart from other places. Special vistas, views, and scenic areas contribute significantly to our quality of life, add to the value our properties, and enhance the appeal and livability of our community. When development or change occurs in the vicinity of a well-known landmark or outstanding view, it can have a powerful effect upon whether people still consider that place special.

When we see land as a community to which we belong, we may begin to use it with love and respect
 ~ Aldo Leopold

While the Town has many scenic features the more recognized ones are:

- Androscoggin River
- Shelburne Birches
- Reflection Pond and Shadow Pool
- East Vista
- Mount Crag
- The Old Man of the Valley
- The Carter-Moriah Range
- The Mahoosuc Range
- Giant Falls
- Philbrook Farm
- Meadow Bridge



Looking East down the Androscoggin River, October 9, 1999
Photo Credit: <http://www.shelburneh.com/thumb04.html>

There are many more locally known and valued places including Mosses Ledge, the Basins, Pitchers and Bowls, Mt Evans, Mt Cabot, Mt Ingalls, and Bald Cap Peak. Shelburne's scenic areas and views should be conserved. In the Master Plan Survey, a majority of residents wanted some sort of protection for the Town's views and scenic treasures.

Special vistas from roads or trails add dramatically to the experience of the driving or hiking public. For many, the lake, river, hillside or mountaintop view may provide the most satisfying and best recreational experience they will have; a turnout that provides an opportunity to view a river or to take a short walk can substantially increase that experience. It is important to identify, and protect from development, vistas, views, and scenic areas that are considered significant to the residents of our community.

The White Mountains are the scenic backdrop of Shelburne, one the most scenic mountain towns in New England. The beauty of the mountains and their diversity are a major influence in drawing visitors to the area, and a reason many Shelburne residents have chosen it as their home. A long history of varying land uses, ranging from agricultural clearing to intensive logging early in the 20th century, affected the landscape and the resulting scenery. With the exception of some agricultural uses along the Androscoggin River, and homes that have developed along Route 2, the North Road, and in the Town center, heavily forested Shelburne is predominantly a natural-appearing landscape. The mountain slopes, displaying a mixture of softwood and hardwood forests, provide a backdrop to the numerous valleys, most containing streams or rivers that originate in the mountains. The variety in vegetation and terrain, ranging from the peaks of the Carter-Moriah and Mahoosuc ranges to the valley bottoms, contributes to this landscape rich in scenic beauty.

The Androscoggin River provides a central scenic focal point for Shelburne and many residents and visitors alike are appreciative of its scenic beauty and recreational enjoyment for kayaking, canoeing, and fishing. Other scenic features include the occasional rock outcrops and ledges; clear, fast running, mountain streams; waterfalls; and mountain ponds. The larger streams and some ponds are located in the valley bottoms, e.g., Reflection Pond, Wheeler Pond, Austin Mill Brook Pond, and Moose Pond, although some ponds, such as Ray's Pond and Judson Pond are found at higher elevations. Most of these ponds, and the settings associated with them, offer a unique and important visual feature within our mountain environment. Special among the natural and scenic features of Shelburne are the large stands of White Birch epitomized by the Shelburne Memorial Forest.

Residential development, timber harvesting, and recreation are the primary ongoing activities that have the most potential to create visual change. Some open fields and agriculture are found adjacent to the Androscoggin

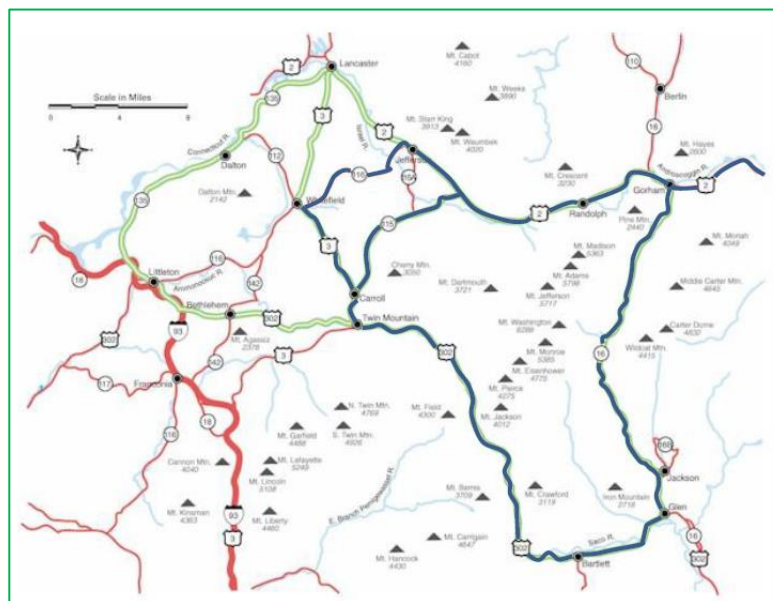
River. Wireless telecommunication facilities have become part of the landscape on private lands at Hark Hill (Verizon) and in the vicinity of Mt Evans (AT&T). A significant utility corridor with natural gas and oil pipeline runs east-west along the North Road, crossing the Androskoggin River, and then along Route 2. For some residents located along the utility corridor, it provides a permanent maintained opening.

New Hampshire's Office of Energy & Planning issued Technical Bulletin 10, Preservation of Scenic Areas and Viewsheds recommends that a municipality identify its scenic areas and incorporate specific policies into the zoning and subdivision regulations to protect those areas. The majority of respondents to the Master Plan Survey felt preservation of open spaces was one of the most important issues. Our rural character is important and it may mean different things to different people. To some it may be the small town quality of Shelburne, with its mix of homes and scattered agricultural areas. To others it may mean the surrounding rivers, lakes, and forests. For most it probably is a combination of the two.

Certainly preserving scenic areas and views is a way of preserving that sense of rural character and quality. The bulletin points out that some of a town's most visually pleasing landscape is often privately owned. However, it says, "the public 'uses the landscape visually.'" Protecting these resources, it says, provides a significant and tangible benefit. Shelburne should consider encouraging the protection of its scenic views through conservation easements, scenic road designation, or other owner incentives. Conservation easements provide a lasting legacy for what the owner wants and desires for their land. Both residents and visitors appreciate a high quality Town landscape, one that encourages community identity and pride.

The Town of Shelburne has designated the section of the North Road between Meadow Road and the Maine state line as a scenic road as further means to protect the scenic character of the Community. This scenic character designation could easily be further extended along the full extent of the North Road in Shelburne.

The state of New Hampshire includes US Route 2 in Shelburne as part of the state-identified "Presidential Trail" scenic road, which generally runs from the Shelburne-Gilead Maine state line to Gorham (US Route 2), south to Glen (NH Route 16), northwest to Twin Mountain (US Route 302), north to Whitefield (US Route 3), northeast to Jefferson (NH Routes 116 or 115) then returning east via US Route 2 back to Gorham and Shelburne. This designation limits advertising billboards and off premise business signs, although signing prior to the enactment of this RSA was "grandfathered" (RSA 238:24).



The Presidential Range Trail, 2015
Map Credit: North Country Council

New Hampshire's scenic road law (RSA 231:157), enables the Select Persons to review and provide input prior to work on designated scenic roads, such as removing trees, altering stone walls, or limiting advertising.

The natural skyline of the hills and mountain sides in Shelburne are an important visual environmental asset. Hilltop development can both destroy these scenic vistas and upset fragile summit ecosystems. Hilltops are areas of thin soils; once the vegetative cover is disturbed, erosion can be difficult to control. Erosion and resulting sedimentation can cause damage and accelerate the filling in of lakes, wetlands and streams. Banning ridge top development was the highest concern Shelburne residents had in protecting natural resources and open spaces in the Master Plan Survey. Landowners should be encouraged to preserve hilltops and steep slopes on their properties as open space lands. Programs that encourage maintaining our scenic beauty and rural character by means of easements, current use, conservation restrictions, and community based agriculture or other means, will ensure perpetuation of our rural quality of life.

The Town's development review powers should also be used to the fullest extent possible to encourage the proper siting of new development to minimize negative visual impacts. In assessing visual resources, the Planning Board should consider distant views and large scale panoramas; details of short and medium distance, such as waterfalls, wetlands, rock formations, rivers and streams; and characteristic scenes as in the mixture of pasture, crop, woods, villages, mountains and valleys.

PROTECTED/CONSERVED LANDS

Shelburne's natural resources have long been protected by geography. The Town lies in a narrow river valley with steep mountain chains on the north and south boundaries and was blocked from early settlement by the Presidential Range of the White Mountains and native populations along the Androscoggin River from Maine. The first white settlers arrived in Shelburne shortly before the Revolutionary War, long after the more distant Ohio Valley had been populated by expanding new-world colonists.

"It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value: I mean value in the philosophical sense."

Aldo Leopold
– A Sand County Almanac

The original King's Grant of Shelburne to its several proprietors divided the Town into lots primarily along the fertile intervalle land along the Androscoggin River, with adjoining upland lots expanding into the forest. Much of the Town to the far north and south of the river remained as "undivided lands", with ownership vested in common to the resident landowners. A large number of the original grant lots have never been sub-divided and still remain in single ownership. The "undivided lands" did not come into private ownership until the first decade of the 20th Century and still remain predominately intact in unified ownerships.

For much of its 200+ years, Shelburne was an agricultural community and eventually a "bed-room" community to its Gorham neighbor. During the mid-19th to early 20th Century, large farm estates populated the gentler terrain along the river, with many owned by summer families from southern New England or New York and managed by local caretaker/managers. Those patterns of ownership resulted in Shelburne retaining a forested landscape much like that encountered by the original settlers, which is unusual for even a rural New Hampshire community.

The very rugged steep mountain terrain was primarily its own protector of the forested landscape, but other human events have aided in conserving the original Shelburne landscape.

Permanently Conserved and Protected Lands in Shelburne:

PUBLIC – FEDERAL OWNERSHIP

White Mountain National Forest: The first instance of permanent protection for a large part of the Shelburne landscape came with the adoption of the Weeks Act in 1911, and the subsequent purchase of the Moriah-Carter Range section of Shelburne by the White Mountain National Forest. With additional purchases of in-holdings within the forest's proclamation boundary and the acquisition of the Appalachian Trail corridor into the Mahoosuc Mountains that forest now totals over 15,000 acres, or approximately 48% of the Shelburne land base. The federal lands are managed responsibly by the US Forest Service for multiple uses, including the production of timber and recreational access. In lieu of real estate taxes, the Forest Service makes a Payment in Lieu of Taxes (PILT) payment to the Town to compensate for the lost property tax revenue. A common misconception is that the Community is at an economic disadvantage as a result of a large federal ownership of land, when in fact the PILT payment to Shelburne is at a rate almost 2 and ½ times the per acre tax rate paid by the largest commercial timberland owner under current-use assessment. The Town also receives additional funding from the US Forest Service for local schools.

PUBLIC – STATE OWNERSHIP

Leadmine State Forest: The 217-acre Leadmine State Forest along the Androscoggin River and Hogan Road was acquired by the state from the Appalachian Mountain Club (AMC). The land was originally donated to the AMC as a club reservation by Anne Whitney and another donor in the early 1900's. The state management plan allows timber harvesting on the forest, but it is managed primarily in its natural state as corridor land along the Appalachian Trail (AT). The AT ascends northwest through the forest to the summit of Mt. Hayes before continuing northeast following the high Mahoosuc summits into Maine. The state also owns a number of small parcels throughout the Town, including the Route 2 scenic turn-out before Village Road at its east end, a 13-acre tract on the south side of the Androscoggin River at Leadmine Dam, the rest-stop on Route 2, and a 6-acre former Indian burial ground on the south side of Route 2 across from the Town's William Hastings Memorial Forest.

PUBLIC – TOWN OWNERSHIP

The Town of Shelburne owns several forested tracts open to public use. Those include the 20-acre William Hastings Memorial Forest along the south side of the Androscoggin River adjacent to the Maine-New Hampshire state line and the 19-acre Shelburne (White Birches) Memorial Forest on both sides of US Route 2. The Town also owns the 17-acre Chester Hayes Memorial Park across from town hall. As town owned parcels, those lands do not have permanent protection from future development, except for deed restrictions on the Shelburne Memorial Forest placed by the Brown Company when those lands were donated to the Town. The Town also owns the 50-acre transfer facility and other public buildings and cemeteries.

PRIVATE – PROTECTED BY PERMANENT CONSERVATION EASEMENT

In the early 1980's, the Uniform Conservation Easement Act established a new method to protect land and its natural resources and was widely adopted in New England and by the United States government. Conservation easements would allow public entities or non-profit conservation organizations to hold easements on private land that restricted activities or certain uses of the land.

The restrictions generally prohibited future residential or commercial development of the property and were jointly determined by the seller or donor and the organization holding the conservation easement. Easements include other mutually agreed upon restrictions and reserved rights that protect the natural resource values of the property. Easements must provide certain public benefits and be granted in perpetuity in order for donors to

qualify for charitable gift tax deductions under federal IRS guidelines. Land under conservation easement remains in private ownership and owners usually retain their rights to manage the land for forestry, agriculture and other historic uses, but are precluded from developing the property for additional residential or commercial use.

Mill Brook Easement: The Millbrook Trust lands along North Road became the first Shelburne property to be protected by a conservation easement in 1991, when the owners sold a conversation easement on 297 acres to the State of New Hampshire. The easement, paid for with \$120,000 from New Hampshire's then LCIP program, is monitored by New Hampshire Fish and Game and protects 1,900' of shore frontage on the Androscoggin River and 2,200' of frontage on the west side of Mill Brook. Though forest harvesting and agricultural use continues to be permitted, the easement protects the summit of Mt. Crag and the trail to the summit and provides for public access within the easement area. An area around the residence and barns and another section in the southwest corner of the upland lot remain outside the bounds of the easement.

First Mountain Easement: A conservation easement was placed on the 130-acre First Mountain tract on North Road in 2009. The donated easement, held by the Mahoosuc Land Trust, was created to protect wildlife habitat and scenic views of First Mountain from numerous points in town. The easement restricts development of the mountain and prohibits commercial timber harvesting on the property, but does not require public access. A small developed portion of the property around the residence is not restricted by the easement. The First Mountain property was originally the upland portion of the historic Whitney Farm.

Philbrook Farm and Croftie Farm Easements: Approximately 780 acres of farm and forest land of the Philbrook Farm and adjoining Croftie Farm were protected by a conservation easement held by the State of New Hampshire in 2009. The easement was purchased through funding from the New Hampshire LCHIP program as a result of match funding from other donated easements, including the First Mountain easement above. The easement protects the farm's river frontage and much of the upland forest from future development, including the summit of Mt. Cabot and part of the Mt. Ingalls summit. A small portion of the land around the Croftie Farm and the Philbrook Inn's developed areas were left out of the easement to allow for future expanded use of the farm and inn. Timber harvesting and agriculture uses are permitted on the protected land. The easement is monitored by New Hampshire Fish and Game and provides for public access and use of the inn's extensive trails network.

Tassey Wetlands Easement: The USDA Natural Resources Conservation Service purchased a wetlands reserve easement on Androscoggin River shoreline protecting 20+ acres downstream from Meadow Road in 2010. Protected from both development and agriculture use, this easement increases shoreline protection abutting Philbrook Farm easement property.

Crow Mountain Farm Easement: In 2013, Betty Werner and her daughters donated a conservation easement to the Mahoosuc Land Trust on 242 acres of their farm that includes the two summits of Crow Mountain and significant shoreline on the Androscoggin River including a small island. The easement allows timber management on approximately half of the property, with the remainder to be managed as natural areas.

In 2016, two owners of forest and Androscoggin river-front land along North Road were in the process of donating conservation easements on approximately 120-acres each. Those pending easements were being negotiated by The Conservation Fund and were expected to be held by New Hampshire Fish & Game.

PRIVATE – OWNED BY A CONSERVATION ORGANIZATION

Peabody Forest: The 82-acre Peabody Forest along Peabody Brook was donated to the Society for the Protection of New Hampshire Forests (SPNHF) in 1960 and was one of SPNHF's earliest reservations. The Peabody Brook Trail (part of the original Appalachian Trail route) passes through the property, which is managed by SPNHF as a sustainable timber resource and is open to public access.

Bald Cap Peak: The Conservation Fund purchased the 1,227-acre tract of forestland around Bald Cap Peak in 2009 as part of its Androscoggin Valley Conservation Initiative and intends to sell the property to a private owner after a conservation easement is placed on the property. The tract includes the summit of Bald Cap Peak and most of the former "undivided land" between Peabody Brook and Leadmine Brook.

HAZARDS

New Hampshire can experience almost any natural disaster that can occur anywhere in the world, with one exception: the state has no active volcanoes. While our area has not historically had natural disasters as frequently as in many other parts of the world, we have had an increasing number, and since 1998 the state has experienced a destructive series of events, including floods, tornados, and serious ice storms. During Fiscal Year 2009, which began on July 1, 2008, and ended on June 30, 2009, New Hampshire received four presidential disaster declarations, including all 10 counties at one time or another.

The 2016 Town of Shelburne Hazard Mitigation Plan identifies numerous potential threats, both natural and man-made, and evaluated their severity and probability, producing an estimate of overall risk to the Town, including: areas of risk, infrastructure assessments, and residential concerns. The Hazard Mitigation Plan goes into a more detailed historical review of natural and manmade disasters and the areas affected by them that have already affected or could affect the Town of Shelburne. Following is a brief overview of hazards that have a history or future potential of threatening Shelburne and its residents:

Floods

The most common hazard in New Hampshire is flooding. Every year some part of the state experiences flash-flooding and/or main stream flooding. The White Mountains experience both regional and local weather patterns that can stall over the state, producing continuous heavy rain. The many brooks and streams of Shelburne are flashy and can quickly overflow their banks, with no place for the water to move except onto roads, fields, and home/business sites.

While the Androscoggin River has a series of dams that can provide some flood control relief, the combination of spring snowmelt and/or heavy rains produces conditions of bank overflows, most often in the spring. However, flooding can strike at any time. *Ice jam* flooding is another type of flooding that has backed up water, particularly on the Androscoggin River and Clement Brook, and which have impacted the Shelburne village. *Dam breach* is another potential cause for flooding concern, particularly the Aziscohos and Shelburne Powerhouse Dams, both of which could flood structures in the dam inundation path. The 2010 Shelburne Hazard Mitigation Plan includes a dam failure analysis and maps of timing and peak elevations should the Aziscohos Dam fail. In 2005, the Aziscohos Dam did suffer a flashboard failure which caused serious flooding, affecting 22 buildings.

Hurricanes

The primary threat for inland Shelburne is flooding due to heavy precipitation and high winds, both causing infrastructure damage. Tropical storms have also been responsible for some of the worst inland flooding as they tend to move slowly, carry lots of moisture, and produce several inches of rain per hour.

Thunderstorm, Lightning, and Microbursts

Thunderstorms are dangerous and underrated in terms of their dangerous affects. Every thunderstorm produces lightning. Nationally over 400 people are killed or injured a year and New Hampshire ranks 16th in the nation for casualties from lightning strikes. Lightning is most common, and deadly, in the summer, when people are outdoors and recreating. Other associated dangers associated with thunderstorms include tornados, strong winds, hail, and flash flooding. A microburst is a severe localized down blast of wind from a thunderstorm, producing “straight line” winds and damage that can resemble a tornado, except that the damage flattens and destroys trees and structures in a straight pattern, as opposed to the circular pattern of a tornado. Microbursts have historically happened all around Shelburne, especially in Evans Notch.

Tornados and Severe Winds

Tornados are nature’s most violent storms. Spawned from powerful thunderstorms, tornados can cause fatalities and devastate a neighborhood in seconds. It appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 300 mph. Some tornados are clearly visible while rain or nearby low-handing clouds obscure others. Occasionally, tornados develop so rapidly, that little, if any, advance warning is possible. Before a tornado hits, the wind may die down and the air may become very still. They generally occur near the trailing edge of a thunderstorm – it is not uncommon to see clear, sunlit skies behind a tornado. While New Hampshire generally reports only a few a year and these are localized, they can have devastating consequences to life and property. Tornados have been confirmed near Shelburne in the last few years.

Extreme Winter Weather - Severe Winter Storms, Blizzards, Ice Storms, and Extreme Cold

Winter and its various weather events are a part of the New England experience, but they can cause extremely hazardous conditions, severe damage, and fatalities. Winter hazards include freezing rain, sleet, heavy snows, extreme cold, ice storms, and white-out conditions from high winds and blowing snow. Shelburne recorded 300 inches of snow in the winter of 1968-1969, was severely impacted by the ice storm of 1998, and has had temperature lows to -35 degrees. Widespread power outages and the collapse of utilities and buildings, debris from downed trees and wires, hazardous driving conditions for motorists, freezing waterlines, and extensive removals of snow and ice, are some of the vulnerabilities resulting from winter events.

Earthquakes

Surprisingly, New Hampshire is considered to be an area of moderate seismic hazard, which means the state could experience earthquakes of magnitude of 6.5-7.0. The incidence is normally around 1-2 earthquakes per year in the state and they are typically at the 2.0-3.5 magnitude. However, the potential damage due to an earthquake is high because the as-built environment of old and/or not-to-standard structures, including homes, bridges, and highways, that are not able to withstand quakes, are widespread. Due to the geology of New Hampshire, earthquake propagation waves travel up to 40X further than they do in the western part of the U.S., potentially triggering a large area of impact. In addition to tremors originating within the State, New Hampshire has also been affected by some of the stronger earthquakes centered in the St Lawrence Valley seismic zone

and in the northeastern Massachusetts seismic zone. In Shelburne, the Portland Natural Gas and oil pipelines could be vulnerable to earthquake damage.

Extreme Heat and Drought

While hot and humid temperatures are common in the summer, the extreme heat does not usually last for an extended period of time. High temperatures were blamed for the train derailment just east of Shelburne in Gilead on August 15, 2009, when crews blamed it on a “heat bubble”, a section of track that expanded because of the hot weather.

A *drought* is an extended period of months or years when there is a shortage in the water supply, generally when a region receives consistently below average precipitation. It can have a substantial impact on the ecosystem and agriculture of the affected region. Although droughts can persist for several years, even a short, intense drought can cause significant damage and harm the local economy. Coos County experienced drought in 2001 and 2002, lowering ground water levels and causing private wells to go dry, as well as limiting water supplies for fire suppression.

Wildland Fires

New Hampshire typically has a fairly active spring fire season and then the summer rains tend to dampen fire activity later in the season. On average, New Hampshire experiences about 250 wildland fires each year, which burn an average of 250 acres. Another 200-300 illegal fires occur each year that are extinguished before they turn into a wildland fire. Wildland fire control is achieved through prevention, training, detection, pre-planning, hazard mitigation, and suppression.

Historically, New Hampshire’s large wildfires run in 50-year cycles. With some of the state’s largest wildfires occurring in the late 1940’s, some believe a bad wildfire season is overdue. In 1903, the Kilkenny lost over 25,000 acres to wildfire and in 1947, extensive wildfires occurred throughout New England.

The threat of wildfire is greatest during dry periods (drought) and in spring when the land has begun to dry out after winter snow has melted but before leaf-out. A review of causes of wildfire from 2000-2010 by the NH Division of Forests and Lands indicates the leading single causes are: debris burning, campfires, smoking, and children. Other causes include equipment, lightning, arson, power lines, fireworks, railroads, and more.

Many homes in New Hampshire are located in the wildland urban interface, which is the area where homes and flammable wildland fuels intermix. Several of the fires during the 2010 season threatened structures, a constant reminder that forest fires burn more than just trees. Homeowners can actively take precautions to prevent a wildland fire from spreading to their homes including: keeping roofs and gutters clear of leaves and pine needles, and maintaining adequate green space around the home free of flammable materials. Under State law (RSA 227-L:17) a fire permit is required for all outside burning, unless the ground is completely covered with snow. The New Hampshire Department of Environmental Services also prohibits the open burning of household waste.

Other Disasters

Other events that could affect the health and well-being of Shelburne that are not addressed here are human-caused events such as terrorism (including bioterrorism), chemical spills, and air pollution. They will likely be addressed in future editions of the Town of Shelburne Hazard Mitigation Plan.

NATURAL RESOURCES & HAZARDS: GOALS

Goal 1 – Preservation of Open Space

Continue to ensure the preservation of open space and agricultural lands.

Goal 2 – Regulate Ridge-top Development

Continue to ensure that ridge-top development is regulated into the future.

Goal 3 – Protect Surface Waters

Continue to ensure the protection and quality of the Androscoggin River and its environs as well as Shelburne's other surface waters including lakes, ponds, rivers and streams.

Goal 4 – Protect Aquifers

Continue to ensure the protection of the identified aquifers.

Goal 5 – Scenic Vistas

Continue to ensure the protection of the Town's scenic vistas.

Goal 6 – Recognizing Land Use

Review best practices that would recognize the suitability of the land for the planned use; determine if the Town regulations need to be adjusted to determine lot size.

Goal 7 – Conservation

Support individual property owners in the development of conservation easements on their properties.

Goal 8 – Invasive Species

Through public education and outreach, discourage the introduction of invasive species in Shelburne.

NATURAL RESOURCES & HAZARDS: SUMMARY

This chapter identifies the natural resources that contribute to the total essence of Shelburne. A comprehensive plan for guiding the Town's future should provide for the long term protection of these resources. Growth, both demographic and economic, is inevitable – but growth that depletes natural resources will degrade the economic potential as well as the quality of life in Shelburne. Planning based on natural resources is motivated by the desire to conserve and protect our important areas, but also by the belief that development of any kind can be best located, with less present expense and future problems, if based on an understanding of natural constraints and resource needs.

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CHAPTER 3: COMMUNITY FACILITIES, RECREATION & SERVICES

INTRODUCTION

Community services and infrastructure are the backbone of the Town. Administering these services and maintaining community facilities constitutes one of the primary functions of local government. As the Town experiences population and development changes, community facilities and services needs also shift. The purpose of this chapter is to inventory and evaluate Shelburne's public infrastructure. Future needs of each Town department are also forecast to insure that the Community can make better planning decisions.

One way that the Town can plan for anticipated facility and service requirements is through the budget planning process. The Selectpersons have prepared and maintain spreadsheets that track capital expenditures and make recommendations for future capital expenditures (items with a useful life of at least three years) over a period of twenty years. That plan's purpose is to aid the Selectpersons and the Budget Committee in their annual budgeting process.

Capital improvement expenditures can then be placed on the Town Warrant for voter approval. In this way, funds for large infrastructure improvements can be set aside annually in anticipation of future needs. For example, if a piece of highway equipment is projected to be purchased five or ten years in the future, the plan may make a recommendation to place funds annually into a capital reserve fund so that the cost of the equipment as a proportion of the annual tax appropriation stays level. The Selectpersons look to the Master Plan for guidance when it prepares its recommendations. Therefore, the Community Facilities, Recreation and Services chapter in the Master Plan is particularly important for capital improvement planning.

This chapter also summarizes community input on the adequacy of Town facilities and services, based upon results from the Master Plan Survey. Residents of the Town of Shelburne value access to community facilities and good municipal services, both of which contribute to the quality of life enjoyed in Shelburne.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- Overall, the respondents to the Master Plan Survey seemed pleased with the current state of the Town's Community Facilities and Services.
- The top-ranked four community facilities, Road Maintenance and Reconstruction, Tax Assessing and Collection, Cemetery Maintenance and Land Use and Planning had the largest Excellent/Good total rating when compared to other community facilities (Question #11).
- The bottom-ranked four community facilities, High Speed Internet Services, Law Enforcement, Cellular Phone Services and Health & Welfare had the smallest Excellent/Good total rating when compared to other community facilities (Question #11).
- It is noted that there has been some improvement in High Speed Internet since the survey was taken.

COMMUNITY PERCEPTIONS AND NEEDS

Shelburne residents are generally happy with the facilities and services the Community provides. The Master Plan Survey asked a variety of questions relating to municipal services. When asked to rate municipal services such as safety services, road maintenance, transfer station and other municipal services the majority of survey respondents rated services excellent, good or adequate. The Gorham Randolph Shelburne Cooperative School District likewise was rated excellent, good or adequate by a majority of respondents (when removing the “N/A” responses).

Community Facilities & Services		
Name	Value (not including contents)	Contents & Equipment Value
Town Hall, land & building	\$247,600	\$50,000
Library	\$25,000	\$0
Fire Department, land & building	\$139,800	\$200,000
Chester C. Hayes Memorial Park	\$75,100	\$0
Park Pavilion, etc.	\$10,600	\$0
Town Memorial Forest & Evans Cemetery	\$126,900	\$0
Property – 2 lots	\$97,800	\$0
Wheeler & Leadmine Cemeteries	\$85,500	\$0
Peabody House, land & building	\$127,700	\$10,000
Transfer Station Building	\$40,000	\$27,000
New Highway Garage	\$400,000	\$400,000
Sand Shed	\$75,000	\$7,000
Town Landfill Site	\$112,900	\$0
2015 Town of Shelburne Annual Report	\$1,563,900	\$744,000

ANTICIPATED POPULATION TRENDS

Shelburne’s population has been declining since the 1990 high of 411 people. According to the 2010 census the population had dropped to 372 people and the 2013 Census estimate has the population at 378 people. According to a study published by the NH Office of Energy and Planning in the fall of 2013, current projections indicate that the population in Shelburne as well as most of Coos County will continue to decline over the next twenty years. Demographic data from the 2010 census showed that there were 60 people in the 19 and under category; 53 people in the 20-39 year-old category; 145 people in the 40- 59 year-old category and 114 people in the 60 and over old category. Projections indicate that Shelburne’s population will drop 13.4% by 2040; school population is also projected to drop through this period. A resurgence of industry in the area would help to stem this drop.

If the projections are correct and the Town’s population continues to decline, the Town will have to carefully plan how to continue to offer services and maintain facilities at a reasonable cost to a smaller population. Administrative demands from state and federal agencies have been increasing and are expected to continue to increase during this time frame. While projections for population are not accurate predictions, they do provide a rough basis for community planning. It is important to consider such projections when making decisions about the expansion of services, personnel requirements, equipment purchases, and funding allocations.

TOWN HALL & COMMUNITY OFFICES

The Administration of Shelburne operates out of the Town Hall and Offices at 74 Village Road. The Town Hall is a wood-frame building built in 1911. A prefabricated building addition added in 2002 and put into use in 2003, houses the Town offices, bathroom and kitchen facilities and a utility room. The Town hall portion of the building was raised 18 inches; at this time, steel beams were placed under the floor and insulation was added in the attic area. Since 2003 the front entrance to the library has been redone and the Town hall portion was painted by a very energetic group of volunteers.

The Town Hall presently houses the Library, the Board of Selectpersons, Assessing, Town Clerk, Finance, and Land Use offices, as well as one large and two small meeting spaces for Town Meeting, board and committee meetings, and other community events. There is currently one full-time and one part-time staff member employed at the Town Hall. Personnel needs are expected to change in the next year with the addition of another part-time employee at the Town Office.

In 2014 the Town Hall portion of the building was sided with vinyl siding to match the office addition building; insulation was also added under the new siding. The roof on the Town hall portion of the building will need to be replaced within the next 5 to 10 years.

The Fire Department has an office at the Fire Station on Meadow Road and the Highway Department has an office in the new Highway garage at 11 Landfill Drive.

The Town Hall/Town Office building and the current Highway/Fire Department building were assessed in a professional energy audit in 2009, which recommended several improvements. Both buildings need insulation and air sealing, as well as boiler control upgrades and programmable thermostats.

HIGHWAY DEPARTMENT

The Highway Department is headquartered on Landfill Drive in the newly constructed highway garage next to the Transfer Station. The new Highway Garage was built in 2014 and houses the Town's highway equipment and office space for staff. The Highway Department received high ratings from respondents to the Master Plan Survey: 83% were satisfied with the Town's road maintenance, and 57% rated the Highway Department as Good or Excellent. The Highway Department is responsible for all of Shelburne town roads. The North Road from the west junction at Route 2 to Meadow Road and Meadow Road to Route 2 are the responsibility of NH Department of Transportation District 1 except for winter plowing. The Highway Department currently employs one full-time Road Agent and one part-time employee to maintain Shelburne's roads, run the transfer station, and also take care of town buildings, cemeteries and parks.

The Highway Department also completes rehabilitation, repair, and road construction projects. For major projects an outside contractor is often hired to do the project with assistance from the Highway Department. The Highway Department generally does a paving project each year based on an evaluation and ranking of paving needs.

The Town maintains a paving capital reserve fund and a highway equipment capital reserve fund which are funded through the town budget process. The Highway Department requests annual appropriation to these capital reserve funds to cover planned paving projects and equipment replacement needs, thus leveling the tax rate for large items year to year. The Highway Department makes the largest departmental capital expenditure requests across all town departments, due to the cost of maintaining town roads and winter plowing.

Within the next five years, the Highway Department will need to hire a new Road Agent due to retirement. A part-time employee will still be necessary, but this employee's hours will most likely have to be increased to meet highway and transfer station needs. The highway garage and sand shed are in excellent condition and no repairs are anticipated in the next five years. The highway equipment is in good shape.

Current Equipment – Highway Department

Highway Department - Equipment Inventory			
Rolling Equipment	Model	Location	Fuel
Backhoe (shared with Transfer Station)	2012	Highway garage	diesel
Plow truck with plow, wing, sander & dump body	2010	Highway garage	diesel
Pickup truck with sander & 9 ft. plow	2013	Highway garage	diesel
Ford Tractor with brush hog & back blade	1955	Highway garage	gas
Old plow truck with plow, wing, sander & dump body	1993	Highway garage	diesel

TRANSFER STATION

The Transfer Station is located on Landfill Drive off US Route 2, where Shelburne residents bring garbage and items for recycling. The Transfer Station is operated by the Road Agent with the assistance of one volunteer. The hours of operation are Saturday 6 AM to 12 noon year round and Wednesday 3–4:30 PM from the middle of June to the Wednesday after Labor Day.

Shelburne began recycling in 1989 and adopted "Pay as You Throw" bags in 2001. The Town collects \$6,000 - \$7,000 per year from the sale of bags. This amount is more than 15% of the Town's yearly cost to run the Transfer Station.

Before September 2012 the operation of the Transfer Station consisted of hauling municipal waste by the Town in the town truck to Mt. Carberry Landfill in Berlin. Recyclables were placed in bins then baled and the bales were sold or disposed of.

In September of 2012 the Shelburne Transfer Station burned. In preparation for rebuilding, the Landfill Committee and the Selectpersons analyzed the entire operation and decided to change to "modified" single stream recycling and roll-on containers for "Pay as You Throw" bags, recyclables, metal and aluminum. Glass is still placed in barrels. The roll-on containers are hauled by contractors. In the summer of 2014 a compactor was purchased for the "Pay as You Throw" bags only and a roll-on container for bulky wastes (construction debris, etc.) was added.

A new unheated transfer station storage shed was constructed in 2013 to store TV's, monitors, fluorescent light bulbs and waste oil. The shed was constructed to allow for expansion or other changes in the future. The Landfill Committee continues to monitoring the operation of the Transfer Station as single stream recycling facility. A compactor for recyclables may be needed in the future.

WASTE & RECYCLING TONNAGE, 2005-2015

Town	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	6.45	7.75	6.64	6.72	4.65	4.64	6.13	8.71	4.88	5.7	7.94
February	4.7	5.33	4.21	4.93	4.91	4.33	5.72	9.56	4.72	5.34	10.45
March	6.71	5.84	4.67	4.21	5.68	5.77	6.19	11.14	4.85	6.06	0
April	5.88	5.48	5.02	13.97	6.15	5.14	5.98	10.82	7.83	7.53	3.43
May	6.72	7.75	7.57	9.14	5.18	5.19	17.87	14.8	4.54	8.24	10.55
June	9.92	9.46	5.9	9.24	6.55	7.01	71.67	7.65	11.24	6.62	9.55
July	6.23	6.69	6.35	13.07	6.96	5.88	33.47	10.99	15.53	11.21	4.94
August	7.6	9.17	9.98	12.98	5.9	8.07	34.77	15.89	7.78	8.76	14.61
September	6.89	7.72	5.89	9.3	7.32	6.2	11.74	7.94	3.38	11.82	12.95
October	6.63	7.62	7.71	13.63	6	8.42	10.01	6.73	7.62	12.89	0
November	8.56	5.9	6.22	9.64	7.97	10	11.66	7.47	5.74	13.34	12.02
December	5.75	5.57	5.19	6.76	7.21	4	11.21	5.94	8.58	0	3.46
Total	82.04	84.28	75.35	113.59	74.48	74.65	226.42	117.64	86.69	97.51	89.9
Yearly Total	82.04	84.28	75.35	113.6	74.48	74.65	226.4	117.6	86.69	97.51	86.44
Cost/Ton	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00	\$67.00

Current Equipment – Transfer Station

Transfer Station - Equipment Inventory
Backhoe (shared with Highway)
Trash Compactor
Waste oil handling equipment

PARKS AND RECREATION

The Town of Shelburne has no organized recreational programs. Shelburne pays an annual recreation access fee to the Town of Gorham so our children and adults can take part in Gorham programs. Any ranking of recreational programs in the Master Plan tabulations refers to the Gorham programs.

Shelburne's Chester C. Hayes Memorial Park has a playground, baseball/softball field and a pavilion. The park is used for various events by Shelburne citizens and other area residents. The maintenance of the Chester C. Hayes Memorial Park is handled by the Highway Department.

Shelburne has many recreational opportunities that individuals may enjoy. The Androscoggin River flows through Shelburne offering canoeing, kayaking and catch-and-release fishing. The Shelburne Trails Club maintains a system of trails in Shelburne and the Appalachian Trail also passes through Shelburne. These trails offer many hikes of varying difficulty and spectacular views of the mountains which surround the Community.

Shelburne Recreation Facilities

- The Chester C. Hayes Memorial Park
- The Androscoggin Valley Country Club (golf course)
- Town & Country (health club and pool)
- Two campgrounds (seasonal)

Current Equipment – Recreation Department

The Highway Department uses the 1955 tractor and two sets of gang mowers to maintain the park. A riding mower used mainly for cemeteries is also used to maintain the park.

CEMETERIES

Shelburne’s cemeteries are operated and maintained by the Trustees of Town Cemeteries, a board of three elected members. Mowing and maintenance are carried out by the Road Agent and a part-time employee funded by a line item in the town budget. Lawn movers and other equipment used for cemetery maintenance are shared with the Highway & Recreation Departments.

The table below lists the eight existing cemeteries in Town.

Shelburne Cemeteries			
Name	Location	Notes	Lots Available
Evans Cemetery	US Route 2		Yes
Hazelton Cemetery	US Route 2		No
Lary Cemetery	Behind Hazelton on Nickerson’s Property	Family (Historic)	No
Burbank Cemetery	US Route 2		Yes
Leadmine Cemetery	North Road		Yes
Gates Cemetery	Baldwin Property	Family (Historic)	No
Wheeler Cemetery	North Road		Yes
Austin Cemetery	North Road	Family (Historic)	No

LAW ENFORCEMENT

For many years Law Enforcement in Shelburne consisted of an Elected Constable. The Constable position was eliminated in 2011. The Gorham Police Department was contracted to respond to the Town’s law enforcement needs for two years. In 2013, the Town opted to utilize the NH State Police as primary law enforcement. The Selectpersons may consider hiring a part-time police officer in the future.

FIRE DEPARTMENT

The Shelburne Fire Department is staffed by an on-call Chief, appointed by the Board of Selectpersons, an Assistant Chief, a Captain, two Lieutenants and a fifteen member on-call firefighting team. The Fire Department operates out of its headquarters at 19 Meadow Road.

The Fire Department Headquarters was built in 1952 and expanded in 1974. These buildings are in serious need of a review relative to their structural needs and the need of the Fire Department to have suitable facilities to carry out their mission, such as adequate bathroom facilities, meeting and training space, storage for personal equipment and secure office space. A structural review of the complex was performed in 2011.

The Fire Chief and the department have spent a lot of time re-structuring and re-evaluating the needs of the Fire Department over the last several years. There has been turn over in Chiefs and firefighters, however, the Fire Department is stabilizing and the department has a strong contingency of younger members. The department is focused on training. Two four hour trainings are held each month. Joint trainings have been conducted with both Gorham and Gilead. The department is planning on putting together a Firefighter 1 class in 2016 and to also hold Self-Contained Breathing Apparatus (SCBA) training.

The Fire Department feels that the availability of water is a problem in Shelburne. They have worked through the subdivision process and with individual landowners to install a network of “dry hydrants”; however, water remains an issue. The Fire Department will review its past firefighting water resource plans and revive where appropriate. Shelburne belongs to Northern NH Mutual Aid District and has an active mutual aid agreement with Gilead, Maine.

Shelburne’s ambulance transport services are contracted. Additionally, Shelburne operates a small FAST Squad which tries to arrive at medical calls before the ambulance arrives. Due to the small size of the unit, there are times when no unit member is available.

Current Equipment – Fire Department

- 1987 Pierce Dash pumper
- 2004 Freight liner pumper
- 1987 Ford pump-tanker
- Rubber Boat & Trailer
- 20 Radios
- 20 pagers
- 16 SCBA’s

EMERGENCY MANAGEMENT

Shelburne’s Emergency Management Department consists of two appointed officials, the Emergency Management Director (EMD) and the Deputy Emergency Management Director. This office is required to plan for and respond to emergencies and disasters that occur in Shelburne and possibly in other communities. Within the state of New Hampshire, there have been more than a dozen instances of FEMA-declared major disasters since 2005. If that trend continues, the EMD will play an increasingly important role. The Town should continue to plan for events such as floods, power outages, and the like. Such planning requires time and resources. After the planning is completed, the Town should exercise the plan to see what works and what needs improvement.

The Emergency Management Director is also responsible for overseeing the updating of the Town’s Hazard Mitigation Plan and Emergency Operations Plan. The Emergency Operations Plan was updated in 2014. The Hazard Mitigation Plan is in the process of being updated and will be approved in 2016.

The Emergency Management Director (EMD) shares an office with the Planning Board. The Town Office is designated as the Emergency Operations Center, and the Town Hall is the designated shelter; this building has an emergency generator. Emergency Management has the necessary equipment to respond as needed, including a base station, antenna, Toshiba laptop computer and a portable. The Fire Department office is designated as the backup. The new highway garage can also be used for emergency operations, if conditions are warranted.

The Emergency Management Director has been working on getting Clement Brook dredged to pre-Hurricane Irene bed level. So far this project has not moved forward due to resistance from the Department of Environmental Services. There are also concerns about high water damage to other brooks and rivers due to past flooding events.

GORHAM RANDOLPH SHELBURNE COOPERATIVE SCHOOL DISTRICT (GRS)

The Town of Shelburne is part of the Gorham Randolph Shelburne (GRS) Cooperative School District, which is part of SAU #20. Grade K-5 students attend the Edward Fenn Elementary School. Grade 6-12 students attend the Gorham Middle High School. The school district is a separate taxing entity with its own operating budget separate from the towns' municipal budgets.

Shelburne's students have attended schools in Gorham for over one hundred years. Attempts were made several times to form a cooperative school district. In 2005 a cooperative school district was finally approved by the citizens of Gorham, Randolph and Shelburne. The GRS Cooperative School District officially took over operation of the schools on July 1, 2006.

In 2008 a bond of \$5,385,000 was passed for upgrades to both schools. Despite that large expenditure, Shelburne's tax rate has remained relatively flat over the first 10 years of the cooperative district. This was one of the advantages that were presented at the time the cooperative district was being considered because as students had moved into and out of Shelburne the tax rate had had sharp swings.

Both the Edward Fenn Elementary School and the Gorham Middle High School are now in good shape and both have adequate space to meet the needs of the three communities for the foreseeable future. The Cooperative School Board has been investing in capital improvements each year beginning in 2014 when the bond was paid off. The Board hopes by making small improvements that another bond issue will not be needed anytime soon.

Enrollments have fallen over the last ten years; however with the addition of the Federal prison in Berlin we are beginning to see enrollments stabilizing and we have a small increase in enrollment in 2015. While the predictions are for enrollments to continue falling we are cautiously optimistic that those predictions may be incorrect.

SHELBURNE PUBLIC LIBRARY

The Shelburne Public Library is located in the front section of the town hall building at 74 Village Road. The library is owned by the Town and governed by a Board of Trustees. There is one librarian who is paid a small stipend. The library is open on Thursday afternoon, 2-4 PM and Saturday mornings, 9-11 AM.

The interior of the Library has been totally updated and the entrance has been re-done. The library is now bright and inviting. A table with chairs and a comfortable reading chair has been added. A computer area that has two computers and a printer is available for public use. The library also offers open Wi-Fi for public use; the space can accommodate small meetings. Some residents have used the library for morning coffee chats.

The use of the library has dropped considerably over the last ten years because it is difficult for such a small library to stay current on new books. The Shelburne Library does offer use of the State Library system to its patrons. Books are ordered on-line and delivered to the Gorham Library where one of the trustees picks them up. The library computers and Wi-Fi are used on a regular basis.

Gorham and Berlin both have public libraries that are available to Shelburne residents, in some cases for a fee.

COMMUNITY FACILITIES, RECREATION & SERVICES: GENERAL GOALS

The following goals and objectives were developed based upon information gathered from town department heads, issues raised by residents through the Master Plan Survey and concerns identified by the Planning Board and the Board of Selectpersons:

Goal 1 – Provide Quality Facilities & Continue to Update Services

Provide quality facilities and services to Shelburne residents in a cost effective manner.

Goal 2 – Planning & Budgeting

Proactively plan and budget to ensure that town departments are adequately staffed, equipped and have suitable facilities for the future while attempting to maintain a reasonable tax rate.

Goal 3 – Encourage Involvement

Encourage Shelburne residents to be involved in community facilities, departments, and services.

Goal 4 – Improve Energy Efficiency

Seek opportunities to improve energy efficiency and reduce energy costs when making building improvements.

Goal 5 - Town Hall & Community Offices Goals

- a) Install better insulation, air sealing, boiler controls and programmable thermostats to improve energy efficiency at the Town Hall.
- b) Replace the existing roof at the Town Hall with a new roof within three years.

Goal 6 - Highway Department Goals

- a) Replace pickup truck in 2018 or 2019.
- b) Replace 1955 tractor by 2026.
- c) Obtain suitable back-up equipment to replace the 1993 plow truck.

Goal 7 - Transfer Station Goals

Consider purchasing a second compactor based on need and cost.

Goal 8 - Parks & Recreation Goals

Purchase a swing set for Chester B. Hayes Park and other upgrades.

Goal 9 - Cemeteries Goals

Purchase a new riding lawn mower within the next 6-10 years.

Goal 10 - Law Enforcement Goals

Continue to improve policing and law enforcement coverage in Shelburne.

Goal 11 - Fire Department Goals

- a) Review building needs of the Fire Department.
- b) Replace radios and pagers on a rotating schedule.
- c) Look for opportunities to add more dry hydrants in Shelburne to increase the amount of available water for fire suppression.
- d) Replace the 2004 fire truck within the next five years.
- e) Review the need for adding an ATV to the vehicle fleet.
- f) Have all members certified in the use and operation of Self Contained Breathing Apparatus (SCBAs).

Goal 12 - Emergency Management Goals

- a) Update the Local Emergency Operations Plan by 2018.
- b) Continue to work on the Clement Brook project.
- c) Participate in a public communications system such as the NH Emergency Notification System (ENS).

SHELburne PUBLIC LIBRARY

Through public outreach and library campaigns, continue to encourage residents to use the Library.

COMMUNITY FACILITIES, RECREATION & SERVICES: SUMMARY

The delivery of services and facilities to the public is one of the most fundamental functions of town government. However, as times change and the needs of the public also change, the Community will need to adjust to accommodate these needs. The goals identified in this chapter will need continual review and reassessment in order to be sure the future needs of the Community are met.

Shelburne's community facilities and services are highly regarded by its residents. The Board of Selectpersons, the Planning Board and the Budget Committee should work the department heads and the public to use the information presented here to guide future planning in Shelburne. The Town should continue to strive for high quality services that fit the needs and wishes of the Community in an efficient and cost effective manner.

CHAPTER 4: ECONOMIC DEVELOPMENT

INTRODUCTION

Economic development is customarily based upon three objectives: 1) retaining existing business, 2) helping the existing business base grow and 3) attracting new business.

The end goals of economic development are to increase the Community's tax base and to provide a more vibrant, diverse and rich culture for the citizens of the Community that offers opportunity for residents of all ages.

Approaches that can be used by a Town to reach the economic objectives include improving roads, improving broad band capabilities and providing better water, sewer and telecommunications throughout the Town. In addition, tax incentives or tax relief may serve to entice new business to a community along with general efforts to reduce costs and regulatory burdens.

Communities should create an atmosphere to welcome new business enterprises. These efforts may include the creation of office or industrial parks; having businesses located in a designated area of the Community will help maintain the rural character of the remainder of the Town.

Overall, the attraction of new businesses to Shelburne will require a concerted effort to create an inviting environment for new businesses and to provide marketing that will advertise the Community as a desirable business location.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- In Question #10, eight out of 19 respondents indicated a desire to attract new business to Shelburne.
- In Question #14, respondents indicated the following as "important":
 - Developing an industrial/business park in Town (75 important versus 14 not important)
 - Attracting new light industrial development (62 important versus 19 not important)
 - Attracting new retail development (56 important versus 17 not important)
- In Question #14, respondents indicated the following as "not important":
 - Developing a zoning ordinance to encourage elderly assisted living facilities or nursing homes (47 not important versus 27 important)
 - Creating a communications infrastructure to support entrepreneurial and business activity (56 not important versus 27 important)
 - Promoting tourism (62 not important versus 21 important)
- In Question #15, respondents indicated what types of businesses they would like to see in Shelburne. Small grocery or convenience stores were indicated by 25 respondents as the most desirable businesses followed by small restaurant/coffee shops indicated by seven respondents.

THE REALITIES OF ECONOMIC DEVELOPMENT

The reality is that most economic development does not take place at the level of a small town like Shelburne. Economic Development is most often part of a broader effort to increase opportunities throughout a region. Coos County is fortunate to have several agencies that focus on economic development; these include but are not limited to the Coos Economic Development Corporation (CEDC), the North Country Investment Corporation (NCIC) and the North Country Comprehensive Economic Development Committee (CEDS) at North Country Council. The Androscoggin Valley Chamber of Commerce and New Hampshire’s North Country websites also focus on opportunities for businesses of all sizes.



*Philbrook Farm Inn, Shelburne NH
Photo credit: <http://www.philbrookfarminn.com/>*

Small towns, such as Shelburne, generally do not have the personnel, expertise or the financial resources to implement broad-based strategies to entice business. Therefore is it vitally important that Shelburne coordinate with the regional, county and even state resources that can implement strategies to improve business in the North Country.

Shelburne’s new business appeal would likely be somewhat narrow, most likely attracting natural resource businesses (wood products); tourism-related business that would take advantage of the Town’s natural features (campgrounds and small inns) and/or small businesses (convenience stores or gas stations) that can serve the local population. Construction and building companies may have some potential to establish themselves in Shelburne as the economy both locally and nationally improves. Home-based and/or cottage industries may also be attracted to the quiet and rural nature of Shelburne.

The limited labor pool in Shelburne would likely preclude the development of light industry which may require a larger labor pool than Shelburne and the surrounding area can provide. Shelburne’s location in northern New Hampshire and its distance from major population centers could also curtail the development of small to large commercial enterprises.

THE EXISTING BUSINESS BASE IN SHELBURNE

Existing businesses in Shelburne include a mix of industries; however, the majority of current businesses are tourism-based. The largest employer in Shelburne is The Town & Country Motor Inn. The list below represents just a few of the larger businesses in Shelburne.

Major Businesses in Shelburne	Type of Business
White Mountain Lodge & Hostel	Hostel
The Mount Washington Bed & Breakfast	Bed & Breakfast
Daniels Landscaping	Landscaping
RJ Chipping Enterprises	Wood Products
The Town & Country Motor Inn	Hotel & Restaurant
Philbrook Farm Inn	Bed & Breakfast
Timberland Campground	Campground
White Birches Camping Park	Campground

EMPLOYMENT STATISTICS

Of the approximately 375 persons residing in Shelburne⁸, it is estimated that 330 are sixteen years or older⁹ and of those, 216 or 65.5% are in the labor force; all but six are employed in the civilian labor force. In the five-year estimate of the 2009-2013 American Community Survey (ACS), it is estimated that the unemployment rate in the civilian labor force is 2.8%, well below the State and County rates (see chart below).

Employment Status	State		County		Shelburne	
	Population 16 years & over	Percent	Population 16 years & over	Percent	Population 16 years & over	Percent
In labor force	743,855	69.2%	16,355	59.4%	216	65.5%
Civilian Labor Force	742,439	69.1%	16,350	59.4%	216	65.5%
Employed	690,769	64.3%	14,961	54.3%	210	63.6%
Unemployed	51,670	4.8%	1,389	5.0%	6	1.8%
Armed Forces	1,416	0.1%	5	0.0%	0	0.0%
Not in labor force	330,622	30.8%	11,185	40.6%	114	34.5%
Percent unemployed civilian labor force		7.0%		8.5%		2.8%

Occupations were also assessed in the 5-year estimate of the ACS. The chart below shows the occupational estimates for New Hampshire, Coos County and Shelburne based on an average over the five year period from 2009-2013.

Occupation	State		County		Shelburne	
	Civilian Employed 16 & over	Percent	Civilian Employed 16 & over	Percent	Civilian Employed 16 & over	Percent
Management, business, science and arts	271,736	39.3%	4,345	29.0%	80	38.1%
Service occupations	109,023	15.8%	3,442	23.0%	19	9.0%
Sales & office occupations	171,166	24.8%	3,287	22.0%	63	30.0%
Natural resources, construction & maintenance	61,636	8.9%	1,959	13.1%	30	14.3%
Production, transportation & material moving	77,208	11.2%	1,928	12.9%	18	8.6%



*Town & Country Inn & Resort, Shelburne NH
Photo credit: <http://townandcountryinn.com>*

⁸ NH Office of Energy & Planning; 2013 estimate

⁹ American Community Survey, 2009-2013; US Census Bureau

Further analysis of the civilian employed labor force is shown below. Of the 210 persons estimated to be in the civilian labor force in Shelburne, the highest percent is employed in educational services, health care and social services.

Industry	State		County		Shelburne	
	Civilian Employed 16 & over	Percent	14,961	Percent	210	Percent
Agriculture, forestry, fishing, hunting & mining	5,594	0.8%	477	3.2%	7	3.3%
Construction	47,584	6.9%	1,150	7.7%	15	7.1%
Manufacturing	90,367	13.1%	1,369	9.2%	13	6.2%
Wholesale trade	20,275	2.9%	301	2.0%	0	0.0%
Retail trade	88,947	12.9%	2,014	13.5%	41	19.5%
Transportation , warehousing & utilities	27,485	4.0%	643	4.3%	6	2.9%
Information	14,110	2.0%	169	1.1%	4	1.9%
Finance, insurance, real estate, rental & leasing	44,418	6.4%	577	3.9%	5	2.4%
Professional, scientific, management, administrative & waste management services	69,701	10.1%	829	5.5%	20	9.5%
Educational services, health care & social assistance	168,332	24.4%	3,603	24.1%	46	21.9%
Arts, entertainment, recreation, accommodation & food services	57,439	8.3%	2,145	14.3%	16	7.6%
Other services, except public administration	29,467	4.3%	776	5.2%	19	9.0%
Public administration	27,050	3.9%	908	6.1%	18	8.6%

The average commute time for Shelburne residents is estimated to be less than the state but slightly longer than the county estimate at 23.1 minutes. As the chart below shows, most Shelburne working residents drive to work alone (89.8%) with only 3.9% carpooling. Five percent were estimated to walk to work while 5.9% were estimated to work at home.

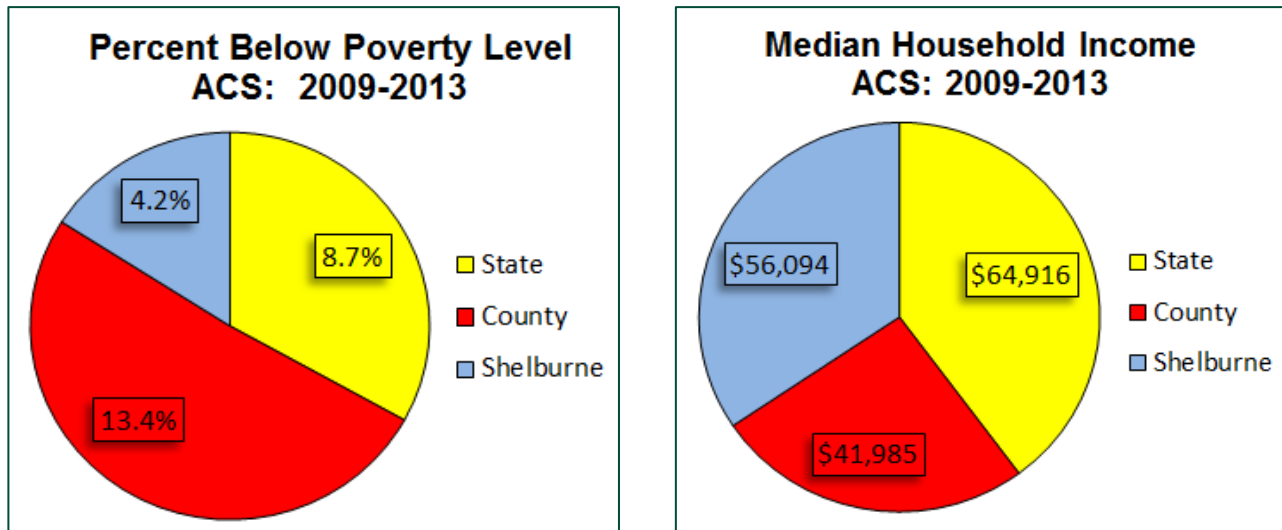
Commuting to Work	State		County		Shelburne	
Mean travel to work (minutes)	26.3		21.6		23.1	
Car, truck or van-drove alone	549,272	81.4%	11,660	79.9%	184	89.8%
Car, truck or van - carpoled	53,888	8.0%	1,405	9.6%	8	3.9%
Public transportation	5,594	0.8%	28	0.2%	0	0.0%
Walked	19,973	3.0%	471	3.2%	1	5.0%
Other Means	7,999	1.2%	156	1.1%	0	0.0%
Worked at home	37,966	5.6%	881	6.0%	12	5.9%



*The Mt. Washington B&B, Shelburne NH
Photo credit: <http://mtwashingtonbb.com/>*

INCOME & POVERTY

The American Community Survey estimates the median household income to fall between the State and County estimates. Shelburne is shown to have a lower poverty level than either the State or the County.



ECONOMIC DEVELOPMENT: GOALS

Goal 1 – Identify Location for an Industrial/Business Park

Identify the steps that would be needed to develop and promote a business park.

Goal 2 – Strengthen Connections with Regional Economic Development Agencies

Maintain representation and participation with local, regional and state agencies to open new doors for economic development.

Goal 3 – Review Regulations

Review the Shelburne Hazard Mitigation Plan (2016) along with the current regulatory documents to ensure protection from both natural and human-caused hazards.

ECONOMIC DEVELOPMENT: SUMMARY

The current economy of Shelburne appears to be stable; poverty is low and median household income is average when compared to state averages. Based on the American Community Survey for the 5-year estimate for 2009-2013, the Town and the people of Shelburne are economically sound.

Economic development desires in Shelburne are primarily motivated by convenience. The overwhelming majority of Shelburne's full-time and seasonal residents want to retain the rural character of the Town while favoring environmentally sensitive, low-impact business and commercial development.

A community is not expected to provide employment for every resident. In fact, with an easy commute to the larger towns of Gorham, Berlin and Bethel, ME, Shelburne will most likely remain a “bedroom” community for those who live in town and are employed elsewhere. As expressed in the Master Plan Survey results, maintaining the rural character and perhaps adding a small convenience store and/or a coffee shop would be most welcome by the residents of Shelburne.

Should an industrial or business park be established, the likelihood of new businesses would increase; however, based on the desires of the Community, industrial or commercial facilities, outside of an industrial park, would not be encouraged. In summary, economic development in Shelburne is likely to happen in the future; however it also likely to progress in a relatively slow manner over the next 10-20 years and based on the desires of the citizens of Shelburne, small businesses would be the most likely to occur.

CHAPTER 5: HISTORY, CULTURAL & HISTORIC RESOURCES

INTRODUCTION

The Town of Shelburne is proud of its historical heritage and aspires to maintain a living record of the history of the community and the region. The Town understands the importance of the continuation of these efforts so that newcomers to Shelburne and future generations can also enjoy and appreciate the rich cultural heritage that exists.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- The protection of historic properties & sites was addressed in Question #10 of the Master Plan Survey, where respondents were asked to rank only five “General Issues”. Thirty-three respondents ranked the protection of historic sites, with the majority ranking this issue as less important than other issues that were facing the Town.
- The preservation of structures of historic significance was addressed by 113 respondents in Question #13 of the Master Plan Survey. More respondents agreed (52) that structures of historic significance should be preserved than those that disagreed (45).
- One respondent, when asked how the Town could better assist you and your business in Question #16, responded by saying “By retaining rural and historical values and aura...”

SHELBURNE HISTORY

The first European is believed to have set foot in Shelburne around 1760. He was Daniel Ingalls, a prospector hired to learn more about the geography, quality of soil and forests in this area. He was so impressed that he petitioned for a settlers’ grant, and on May 3, 1769 King George III chartered a six square mile area to seven of his subjects for the purpose of developing the land. The name Shelburne was chosen in honor of Sir William Fitzmorris Petty, Earl of Shelburne, who held conciliatory views regarding the American Colonies, and was considered one of the most enlightened British statesmen of his time. Certain obligations were placed on the subjects by the charter, including the building of a road suitable for carriages, that trees suitable for ships’ masts be preserved for the King’s navy and to have 12 families settled by March 1, 1774, 60 families by March 1, 1779.

A year later it was claimed that the precipitous mountains, amount of un-improvable land and lack of water made it difficult to accommodate that many people. In further efforts to obtain the required number of settlers, a second charter dated November 17, 1770 added the 8,140 acres of “Shelburne Addition”. The first settler, Hopstill Austin, seems to have moved to Shelburne in 1770. The names of the early settlers; Austin, Ingalls, Peabody, Evans, Stephens, Burbank and Clemens are now attached to various brooks, mountains, ledges and legends of the area.

The Revolutionary War interrupted settlement of the town and the required number of families did not settle by the given deadline. By 1810, there were still only 27 families in Shelburne itself and only 3 families in the Addition. Under the new government, forfeiture of the land was not demanded, however, and the tiny settlement persisted to become incorporated as a town on December 13, 1820. Shelburne Addition was not included in this

incorporation, and in 1826 was incorporated as the Town of Gorham. Surveys since have established the area now included in Shelburne as approximately 30,000 acres, roughly 6.5 miles in the north-south direction and 7.1 miles east to west and bisected by the Androscoggin River which flows through from west to east.

By the turn of the century, the primarily agricultural community of Shelburne had its share of legends, adventures and legendary characters, including a sudden attack by armed Indians in 1781. Peter Poor, who had come to Shelburne in 1772, was shot and killed and settlers from Gilead and Shelburne were taken hostage. The survivors retreated to what is now known as Hark Hill to listen for the raiding party.

Stories are also told of Granny Stalbird, country herbalist, and of Moses Ingalls who climbed Moses' Ledge in his stocking feet to win the hand of his lady and the richest farm in the valley.

The early settlers planted corn, wheat, potatoes, beans and hay. Early "industries" were a saw mill, potash making and production of shingles, sap buckets, ox yokes etc. Trade was developed with both Portland and Fryeburg, the nearest sizeable settlements. Most of Shelburne's early families had close business, intellectual and social ties to neighboring Maine.

Schools were established and two were built in 1809. At different times there were several small grade schools throughout the town. The last, Shelburne Village School, closed in 1959. Four of the original school buildings are now private homes. Shelburne students now attend the Gorham, Randolph, Shelburne Cooperative schools in Gorham. A Union church built in 1836 and moved to its present location in 1880, replaced the services previously held in local homes. It is now used in summer for ecumenical services.

Several small industries flourished in the early 1800's. Lead deposits were discovered near Lead Mine Brook but the operation was abandoned as unprofitable. A brick yard was established near Rattle River using clay from the slopes of Mt. Evans. These relatively short-lived enterprises were the extent of Shelburne's "heavy" land use. The population continued to be agriculturally oriented, and grist mills and saw mills were established using water wheels and later steam. The Berlin Mills Company, later known as Brown Company, acquired large tracts of woodland which were used for logging and further maintained uninhabited space. In 1912 the White Mountain National Forest was established and contains much of the woodland south of US Rt. 2. The remaining large tracts of woodland north of the Androscoggin are still privately owned, mostly by large investment companies.

With the advent of the railroad in 1851 and improved transportation to Shelburne, many more visitors arrived wishing to take advantage of its beautiful scenery and cool summer breezes. During this period, inns, taverns and guest houses flourished, including Philbrook Farm Inn (still operating and on the National Register of Historic Places), Shelburne Inn and Dance Hall, Gates Cottage, Green's tavern, and the Shelburne Spring House. Just as the railroad initiated economic excitement when it arrived, it also resulted in the decline of the Town as a commercial center when the Grand Trunk Railway put their roundhouse and repair shop in Gorham. Since that time, Shelburne's population has remained quite stable and its beauty relatively unmarred. As noted in its second charter, it is a "setting ill-suited to a large population". Several visitors to Shelburne later acquired property and built up large estates; notably Robert Burbank's Stock Farm, and those of WK Aston, Anne Whitney and Charles Endicott.

Although farming and agricultural pursuits have dwindled in number and scope, Shelburne has continued to maintain large areas of open space, wild areas and accommodations for those persons who love the mountains and the "country aura". The Appalachian Mountain Club maintains many trails in the area, the most prominent of which is a portion of the 2,000 mile Appalachian Trail. Only in the mid to late 1980's have many of the large

privately owned land tracts been broken up, with an increase in subdivision of single-family dwellings. Improved transportation has allowed people to reside in Shelburne but to choose work in other towns. With the perceived threat to the rural nature of Shelburne, many residents and conservation groups are now beginning to pursue measures to preserve the remaining large privately owned tracts of woodland.

The Androscoggin River has been a factor in town since its beginning. It was first “bridged” by rope ferries and fords. But these were supplanted by a series of bridges at the present site of the dam and power house, and by an 1897 Pratt truss metal bridge (also on the National Register of Historic Places) at the Meadows crossing. The river acted as a transportation route in winter and a garbage sluice in summer for many years. Since the 1980’s, the installation of mill and municipal sewage treatment facilities, and now the removal of the pulp mill in Berlin, the once polluted Androscoggin River has become a major attraction of the town. There is “catch and release” fishing and considerable canoe and kayak use. Eagles are once more nesting along its shores.

In the early 2000’s the pulp mill in Berlin was demolished removing a major source of employment for area residents. Brookfield Power owns and operates the hydro dam and power house on the Androscoggin. The Portland Pipeline Company owns and maintains a pumping station and three oil pipelines through Shelburne. Portland Natural Gas also has a pipeline in the same corridor. The properties adjacent to the river are prime gravel sites, and there are several commercial pits. R. J. Chipping runs a wood yard and chipping facility.

The most numerous establishments are the inns, motels, B&B’s and campgrounds which service the year round travelers who visit Shelburne or who are traveling US Rt. 2, a primary east-west corridor from Maine to Vermont. Skiers have found Shelburne an attractive and convenient location to stay with easy access to Sunday River, Great Glen and Wildcat ski areas. The high point of the tourist season is during fall foliage. Several “in-home” retail shops, service businesses and farm stands are in operation at the present time.



In 1962, a Town Planning Board was established “to insure the preservation of the rural charm of our town through the promotion of an orderly process of its development, by providing adequate areas between buildings and various rights of way, by preventing overcrowding of the land, avoiding undue concentration of population...” in addition to providing for the general safety and welfare of the town’s inhabitants. The history of Shelburne demonstrates the concern of its inhabitants about the natural beauty and serenity of the community. Subsequent experience has only emphasized the vulnerability of our slender valley to over-crowding, noise and other pollutants, and underscored the need for planning to preserve its values. This Master Plan is a statement of goals and approaches for meeting these criteria.

SHELBURNE HISTORIC & CULTURAL RESOURCES OF SIGNIFICANCE

- Philbrook Farm (National Historic Register)
- Peabody Farm Museum
- Shelburne Union Church
- Old Shelburne Dance Hall
- Old Man in the Valley
- Peter Poore's Grave
- Stone Fish Sculpture (Aston Estate)
- Native American Burial Ground
- Whitney Farm
- Stone House & Barn (US Route 2)
- Eight small cemeteries throughout the Town

HISTORY, CULTURAL & HISTORIC RESOURCES: GOALS**Goal 1 – Property Preservation**

Continue to support the efforts of individual property owners to preserve their historical properties.

Goal 2 – Peabody Farm Museum

Continue to provide financial support for the operation and preservation of the Peabody Farm Museum.

HISTORY, CULTURAL & HISTORIC RESOURCES: SUMMARY

The history, the cultural and the historic resources of a community help to build a sense of pride and belonging to individuals who reside there. An understanding of a community's cultural heritage provides people with a connection to social values, beliefs and customs.

It is important for Shelburne to recognize this and to continue to preserve and protect the unique cultural and historic resources of the Town and to provide opportunities for the citizens of the Community to learn about and embrace Shelburne's past.

CHAPTER 6: HOUSING

INTRODUCTION

Housing is important in every community; the type and quantity of housing can influence the quality of life and the potential growth of a community. Housing is an essential part of the local tax structure and can have an impact on education, recreation and essential town services. The Master Plan, as outlined in RSA 674:2 (II) (I) includes a housing chapter which:

“...assesses local housing conditions and projects future housing needs of residents of all levels of income and ages in the municipality and the region...and which integrates the availability of human services with other planning undertaken by the community.”

This chapter examines the housing trends in Shelburne based on past and current data from the American Community Survey, a five-year estimate for the period 2009-2013 that is provided by the US Census Bureau. It includes the present number, condition, and types of housing units, a record of building construction over the past 79 years, and housing demographics based on both the Master Plan Survey and the ACS for 2009-2013. This data, combined with the Master Plan Survey Response are examined to understand their effect on current and future housing needs in Shelburne.

*About one in 38 households or 3.54 million addresses each year are invited to participate in **The American Community Survey (ACS)**. The ACS is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than \$400 billion in federal and state funds are distributed each year.*

Through the ACS, we know more about jobs and occupations, educational attainment, veterans, whether people own or rent their home, and other topics. Public officials, planners, and entrepreneurs use this information to assess the past and plan the future.

MASTER PLAN SURVEY RESPONSE

Question #10, General Issues, asked respondents to rank five issues from a list of 18 to indicate their priority over the next five years. The weighted responses on housing issues were as follows:

- Property taxes were the number one issue with a weighted response of 297 and 73 responses.
- Amount/Location of new housing development was ranked 8th with a weighted response of 76 and 33 responses.
- Affordable housing was ranked 15th with a weighted response of 25 and 8 responses.

Question #12, Land Use & Growth Management, asked respondents to indicate their support for guiding growth and development using “yes”, “no”, “maybe” and “no reply” as their support levels.

Of the ten sub-questions, the three that received more favorable response than unfavorable were:

- Allowing home business in all zones
- The regulation of ridgeline development
- The adoption of zoning that is consistent with the State of NH with regards to small wind energy systems for personal use.

Of the ten sub-questions, the three that received more unfavorable response than favorable were:

- The allowance of cluster development in new residential subdivisions
- An adjustment to the current one acre lot size to accommodate smaller lot sizes in already congested areas
- Using tax dollars to purchase developable land

Question #13, Natural Resources, Open Space & Cultural Resource, asked respondents to indicate the level of importance for twelve land use-related issues. Although these issues were not directly related to “housing” it should be noted that the number one issue of importance was to ban ridge-top development.

Question #17, Housing & Zoning, asked respondents to indicate the type of housing structures (six in total) they would like to see, ranking them from 1-5 with 1 being “top priority” and 5 being “low priority”.

- The majority of respondents felt that “single family homes” were a top priority, scoring well ahead of the other five housing categories with 82 top priority rankings.
- “Elderly housing” received 11 top priority rankings but was far behind single family houses with only 11 respondents responding this way.
- The remaining types of housing, “two-family houses”, “town houses/condos”, “multi-family housing” and “manufactured homes (mobile homes)” each received five or less top priority rankings combining for a total of 16.

HOUSING DEMOGRAPHICS

Of the 114 respondents to the Master Plan survey, 70 persons indicate that they are year-round residents of Shelburne; only 12 indicated that they are “seasonal”. In addition, it is noted that the major number of respondents indicated that they live along North Road (37). This was followed by US Route 2 (13) and Village Road (12); fourteen did not respond. Most respondents also indicated that they own their properties (88) and that the type of housing they live in is “single-family” (87).

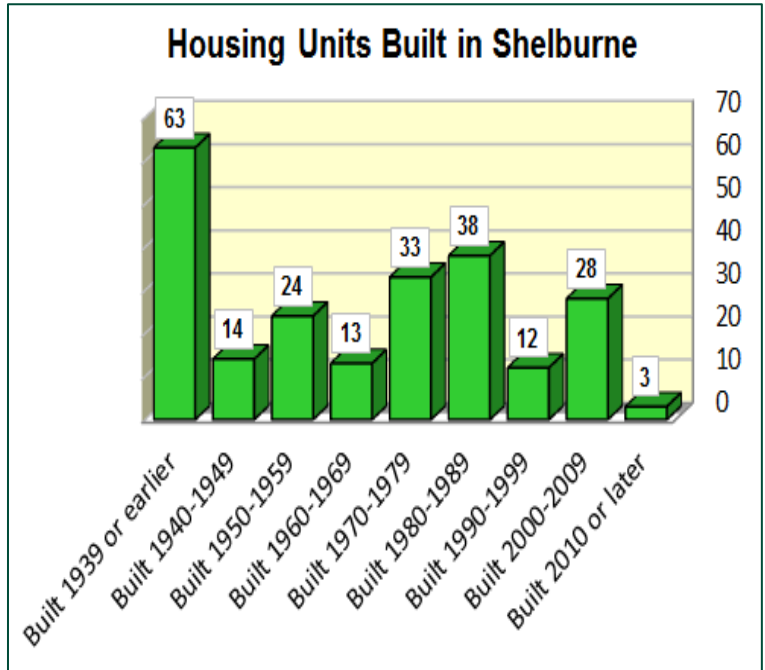
Longevity appears to be the norm in most housing in Shelburne; 51 respondents indicated that they have lived in Shelburne for 20+ years. Other responses to this question were as follows: 0-5 years/19; 6-10 years/18; 11-20 years/15; no response/11. Additionally, the survey revealed that the most common age group of residents is 45-64 (56) years followed by 65-74 (18) and 75+ (13). These statistics indicate an aging of the population; respondents under the age of 44 totaled 18, with no respondents in the 21-34 age bracket. Two adults in the household was considerably higher (76) than any other number of adults in the household with the next highest being one adult living in the household (16).

Educationally, Shelburne respondents indicated significantly high numbers; 77 respondents indicated at least “some college” with Bachelor Degree (26) and Master Degree (21) leading the way. When asked about children living in the household, a total of 24 children were indicated between the ages of 0-25; 90 people did not respond. In the 2015-2016 school year, 27 children from Shelburne enrolled in the Gorham Randolph Shelburne Cooperative School District and attended school in the neighboring town of Gorham in 2015.

HOUSING HISTORY

As with most of New Hampshire and the US, housing construction has declined since the recession of 2008. In Shelburne, information from the ACS revealed that the decades of 1970-1979 and 1980-1989 showed the most housing units being built. It appears that a significant drop in housing construction took place from 1990-1999 and again since 2010.

Although housing units built prior to and including 1936 were determined to be 63, no decade analysis was done so accurate comparisons cannot be made except to say that 27% of the current housing units (228) in Shelburne were built during this time period. The information further substantiates previously noted data regarding the longevity of people living in Shelburne and the aging of the housing stock.



Statistics from the American Community Survey are seen in the chart below. Periods with the highest level of housing units built are indicated in bold font.

Housing Units/Year Built	State		County		Shelburne	
Built 2010 or later	2,683	0.4%	60	0.3%	3	1.3%
Built 2000-2009	71,418	11.6%	1,997	9.4%	28	12.3%
Built 1990-1999	65,405	10.6%	2,054	9.7%	12	5.3%
Built 1980-1989	124,360	20.2%	2,870	13.5%	38	16.7%
Built 1970-1979	94,366	15.3%	3,064	14.4%	33	14.5%
Built 1960-1969	57,873	8.9%	1,289	6.1%	13	5.7%
Built 1950-1959	45,275	7.5%	2,099	9.9%	24	10.5%
Built 1940-1949	23,799	3.9%	1,244	5.9%	14	6.1%
Built 1939 or earlier	132,025	21.5%	6,557	30.9%	63	27.6%

HOUSING SUPPLY

The current supply of housing in Shelburne, according to the ACS 2009-2013, consists of primarily single-family, 4-6 room homes (total of 55.3%) with two or three bedrooms (total of 68.4%). The median value of owner-occupied units in Shelburne is \$224,200, slightly under the state value of \$239,900 and well above the county value of \$128,500. This may be an indication that although the housing stock is aging, it is holding its value.

Types of Housing	
4 rooms	19.3%
5 rooms	17.1%
6 rooms	18.9%
Total	55.3%
Bedrooms	
2 bedrooms	29.8%
3 bedrooms	38.6%
Total	68.4%

The type of current housing in Shelburne is further indicated in the chart to the top-right. This chart also shows a higher existence of 1-unit detached housing in Shelburne than in either the State or the County. It also indicates that there are very few multi-unit housing units in Shelburne with only 12 housing units having two units. No housing units with more than two units are in Shelburne.

Type of Housing Units	State		County		Shelburne	
Total Housing Units	615,204		21,234		228	
1-unit, detached	389,763	63.4%	14,293	67.3%	198	86.8%
1-unit, attached	31,842	5.2%	279	1.3%	0	0.0%
2 units	36,602	5.9%	1,733	8.2%	12	5.3%
3 or 4 units	35,847	5.8%	1,286	6.1%	0	0.0%
5 to 9 units	28,980	4.7%	767	3.6%	0	0.0%
10-19 units	18,759	3.0%	296	1.4%	0	0.0%
20 or more units	37,115	3.0%	373	1.8%	0	0.0%
Mobile home	36,213	5.9%	2,202	10.4%	18	7.9%
Boat, RV, van, etc.	83	0.0%	5	0.0%	0	0.0%

The chart on the bottom right indicates a higher percent of vacant housing units in Shelburne than in either the State or County; this could be representative of seasonal housing.

Housing Tenure	State		County		Shelburne	
Occupied housing units	518,245	84.2%	14,531	68.4%	175	76.8%
Owner occupied	370,173	71.4%	10,318	71.0%	145	82.9%
Renter occupied	148,072	28.6%	4,213	29.0%	30	17.1%
Vacant housing units	96,959	15.8%	6,703	0.3%	53	23.2%

FUTURE HOUSING NEEDS

In the 2013 NH Office of Energy and Planning (NH-OEP) municipal and state and county forecasts it was shown that both Coos County and Shelburne will likely lose population¹⁰. This may be a result of many factors including employment opportunities, commuting distance, affordable housing and available housing.

Projected Population	2010	2015	2020	2025	2030	2035	2040
NH	1,316,470	1,330,834	1,359,836	1,388,884	1,412,041	1,425,357	1,427,098
Coos	33,055	32,292	31,791	31,233	30,442	29,461	28,209
Shelburne	372	361	352	346	337	326	312

¹⁰ <http://www.nh.gov/oep/data-center/population-projections.htm>

HOUSING: GOALS

Goal 1 – Zoning & Subdivision Regulations

The Town should carefully review the Zoning Regulations and Subdivision Regulations with respect to comments made in the Master Plan Survey. Specifically, address the Community's desire to:

- a) Address the Community's desire to include zoning that is consistent with the State of NH with regards to small wind energy systems for personal use.
- b) Address the Community's desire to re-evaluate cluster development as needed.

Goal 2 – Natural Hazard Protection

- a) Consider the need for a more stringent steep slopes ordinance through ordinance review.
- b) Establish an interactive and informative web-page with periodic information for residents on steps they can take to protect their homes (Hazard Mitigation Plan, Action Item #3).
- c) Provide National Flood Insurance Program (NFIP) information to all builders and homeowners who are proposing new construction or substantial development, while discouraging building in flood prone areas and educate the public about flood protection measures they can take to protect their homes (HMP, Action Item #9).

HOUSING: SUMMARY

As the statistics in this chapter appear to indicate, housing in Shelburne is more than adequate for the population that currently lives in the Community, but may be lacking in the future. The Town may have to encourage a new generation to live in Shelburne to maintain growth.

If the population projection by NH OEP becomes reality, Shelburne should have adequate housing through 2040. However, the Community and Town Officials should consider whether it is satisfactory to accept these projections and maintain the status quo or whether increased development of both homes and businesses should be strongly encouraged to support future growth.

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CHAPTER 7: TRANSPORTATION & ROADS

Revisions were made to this chapter in November 2021. During a closed hearing, the Planning Board voted to accept these updates with a couple of minor changes; these minor changes have been made. (MAPS, 9/23/22)

INTRODUCTION

The overall goal of this chapter is to maintain a transportation system that is safe and efficient for travel while maintaining the rural and historic character of Shelburne. Careful and thoughtful consideration of these items should result in improved transportation and the protection and preservation of the open space and rural aesthetic character valued by the Community without adversely impacting individual landowner rights.

The existing transportation network in Shelburne is quite diverse for a community this small, ranging from a major federal highway thru various levels of state and town roads to private logging roads. This diversity is largely the result of our placement in the Androscoggin River Valley, which provides a narrow but gentle east-west route to traverse the northern Appalachian Mountains and provide a route between the Canadian population centers, the Maritime Provinces and deep-water ports in Maine. Because of this, the narrow river valley is home to US Route 2, a key link between interstate highway systems to our east and west, a rail line connection between Montreal, Quebec and Portland, Maine and several pipelines carrying oil and natural gas.

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey, the following items were identified:

- The maintenance of town roads was generally considered good or excellent
- There was limited interest in seeing US Route 2 reconstructed
- There was significant interest in allowing retail development along US Route 2 in the form of a gas station/convenience store or other small retail
- Several viewsheds were identified along the roadways:
 - Reflection Pond
 - The vista from the turnout by the old Hayes Homestead
 - The Shelburne Birches
 - View from Meadow Bridge
- There was only minor support for the development of recreational trails/parks
- There was only minor support for enhanced traffic control

PLANNING POLICY CONTEXT

Transportation system improvements need to be coordinated based on clear and concise guidance at the federal, state, and local levels. In recent years, federal and state transportation agencies have recognized that transportation planning should be integrated with land use planning to be effective.

Federal legislation, primarily the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)¹¹ has created an entirely new framework for state transportation planning programs in that it articulates the need for a multimodal, intermodal and multi-goal approach, stressing the close tie between transportation and land use planning. There is currently not a clear hierarchy of plans that have influenced this transportation strategy for Shelburne.

NEW HAMPSHIRE LONG RANGE TRANSPORTATION PLAN

The New Hampshire Long Range Transportation Plan, formally adopted in May 2008 and updated in July 2010 for 2010-2030, is a statewide planning document formulated to establish a strategic direction for further investment in and management of state transportation assets over the next twenty years. Although primarily a statewide planning tool, the plan focuses on significant local transportation issues such as congestion and the inter-relationship between transportation, economic development and land use. The New Hampshire Long Range Plan, 2010-2030, offers the following strategic vision for transportation in New Hampshire:

Transportation in New Hampshire is provided by an accessible, multimodal system connecting rural and urban communities. Expanded transit and rail services, a well-maintained highway network and airport system provide mobility that promotes smart growth and sustainable economic development, while reducing transportation impacts on New Hampshire's environmental, cultural, and social resources. Safe bikeways, sidewalks, and trails link neighborhoods, parks, schools, and downtowns. Creative and stable revenue streams fund an organization that uses its diverse human and financial resources efficiently and effectively.¹²

The Town of Shelburne's transportation strategy will be consistent with this vision and aim to implement applicable policies from the statewide plan at the local level in striving for sustainable transportation solutions in the town.

NEW HAMPSHIRE STATEWIDE TRANSPORTATION/TEN-YEAR IMPROVEMENT PLAN (STTIP)

The development and prioritization of projects in New Hampshire is an ongoing effort to address transportation needs at the local, regional, and statewide levels. The Ten Year Transportation Improvement Plan (STTIP), updated periodically, is the result of a complex interactive process. With the previous Ten Year Plan as a starting point, the process includes input from the local level, development of Transportation Improvement Plans (TIPs) by nine Regional Planning Commissions (RPCs), numerous public hearings by the Governor's Advisory Commission on Intermodal Transportation (GACIT), then review and approval by the Governor and Legislature.

As a North Country Council member community, the Town of Shelburne has representation on the Regional Planning Commission and its Technical Advisory Committee (TAC). The Town of Shelburne has participated in the TIP process over the years on a range of transportation projects covering access management and overall highway improvements. The most recent New Hampshire Statewide Transportation Improvement Plan should be consulted for the most up-to-date information regarding projects affecting Shelburne. *NH Statewide Transportation Improvement Program 2015-2018 (draft).*¹³

¹¹ US Department of Transportation; SAFETEA-LU; <https://www.fhwa.dot.gov/safetealu/>

¹² Ibid

¹³ <http://www.nh.gov/dot/org/projectdevelopment/planning/stip/documents/FINALSTIPUPDATE45.pdf>

Performance measures and conditions such as pavement condition, bridge ratings, congestion levels, accident rates, user surveys and available funding levels are considered in determining project need and prioritizing project implementation. It is important that the transportation strategy of this Master Plan is consistent with the goals and objectives of the Statewide TIP to ensure that transportation issues in Shelburne are continually met by the appropriate level of state funding.

NH STATE HIGHWAY CLASSIFICATIONS

Shelburne's roads fall into six of the seven possible state legislative classifications: Class 0, Class I, Class II, Class III, Class V and Class VI roads. The table below shows the Legislative Class (LC) and the surface type for the roads in Shelburne.¹⁴

Class 0: Private Roads

There are several private roads serving subdivisions within the town. Current subdivision regulations require that they be built to the town road standards but not paved; to be accepted as a town road, they must be upgraded to full compliance with the town road standards. Logging roads such as the Lary Brook Road are owned by the landowners over which they pass – most of these have one or more rights of way granted to the owners of the properties they serve. Maintenance of these roads is the responsibility of those utilizing the roads. While generally open to the public, these roads may be regulated by the property owners.¹⁵

LC Classification	LC Legend	Surface	Miles
Class 0	Private	Unpaved	14.99
Class 0	Private	Paved	0.27
Class I	State (Route 2)	Paved	8.46
Class II	State (North Road, Meadow Road & Scenic Vista Loop)	Paved	4.76
Class III	Recreation	-	.00
Class IV	State	-	.00
Class V	Local	Paved	5.61
Class V	Local	Unpaved	.00
Class VI	Local -Not Maintained	Unpaved	1.32
Class VII	Federal	Unpaved	.32
Total			35.73

Class I: State Highways (numbered)

Class I consists of all existing or proposed highways on the primary state highway system, excepting all portions of the highways within the compact sections of cities and towns. The state assumes full control and pays costs of construction, reconstruction and maintenance of its sections with the assistance of federal aid. US Route 2 is the only Class I highway in Shelburne.

Class II: State Highways (named)

Class II highways are all existing or proposed highways on the secondary state highway system, except portions of the highways within the compact sections of cities and towns, classified as Class IV highways. All sections improved to the state standards are maintained and reconstructed by the state. All other sections must be maintained by the city or town in which they are located until brought up to state standards. The same applies to bridges on Class II highways. Part of North and Meadow Roads are Class II Highways.

¹⁴ Legislative Road Classifications; analysis in GIS using NH DOT Road Layer; available from Granit, UNH cooperation Extension

¹⁵ The numbers in the roads table were adjusted based on map changes made in October 2021 by the Shelburne Planning Board

Class III: Recreational Roads

Class III roads consist of all roads leading to and within state reservations designated by the Legislature. NHDOT assumes full control of reconstruction and maintenance; there are no Class III Recreational Roads in Shelburne.

Class IV: State Streets

Class IV highways consist of all highways within the compact sections of cities and towns listed in RSA 229:5. Extensions of Class I (excluding turnpikes and interstate portions) and Class II highways through these areas are included in this classification; there are no Class IV town and city streets in Shelburne.

Class V: Town Highways

This classification consists of all traveled highways that the town or city has the duty to maintain regularly. Class V highways in Shelburne include:

- Hubbard Grove Road
- Power House Acres Road
- North Road (east of Meadow Road)
- Village Road
- Mount Moriah Drive
- Mount Vista Drive
- Hayes Road
- Winthrop Drive
- Sunrise Drive
- Landfill Drive
- Losier Road
- Seyah Road
- Cemetery Road
- R F Drive
- Pea Brook Road

Class VI: Unmaintained Highways

This class consists of all other existing public ways, including highways discontinued as open highways and made subject to gates and bars, and highways not maintained and repaired in suitable condition for travel thereon by the town for five (5) or more successive years.

If a city or town accepts from the state a Class V highway established to provide a property owner or property owners with highway access to such property because of a taking under RSA 231:14, then notwithstanding RSA 229:5, VII, such a highway shall not lapse to Class VI status due to the failure of the city or town to maintain and repair it for five (5) successive years, and the municipality's duty of maintenance shall not terminate, except with the written consent of the property owner or property owners.

The Class VI designation is frequently applied to roads that have been abandoned or discontinued, which can lead to confusion about the ownership of the road. If a vote was taken at a town meeting to formally discontinue a road, that road is no longer a public way. It then belongs to the abutting landowners. Class VI roads in Shelburne include parts of Hogan Road.

Class VII: Federal Highways

The Class VII designation is applied to roads that the federal government owns. In Shelburne, only River Road is designated in this legislative class. River Road is in the National Forest along Wild River.

Miscellaneous

A "No thru Truck" zone has been established from the intersection of Meadow Road and North Road heading east to the Maine border.

US DOT FUNCTIONAL CLASSIFICATION SYSTEM

The functional classification system identifies roads by the type of service provided and by the role of each highway within the state system based on standards developed by the US Department of Transportation. While the state aid classification system outlined above is the primary basis for determining jurisdiction, the following system is important for determining eligibility for federal funds.

Recognition of the principal function that a highway, road, or street is intended to serve can reduce potential conflicts between land use activities and traffic movements. For example, from a theoretical standpoint, residential development should never be permitted or encouraged to locate along major highways due to the opportunity for direct land use/traffic conflicts. The basic functional classifications for the State of New Hampshire are described below; those functional classes found in Shelburne are in bold font:

Function Class 0.....Non-Public Roads

Function Class 1.....Rural-Principal Arterial-Interstate

Function Class 2.....Rural-Principal Arterial-Other

Function Class 6.....Rural-Minor Arterial

Function Class 7.....Rural-Major Collector

Function Class 8.....Rural-Minor Collector

Function Class 9.....Rural-Local-Public

Function Class 11.....Urban-Principal Arterial-Interstate

Function Class 12.....Urban-Principal Arterial-Other Freeways and Expressways

Function Class 14.....Urban-Principal Arterial-Other

Function Class 16.....Urban-Minor Arterial

Function Class 17.....Urban-Collector

Function Class 19.....Urban-Local-Public

Arterial Systems

These roadways serve as long-distance traffic movements and are secondary to primary arterial roadways in that minor arterials primarily serve as links between major population areas or between distinct geographic and economic regions. An example of a Minor Arterial road as defined by the NH DOT is US Route 2.

Major Collectors

These roadways differ from arterial roadways due to size and general service area. Collectors serve traffic in a specific area, whereas arterials generally serve traffic moving through an area. Thus, average trip lengths on collectors are shorter than trips on arterials. Furthermore, collectors gather traffic from local roads and streets and distribute them to the arterial.

Minor Collector

These roads provide access to smaller communities within a geographic area or economic region. They may link locally important trip generators, such as shopping centers, to surrounding rural areas. They also serve as links between two or more major collectors.

Local Roads

These roads and streets are used primarily to provide access to adjacent properties. These roads have numerous turning movements in and out of abutting driveways and curb cuts.

Scenic Roads

A major component of a town's rural character can be its unpaved and scenic roads. These roads help to retain a sense of history and rural quality that Shelburne's residents have indicated a strong desire to maintain. The purpose of a designation as a scenic road is to protect the intrinsic qualities of that stretch of road, which add to the rural nature of the Shelburne area.

Generally, future commercial development in Shelburne should only be permitted at locations where the primary road function is appropriate for the type of development proposed. As part of its Site Plan Review Regulations, The Planning Board should consider the classification of any road on which development is proposed to ensure that the proposed development is appropriate for the existing roadway function.

SHELBURNE ROAD CONDITIONS

Current road conditions in the town vary by location. Still, it is generally accepted by the Highway Department, the Planning Board and the Board of Selectpersons that there are issues to be addressed in the town's road network.

Pedestrian Infrastructure

The Town of Shelburne does not maintain any pedestrian walkways at this time.

Bicycle Infrastructure

While there has been interest in seeing the breakdown lanes in some sections of US Route 2 extended to allow safer access for bicycles, there was little support in the Master plan Survey for the construction of bicycle paths elsewhere.

Traffic Calming Measures

The Master Plan Survey results indicated adequate provisions have already been incorporated in Shelburne's planning process and that additional regulations are not needed at this time.

NEW DEVELOPMENT

New development is often phased over extended periods, and the ultimate and immediate impacts of development on traffic volumes and transportation systems should always be considered. By requiring transportation/traffic impact studies for new developments of a certain size, the Planning Board can effectively evaluate the scope of impacts associated with any new development. Through this kind of scrutiny,

recommendations for project phasing and developer participation in necessary improvements can be developed, and problems of safety, congestion, and expensive upgrading of poorly planned roads can be avoided.

As state assistance for local road construction has decreased in recent years and will likely continue to decrease in future years, the construction, improvement, and maintenance of local roads have increasingly become the responsibility of municipalities and developers. That a developer accepts the responsibility for performing all necessary "onsite" infrastructure improvements is now considered standard practice. However, where developments will have a significant impact on the transportation infrastructure in Shelburne, developers should also be responsible for addressing these issues.

The basic method for securing developer participation in roadway and other infrastructure improvements necessitated by new development is through negotiated development agreements based on the current town ordinances.

ACCESS MANAGEMENT

Access management has become an increasingly important issue for new developments in rural communities. Access management is included in Shelburne's Road Standards and serves to do the following:

- 1) Limit the number of places vehicles are turning and entering the roadway
- 2) Remove turning vehicles from travel lanes

PUBLIC TRANSPORTATION

There currently is no public ground transportation serving Shelburne; therefore, the residents are dependent on private passenger vehicles. Also, employment for the majority of the working residents is in neighboring towns commuting via US Route 2. Except for a seasonal convenience store and farm stands, there are no retail stores in Shelburne.

AIR

Public airports closest to Shelburne are the Bethel, Maine Regional Airport, Berlin Municipal Airport in Milan and the Mount Washington Regional Airport in Whitefield. The Berlin Municipal Airport is owned and operated by the City of Berlin. It maintains a 5,000-foot asphalt runway and provides running lights. The Mount Washington Airport, also town-owned and operated, maintains a lighted 3,500-foot asphalt runway. Both facilities offer a variety of General Aviation services to the public.

Although scheduled passenger service is not available at the local airports, service is available at the Boston-Manchester Regional Airport and the Portland, Maine Airport. These are approximately 100 miles from Shelburne and offer national and international connections.

There are four designated emergency helicopter landing fields in Shelburne: The field at the Mount Washington Bed and Breakfast on US Route 2, the Chester Hayes Park on Meadow Road, the North Road at Whitney Farm and the North Road Field opposite the Philbrook Farm Inn.

Bus

Commercial bus service is available from Gorham to Logan Airport via NH Route 16. There is one trip per day leaving Gorham in the early morning. Connections can be made to other destinations from this service. North Country Transit, part of the Tri-County Community Action Program (CAP), serves the region's residents with stops at multiple locations in Gorham and Berlin.

RAIL

The Atlantic and St. Lawrence, operating between Portland, Maine and Montreal, Quebec, passes through Shelburne. Though there are no public discussions of discontinuing this line, the future of rail is always a concern. There is no passenger service on the line, but there are ongoing discussions to offer a Boston to Montreal service via Portland, Maine.

TOWN ROAD CONSTRUCTION STANDARDS

Shelburne has adopted road standards consistent with NHDOT standards. These standards have been incorporated by reference into the subdivision and site plan regulations. These standards should be reviewed regularly to ensure they are current and meet the Community's changing needs.

SCENIC ROADS

A major component of a town's rural character can be its scenic roads. These roads help retain a sense of history and the rural quality Shelburne's residents have indicated a strong desire to maintain. RSA 231:157 allows towns by a vote at town meeting to designate any road other than a Class I or II highway as a Scenic Road. A municipality may rescind its designation of a scenic road using the same procedure. In Shelburne, North Road from the intersection of Meadow Road to the Maine state line is a town-designated Scenic Road.

The effect of designation as a scenic road is that, except in emergencies, there shall be no cutting of trees with a circumference of 15 or more inches at 4 feet from the ground or alteration of stone walls by the town or a public utility within the rightofway without a hearing, review, and the written approval of the Planning Board. This law does not affect the rights of individual property owners, nor does it affect land uses as permitted by local zoning.

In recognition of the fact that the state law is not very stringent, the statute was amended in 1991 to allow towns to adopt provisions other than what is spelled out in the law. These additional regulations could include giving protection to smaller trees or inserting criteria for the Planning Board to use to decide whether to grant permission. RSA 231:157 is an important piece of legislation to preserve culturally important and scenic roads in Shelburne. Its residents cherish the historic and aesthetic qualities of the town. The Town of Shelburne should therefore consider identifying and cataloging roads with scenic vistas and aesthetic qualities to protect and preserve the intrinsic qualities of the town.



*Horses at Peabody Farm
on North Road, October 2000*

CLASS VI ROADS & TRAILS

Class VI roads are not maintained by the town, may be subject to gates and bars, and are normally gravel surfaced. A Class V road can become a Class VI road if the town has not maintained it for five years or more. Under RSA 674:41, I(c), for any lot whose street access (frontage) is on a Class VI road, the issue of whether any building can be erected on that lot is left up to the "local governing body" (Board of Selectpersons) who may, after "review and comment" by the Planning Board, vote to authorize building along that particular Class VI road, or portion thereof. Without such a vote, all building is prohibited.

Even if the Board of Selectpersons votes to authorize building, the law states that the municipality does not become responsible for road maintenance or any damages resulting from the road's use. The purpose of RSA 674:41, I(c) is to prevent scattered and premature development. It seems that the residents of town agree with this law, as a strong view was represented during the Master Plan Survey and visioning sessions that future development should be limited in remote areas of town and on Class VI roads.

Per RSA 231A:1-8, Class VI roads can be designated as Class A Trails because they have little or no development associated with them, are scenic, have no inherent liability concerns, public access is already allowed, and serve to connect large areas of open space, conservation, and/or agricultural lands. By reclassifying certain roadways that meet these criteria to Class A Trails, Shelburne could be taking a step in creating a community-wide system of greenway trails. Unlike Class VI roads that the town does not maintain, towns, at their option, may conduct maintenance on Class A Trails.

Reclassification of Class VI roads to Class A Trails will not inhibit the access rights of landowners along the roadways. In the case of a Class A trail, landowners can continue to use the trail for vehicular access for forestry, agriculture, and access to existing buildings. However, under such classification, new building development and expansion, enlargement, or increased intensity of the use of any existing building or structure is prohibited by New Hampshire Statute. The town and owners of properties abutting Class VI roads are not liable for damages or injuries sustained to the users of the road or trail.

PRIVATE ROADS

Private Roads in Shelburne are generally the result of mining and forestry activities that have been ongoing since the late 1700s. Many of these roads serve parcels of lands (fee owned or leased) that were in existence before the adoption of any town land-use regulations in 1964. The only exceptions are Evans Street and Green Acres Road, which were approved by subdivision.

Private Roads are covered under RSA 674:41,3 (d)(1,2,3), which aims to prevent scattered and premature development. One key issue with the private roads concerns rights of access as most of the lots existing on them were created before the 1964 adoption of zoning and without clear rights of access being included in the deeds. The questions around access resurfaced in 2020, with several requests for information on the requirements for building on these roads. The private roads falling into this class are:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Lary Brook Road & side roads <ul style="list-style-type: none"> ○ Breton Field Road ○ Judson Pond Rd ○ Ingalls Valley Road • Philbrook Farm Road • Mill Brook Road • Anasagunticook Road • Lead Mine Road • Green Acres • Lady Trooper Lane • No Name Road | <ul style="list-style-type: none"> • Hubbard Grove Road Extension • Hogan Road • Birch Hill Drive • Grumpy Old Man Road • Winthrop Drive Extension • Losier Road Extension • Meyers Drive • Hayes Wood Road • Evans Street • Carlton Notch Road |
|---|---|

TRANSPORTATION FUNDING OPPORTUNITIES

The creation, maintenance, and improvement of the transportation system in Shelburne are necessary in order for the town to meet the needs of its residents and to provide a reliable transportation network. The town should review the following programs and options as potential opportunities to meet the transportation goals of this Master Plan.

Federal Programs and Resources

Transportation Enhancement (TE) Activities (now called Transportation Alternatives Program (TAP)) may be a viable source for improving roads in communities. These funds are provided in an 80/20 match, with the state paying for the majority of the project cost. TE projects must relate to surface transportation and qualify under one or more of the 12 eligible categories.¹⁶

The twelve eligible activities for TE funds include:

1. Provision of facilities for pedestrians and bicycles.
2. Provision of safety and educational activities for pedestrians and bicyclists.
3. Acquisition of scenic easements and scenic or historic sites (including historic battlefields).
4. Scenic or historic highway programs (including the provision of tourist and welcome center facilities).
5. Landscaping and other scenic beautification.
6. Historic preservation.
7. Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals).
8. Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).

¹⁶FHA, Transportation Enhancement Activities; http://www.fhwa.dot.gov/environment/transportation_enhancements/

9. Inventory, control, and removal of outdoor advertising.
10. Archaeological planning and research.
11. Environmental mitigation--
 - i. to address water pollution due to highway runoff; or,
 - ii. reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
12. Establishment of transportation museums.

Federal Aid Bridge Replacement Funds are available to replace or rehabilitate town-owned bridges over 20 feet in length. Matching funds are required, and funding applications are processed through the NHDOT's Municipal Highways Engineer.

State Funding Sources

Highway Block Grants are available annually. The state apportions funds to all cities and towns to construct and maintain Class IV and V roadways. In an August 7, 2015 letter from NH DOT, it was explained that "...for distribution of Apportionment "A" funds, a disbursement is made of approximately \$1,235 for each mile of Class IV and Class V highway inventoried by each municipality and approximately \$11.00 for each person residing in a municipality based on the state planning estimate of population. Apportionment "B" is distributed... under a somewhat more complicated formula as specified in RSA 235:23...."



Block grant payment schedules are as follows: 30% in July, 30% in October, 20% in January, and 20% in April. Any unused funds may be carried over to the next fiscal year. The Town of Shelburne historically receives about \$11,000 annually from State Funding Sources; however, the total for the fiscal year 2016 is slightly higher at \$12,556.62.

State Bridge Aid is a program that helps to supplement the cost to communities of bridge construction on Class II and V roads. NHDOT allocates funds in the order in which applications for assistance are received. The amount of aid a community may receive is based upon equalized assessed valuation and varies from two-thirds to seven-eighths of the total cost of the project.

Town Bridge Aid is a program that helps communities construct or reconstruct bridges on Class V roads. The amount of aid is also based upon equalized assessed valuation and ranges from one-half to seven-eighths of the total cost of the project. All bridges constructed with these funds must be designed to support a load of at least 15 tons. As mandated by State Law, all bridges constructed with these funds on Class II roads must be maintained by the state, while all bridges constructed on Class V roads must be maintained by the town. Any community that fails to maintain bridges installed under this program shall be forced to pay the entire cost of maintenance plus 10% to the State Treasurer.

LOCAL SOURCES OF TRANSPORTATION IMPROVEMENT FUNDS

Capital Reserve Funds is a popular method to set money aside for future road improvements. RSA 35 V mandates that such accounts must be created by a warrant article at Town Meeting. The same warrant article should also stipulate how much money will be appropriated to open the fund and identify which town entity will

be the agent to expend the funds. Once established, communities typically appropriate more funds annually to replenish the fund or to be saved and thus earn interest that will be put towards large projects or expenditures in the future.

TRANSPORTATION & ROADS: GOALS

Goal 1 – Road Standards

Ensure that the road standards are current and meet the changing needs of the Community.

Goal 2 – Subdivision & Site Plan Regulations

Review Shelburne's Subdivision and Site Plan regulations as needed to ensure they are current with NHDOT recommendations.

Goal 3 – Identification of Scenic Vistas & Aesthetic Qualities

Create an inventory of scenic vistas and other aesthetic qualities, such as traditional New England stone walls, historic buildings and farms.

Goal 4 – Utility Lines

Encourage NHDOT and the local utility company to bury utility lines or stagger utility poles when roads are reconstructed or built.

Goal 5 – Class VI Re-designation

Study if it is appropriate to designate some Class VI roads within town as Class A Trails.

TRANSPORTATION & ROADS: SUMMARY

The town's transportation system can affect the growth and quality of life. There is also a link between the economy of the town and its transportation system. It is, therefore, important for the town to carefully determine its needs and establish some type of realistic plan of its future costs in terms of maintaining the infrastructure and what it considers its priorities.

CHAPTER 8: ENERGY

INTRODUCTION

Shelburne contains a major east/west valley with all transportation infrastructure along that line. The Town has consistently worked over the years to contain development to the valley floor and has not allowed major utility corridors to diverge from the valley and become an eyesore by going over the hills leading out of the valley

MASTER PLAN SURVEY RESPONSE

From the Master Plan Survey the following items were identified:

- The elimination of ridgeline development was ranked second for Land Use and Growth and first for Natural and Cultural Resources in Questions #12 & 13.
- The adoption of zoning standards consistent with the state model for small wind systems for personal use ranked third in importance for Land Use and Growth in Question #12.

WATER

All of Shelburne relies on well water. Some of the wells are unreliable for a variety of reasons. It would be very difficult to have a municipal water system due to the dispersed nature of the residences.

WASTE WATER DISPOSAL

All of Shelburne relies on individual septic systems. Due to the dispersed nature of the town, municipal wastewater treatment is not an option. This has necessitated that minimum lot sizes in each zone be consistent with the soil properties prevalent in the town.

ELECTRIC

All of the grid electricity in Shelburne is supplied by the local utility. There are a few solar electric installations serving individual houses. There is one hydro-electric installation on the Androscoggin River owned by Brookfield which exports its power. There could be small scale hydro installations along some of the brooks, but the flows are not steady so that the economics of operation would be a problem.

There is a potential for small scale wind power installations at suitable locations in the valley bottom and along some of the lower hills aligned with the valley. Large scale wind generation could be an issue as they are not consistent with current zoning and the protection of ridgelines. Additional issues could arise because the major ridges that might be suitable for wind power installations are within the National Forest or could be visible from the Appalachian Trail Corridor.

COMMUNICATION

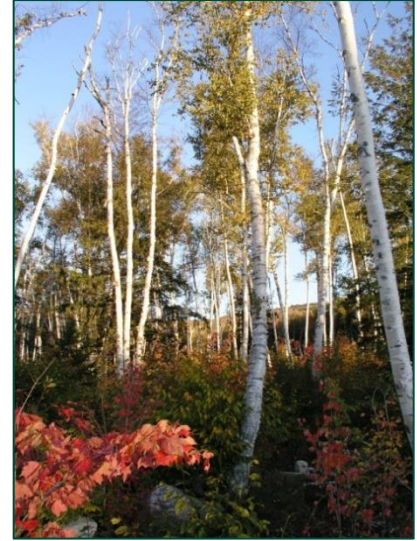
There is an established landline system for telephone operated by Fairpoint. There presently are two cell phone towers in Shelburne; one is operated by Verizon with second awaiting a carrier. With this combination, there is good phone service throughout most of the residential area of Shelburne. There is also the potential for internet phone service to those with appropriate internet connections.

DSL internet service is presently available from Fairpoint to most residents of Shelburne. Time Warner offers high-speed internet to residents and business within about a mile and a half of the intersection of Village and Meadow Roads and along Route 2 near the Gorham town line. Wireless internet coverage is available thru several cell providers and by several satellite companies.

Television is not available via standard antenna; it is only available via cable or satellite systems. The growth of internet options for programing enhances the need for high speed service to all residents.

TOWN ENERGY USAGE

The municipal building have been significantly upgrade in recent years based on an energy audit performed in 2009. The newly constructed landfill/highway garage was built to current NH energy guidelines.



White birches along Route 2

ENERGY: GOALS

Goal 1 – Alignment with Androscoggin River Valley Floor

Continue its efforts to keep all forms of energy transportation infrastructure aligned with the Androscoggin River Valley floor in existing corridors.

Goal 2 – Encourage Water Supply in Subdivisions

Encourage developers to consider establishing small scale water supply systems as a more reliable water source.

Goal 3 – Support Low Emission Electrical Generation

Continue to support low emission electrical generation including wind, water and solar.

Goal 4 – Expand Cable TV & Internet

Encourage the expansion of cable television and internet systems; encourage new suppliers to install connections in Shelburne.

Goal 5 – Energy Audits on Municipal Buildings

Provide energy audits for all municipal buildings at least once every 10 years.

ENERGY: SUMMARY

As the energy needs of the Community change and technology offers more opportunities, the Town of Shelburne will explore opportunities as they become available.

CHAPTER 9: REGIONAL CONCERNS

INTRODUCTION

The geography of the Town of Shelburne has to a large degree shaped the Community and its character; however the Town is part of a larger regional area which may have influences over which the Town could have little control. Taking part in discussions with regional agencies will safeguard Shelburne's ability to have a say in what happens in the future. Shelburne is dependent upon the region for employment opportunities, schools, hospitals, food and a host of other services that are not available in the Community.

Situated in Coos County, and located between Gilead, ME and the Town of Gorham, there are regional, state, and national issues that could impact Shelburne and the region of the northern White Mountains. Decisions concerning the environment, populations, housing, transportation and tourism could have an impact on Shelburne.

Some examples of issues that may impact Shelburne are:

- The neighboring town of Gorham and the larger nearby city of Berlin have enacted regulations that allow for ATV use on public roads. This regulation could increase pressure on Shelburne to enact similar regulations, particularly if the nearby towns in Maine, Gilead and Bethel, also enact such regulations.
- Growth in either Gorham or Berlin could significantly increase the number of "commuters" residing in Shelburne.
- Decisions made by the Forest Service that impact the White Mountain National Forest in Shelburne, may have a significant effect on land use.
- Adjacent communities may allow wind farms that could impact the viewshed and quality of life for residents who live in Shelburne.
- Further development of the Androscoggin River corridor could result in legal and safety issues and an unwanted amount of activity along the banks of the river.

MASTER PLAN SURVEY RESPONSE

Regional concerns were not part of the Shelburne Master Plan Survey; however, it is expected that all residents would have concern about what is taking place in the region. It is further expected that residents would want community officials to participate in decision making processes that may affect the quality of life in Shelburne.

SHELburne'S ROLE IN THE REGION

With its watersheds draining into the Androscoggin River, Shelburne has a responsibility to others "downstream" not to pollute this significant source of drinking water, recreation, and wildlife habitat. Dealing with land use changes within the Community, and notifying other communities of potential regional concerns, will benefit the Community and cities and towns downstream on the Androscoggin.

With a major portion of the Community's land area within the White Mountain National Forest, Shelburne residents have supported conservation efforts elsewhere in town as well. These efforts contribute to natural resource protection, preservation of the rural landscape, recreation opportunities, and the scenic resources that residents and visitors to the region value. Future efforts to prevent ridgeline development and pursue conservation in Shelburne will further protect the character of the Town and the region.

One major state highway passes through Shelburne creating a connection that serves the needs of residents, visitors, and businesses year round; most of the traffic is generated by locations in the region or beyond. The Community's location on the Presidential Trail, a New Hampshire Cultural and Scenic Byway, also serves as a draw for cultural and recreational activities.

REGIONAL GROUPS & ORGANIZATIONS

Participation in regional groups, agencies and organizations is the best way to insure that Shelburne's voice is heard. The following are important for the implementation of Shelburne's vision.

North Country Council (NCC)

North Country Council works with 51 northern New Hampshire communities including Shelburne. Located at Mt. Eustis Common in Littleton, NCC has been operating since 1973. "It is the mission of North Country Council to encourage effective community and regional planning for the development of economic opportunity and the conservation of natural, cultural and economic resources. This is accomplished by providing information, regional advocacy, technical assistance, community education, and direct service to the region, its organizations, and political subdivisions...In its function of service to the region, NCC initiates or provides essential support for planning and economic development services."¹⁷ Shelburne currently provides representation to the NCC Board.

TRANSPORTATION ADVISORY COMMITTEE (TAC)

"The goal of the Transportation Advisory Committee is to provide the state and the region with transportation planning projects, corridor studies, and transportation policies that are needed for the successful movement of people and goods."¹⁸

As the link between the state Department of Transportation and the Transportation Advisory Committee, NCC coordinates a committee composed of town representatives, including a representative from Shelburne.

Gorham Randolph Shelburne Cooperative School District (SAU #20)

The Gorham Randolph Shelburne Cooperative School District (GRS Cooperative Board) works to further their vision of "...a community of lifelong learners having high educational and ethical standards, respect for self, others and their environment, who are productive citizens in an evolving global society".¹⁹ The Town of Shelburne maintains representation at the GRS board meetings to insure quality education programs for the children of the Community.

¹⁷ <http://www.nccouncil.org/>

¹⁸ <http://www.nccouncil.org/about/ncc-committees/transportation-advisory-committee-tac/>

¹⁹ <https://sites.google.com/a/sau20.org/sau20/school-board/grs-cooperative/philosophy-and-goals>

Androscoggin Valley Chamber of Commerce

The Androscoggin Valley Chamber of Commerce, located in Berlin, was established in 2007 to provide support to local communities, businesses, utilities and tourist attractions. Area municipalities that are current members of the Androscoggin Valley Chamber of Commerce include Berlin, Gorham and Milan.

Mount Washington Valley Chamber of Commerce

The Mount Washington Valley Chamber of Commerce, located in Conway, was established in 1964 to provide support to local communities, businesses, utilities and tourist attractions. Many municipalities are current members of the Mount Washington Valley Chamber from a broad geographic range, "...from Fryeburg, Maine to Jackson, New Hampshire, Chocorua to Gorham and every town between Crawford and Pinkham Notch."²⁰ Shelburne is a member to of the Mount Washington Valley Chamber of Commerce.

REGIONAL CONCERNS: GOALS

Goal 1– North Country Council

Continue representation at North Country Council, both as a representative from the Town for the NCC Board and as a representative to NCC's Transportation Advisory Council.

REGIONAL CONCERNS: SUMMARY

Shelburne's strong community character, the scenic values of the Town and the proximity to the regional centers of Gorham, Berlin and Bethel, ME could mean additional growth in bedroom and commuter based development. Shelburne and northern New Hampshire in general, have become more attractive to individuals seeking "quality of life" locations. Shelburne is in many ways the type of rural, neighborly and friendly community that people are looking for these days so it is inevitable that development in the overall region will have some level of spill-over impacts on the Town.

²⁰ <http://www.mtwashingtonvalley.org/visit/index.cfm>

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CHAPTER 10: IMPLEMENTATION & ANNUAL REVIEW

IMPLEMENTATION TABLE

Time Frame

Ongoing..... For the Life of the Plan
Short Term 1-3 Years
Medium Term 4-7 Years
Long Term 8-10 Years

Cost

No Cost..... \$0
Low Cost <\$10,000
Medium Cost \$10,000-\$50,000
High Cost..... >\$50,000

Chapter	Goals	Responsible Department	Time Frame	Cost
Chapter 1 Land Use	Goal 1 - Maintain the Rural Nature of the Community			
	1a - Use zoning and land use regulations to protect sensitive environmental areas, particularly along the Androscoggin River and adjacent lands.	Planning Board	Ongoing	Low Cost
	1b - Review regulations around the development of wind energy and adopt regulations where practical to preserve the viewsheds within Shelburne.	Planning Board	Short Term	Low Cost
	1c - Continue to insist that additions and/or expansions of roads, rail, utilities, and pipelines follow existing corridors through the Town to the maximum degree possible.	Planning Board	Ongoing	Low Cost
	1d - Discourage the fragmentation and subdivision of large undeveloped parcels.	Planning Board	Long Term	Low Cost
	Goal 2 - Develop a Future Land Use Map			
	Develop a Future Land Use Map that will identify those areas that may be suitable for residential uses.	Planning Board	Long Term	Low Cost
	Goal 3 - Future Changes in Planning & Zoning Regulations			
	3a - Continue to review options that might allow for denser residential development of parcels while encouraging the retention of open space.	Planning Board	Ongoing	Low Cost
	3b - Encourage the inclusion of "home businesses" in all of Shelburne's districts.	Planning Board	Short Term	Low Cost
	3c - Encourage limited development of small retail businesses along the US Route 2 Corridor while discouraging any large box store or mall development.	Planning Board	Ongoing	Low Cost
	3d - Review zoning to determine if Shelburne Village should be a separate district.	Planning Board	Medium Term	Low Cost

Chapter	Goals	Responsible Department	Time Frame	Cost
Chapter 2 Natural Resources & Hazards	Goal 1 - Preservation of Open Space			
	Continue to ensure the preservation of open space and agricultural lands.	Planning Board	Ongoing	Low Cost
	Goal 2 - Regulate Ridge-top Development			
	Continue to ensure that ridge-top development is regulated into the future.	Planning Board	Ongoing	Low Cost
	Goal 3 - Protect Surface Waters			
	Continue to ensure the protection and quality of the Androscoggin River and its environs as well as Shelburne's other surface waters including lakes, ponds, rivers and streams.	Planning Board	Ongoing	Low Cost
	Goal 4 - Protect Aquifers			
	Continue to ensure the protection of the identified aquifers.	Planning Board	Ongoing	Low Cost
	Goal 5 - Scenic Vistas			
	Continue to ensure the protection of the Town's scenic vistas.	Planning Board	Ongoing	Low Cost
	Goal 6 - Recognizing Land Use			
	Review best practices that would recognize the suitability of the land for the planned use; determine if the Town regulations need to be adjusted to determine lot size.	Planning Board	Medium Term	Low Cost
Goal 7 - Conservation				
Support individual property owners in the development of conservation easements on their properties.	Planning Board	Ongoing	Low Cost	
Goal 8 - Invasive Species				
Through public education and outreach, discourage the introduction of invasive species in Shelburne.	Planning Board	Ongoing	Low Cost	
Chapter 3 Community Facilities, Recreation & Services	Goal 1 - Provide Quality Facilities & Continue to Update Services			
	Provide quality facilities and services to Shelburne residents in a cost effective manner.	Selectpersons	Ongoing	Medium to High Cost
	Goal 2 - Planning & Budgeting			
	Proactively plan and budget to ensure that town departments are adequately staffed and equipped and have suitable facilities for the future while attempting to maintain a reasonable tax rate.	Selectpersons	Ongoing	Medium Cost
Goal 3 - Encourage Involvement				
Encourage Shelburne residents to be involved in community facilities, departments, and services.	Selectpersons	Ongoing	Low Cost	

Chapter	Goals	Responsible Department	Time Frame	Cost
Chapter 3 Community Facilities, Recreation & Services	Goal 4 - Improve Energy Efficiency			
	Seek opportunities to improve energy efficiency and reduce energy costs when making building improvements.	Selectpersons	Ongoing	Medium Cost
	Goal 5 - Town Hall & Community Offices			
	5a - Install better insulation, air sealing, boiler controls and programmable thermostats to improve energy efficiency at the Town Hall.	Selectpersons	Medium Term	Medium Cost
	5b - Replace the existing roof at the Town Hall with a new roof within three years.	Selectpersons	Medium Term	Medium Cost
	Goal 6 - Highway Department Goals			
	6a - Replace pickup truck in 2018 or 2019.	Selectpersons	Medium Term	High Cost
	6b - Replace 1955 tractor by 2026.	Selectpersons	Long Term	Medium Cost
	6c - Obtain suitable back-up equipment to replace the 1993 plow truck.	Selectpersons	Medium Term	High Cost
	Goal 7 - Transfer Station			
	Consider purchasing a second compactor based on need and cost.	Selectpersons	Medium Term	Medium Cost
	Goal 8 - Parks & Recreation			
	Purchase a swing set for Chester B. Hayes Park and other upgrades.	Selectpersons	Short Term	Low Cost
	Goal 9 - Cemeteries			
	Purchase a new riding lawn mower within the next 6-10 years.	Selectpersons	Long Term	Low Cost
	Goal 10 - Law Enforcement			
	Continue to improve policing and law enforcement coverage in Shelburne.	Selectpersons	Ongoing	Medium Cost
	Goal 11 - Fire Department			
	11a - Review buildings needs of the Fire Department.	Selectpersons	Short Term	Low Cost
11b - Replace radios and pagers on a rotating schedule.	Selectpersons	Short Term	Medium Cost	
11c - Look for opportunities to add more dry hydrants in Shelburne to increase the amount of available water for fire suppression.	Selectpersons	Ongoing	Low Cost	

Chapter	Goals	Responsible Department	Time Frame	Cost	
Chapter 3 Community Facilities, Recreation & Services	11d - Replace the 2004 fire truck within the next five years.	Selectpersons	Medium Term	High Cost	
	11e - Review the need for adding an ATV to the vehicle fleet.	Selectpersons	Ongoing	Medium Cost	
	11f - Have all members certified in the use and operation of Self Contained Breathing Apparatus (SCBAs).	Selectpersons	Ongoing	Low Cost	
	Goal 12 - Emergency Management Goals				
	12a - Update the Local Emergency Operations Plan by 2018.	Selectpersons	Short Term	Low Cost	
	12b - Continue to work on the Clement Brook project.	Selectpersons	Ongoing	Low Cost	
	12c - Participate in a public communications system such as the NH Emergency Notification System (ENS).	Selectpersons	Short Term	Low Cost	
	Goal 13 - Shelburne Public Library				
	Through public outreach and library campaigns, continue to encourage residents to use the Library.	Selectpersons	Ongoing	Low Cost	
Chapter 4 Economic Development	Goal 1 - Identify Location for a Business Park				
		Identify the steps that would be needed to develop and promote a business park.	Planning Board	Long Term	Low Cost
	Goal 2 - Strengthen Connections with Regional Economic Development Agencies				
		Maintain representation and participation with local, regional and state agencies to open new doors for economic development.	Selectpersons	Ongoing	Low Cost
	Goal 3 - Review Regulations				
	Review the Shelburne Hazard Mitigation Plan (2016) along with the current regulatory documents to ensure protection from both natural and human-caused hazards.	Selectpersons & Planning Board	Ongoing	Low Cost	
Chapter 5 History, Cultural & Historic Resources	Goal 1 - Property Preservation				
		Continue to support the efforts of individual property owners to preserve their historical properties.	Selectpersons	Ongoing	Low Cost
	Goal 2 - Peabody Farm Museum				
	Continue to provide financial support for the operation and preservation of the Peabody Farm Museum.	Selectpersons	Ongoing	Low Cost	

Chapter	Goals	Responsible Department	Time Frame	Cost
Chapter 6 Housing	Goal #1 - Zoning & Subdivision Regulations			
	1a - Address the Community's desire to include zoning that is consistent with the State of NH with regards to small wind energy systems for personal use.	Planning Board	Medium Term	Low Cost
	1b - Address the Community's desire to re-evaluate cluster development as needed.	Planning Board	Long Term	Low Cost
	Goal 2 - Natural Hazard Protection			
	2a - Consider the need for a more stringent steep slopes ordinance through ordinance review.	Planning Board	Long Term	Low Cost
	2b - Establish an interactive and informative web-page with periodic information for residents on steps they can take to protect their homes (HMP, Action Item #3).	Selectpersons	Ongoing	Low Cost
	2c - Provide National Flood Insurance Program (NFIP) information to all builders and homeowners who are proposing new construction or substantial development, while discouraging building in flood prone areas and educate the public about flood protection measures they can take to protect their homes (HMP, Action Item #9).	Selectpersons	Ongoing	Low Cost
Chapter 7 Transportation & Roads	Goal 1 - Road Standards			
	Ensure that road standards are current and meet the changing needs of the Community.	Selectpersons & Planning Board	Long Term	Low Cost
	Goal 2 - Subdivision & Site Plan Regulations			
	Review Shelburne's Subdivision and Site Plan regulations as needed to ensure they are current with NHDOT recommendations.	Planning Board	Ongoing	Low Cost
	Goal 3 - Identification of Scenic Vistas & Aesthetic Qualities			
	Create an inventory of scenic vistas and other aesthetic qualities, such as traditional New England stone walls, historic buildings and farms.	Conservation Commission	Short Term	Low Cost
	Goal 4 - Utility Lines			
	Encourage NHDOT and the local utility company to bury utility lines or stagger utility poles when roads are reconstructed or built.	Planning Board	Ongoing	Low Cost
	Goal 5 - Class VI Re-Designation			
	Study if it is appropriate to designate some of the Class VI roads within Town as Class A Trails.	Selectpersons & Planning Board	Medium Term	Low Cost

Chapter	Goals	Responsible Department	Time Frame	Cost
Chapter 8 Energy	Goal 1 - Alignment with Androscoggin River Valley Floor			
	Continue efforts to keep all forms of energy transportation infrastructure aligned with the Androscoggin River Valley floor in existing corridors.	Planning Board	Ongoing	Low Cost
	Goal 2 - Encourage Water Supply in Subdivisions			
	Encourage developers to consider establishing small scale water supply systems as a more reliable water source.	Planning Board	Ongoing	Low Cost
	Goal 3 - Support Low Emission Electrical Generation			
	Continue to support low emission electrical generation including wind, water and solar.	Planning Board	Ongoing	Low Cost
	Goal 4 - Expand Cable TV & Internet			
	Encourage the expansion of cable television and internet systems; encourage new suppliers to install connections in Shelburne.	Selectpersons	Ongoing	Low Cost
Chapter 9 Regional Concerns	Goal #5 - Energy Audits on Municipal Buildings			
	Provide energy audits for all municipal buildings at least once every 10 years.	Selectpersons	Long Term	Low Cost
	Goal 1 - North Country Council			
	Continue representation at North Country Council, both as a representative from the Town for the NCC Board and as a representative to NCC's Transportation Advisory Council.	Selectpersons & Planning Board	Ongoing	Low Cost

ANNUAL REVIEW FORMS

Annual Review - Year One

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Additional Notes – Year One:

Annual Review - Year Two

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Three

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Four

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Five

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Six

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Seven

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Eight

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Nine

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

Annual Review - Year Ten

At a minimum, the Town of Shelburne Planning Board shall review the Master Plan on an annual basis and record what actions have been taken to achieve the goals as outlined in the Implementation Table in this Chapter.

Shelburne, NH
Master Plan, 2016

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Planning Board

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Selectpersons

Changes and notes regarding the 2016 Shelburne Master Plan

Please use reverse side for additional notes 

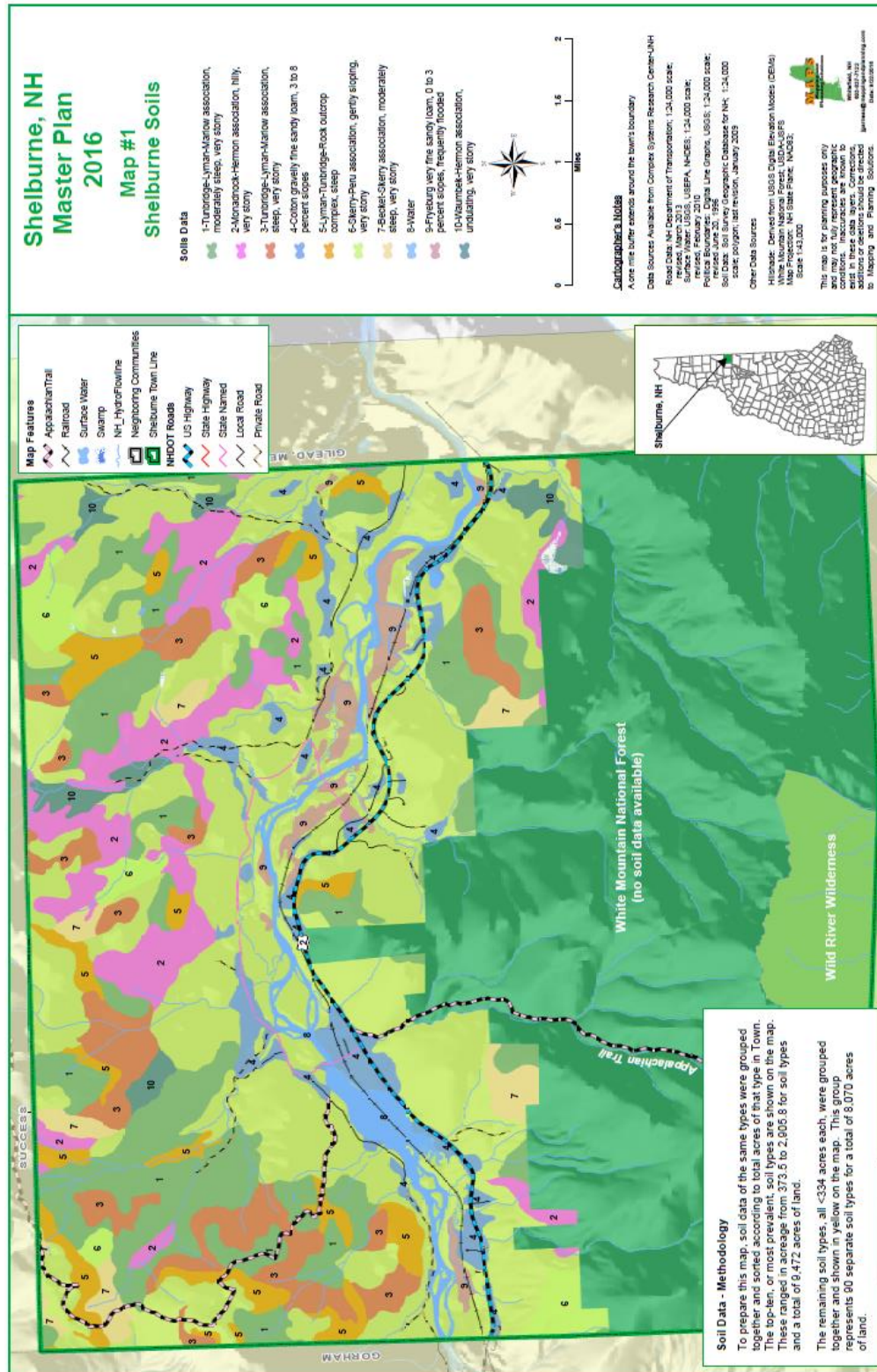
CHAPTER 11: MAP DOCUMENTS

All maps included in this section of the Plan will be replaced with 11” x 17” maps in the final hard copy of the Master Plan. Maps included are the following:

- *Map #1, Shelburne Soils*
- *Map #2, 100-Year Flood Zone, Aquifer & Wetlands*
- *Map #3, Wildlife Habitat Land Cover 2015*
- *Map #4, Highest Ranked Wildlife Habitat by Ecological Condition*
- *Map #5, Shelburne’s Deer Yard & Mountain Peaks*
- *Map #6, Shelburne Trails*
- *Map #7, Hydrography & the White Mountain National Forest*
- *Map #8, Androscoggin River Trail, Hiking/Snowmobile Trails*
- *Map #9, Critical Infrastructure & Key Resources (CIKR)*
- *Map #10, Conserved Lands*
- *Map #11, Zoning Districts*
- *Transportation Map #1, Shelburne Roads (November 2021 revision)*
- *Transportation Map #2, Class 1-5 Roads (November 2021 revision)*

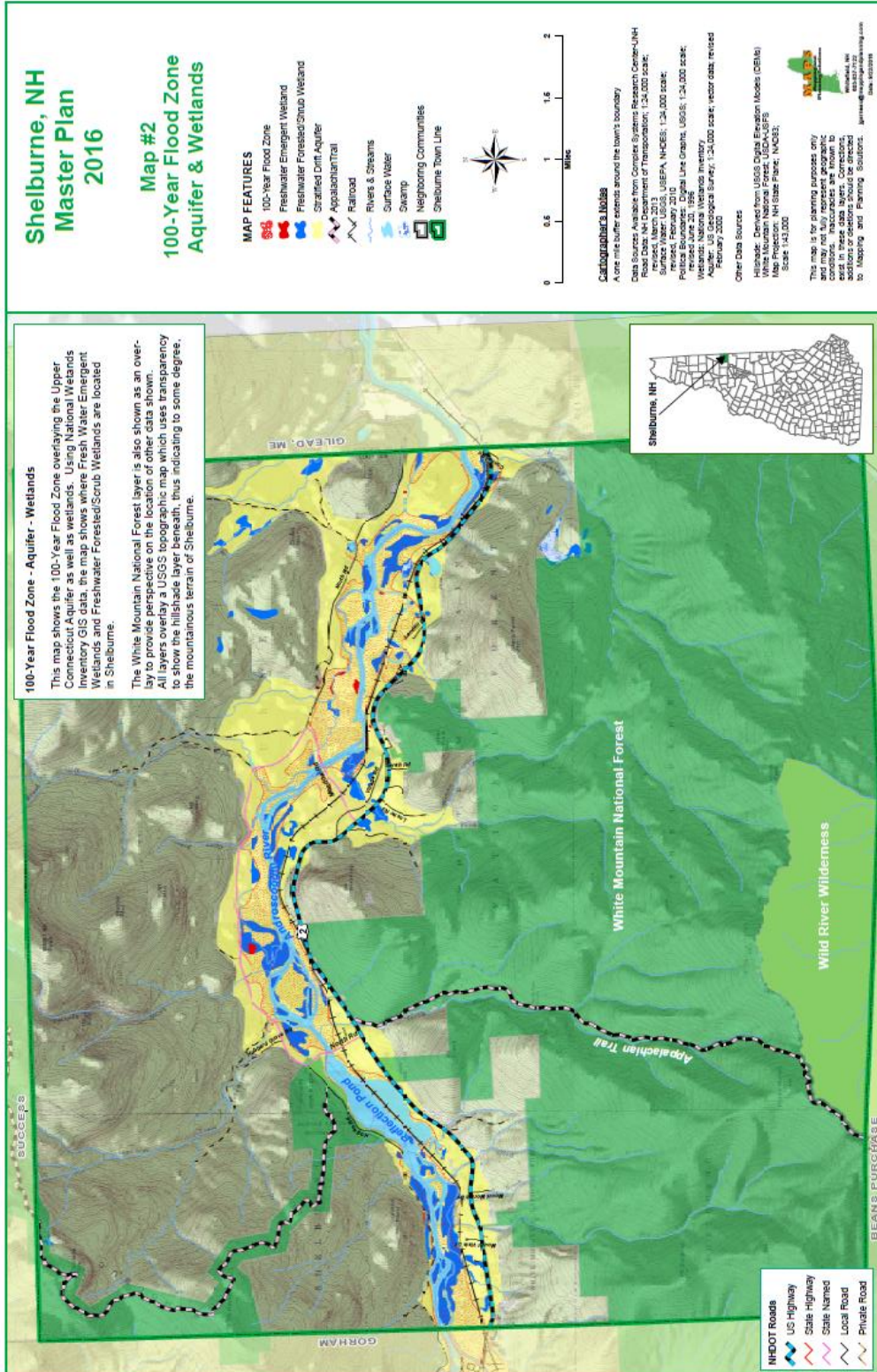
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MAP #1, SHELBURNE SOILS



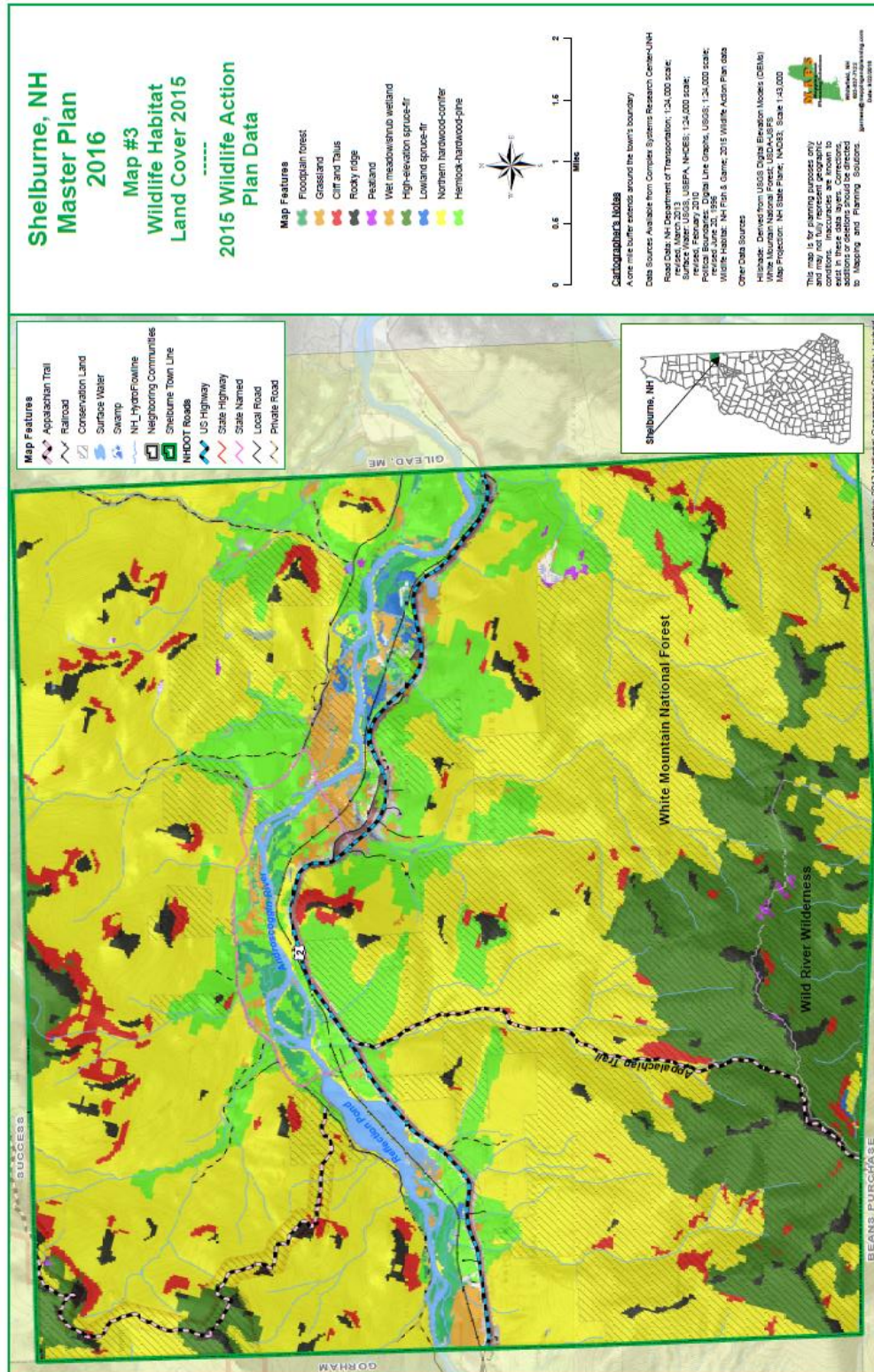
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MAP #2, 100-YEAR FLOOD ZONE, AQUIFER & WETLANDS



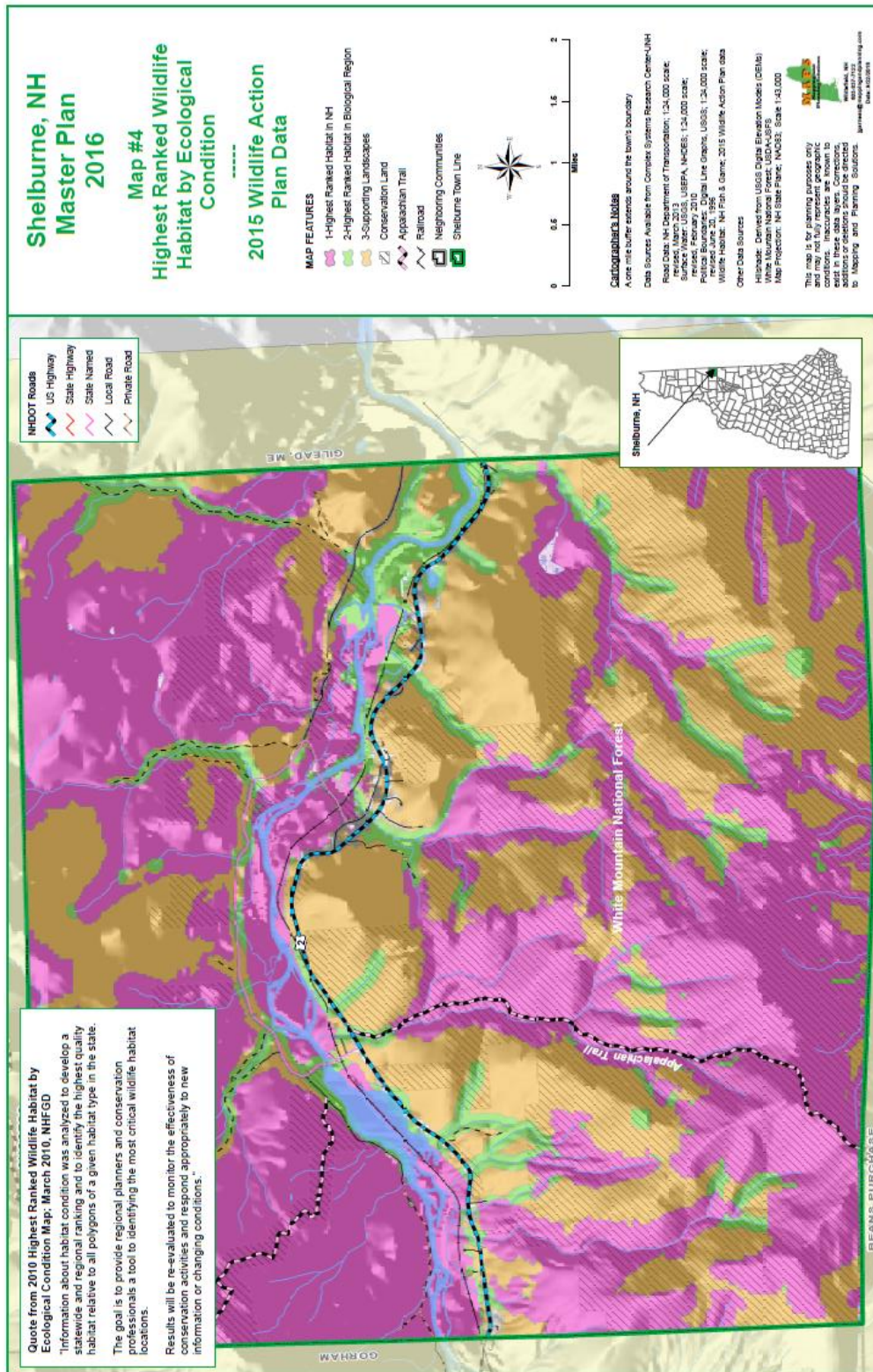
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MAP #3, NH WILDLIFE HABITAT LAND COVER 2015



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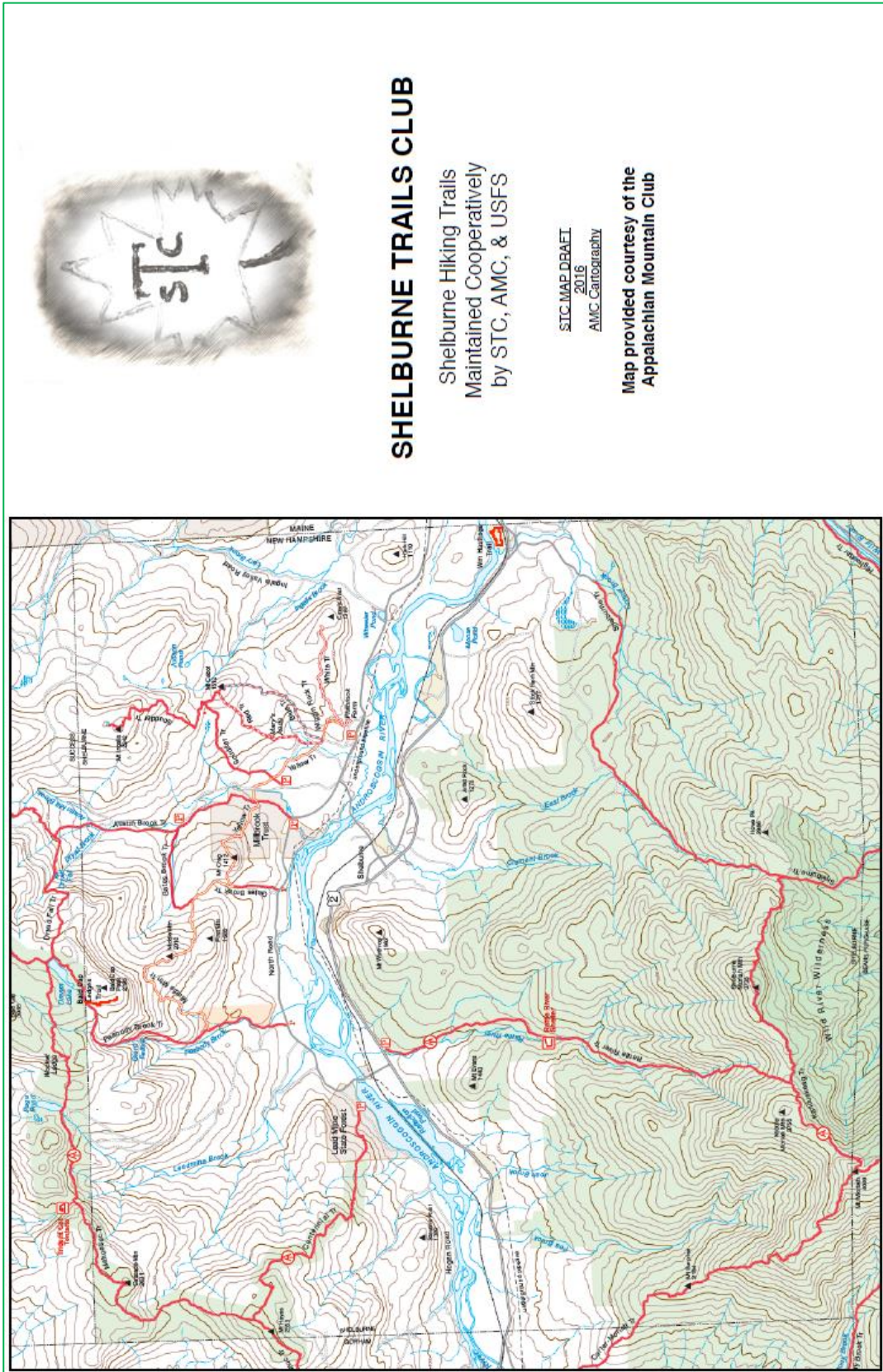
MAP #4, 2015 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITIONS



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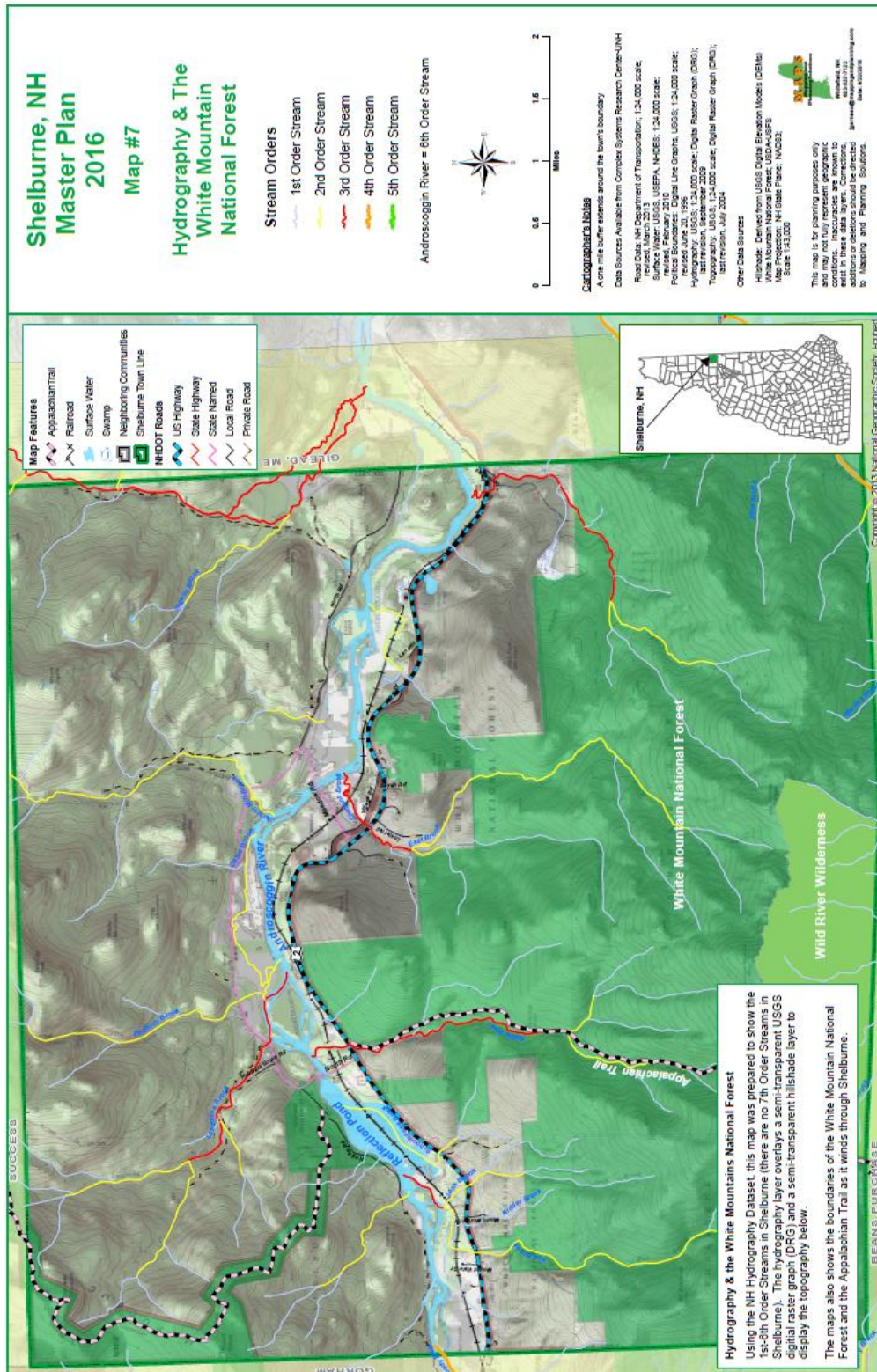
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MAP #6, SHELburnE TRAILS



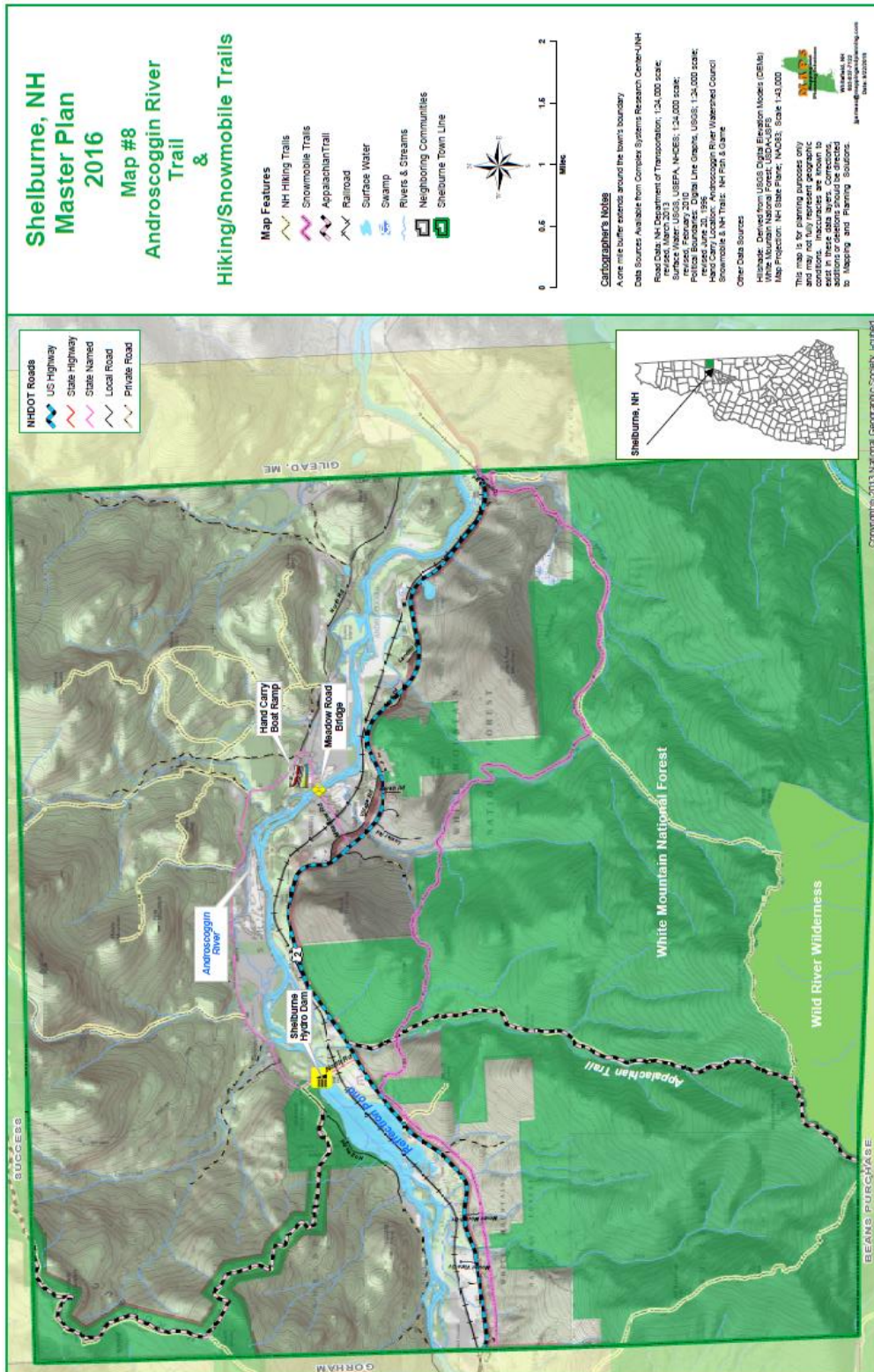
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MAP #7, HYDROGRAPHY & THE WHITE MOUNTAIN NATIONAL FOREST



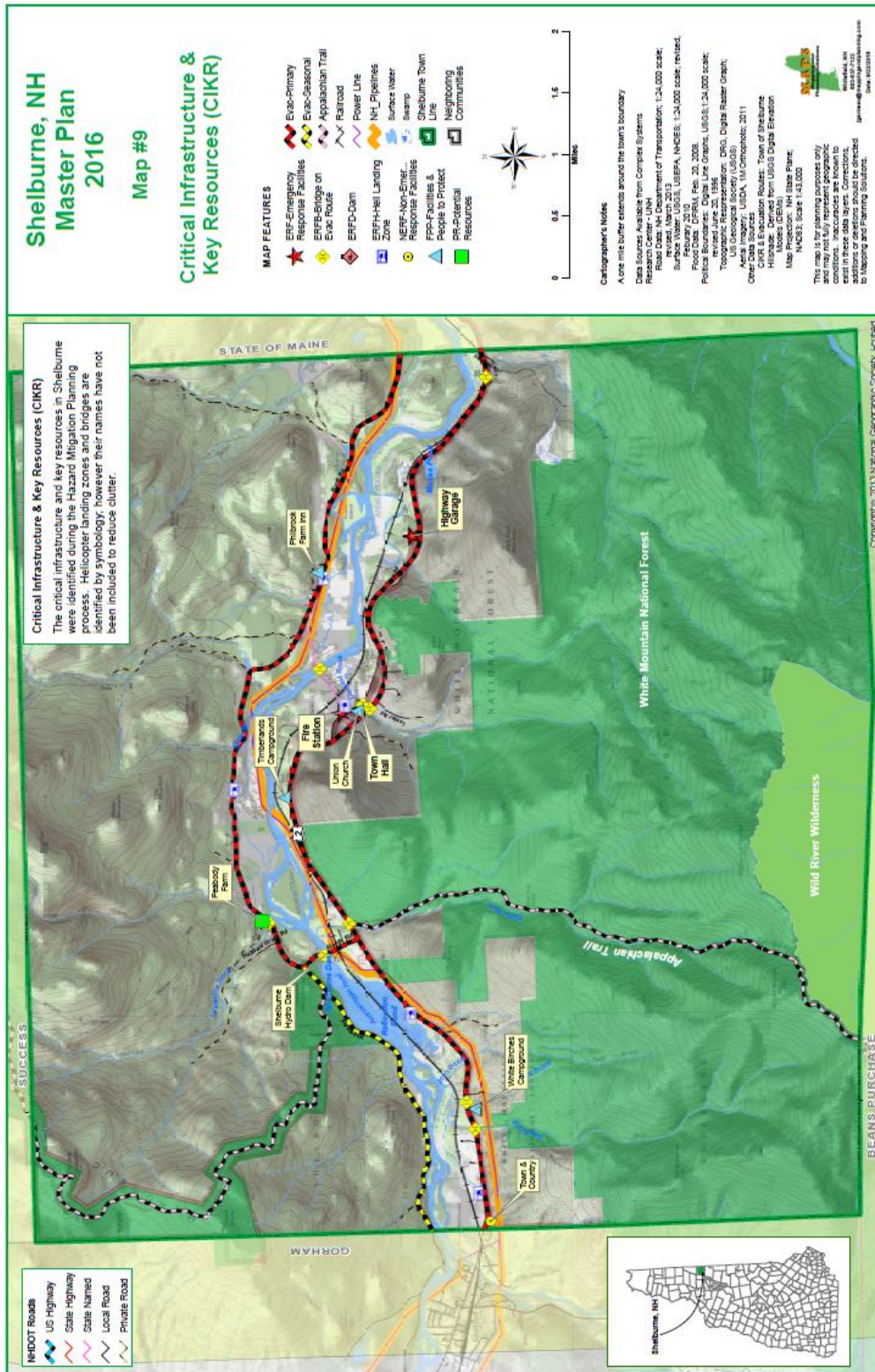
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MAP #8, ANDROSCOGGIN RIVER TRAIL & HIKING/SNOWMOBILE TRAILS



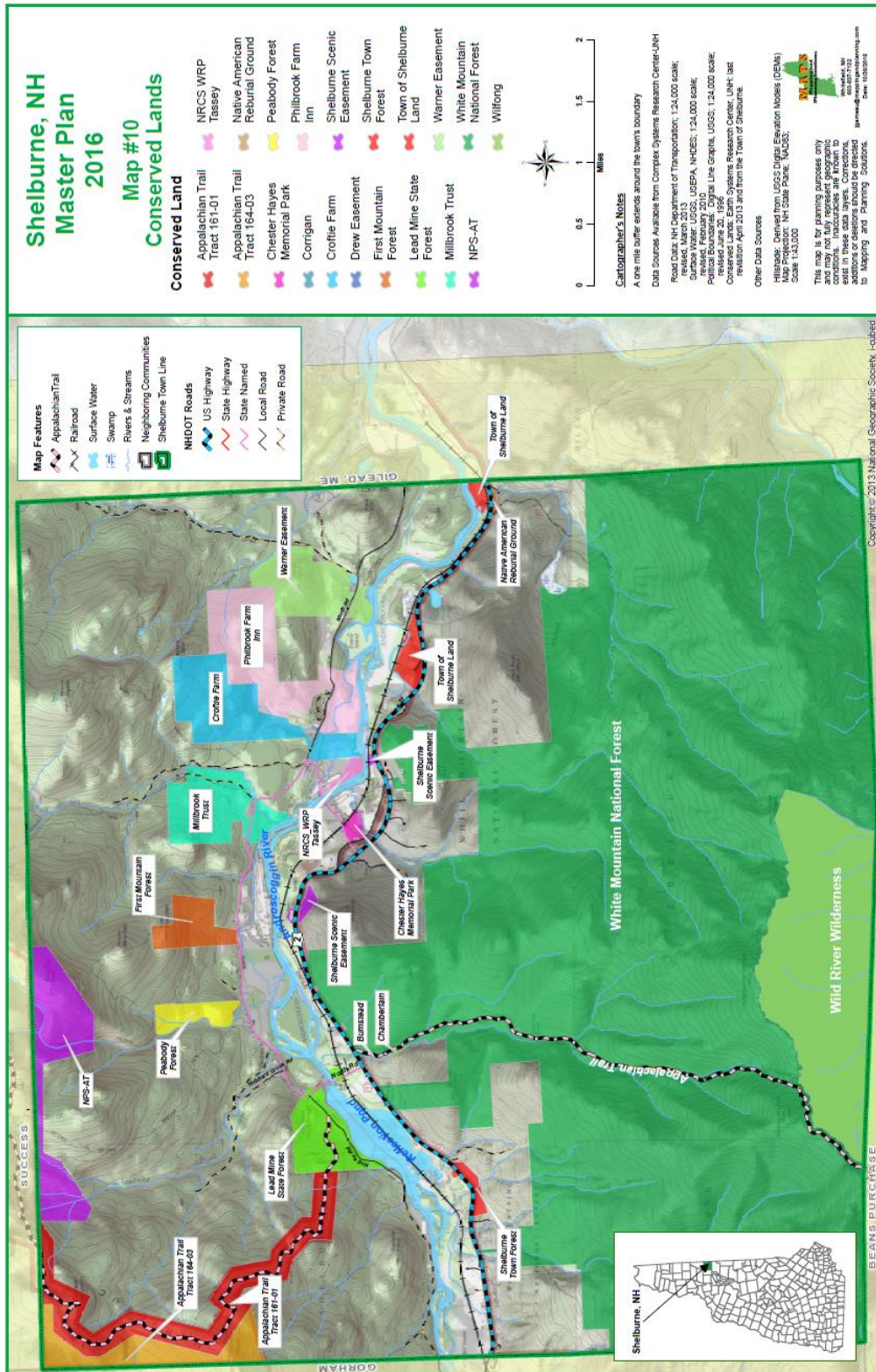
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MAP #9, CRITICAL INFRASTRUCTURE & KEY RESOURCES



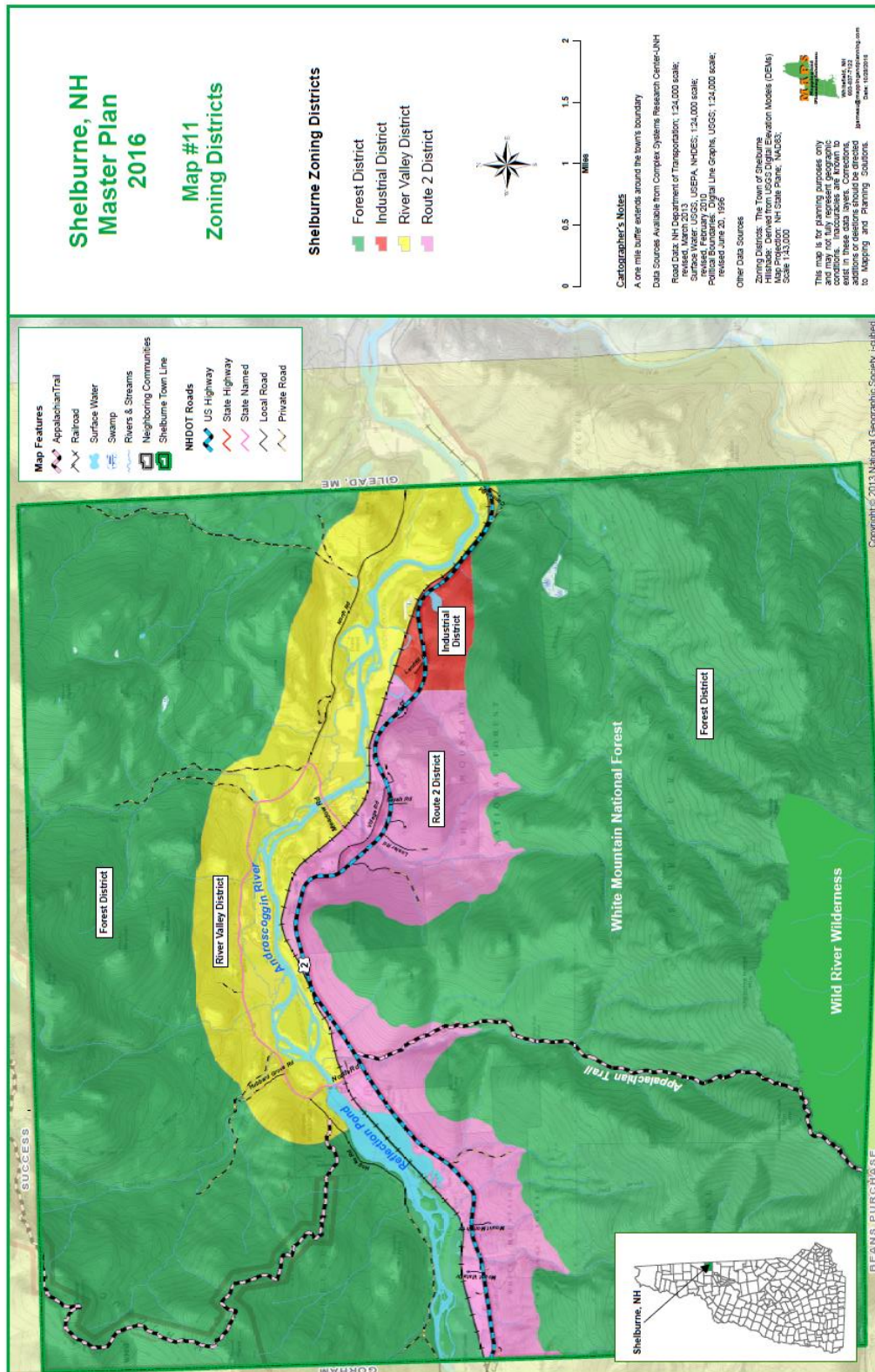
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MAP #10, CONSERVED LANDS



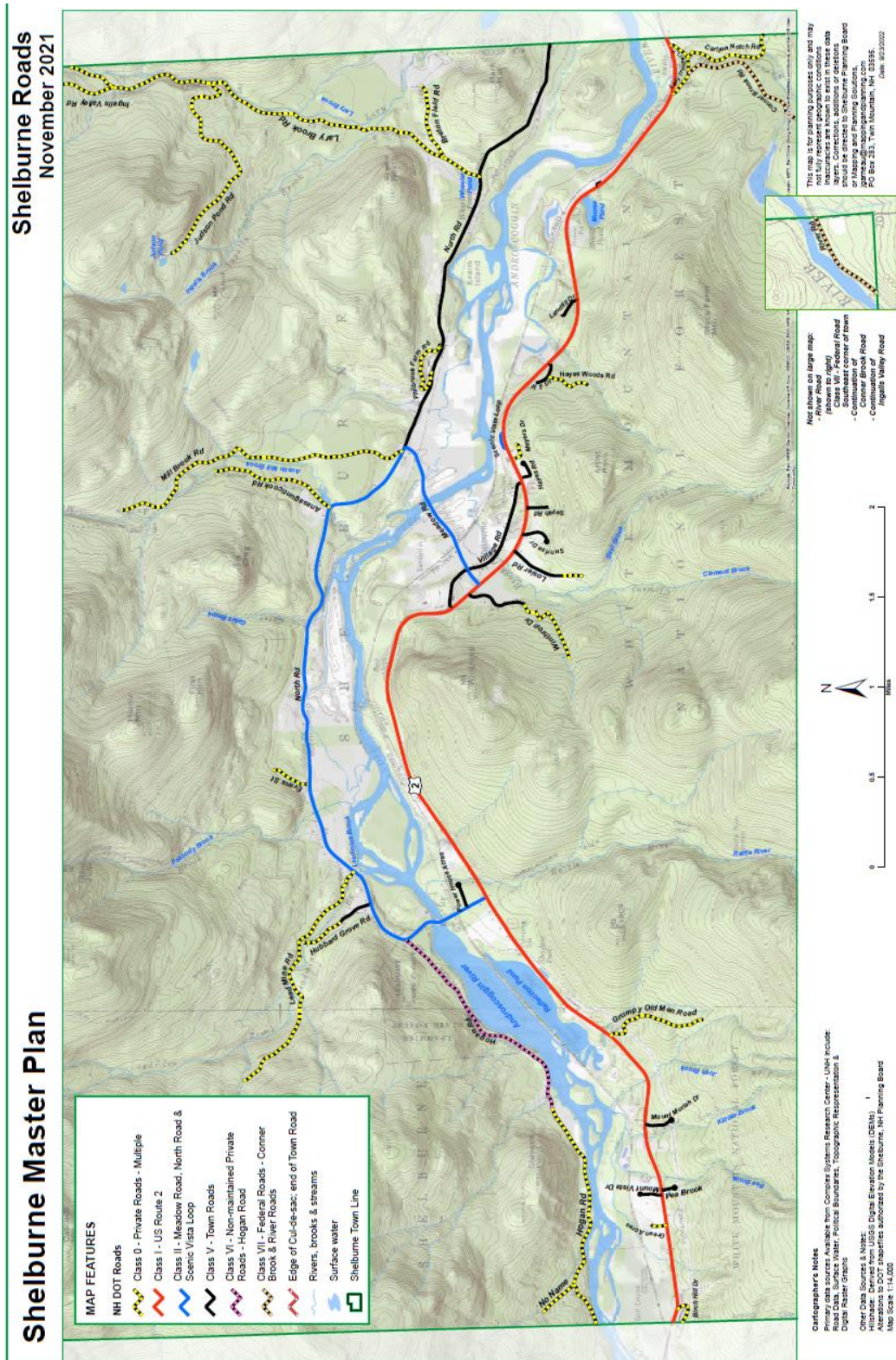
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MAP #11, ZONING DISTRICTS



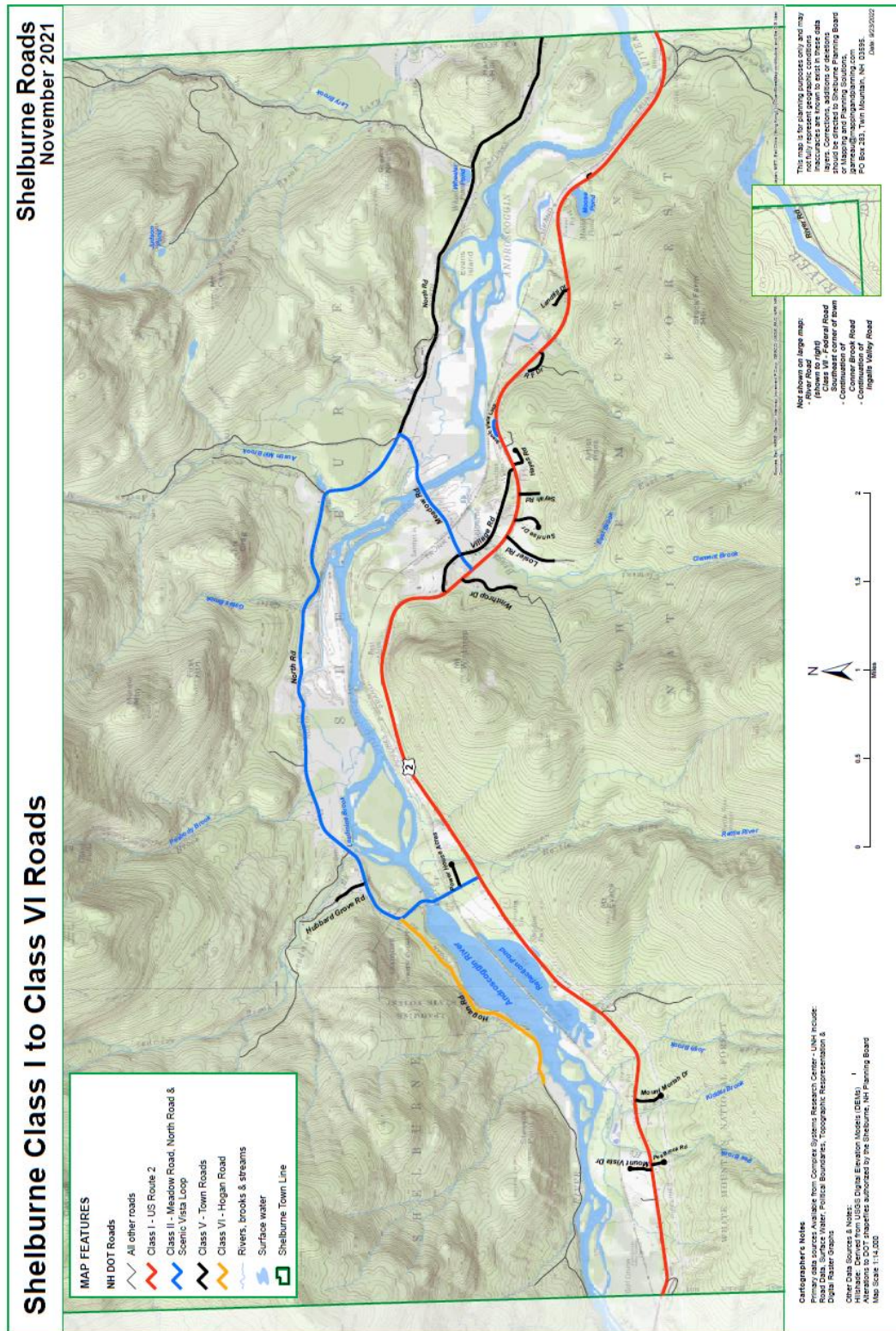
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TRANSPORTATION MAP #1 – SHELburnE ROADS (NOVEMBER 23, 2021 REVISION)



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TRANSPORTATION MAP #2 – SHELBURNE CLASS 1-5 ROADS (NOVEMBER 23, 2021 REVISION)



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CHAPTER 12: APPENDIX

- *Appendix A* *Statement of Adoption*
- *Appendix B* *Conservation Commission Report*
- *Appendix C* *Survey Results*
- *Appendix C* *Bibliography*

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APPENDIX A: STATEMENT OF ADOPTION

STATEMENT OF ADOPTION – SHELburne MASTER PLAN

This publication of the Shelburne Master Plan, 2016 represents a concerted effort on the part of town government to provide a mechanism for effectively planning for the future needs of the Community of Shelburne, NH. The Shelburne Master Plan was developed to be in accordance with NH RSA 674:2. RSA 674:2 requires a community’s Master Plan (the Plan) to minimally include “(a) A vision section that serves to direct the other sections of the plan...” and (b) A land use section upon which all the following sections shall be based...”

The stated purpose of this Plan is to produce a community-wide document that will guide the growth and development of the Community for the next ten years and beyond and to preserve the vision that residents have for Shelburne.

The Planning Board of Shelburne, NH, in accordance with the provisions of NH RSA 674:4, hereby adopts the Shelburne Master Plan, 2016, including its findings, recommendations, goals and policies; rescinding and replacing all previous Master Plans for the Town; further the Planning Board designates the Shelburne Master Plan, 2016 as the planning guideline to be consulted and followed in the performance of its duties; and agrees to implement, to the best of its abilities, the recommendations, goals and polices contained in this Plan.

Statement of Adoption for the Town of Shelburne Master Plan, Shelburne Planning Board

Date: 12/6/16

 _____ John Carpenter, Chairman	 _____ David Landry, Planning Board Member
 _____ Timothy Buxton, Planning Board Member	 _____ Heidi Behling, Selectperson
 _____ Roger Gagnon, Planning Board Member	 _____ Francis Chamberlain, Planning Board Member
 _____ Robert Cone, Planning Board Member	 _____ Jo Carpenter, Planning Board Clerk

*Signatures are scanned-original signatures on file in the Shelburne Town Offices.

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APPENDIX B: CONSERVATION COMMISSION REPORT

The Shelburne Conservation Commission held a Public Open House at Town Hall in April, 2009, to receive comments from citizens to guide the commission in its priority needs. Many of the comments and discussions dealt with access to and protection for the Androscoggin River. The primary issue was how to provide safe public access to the river while preserving its “wild and scenic” values and retaining it as a source of quiet paddling away from the crowds.

Increased protection by shore-land zoning was also mentioned as an option to protect the river. Participants discussed zoning within the Town and most respondents wanted things to remain the same and suggested agriculture zoning for the prime agriculture lands along the north side of the river and along Meadow Road. Attendees expressed positive or neutral reactions to a possible town forest and had questions about the size and scale of a town forest and impacts to the Town’s tax rate.

Concerns were raised by several residents about the future of the commercial timberlands, primarily on the north side of the river, due to their current ownership by a Timberland Investment Management Organization (TIMO). Participants learned about conservation easements and many noted their concerns about development in the valley, especially along North Road. While most participants supported conservation easements as a tool to protect land and keep it in private ownership, they also were concerned that developable land remains in the valley.

Based upon the Conservation Commission’s Public Open House and other research and discussions, the Commission makes the following goal recommendations for the protection of Shelburne’s natural resources:

Water and Natural Resource Goals Section for Master Plan

Goals

- Protect watersheds from contamination, depletion and disfigurement using watershed principles
- Act as stewards for the Androscoggin Valley Watershed, Shelburne Section
- Maintain high environmental quality and preserve river quality and primitive state
- Ensure growth does not compromise environmental quality
- Protect the rural atmosphere and landscape, protect and manage scenic vistas, forests, fields, and agricultural resources for present and future generations.

The Conservation Commission has highlighted the following areas for protection:

- Androscoggin River Corridor
- Wildlife Corridors
- Scenic view-sheds on Route 2 and secondary roads
- North Road
- Hogan Road
- Meadow road

Recommendations Regarding Pollution:

Pollution control should play a part in the preservation of the wilderness character of the Androscoggin River in Shelburne. A zone should be established along the river to monitor or prevent development that would change the natural character of the shoreline or introduce pollution concerns to the land and adjacent river.

A buffer zone should be established along the river to monitor or prevent development that would change the natural character of the shoreline or introduce pollution concerns to the land and adjacent river. BMP's (Best Management Practices) should be adopted along the river where runoff can be managed or prevented. The major concerns are sewage, chemical fertilizers and pesticides, oil from leaking tanks or machinery. The same buffer should apply to the brooks feeding the river and storm runoff areas, which should also be kept clean and free of sediment.

Preservation of the aesthetic values should be ensured by adapting a "Carry In / Carry Out" policy for rubbish, as it is believed that trash receptacles will encourage dumping and also require maintenance. No signage should be allowed along the river with the exception of small directional signs. Non-motorized access should be encouraged over motorized travel on the river due to noise and pollution concerns.

Past pollution concerns still exist and NHDES guidelines should be posted regarding consumption of fish caught on the section of the river between the Gorham Dam and the Maine line, to allow people to make an informed decision regarding levels of mercury and dioxin currently found in fish downriver from Berlin. It should be noted that there is still major pollution upriver in Berlin, with several specific points being identified: the Riverside Dam where large amounts of mercury were dumped in the 1950s, Old Burgess Mill where PCBs are abundant, and dioxins in paper fibers that have settled behind the dams that do not open, and storm sewer overflows.

Suggested Tasks

- Create a river plan
- Establish a river corridor
- Create a natural resource inventory
- Participate in database management for water resources with state and town boards to further protect and manage the water resources of Shelburne.
- Study Shelburne's per capita water use and estimate the effect future population growth will have on ground water supplies and river resources.
- Evaluate and consider the efforts of watershed associations, regional planning commissions and other municipalities as to the impact on the Town.
- Incorporate policies, regulations etc. for watershed management through Planning Board and Conservation Commission.

- Become an active and vocal advocate in Androscoggin Valley River Watershed management.
- Develop a parcel level plan for the Town to track conservation easements, watersheds, wildlife corridors and natural resources
- Encourage rather than hinder compatible agricultural operations, horticulture and so-called "alternative farming" and the marketing of local produce.
- Discourage development via the Zoning ordinance on the Town's stated protected areas, views, and the Androscoggin River and wildlife corridors.
- Plan for the protection of contiguous lands for the benefit of wildlife and plant communities.
- Explore the allocation of 50% of current use penalty tax revenue to conservation efforts.
- Provide for low impact recreational activities in a manner that is sensitive to land owners
- Limit incompatible uses within priority Town selected conservation/view/protected areas.



The Shelburne Planning *West View up Androscoggin River from Meadow Road Bridge* Board and other town officials may need the “Wisdom of Solomon” to implement widely diverging views of the Town’s citizens as to how Shelburne will develop and grow in the future. The preponderance of citizens expressed a wish that “things stay the same” and that Shelburne remains a quiet, rural town. Change does come, though slowly in Shelburne and planners will have to balance the needs of future development with a strong conviction to protect the natural resources and characteristics that make Shelburne such an attractive and special place to live. The following chapters in this section highlight those natural resources and tell us what is here and what is worth protecting.

Works Cited:

- Shelburne Master Plan, 1982, 1996, Revised 2000
- Shelburne 2009 Master Plan Survey & Results
- 2009 Conservation Commission Open House Report

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APPENDIX C: SURVEY RESULTS

RESPONDENT PROFILE (Survey taken in 2009) Total Response: 114

#1: ARE YOU A...

Year Round Resident	70
Seasonal Resident	12
Business Owner	3
Non-residential property holder	8
No response	21

#2: WHAT STREET DO YOU LIVE ON?

Conner Rd.	2
Grumpy Old Men Rd.	4
Hubbard Grove	5
Lead Mine Rd	1
Losier Rd	6
Meadow Rd	3
Mt. Moriah Dr.	2
North Rd	37
Powerhouse Acres	3
RF Drive	1
Route 2	13
Seyah Rd.	6
Village Rd.	12
Winthrop Dr.	5
No response	14

#3: DO YOU ...

Own	88
Rent	7
Lease	2
No response	17

#4: WHAT TYPE OF HOUSING DO YOU LIVE IN?

Single-family	87
Two-family	5
Manufactured	3
Other (camp)	3
No response	16

#5: HOW LONG HAVE YOU LIVED IN SHELBURNE?

0-5 years	19
6-10 years	18
11-20 years	15
20+ years	51
No response	11

#6: WHAT IS YOUR AGE GROUP?

0-20 years	7
21-34 years	0
35-44 years	11
45-64 years	56
65-74 years	18
75+ years	13
No response	9

QUESTION 7: HOW MANY ADULTS ARE IN YOUR HOUSEHOLD?

1	16
2	76
3	7
4+	2
No response	13

#8: PLEASE INDICATE THE HIGHEST LEVEL OF EDUCATION FOR EACH ADULT?

High school	6
Some College	21
Associate Degree	7
Bachelor Degree	26
Master Degree	21
Doctoral Degree	2
No response	31

#9: HOW MANY CHILDREN OR TEENAGERS ARE IN YOUR HOUSEHOLD; WHAT AGE GROUPS ARE THEY IN?

0-5 years	1
6-12 years	6
12-18 years	9
19-25 years	8
No response	90

GENERAL ISSUES

#10: PLEASE RANK ONLY FIVE ISSUES

Question	Rank #1	Rank #2	Rank #3	Rank #4	Rank #5	Total Responses
Property Taxes	47	6	5	8	7	73
Affordable housing		4	2	1	1	8
Attraction of new business	3	8	4	1	3	19
Improvements to Route 2		4	4	2	6	16
Organized recreational opportunities				2		2
Amount/location of new housing dev.	2	9	5	4	7	27
New or upgraded town facilities	1	2		1	3	7
Development of recreational trails/parks	1	3	2	2	7	15
Accessibility to high speed Internet access	27	18	6	3	9	63
Preserving agricultural lands	2	15	13	10	7	47
Preservation of open space	10	8	17	20	8	63
Ensure drinking water quality	5	4	7	13	6	35
Protecting historic properties and sites	2	4	5	16	6	33
Traffic control and improvements			1	5	2	8
Location of new business development		2	7	2	5	16
Preserving educational quality	3	8	6	4	2	23
Road reconstruction and resurfacing	1	1	5	2	14	23
Protection of the Androscoggin River	2	9	9	13	19	52
Other:	Cut proposed expenses					
	Open Space					
	Rural Quality					
	Stop trying to gash the golf course					

KEMPNER-TREGO ANALYSIS

Question	Rank #1	Rank #2	Rank #3	Rank #4	Rank #5	Total Responses
Property Taxes	235	24	15	16	7	297
Affordable housing	0	16	6	2	1	25
Attraction of new business	15	32	12	2	3	64
Improvements to Rte 2	0	16	12	4	6	38
Organized recreational opportunities	0	0	0	4	0	4
Amount/location of new housing dev.	10	36	15	8	7	76
New or upgraded town facilities	5	8	0	2	3	18
Development of recreational trails/parks	5	12	6	4	7	34
Accessibility to high speed Internet access	135	72	18	6	9	240
Preserving agricultural lands	10	60	39	20	7	136
Preservation of open space	50	32	51	40	8	181
Ensure drinking water quality	25	16	21	26	6	94
Protecting historic properties and sites	10	16	15	32	6	79
Traffic control and improvements	0	0	3	10	2	15
Location of new business development	0	8	21	4	5	38
Preserving educational quality	15	32	18	8	2	75
Road reconstruction and resurfacing	5	4	15	4	14	42
Protection of the Androscoggin River	10	36	27	26	19	118

COMMUNITY FACILITIES AND SERVICES**#11: PLEASE RANK THE FOLLOWING TOWN FACILITIES**

	Excellent	Good	Adequate	Poor	Unknown	TOTAL
School system	10	34	11	1	35	94
Fire	7	24	29	2	27	94
Ambulance	8	33	26	2	42	114
Police	1	12	31	9	25	94
Library	9	19	37	17	30	94
Recreational Areas & Facilities	7	33	28	10	25	94
Recreational programs-seniors	14	11	17	5	56	94
Recreational programs-youth	9	9	15	2	61	94
Road Maintenance & reconstruction	21	41	28	6	13	94
Transfer Station & Recycling		43	11		12	94
Building Inspections/Code Enforcement	4	33	26	5	26	94
Land Use and Planning	20	31	28	10	25	94
Health and Welfare	3	14	27	56	49	94
Animal Control	2	20	35	8	45	113
Tax Assessing & Collection	28	30	38		16	94
Town Administration		41	19		14	94
Motor Vehicle Registration	3	34	24	5	15	94
Cemetery Maintenance	21	31	15	7	28	94
Town Forest		27	25		26	94
High Speed Internet Services	3	2	4	7	32	94
Cellular Phone Services	6	9	28	31	20	94
TOTAL	176	531	502	183	622	

LAND USE AND GROWTH MANAGEMENT

#12: PLEASE INDICATE IF YOU SUPPORT THE FOLLOWING METHODS FOR GUIDING GROWTH AND DEVELOPMENT IN SHELBURNE...

Question	Yes	No	Maybe	No Reply	Total Responses
Should the town allow for cluster development in new residential subdivisions?	22	43	21	11	97
Should we consider adjusting the current 1 acre lot size to accommodate smaller lot sizes in already congested areas?	20	50	16	11	97
Should we consider adjusting the current 1 acre lot size to accommodate larger lot sizes in less congested areas?	35	30	18	14	97
Should we consider establishing a Village District abutting/near Village Rd. for potentially smaller lot sizes?	26	40	20	11	97
Should we consider creating smaller zoning districts to further differentiate residential and commercial areas?	34	38	14	11	97
Should we regulate ridgeline development?	55	14	16	12	97
Are you in favor of using local tax dollars to purchase open space?	31	30	25	11	97
Are you in favor of using local tax dollars to purchase developable land?	17	52	16	12	97
Are you in favor of using local tax dollars to purchase develop or create a Town Forest?	35	27	25	10	97
Should home business be permitted in all zones?	62	11	16	8	97
Should we adopt zoning consistent with the State of NH model related to small wind energy systems for personal use?	46	8	33	10	97

NATURAL RESOURCES, OPEN SPACES AND CULTURAL RESOURCES

#13: PLEASE CIRCLE ONE NUMBER CORRESPONDING TO THE LEVEL OF IMPORTANCE (5 = STRONGLY AGREE AND 1 = STRONGLY DISAGREE) THAT THE TOWN SHOULD GIVE TO THE FOLLOWING:

Should the Town of Shelburne do more to...?

	Strongly Agree					Strongly Disagree	Total Responses
	5	4	3	2	1		
Protect aquifers (drinking water sources)	29	15	52	2	15	113	
Protect the quality and quantity of lakes, ponds, rivers, streams	52	14	12	18	15	111	
Identify and protect prime wetlands	42	19	17	22	13	113	
Protect floodplains and reduce flood hazards	32	23	24	20	14	113	
Protect hillsides and steep slopes (greater than 20%)	31	19	25	5	31	111	
Ban ridge-top development	57	12	14	9	13	105	
Preserve forest land through conservation easements	24	26	18	12	33	113	
Preserve high quality prime agricultural lands	33	15	15	31	22	116	
Protect wildlife corridors and habitats through greenways	15	21	21	22	34	113	
Identify and maintain scenic vistas	37	16	18	20	12	103	
Govern the use and development of the Androscoggin River	46	12	8	15	32	113	
Preserve structures of historic significance	32	20	16	13	32	113	

If you agree with identifying and maintaining scenic vistas, please describe 3 scenic areas in order of importance:

	Priority			Total
	#1	#2	#3	
Other	11	13	7	31
Reflection Pond	14	10	5	29
East Vista	7	9	4	20
River	6	6	6	18
Birches	11	3	2	16
Mt. Crag	4	3	4	11
Philbrook Farm	3	2	5	10
Meadow Bridge	1	3	4	8
Hogan Rd.	2	0	1	3

ECONOMIC/BUSINESS DEVELOPMENT**#14: PLEASE CIRCLE ONE NUMBER CORRESPONDING TO THE LEVEL OF IMPORTANCE THAT THE TOWN SHOULD GIVE TO THE FOLLOWING ECONOMIC DEVELOPMENT GOALS:**

Should the Town of Shelburne do more to...?

	Very Important					Unimportant	Total Responses
	5	4	3	2	1		
Create communication infrastructure to support entrepreneurial business activity	14	13	22	23	33	105	
Attract new office development	27	24	22	20	10	103	
Attract new retail development	29	27	30	11	6	103	
Attract new light industrial development	39	23	23	11	8	104	
Develop an industrial/business park in town	50	25	14	5	9	103	
Ensure that there is sufficient land available for commercial and industrial development	35	20	20	12	16	103	
Promote tourism	16	5	22	26	36	105	
Identify locations for new commercial & industrial development	29	20	22	15	19	105	
Establish an Economic Development Committee to retain existing businesses and attract new businesses	24	23	22	19	16	104	
Develop zoning ordinance to encourage elderly assisted living facility and or nursing home.	17	10	30	21	26	104	

#15: IS THERE A TYPE OF RETAIL BUSINESS, INDUSTRY, OR SERVICE THAT DOES NOT EXIST IN SHELBURNE THAT YOU WISH WAS AVAILABLE?

- Convenience Store
- Small Cafe/Coffee shop
- Small foods store, restaurant, pub
- Small grocery store
- Community Learning Center (classes, physical fitness, etc.), Outdoor rec center (ski, canoe, snowshoe, kayak, hiking, tours, retail sales, etc.)
- Convenience Store/Hardware store
- A mobile home park
- Convenience store/restaurant
- Small grocery
- Every industry that has come has made town LESS attractive (chip plant)
- Grocery store
- AG store
- Internet based business service
- Small coffee shop or bakery
- Ecotourism/Guide service, environmental college
- Convenience store Coffee shop
- Convenience store
- General store, service station, coffee shop
- Small country store
- Convenience store
- Propane station
- Community supported agriculture
- Truck stop
- A good, well known grocery store chain
- Only things like basket making, weavers, pottery, etc. Veg. Farm stands.
- Hotel/Motel, retail stores, forest products
- Convenience store
- Variety store
- Diner
- Shelburne outing club, community supported agriculture
- Grocery store
- Market
- Gas station/general store
- Like the small unique 'shops' – special interest
- Convenience store
- General store
- Convenience store, maybe, if it's not an eyesore
- Mom & Pop grocery store
- Small family owned and operated grocery – not a chain.
- Grocery store
- Convenience store/gas station
- Very small convenience store where you can purchase milk, bread

#16: IF YOU ARE A BUSINESS OWNER, ON WHAT STREET IS YOUR BUSINESS LOCATED? AND, HOW COULD THE TOWN BETTER ASSIST YOU AND YOUR BUSINESS?

- Route 2: Advertising & Promotions
- Route 2: Advertising & Promotions area for fishing, biking, natural activities
- Landlord
- Main St. Gorham: Ease zoning
- Hi speed internet access
- Meadow Rd: Farm Owner
- By retaining rural and historical values and aura; people's 'vision' of New England – views and open space
- By not restricting so much. Use some common sense in decision making.
- North Rd.: Put signs on highway to identify and show where business is. Advertise with a brochure of some kind. Advertise the town as a place to visit and stay overnight.
- Rte. 2: High speed internet would revolutionize my business.

HOUSING AND ZONING

#17: WHAT TYPE OF HOUSING STRUCTURES WOULD YOU LIKE TO SEE SHELBURNE ENCOURAGE?

Answer	Top Priority1	2	3	4	5	Low Priority6
Elderly Housing	11	26	17	6	8	3
Manufactured	3	6	2	9	10	19
Multifamily	3	4	5	7	20	9
Single-family	82	4	1	1	2	
Townhouses/Condos	5	11	20	6	9	8
Two-family	5	21	14	15	5	3

#18: SHOULD SHELBURNE ENCOURAGE VACATIONS OWNERSHIP AND/OR VACATIONS RENTAL PROPERTIES?

Responses: Yes = 49 No = 52

#19: PLEASE CIRCLE ONE AS REGARDS THE CURRENT ZONING AND SUBDIVISION REQUIREMENTS/PROCESS USED TO REVIEW NEW DEVELOPMENT.

	Too Strict	Ok	Too Loose
Zoning Ordinances	0	52	0
Subdivision Regulations	0	52	0

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APPENDIX D: BIBLIOGRAPHY

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*Looking Northwest towards Mount Crag, October 2000
Photo Credit: www.shelburnenh.com*

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